REAL LIFE

Special Issues 2016

For winter break, Real Life put together eight special issues for your consideration, each with a topic and essays selected by one of our editors. Here is a compilation of all of the packages.

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WAYS OF SPEAKING

WHAT WE SAY IS ALWAYS ENTANGLED with how we say it. Form doesn't dictate content, but they mutually reshape each other in all media, and digital ones are no exception. Digital media have changed how readily ideas circulate, which in turn changes the sorts of questions we ask—of search engines as well as of each other. New ways of asking yield different ways of knowing, redefining what can be thought and who typically gets to be heard. A sense of information abundance brings a sense of omnipotence and hopeless inundation in equal measure. And meanwhile, what counts as speech itself changes with our new tools for talking, as we communicate visually and speak without words. How we listen, too, is altered, as we hear content in tandem with its virality, and momentum (rather than the medium) becomes the message. —*NATHAN JURGENSON*

DEFINITION
NOT FOUND

The last refuge from #content might just be asemic writing
by RAHEL AIMA

THERE'S A CATHARSIS in writing without something to say. Your pen becomes a needle or a mosquito's proboscis sucking from a well of lactic acid, the kind that settles just under your skin like cellulite. You do it when absently doodling in class or on the phone, making crosshatches, the coiled spirals of a rotary telephone wire, the onion sections of topographic contour lines. You might do it just because, or to see if you can, as if testing out a pen you're not going to buy. Containing neither content nor value, these marks might be scanned as data but can never be parsed. It feels singularly seductive at a time when everything is made surveillable and where you don't need to speak to be heard or write to be read.

Whether or not you know it, and perhaps especially if you don't, what you're doing is a kind of asemic mark making, where meaning looks possible—are the crosshatches hiding something; is the doodle a code?—but easy interpretation is denied. Per its etymology, "asemic writ-

ing," a mode coined as a term by the visual poets Jim Leftwich and Tim Gaze in 1997, is writing without any specific semantic content. Although they looked to describe their own textual experiments, the term inspired a new generation of artists and writers and, buoyed by its circulation on the blogs and listservs of the late '90s, soon grew to become a global movement. There is no small irony in assigning a name to a form predicated upon resisting meaning, like penning a press release for a protest without demands. Yet it feels very right that asemic writing should emerge from that particular Y2K moment of hurtling globalization, techno-pessimistic paranoia and neon-lit fishtanks; a time of semiotic overstimulation where signs swarmed like white blood cells and where, in the immortal words of Horse_ebooks, *everything happens so much.*

What we mean by asemic writing, though, dates back to two Tang Dynasty calligraphers, "crazy" Zhang Xu and "drunk" Huai Su. Revered for their cursive styles, their scripts are at once tender and wildly explosive, with all the expressive aggression of a ribbon worm shooting out its proboscis. The 1,200 years since have produced numerous other proto-asemic examples, from the "interior gestures" of Henri Michaux and Roland Barthes' "contre-écritures," to the illegible writing of artists like Mark Tobey, Rachid Koraï-

chi, and Cy Twombly (a former Army cryptographer). We might consider legibility, a successful end-to-end transfer of discrete information, as the liminal boundary here. Asemic writing is to 'legible' writing what abstract art is to its more representational analogues. And just like abstraction in art—consider the evolution from Cubism and Futurism to Suprematism, for example—legibility exists along a continuum.

Take the ribbon worm knot on the left below. Perhaps you understand it as a doughy coil or some kind of felt alphabet toy for a non-Latinate writing system. Perhaps you don't read it as writing at all. Someone used to Latinate or Cyrillic scripts, however, would likely see in the worm on the right a '6' or 'b' or '6," while an Arabic, Farsi or Urdu speaker might see a ⎕ or a strong 'T.' Speakers of other languages may just see a pair of scribbles; what is legible to some might be entirely asemic for others. This is key: asemic writing turns on apophenia, or the terribly human tendency to perceive meaningful patterns in random data and to identify a signal where there is only noise. The intent of the creator thus becomes vital. For a work to be truly asemic, it should be illegible not just to readers and viewers but to its maker too, lest it be something more akin to a cipher. Conversely, some of history's most impenetrable ciphers have later

been revealed to be asemic, as in the case of Luigi Serafini's 1981 illustrated encyclopedia *The Codex Seraphinianus.*

The absence of a *specific* semantic content does not mean that asemic writing is not inescapably semantic in form. We recognize something as asemic precisely because it bears the hallmarks of what we understand to be script. On the page or canvas or screen, the marks deploy a variety of lines, along with curves, strokes, serifs, and other fontlike or ideographic accoutrements. There is little to no attempt to depict depth, dimension or color, but there might be a sense of movement along vertical or horizontal axes. Sometimes, as in the work of artist Mirtha Dermisache, there is a lightly skeuomorphic attention to the modular columns and paragraph markers of the printed page. In this way, asemic writing might be better understood not as illegible but as 'post-literate,' to use the phrase of one of the contemporary movement's most important hubs, the *New Post-Literate.* To encounter a piece of asemic writing is to engage in a kind of pattern recognition, a database query that heavily relies on what we visually interpret as writing-or-not. As with the replacement Unicode characters that you might see when there is an error in rendering text or displaying foreign character sets, you cannot read it but you agree to understand it as language.

It's worth emphasizing that asemic writing can extend beyond representations of typography, and graphic notation presents a particularly beautiful example. Here, you might see some familiar markers of musical scores: staves, notes, dynamics markings, sharps, flats, naturals and other accidentals, key signatures, the slurs and accents of articulation, the angular slashes of ligatures, and so on. Sometimes there are directions, as in the score for Earle Brown's seminal 1954 work, *Four Systems,* which instructs the performer that it "may be played in any sequence, either side up, at any tempo(i). The continuous lines from left to right define the outer limits of

the keyboard. Thickness may indicate dynamics or clusters." To consider the score's geometric rectangles today is to feel a sense of frisson at its prefigurative qualities, at the way they resemble the horizontal bars of a midi editing software.

Musicologist and historian Richard Taruskin, in his weighty title *The Oxford History of Western Music,* says that electronic technologies have resulted in us entering a post-literate sonic era in which standard notation and convention-

Asemic writing turns on apophenia, or the tendency to identify a signal where there is only noise

al musical literacy have lost their primacy as a means of musical preservation. It's a phenomenon that graphic scores would seem to have presaged. Yet what graphic scores best illustrate are qualities beyond musical notation's communicative potential, as with intensifications of emotion in Marco Fusinato's 2007–13 series *Mass Black Implosion.* On archival facsimiles of avant-garde graphic scores, the artist rules a line from each note to a central point "as a proposition for a new composition, in which every note is played at once, as a moment of consolidation and singular impact." The result is a series of arresting sinkholes that suggest obsessive SEO link building for the end of the world.

How best might we represent sound? The delightful Wikipedia page "Cross-linguistic onomatopoeias" points to the failure of textual language to do so. I am particularly fond of its lists of common animal sounds in different languages: A horse trotting is "clip clop" in English, "deregin-deregin" in Arabic, "pocotó pocotó" in Portuguese, "tsok-tsok" in Russian, and "gadagung gadagung" in Danish. A pig grunting, meanwhile, is "ghnot ghnot" in Bengali, "kkul kkul" in Ko-

rean, "röh röh röh" in Estonian, and "oinc oinc" in Catalan. In an interview at *Scriptjr,* Finnish artist Satu Kaikkonen gestures to asemics as a possible democratizing, universalizing solution, saying "asemic art can serve as a sort of common language—albeit an abstract, post-literate one—that we can use to understand one another regardless of background or nationality. For all its limping-functionality, semantic language all too often divides and asymmetrically empowers while asemic texts can't help but put people of all literacy-levels and identities on equal footing." There is, on the other hand, a pleasing harmony between terms for TV static, which in Swedish, Danish, and Indonesian all translate to "war of the ants," while Hungarian uses "ant soccer" and Romanian "fleas," even if it portends a flattening of meanings engendered by technology gone global.

To the analogous question of how we might represent silence, John Cage's 1952 opus rasa *4'33"* provides the obvious answer, yet far more exciting are the works of sound artist Christine Sun Kim, who splices American Sign Language and musical notation in visual scores that deftly reconfigure concepts of both duration and futurity. In her drawings, time becomes spatialized, with waterlogged lines that loop and multiply like a series of dance notations rent asunder, all post-bombing filamentous rebars and Russian smileys. Sun Kim is herself deaf, and prefers to instead consider silence in terms of quietness, "because I still do not quite get what 'silence' means, especially since I grew up instilling your perception of it, not mine." In particular, her work *How to Measure Quietness* (2014) suggests that we might consider quietness as degrees of interiority with a series of pianissimos that run the gamut from sleep (mp) and deaf breath (p) through to heartburn (pppppp), anxiety (ppppppp) and silent treatment (pppppppp). The fortissimos of *How to Measure Pauses* (2014), meanwhile, offer that silence can be very, very loud.

Musical notation differs from other kinds of writing in that it is both a record and a set of reproducible instructions. Even as any standard score allows the performer a certain amount of liberty—a loosening of time in a rubato section, or a different color picked from a field of tone and timbre—it requires a fairly strict adherence to the piece as written. Another Sun Kim work, *Eighth Note's Worst Nightmare* (2014), nods to graphic notation's terrifying freedom with its jottings "no stem/no flag/no staff." Failing to sound a whole note, or to sound a different one in its place, is as unthinkable as skipping or replacing the words in a recitation of a poem, the form of writing in which, at its best, the words and shapes are most fixed and the associations, even the meanings, most free. But if you don't know and can't hear the sounds that are signified as

Asemic writing might be better understood not as illegible but as "post-literate"

notes, a score on a page can become something close to asemic.

Perhaps those hi-def photographs of the ribbon worm aren't the best depictions of asemic or post-literate writing, even as their proto-textual forms invoke the delicious possibility that insect life might one day evolve to camouflage itself against the regime of signs that now surrounds us—stick mantises that blend in with data center cables, maybe, or peppered moths with newsprint-patterned wings. Still, there's something in their soft, corrosive brutality that speaks to the loss inherent in writing. There is always something we take away by standardization—that move from fluid line to letter or character; *tag yourself I'm the one who lost my mother tongue*— and refuse to give back. Think teaching children

cursive handwriting, or the linguistic devastation wrought by Canada's residential school system, whose program of forced assimilation resulted in the decimation of a number of First Nations languages. Or consider the plight of the nastaliq script of Urdu and Farsi, along with many other languages in the Central Asian stretch between Iran and China's Xinjiang province. With a writing system that moves both diagonally and horizontally it is notoriously difficult to code and is increasingly replaced online with the Naskh script of Arabic, or forced to circulate as .png or as .jpeg. A viral project *Tag Clouds* by French artist Mathieu Tremblin illustrates this especially neatly. Drawing analogies between graffiti tags and online depictions of keyword metadata, he paints over existing street art with a machine-readable translation that "makes shit graffiti legible," or more generously, privileges easily extractable semantic data over form and expression.

Within the sphere of green anarchist thought there is a current that bills itself as primitivist, with all the condescending fetishism that "primitive" invokes. Avowedly anti-technology, the anti-civilizationist critique of capitalism extends beyond the environmental degradation and forms of domination of contemporary production to rail against the concept of civilization itself. The sphere of alienation is extended beyond labor; as theorist John Zerzan lays out in *Running on Emptiness,* it is the regime of symbolic thought that is believed to most deeply distance us from our authentic selves, which are arbitrarily defined as the way we once existed as hunter-gatherers. Art, music, mathematics, literature, speech: any mode of representation is highly suspect. It's the paleo diet, but for culture. Zerzan's vision for the "future primitive" would have us living in a silent, pre-pastoralist utopia where we exist wordlessly amongst the trees— beyond art and agriculture and beyond semiotics, or perhaps more aptly, before and unsullied by it. While Zerzan's concepts seem attractive as a thought exercise, they are unconvincingly and rather petulantly argued. Who would want to do away with the back catalogue of some of the only good things to come out of the morass of

humanity as we know it? Perversely, a reading of these texts makes me wonder about the possibility of an asemic writing made not by humans, but by bots and other algorithms.

In 2011, So Kanno and Takahiro Yamaguchi created the Senseless Drawing Bot, a kinetic drawing machine that is Jean Tinguely-meets-Mars rover. It pairs a motorized skateboard with an arduino, and a long-short double pendulum that induces an element of chaos, to spray graffiti on the wall. There's a lot of empty swinging and swaggering, a louche calisthenics. It makes a mark only when its randomized wobbles pass a certain pre-coded threshold, when it's sure all eyes are on it, and then its gestures are fast, flashy, and nonchalant, as if drawn from immense, tumescent muscle memory. It's all big words and it's trying hard to flex; if ever a bot has seemed like a blustery fuckboy, this is it. The outcome is surprisingly great, a dense accumulation of multicolored freneticism, neat on the bottom and looping wildly on top like an overgrown hedge. Unlike the aforementioned *Tag Clouds,* it points to a machinic tagging that does not mandoline work into strict taxonomies, is unreadable by human viewers, and does not—yet—appear to be machine readable, either, as well as the delightful paradox of generative bots which are programmed by people, yet also enjoy their own agency.

In the realm of graphic notation, Emma Winston's @GraphicScoreBot tweets out an image resembling a graphic score every hour. Each tweet features an outlined white rectangle, usually with stave lines, and often with a bass or treble clef and dynamic markings, so it's clear we are to read this as music. Except, instead of conventional note forms, its markup includes an array of colorful geometric shapes, squiggles, and dashes. Circles of varying sizes and transparencies especially make the images feel like musical infographics (to me, they seem to suggest duration; others might see in them chords or orchestra stabs). There are semantic ruptures: the bot will, at random, tweet out cards from Brian Eno and Peter Schmidt's *Oblique Strategies,* entreaties like "Trust in the you of now," "A very small object. Its center," and "Slow preparation, fast execution." Less bombastic are the double-spaced

"B E G I N" and "E N D" that pepper the scores, which Winston suggests can be taken as start and end points or altogether ignored. Though the scores are generally sparse, occasional plaintive adverbs and phrases like "sadly," "casually," and "as if tired" make suggestions as to mood. Cameos by Italian terms like con moto (with movement), *andante* (at a walking pace), and quasi niente (fade away to nothing) make the scores feel somehow more official. If the "post-literate" leads us to interrogate what we consider to be writing, this bot's relative adherence to notational convention, more Fauvism than De Stijl, does the same for the musical score.

Also on Twitter, Darius Kazemi's @reverseocr tweets out asemicisms more akin to those absentminded doodles, each cryptic scrawl accompanied by a random word, like "subtlety," four times a day. It's a study in impenetrable handwriting, only here the writer is not a shrink with a prescription pad but a bot. Without that accompanying word, the marks, while elegantly spare, are unrecognizable as anything but marks. So far, so asemic. Yet the way the bot works is by selecting a word and then trying—badly, endearingly—to draw it out. It keeps drawing, and failing, until an OCR or Optical Character Recognition program (the question of literacy is transposed to the algorithm, here) identifies a character. If that character matches the first letter of the word, "s" in the case of "subtlety," that character gets drawn and the bot turns its attentions to the second character, "u." If not, it perseveres until it gets a match, and eventually it manages, through trial and a lot of error, to draw out the whole word; we only see these successes. Of course all of these computational processes happen at lightning speed, but in a 2014 adaptation of the work for a show at Boston's now-shuttered Find and Form Space Kazemi slows the algorithm down to a human timescale and makes visible the otherwise hidden work performed by the bot. The word here is, appropriately, "labor." Yet there's something in @reverseocr's yearning to be understood—to be read, to be recognized by another—that makes me think it's a kind of unrequited love. There is a 1973 interview with James Baldwin in the *Black Scholar* in which he says, in response to a question about the role of political themes in his writing,

> The people produce the artist, and it's true. The artist also produces the people. And that's a very violent and terrifying act of love. The role of the artist and the role of the lover. If I love you, I have to make you conscious of the things you don't see. Insofar as that is true, in that effort, I became conscious of the things that I don't see. And I will not see without you, and vice versa, you will not see without me. No one wants to see more than he sees. You have to be driven to see what you see. The only way you can get through it is to accept that two-way street which I call love. You can call it a poem, you can call it whatever you like. That's how people grow up. An artist is here not to give you answers but to ask you questions.

Kazemi's bot expands the field of how we might understand asemic writing. Illegible though its drawings may be to our eyes, it is without doubt trying very, very hard to communicate meaning. Humans are not its intended audience; rather, its visual language, like bar codes or the computer vision markup of Amazon warehouses, is entirely for bots, machines, scripts, and other denizens of the algorithmic world. It's a robot laughing alone with salad, and its inner life, its own well of lactic acid that it draws from to express itself, is off-limits to us. We, however, are on view to them, from the moment we press our thumbprints into our iPhones in the morning to the moment we touch-type a 2 a.m. text message whose characters are so drunkenly scrambled as to form complete non-words, which an algorithm gently corrects to other words we did or did not mean, so long as they're legible. Perhaps this is an imposition on our freedoms; perhaps this is that two-way street between us and the algorithms, learning from each other; perhaps this is love. ◉

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E•MO•JIS

Netspeak and chill by LAUR M. JACKSON

NETSPEAK IS HARDLY the first abbreviated language, but it was ours.

Perfected by the necessities of a pre-T9 cellular world and a flippancy embedded by the instant fact of now instant communication, the code gave us a standard to lean on with the A/S/L-level depth we desired. This is not a lead-in to diagnose the shallowness of a generation to whom shorthand merely meant halfhearted scramblings down a wide-ruled notebook.

Netspeak, for all its acronyms and grammatical grievances, transmitted the real feels infused by its users, evinced now by our potent reminisces of both it and the late-'90s, early aughts internet on which we created it. (If we have to take responsibility for face-to-face connectivity problems, academic coddling, intergenerational workplace strife, political complacency, and participation trophies, at least give us this.)

We're far gone enough to nostalgia about

Web 2.0, and it's worth noticing that its defining communicative features have come back in a big way. The general features that mark the cool of current internet vernacular—u, ur, r, k, proper noun i—also look rather old school. It's not quite the pages of a Lauren Myracle novel brought to life—ttyl, the best-selling young adult novel she published in 2004, was written entirely in instant messages—but nor would her characters' general disregard for case look out of place in today's digital communicative landscape. Promo material for the book's 10th anniversary reissue claims that with a visual and cultural makeover the novel is now "ready for the iPhone generation." Ironically, as if the novelty of the full mobile keyboard has worn off, the iPhone generation now speaks more akin to the generation that inspired Myracle over a decade ago.

Animatedness means being moved, like a puppet by a puppeteer desperate to prove the humanness of their object.

Before we submit to our emojilords, it's worth asking about these ghosts of internet's past that have wormed their way back into our language. Why are you back? Why, when Swype exists, when autocorrect has long surpassed its quaintisms, at a time when even basic dum-dum burner phones are equipped with slide-out keyboards?

Why do we need you?

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ANIMATIVE EXPRESSIVE FORMS ARE the new normal.

Once limited to the domain of niche forums and Tumblr, reaction gifing is more accessible than ever. Gifs have not only made it onto the mainstream social media stage—with Facebook, naturally, the reluctant straggler—but all manner of platform-supported gif buttons and third-party plugins means that even users farthest from

hip to the corners of internet quirkdom can now be part of the fun. (As someone who still uses her carefully curated multiple folders of bookmarked gifs, I'll cry hipster on this one.)

Emojis, too, have received the gif treatment—or perhaps it's the other way around. Though their creation predates the iPod, many first encountered the unicode set as an obscure side benefit to iMessage.

Animatedness means being moved, like a puppet by a puppeteer desperate to prove the humanness of their object.

Now they are very nearly legible to every device out there (despite interpretive discrepancies between platforms, due to literal differences in representation of the very same emoji). The custom-made-celebmoji trend has jumped the A-List. An emoji Bible—subtitled "Scripture 4 Millennials" (*me: screaming*)—can be purchased in iBooks for $2.99. An actual emoji movie is in the works. They've wreaked havoc for medieval-alphabet coders. They inspire albums, like Lemonade, or almost inspire albums, like Wave. They have leaped from the screen onto crop tops and been stuffed with plush. And we have just gotten 72 new ones.

And yet, the proliferation of both access and options for these forms seems rather oblivious to how they are used. As Amanda Hess writes in the New York Times, "when emojis and gifs are filtered through the interests of tech companies, they often become slickly automated." In the case of the gif button (presented alongside the "photo" and "poll" options for tweets), neat categories—"Agree," "No," "Wink"—run contrary to the "curatorial sensibility" embedded in the

practice: Reaction gifs are often used to convey affects that escape pithy representation, such as "white people explaining diversity to me." As per usual, it's as if the techies behind the trend are pushing product with no thought as to who's using it or whether it's being used at all.

If Matt Grey and Tom Scott's Emojli—an emoji-only messenger where even user names are emoji-only—were real and not satire, we might really have reason to believe "the end of [emoji] days" is near. Part of me thinks the quick end, like that of a good-time meme that burns too hot to last, might be more merciful than the current process: oversaturation, or slow death by drowning.

We have plenty reason to see this coming. We know what happens to idioms that reach critical mass; more important, how the process of popularity in fact necessitates a kind of ironic reduction of the object. The unique, inventive aspects that make us want to pass it on must be shorn off for maximum circulation and accessibility. The examples are endless: Consider the relatively recent fates of "basic," "Netflix and chill," and "squad," words sourced and repurposed from Black vernacular for, it seems, the sole purpose of later writing a jaded testimonial about them. Linguists identify the processes that make up this phenomenon as entextualization, transduction, and—as many nonlinguists know—appropriation. Entextualization describes the making moveable of an idiom; induction is its actual relocation; and appropriation, taking on that which has been displaced as one's own.

The ever encroaching desire of white people to be relevant is a heady fuel source, and not entirely unrelated is the ability of corporate voices to send anything cool to an early grave. Kate Losse on what she calls "weird corporate twitter" investigates the appropriative relationship between social media accounts verified and run by major corporations and absurdist accounts ("weird twitter"). Gifs and emojis are no exception. Denny's remains a predictable repeat offender, and other examples include Taco Bell, DiGiorno, and even the National Highway Traffic Safety Administration, which shows how "an emoji can wreck your life" (if you use them while, uh, driving).

Much like meme attempts, these make for cringeworthy affairs akin to watching an early 20-something assert their "with it" chops to a bunch of high schoolers. As ironically cool as it might be to engage in a parental emoji exchange, Big Brother co-opting a beloved quote just bucks anything like the kind of in-group "it me" commonality of memes, gifs, and emojis that underlies each share. But corporations have always done the most to inhabit the language of their consumers. While Hess fears the effect of political and financial imperatives on digital culture, Losse hits upon a particularly distressing issue to do with authenticity and recognizability in digital nonspace: Has corporate parasitism of internet vernacular actually outpaced our ability to sense it?

To really answer that question requires a guarded look away from corporate appropriation to the internet folk who shape digital language from below. From a user perspective, these once exciting features that are supposed to surrogate affect—by advocacy, if not etymology—look a bit too conventional to do so. As with many, many, many idioms before them, widespread and corporatized use hasn't evacuated their meaning entirely (an impossibility?), but they do seem rather tainted by the tryhardism of it all. Emptied of … something. Corny. Uncomfortable. Too much. Hyperanimative.

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ANIMATEDNESS IS AN UGLY feeling. So identifies Stanford professor Sianne Ngai in her study of the aesthetic phenomenon in a monograph called Ugly Feelings. Animatedness, or excess liveliness, is compulsory: It involves not only the expectation that a body be agitated at will but requires "an unusual immediacy between emotional experience and bodily movement." It's quite literally the "state of 'being moved'" like a puppet by a puppeteer desperate to prove the humanness of their object. And sometimes that object is an objectified subject who, too, aspires to a humanness at odds with the jerky movements of their manipulated body.

Animatedness, the aesthetic that makes the characters in Uncle Tom's Cabin, in Eddie Murphy's The PJs, and the exemplary Taylorist worker all so disturbing, also bears upon the gif. "Gifs are like haunted pictures," says writer Alyson Lewis, whom I asked about her general dislike for the format. Between "classic reaction pics," still images that "drive the message home on [their] own," and Vines, Lewis locates gifs in an uncomfortable space that gathers the best features from either side in the most fragmentary way. Something about them feels … off. "There's text at the bottom when someone's speaking, but the snippet is usually such a fraction of the moment that the moving lips don't match up with it."

In Lewis's formulation, the gif as a social form aspires to something like the real-time nature of video yet inevitably fails by its formal properties—in practice, a disembodied, uncanny mimic of human emotion. As gifs, along with emojis, become more streamlined in the applications we use to communicate, the more puppeteer-like these platforms appear, demanding we move in time with the emotional range of the options given.

What must be attended to in a conversation about animatedness and the internet is the fact of animatedness as disproportionately distributed, specifically as produced at the site of racialization. On one hand, one's humanity is conditional on the capacity to be animated—for bodies to whom humanity is not a given. On the other literal hand, a body animated looks utterly unnatural, puppet-like, revealing the desperation and labor underlying the humanizing project as well as turning "the racial body … into comic spectacle," to quote again from Ngai.

(And suddenly the voice didn't go with the hand.)

The internet has quite the sticky track record when it comes to the hyperanimated black body, from the frantic virality of, as BuzzFeed fellow Niela Orr describes, "black trauma remixed for your clicks" to the overrepresentation of black people in reaction gifs used by nonblack users. Though seemingly an aside from an inquiry that looks at online vernacular in a broad sense, to the extent that we recognize black improvisation as critical to how that vernacular develops, we should at least consider how the disproportionate affects of hyperanimative forms might drive the emergence of a new or repurposed kind of expression.

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HOW DO YOU COMBAT online animatedness? You chill out.

For even as the characters look identical, it would be hard to characterize this (re)emergent language as a backslide into netspeak of old. There is an aestheticized edge, a jadedness that wasn't there before. Questions have periods. Statements have question marks. Hashtags have gone ironic. Emojis and gifs are as commonplace as ever, yet the simpler emoticons are starting to feel like the more acutely emotional or suggestive image. When punctuation and you-versus-u is no longer a matter of labor saving, there opens up opportunity for new meanings and inflection. The gap between "sure" and "sure" with a period is cosmic.

My suspicion is that fun and play—so crucial to the circulation and enjoyment of idioms—are ever undermining any ability to harness them. Internet vernacular just might be like those really frustrating latex tubules with glittery water inside: The harder you grasp, the more they wiggle, accelerate, break free, and return to the way more exciting place of chaos and nonsense.

This is perhaps best exemplified in what looks like the real next evolution for gifs and emojis: no image at all.

What is dead may never die. Or whatever :) ◦

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FREE RECALL

Search engines tell us everything except how they work by BRITT S. PARIS

OF CLOCKS AND TICKS

IT'S EASY TO OVERLOOK ticks. But these blood-sucking vermin that purvey Lyme disease and force anxious full-body inspections after summer walks have proved surprisingly useful for philosophers concerned with how we know time and space. In his 1934 essay "A Stroll Through Worlds of Animals and Men," naturalist Jakob von Uexküll uses the tick to illustrate his concept of the *Umwelt*, the environment that shapes in specific ways the possibility of experience and knowledge for every individual organism. For the tick, the warmth of blood and the scent of mammal skin arouses it from dormancy; it can wait for up to 18 years to be provoked by these sensations. The willingness to wait must shape its experience of how time unfolds in the world.

Von Uexküll thought that humans' interaction with their environment also shaped how they know time: "Time, which frames all happening, seems to us to be the only objectively stable thing in contrast to the colorful change of its contents, and now we see that the subject sways the time of his own world." By altering the speed at which we come to know things, we alter our experience of the speed of life.

In the 11th century, few would have understood the world in terms of standardized hours and seconds. According to historians of information and technology David Landes and Derek de Solla Price, the people of that age became suspicious of the tower bells that rang in accordance to clock time. Today, many are equally suspicious of the speed of digital information and how it seems to set the metronome for contemporary life. Search engines, now a central component of the human *Umwelt,* are part of this new temporality. Search engines make information appear infinitely accessible, seeming to connect us immediately to what would have once taken lifetimes to find. They make the expansive world of information feel omnipresent and instantaneous. But this dream of infinite information runs into limits to how we understand the world.

CLOCKS OF THE INTERNET

MORE INFORMATION MAY BE readily available, but our capacity for transforming it into knowledge has stayed the same. We multitask more even as we retain less, as studies from Clifford Nask at Stanford University and the 2015 Pew Project for Internet and American Life, among others, have suggested. We are lulled into believing we don't need to remember things—that we can always Google them later and the answers will be immediately forthcoming.

Search engines lead us to believe they are neutral tools that simply offer access to objectively valid and reliable information, provided users develop the correct sorts of queries. But in fact, the means of unearthing the information changes its nature. How we find something out changes what we want to know, and how we use what we learn. It's not merely that, in the course of life, we develop a need for some specific piece of information and then use a search engine to research it. Rather, our experience of search engines makes us see the world in terms of what

is Googleable. It makes us crave information we know will be readily accessible. The experience of an immediate answer becomes as important as the content of the information itself.

Finding information once meant time-consuming, site-specific investigations into documents of various media; the time and work of the research process would turn the pursuit of information into a contextualized acquisition of

Our experience of search engines makes us see the world in terms of what is Googleable. The question is the answer

knowledge. Now finding information is simply a matter of typing words into a search tool. The process feels instant, and it can be done over and over again from anywhere. The question is the answer.

This fast and continually easy access to information creates a sense of time flattened into space. Scholars Iina Hellsten, Loet Leydesdorff, and Paul Wouters have considered the way search engines update their indexes at different frequencies: "As clocks of the internet, search engines realize the present as a collection of extended presents that can exist in parallel on the Web," they write. "In other words, time is being represented as realities that co-exist in space." Search engines index recently created documents and older documents together as part of a continual present. The layers of information developed over time and within different contexts appear as though they are convened at the whim of the user. Everything happens at once, and can be done again if necessary.

NOWNESS

SEARCH ENGINES ARE ENGINEERED to flatten all previous information into one time scheme, regardless of its original context. When Google

is asked something, it returns old and new information together as if their different time frames have no particular bearing on their relevance, and with no indication of how the older material may have shaped the newer.

Though search engines are meant to ease our information access, their temporal flattening of knowledge is also disorienting, presenting a chaos of information instead of a sense of how ideas have been grounded over time. The feeling that all knowledge across all times is readily available inevitably comes with a feeling of information overload. By giving it all at once, search engines deprive us of a sense of having the time to process it all. Most users click on the first result.

For Bernard Stiegler, following Heidegger and Derrida, understanding how events interrelate in succession allows for the possibility that knowledge be developed, communicated, and acted upon. The duration of information over time matters, but today's communication

How do search engines win users' trust? With speed

technologies overcome the sense of epistemic distance by presenting information quickly—and therefore present information itself as quick. Search engines redouble this illusion of immediacy, which changes the human *Umwelt*. With respect to the speed of information, we begin to experience elisions between how we are expected to perform and what feels natural.

To adapt to the staggering and ever increasing amount of information we interact with daily, we make ourselves available to answer texts and emails not just at the office but also on the commute or at home. We sleep with information, phones rested on pillows. We multitask and do our best to assimilate information

into knowledge as best we can. In many cases, this means simply letting the information live in technology to be accessed if and when we need it. We remember that we used to remember phone numbers. We remember that we used to remember the capital of Nova Scotia without Googling it. The memory of memory is enough.

CONVENIENCE AS ACCURACY

SIMILAR TO THOSE IN the late middle ages who became suspicious of the ringing of tower bells, many now feel that fast information is restructuring their lives in ways they don't fully understand and can't control or readily resist.

How do search engines win users' trust? With speed. Search engine studies from Jerry Brutlag and others at Google and Bing have determined that people report higher satisfaction and longer sustained use if the search results are provided quickly, even if those results are not as suited to the users' informational needs. So search engines can overcome suspicion by making ubiquitous, omnipresent information seem easily accessible: As long as the information is convenient, we might worry less about questioning it, interrogating its relevance and reliability, or even retaining it for future recall.

Search engines' apparent immediacy helps allow them to appear primarily governed by efficiency and user-friendliness, obfuscating the economic, political, and cultural assumptions (not to mention the proprietary search and personalization algorithms) from which they infer the relevance of potential results. The speed with which search engines return results seems to suggest objectivity, but it also obfuscates the compromises they make to ensure smooth and "instantaneous" function. Google lets us feel as though we know everything—except how Google works. We can seemingly search for anything and get an answer, but we remain ignorant to how our omnipotence actually works.

The feeling of nowness is equated the feeling of accuracy, more salient to users than developing hands-on experience of thinking with empirical information, using it to make knowledge. Our desire for nowness becomes self-fulfilling, we adapt to it and feel comforted by its

convenience and eschew the effort of working to obtain knowledge.

THE NOSTALGIA FOR MEMORY

TECHNOLOGY SEEMS TO PROVIDE the answer to feeling constantly behind. But its very design is the cause of these feelings. Networked computation—the technology that powers search engines—can sort, quantify, and organize information at speeds much faster than the onflow of human time. For computers, time simply structures knowledge. For humans, time is something we live in. It is where we become ourselves.

It is hard to imagine a way of reversing search engine temporality, or a way of developing a search engine that encourages deliberate knowledge production rather than "user engagement." A return to pre-Google methods of having human gatekeepers vet and organize information in search engines seems impracticable, an unimaginable return to darkness. Much less of the internet would be indexed. Having to feel around blindly for information in hopes that it has been categorized somewhere by institutional experts seems like a less than desirable solution, even if it would force one to frame their informational needs more carefully.

Search engines want us to think that we will always be able to access the same information and it will always be true, available, and up to date: always Googleable. This masks and reduces the multiple presents the we all exist in, across a number of platforms, to a homogeneous "real time." Meanwhile, these multiple presents remain as ungraspable as ever. ◉

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GIF HORSE

Gifs reiterate an oral tradition as old as *The Odyssey*

by BRITNEY SUMMIT-GIL

An adorable black kitten is sitting on a bookshelf, eyes fixed on an insect. It sits, paws perfectly aligned. Then, out of nowhere, it pounces—leaping off the shelf and into the air, wild and frantic.

An adorable tuxedo kitten is sitting on a bookshelf, eyes fixed on a housefly inches from its face. Behind it sits what appears to be the entire collection of Little House on the Prairie. You left those books at your parents' house when you moved to college. It sits, paws perfectly aligned and head cocked. Expectedly, it pounces—leaping off the shelf wild and frantic and hilarious as it experiences the terror of free fall.

An adorable tuxedo kitten is sitting on a bookshelf, eyes fixed on a housefly. It has a tuft of white at the end of its tail and looks just like your friend Rebecca's cat that she had when you were children. The blinds in the corner are bent and broken, something any kitten owner can relate to. It sits, paws perfectly aligned and head cocked. Inevitably, it clumsily pounces.

You send the gif to Rebecca: "Lol looks just like Leo, remember?!"

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IF EVERY PICTURE TELLS a story, a gif tells a story as a series, each version a slight variation on the previous one. With every loop, a viewer can take in more information, as inert details come to life and new elements are noticed, while the emotions triggered can be experienced repeatedly. The majesty of a rubber-band ball regaining its dignity after being crushed under a hydraulic press, or the shock of a car crash caught on a dashboard camera, can be felt again and again.

Once a sign of internet savvy, sharing a gif now has been streamlined and democratized by the rise of searchable databases like Giphy and by the integration of gifs into phone apps. Finding just the right clumsy puppy or celebrity eye-roll is as easy as finding the right word in the moment, making communicating through gifs commonplace. As often happens with new modes of communication as they become mainstream, gifs have been dismissed as stunted and insincere; they have been saddled with the same stereotypes that have been applied to those presumed to use them most: lazy millennials who want everything prepackaged for their short attention spans. *Maybe if we turned Jane Austen's works into gifs, kids would actually want to read them!*

But gifs are less an impoverished form of digital shorthand than a new iteration of one of storytelling's oldest and richest traditions. The qualities that define gifs were also fundamental to oral traditions, to how the stories and epics that gave shape and substance to the everyday life of oral societies were transmitted.

Walter Ong, a 20th-century philosopher who wrote extensively about oral culture, claimed that "sound has a special relationship to time unlike that of the other fields that register in human sensation. Sound exists only when it is going out of existence." This ephemerality, in his view, gives speech a sort of magical quality, a momentousness. In oral societies, the spoken word has unique transformative power. Anthropologist Bronislaw Malinowski claimed that, unlike literate peoples, oral societies used language as a "mode of action and not an instrument of reflec-

tion." As Ong noted, in ancient Hebrew dabar means word, but it also connotes "event" or "action," especially regarding the word of God.

Because the stories, theories, and pedagogies of oral societies exist only in people's minds, they are stabilized and canonized far differently than in literate societies. Memory is necessary for knowledge preservation, and mnemonic skills like repetition, metrical speech, and rhyme become key to knowledge transmission. Expression relies on formulas and epithets to guide memory: not the "princess" but the "beautiful princess"; not the "oak" but the "sturdy oak." These mnemonics are not only practical, but an integral part of making performance pleasurable and engaging.

As classicist Eric Havelock has described in *Preface to Plato* (1963), poet-performers in ancient Greece relied on such devices to remember and transmit long, winding tales like *The Iliad,* complementing them with foot stamping, swaying, and music to make them richly communicative events. This suite of mnemonic devices and formalized bodily movements stabilized epics as rhythmic, visceral performance, while limiting the ways one telling might vary from another. These were the original technologies for outsourcing memory.

Gifs rely on similar mnemonics and limitations. As the Greek poet used repetition so the audience could follow along, the gif shows the same information over and over again to allow for maximum retention. Just as the poet maintained a palette of meticulous bodily movements and rhythmic phrases to hold an audience and communicate something memorable, we too might now load a gif keyboard with eye-roll gifs so that we may swiftly express a full range of "can't even." Gifs' tiny file size can make them as succinct as proverbs, another key mode of didactic knowledge transmission in oral culture—easy to remember and repeat. Like proverbs, gifs unload their message quickly and can be applied in many different situations. And like epics, gifs often vary through slight moderations that recontextualize them while remaining faithful to older versions already lodged in memory or tradition. Hence the popularity of gif macros like Javert looking through a window, Robert Redford nodding, and Side Eye Chloe.

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TO BE SURE, A sad Javert gif and the mythopoetic tradition in Greece differ greatly. They cater to different cultural imperatives: The oral tradition serves memory in a culture where writing is uncommon or nonexistent, whereas gifs are often a conversational tactic that helps us navigate the experience of omnipresent text.

Ong argued, from an admittedly Western-centric perspective, that all cultures could fit on a spectrum spanning from oral to literate. This dichotomy seems to suggest that texts are linear, dead documents, and oral communication is alive. But the presence of textual elements need not be seen as the determining factor in what is "alive." That depends more on how people in a particular culture engage with and interact through media. The societal implications of the written word have more to do with how text is distributed and blended with other media forms than with any intrinsic qualities of typographic communication. Furthermore, what gets defined as "text" has changed rapidly with the advent of electronic and digital media. Today, media scholars refer to everything from television shows and films to blog posts and selfies as "texts," and the contemporary experience of media objects relative to the days of print media supports this redefinition.

The gif, along with a great deal of mediated communication, does not fit comfortably on Ong's oral-literate continuum. If the written word exists in space and the spoken word in time, then gifs synthesize these, fleeting yet durable and ever redeployable. Gifs are both text and speech, and neither. Though concretized as digital files, they

Gifs' tiny file size can make them as succinct as proverbs

are not quite "dead" the way the written word can seem to be. Gifs not only move before the eye, echoing the poet's gesticulations, but they also retain the magical quality of orality to change a conversation in real time, to perform an action rather than afford "introspection," as Malinowski put it. All of this, despite the fact that the gif is a silent medium. It is oral but not aural.

In the earliest days of real-time digital text communication, it quickly became clear that letters and punctuation alone were not sufficient for the kinds of communication afforded by instantaneous, conversational connection. Emoticons, acronyms, and a variety of "text speak" tactics quickly emerged, and these have evolved into emojis, shruggies, stickers, and gifs. The right gif in the right context can be more effective at evoking emotions and acting on subjects than the gestures and intonations of face-to-face conversation. While a heated discussion about veganism in a café might end with "if you saw the videos, you'd understand," a Facebook disagreement can include the visual element missing from spoken words. A friend on your couch may cheer you up with a condolence or a warm hug, but online they can send you a cute puppy carrying a stick that is far too large, or a happy bouncing Pusheen the Cat exuding hearts. Who's to say which is more cheering?

It may be that our world is becoming less a culture of literacy, in Ong's sense, than one of *textuality,* characterized not by the mere presence of reading and print language but by the massive proliferation of media texts and their centrality to the human experience. Digital practices—message boards, comments sections, and SMS as well as gifs—are textual without producing the decontextualization, distanciation, and abstraction that Ong associated with the culture of literacy. "Writing fosters abstractions that disengage knowledge from the arena where human beings struggle with one another," Ong writes. "It separates the knower from the known. By keeping knowledge embedded in the human lifeworld, orality situates knowledge within a context of struggle." But much of what Ong attributed to oral culture also applies to textuality. Implemented in real-time networks, text can

shrink distance across time and space rather than emphasize it as the written word did. It destroys abstraction through immediacy.

Gifs are less abstract than writing and thus also closer to the human lifeworld. They are more agonistic, as Ong thought oral culture was (see: gif battles or snarky reaction gifs). They are also experiential. Even when representing an abstract concept such as despair, gifs are firmly embedded in concrete human experience: the person breaking down into tears, throwing up their hands, eating ice cream directly from the quart container.

They also convey lessons less abstractly: The recipe gifs popularized by BuzzFeed and other content creators are categorically different from written instructions, or even instructional videos on television or online. They offer an abbreviated recipe more akin to an apprenticeship than a training manual and are inarguably more enjoyable to watch. You don't have to peer over a list of directions wondering how finely to grate the cheese or what exactly a julienned carrot looks like. When the abbreviated gif recipe is paired with a list of ingredients, the oral-literate binary is altogether collapsed. Recipe gifs epitomize information transmission in an era that relies less on lessons passed down through generations or through traditional cookbooks, and more through online forums laden with reviews and comments. Such comment sections, like oral culture as Ong describes it, are additive rather than subordinative: Items are merely added on—"and this, and this"—rather than integrated hierarchically ("then this, but that").

Since it lacks the efficient linearity of written language, oral communication is redundant and copious; things must be repeated again and again to ensure that speaker and hearer are keeping up with each other. This is not a flaw. Oral communication is often improved by this repetition, becoming mesmerizing. Havelock claimed that during poetic performances, both the poet and the audience would enter a sort of hypnotic state, completely immersed in the experience. For Plato, this hypnotic state gave the poet immense power. By enrapturing auditors with music, dance, and rhythmic wordplay, the poet wielded undue sway over the polis. Anyone who's ever been hypnotized by a gif can probably understand.

Repetition draws the audience's attention to the most substantive parts of the performance. Gifs work at a smaller scale, and through their ceaseless motion draw the eye, making an element of conversation stand apart from the surrounding text. Newer social media add-ons like bouncing stickers serve a similar purpose; they bring a liveliness that characterizes orality to the surrounding text's uniformity and "deadness." Though not ephemeral, their short length mimics the dynamics of fleeting oral communication. The gif captures the power of the spoken word's ephemerality through brevity and repetition, replicating the aesthetic pleasure of orality through visual affordances that typographic language cannot accomplish on its own.

These visual, moving modes of communication in digital environments offer a vital response to Havelock's complaint that people in the modern Western world have lost the pleasure and relish for life that he believed the ancient Greeks had: "They seem to enjoy themselves. They seem to take natural pleasure in fine shape and sound which we too sometimes recognize as beautiful but only after we have first pulled ourselves up by our own boot straps to an educated level of perception." Gifs help us reclaim some of this everyday pleasure without the bootstrapping. Because they synthesize the oral and the literate cultures, they have the potential to resolve what Havelock saw as "the warfare between body and spirit" that arose with literacy's abstractions. Speech was never a more "natural" form of human consciousness and communication that has been spoiled by inauthentic printed and digital texts. In fact, orality never disappeared, but rather is always continuing to emerge, in broader, more all encompassing forms.

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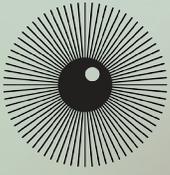
REPETITION

"Against the Clock," by Maya Binyam
"Time Capsules," by Fuck Theory
"Watch Again," by Lydia Kiesling
"Instant Replay," by Monica Torres

REPETITION HAS A WAY OF METING OUT TIME; in recollection I have a way of meeting myself again, and giving me as I do the time of day. Restatements of a theme hold immense sway in figuring out why things, happening as they did, ever induced rapture or heartbreak, turning a lifelong project into a more digestible course. Histories demand, with tools or states altered, indulgence in reprisal, recasting, remembrance and riff. Music wouldn't be without memory; a record later reviewed can overtake olfaction in its talent for association; looped images can live somewhere between fact and déjà vu. In setting oneself on repeat it's intensity we're after; years click by, and housework seems more real that is never adequately put to rest. "No one ever told us we had to study our lives, make of our lives a study, as if learning natural history or music, that we should begin with the simple exercises first," writes Adrienne Rich in "Transcendental Etude." A more seasoned tail-devourer than I might attest that segments are always found changed under skin already consumed, split or shed. —SORAYA KING

AGAINST THE
CLOCK

Real-time depictions of September 11 and its aftermath
serve the myth of white sovereignty   by MAYA BINYAM

O VER AT THE Northeast Air Defense Sector's command center, the NORAD exercise is about to commence. Here is how it goes: Russian Bears are piercing the airspace up off Alaska. The Tupolev Tu-95, known colloquially as Bear, has propellers that move faster than the speed of sound, making it the loudest plane in the world. The bomber—booming, blade tips spinning—slips through Alaska's airspace like a pin, or a needle: the thing that does the pricking.

But the nick is just a simulation. Here is how the real thing goes: a plane, departing from Boston, blips green on an air traffic control screen. It blips away—blinking over Boston, Worcester, Pittsfield—and then goes dead just outside Albany. The air traffic controller who's been monitoring the winks—their frequency, the speed—loses his shit. He calls the situation into his boss, who calls it into the Northeast Air Defense command center. An official takes the call, hears the news, then motions, anxiously, to his coworker, a woman, who is busy preparing for the Bears and their impending penetration. "I got a hijack on the phone," says the official. "This is sim?" she asks. "No," the man corrects. "This is real world. This is a no-shit hijack. It's Boston."

The woman goes to talk to her boss: "Sir, we have a real-world situation here."

The simulation, the situation, the Bears, and the boss are from a movie. *United 93*, which premiered in 2006, depicts United Airlines Flight 93, one of the four flights hijacked on September 11, 2001. This is the flight on which passengers launched a counterattack. They improvised weapons—blunt knives made for cutting breakfast omelettes, boiling water meant for tea—and pushed the hot food cart into one hijacker, two hijackers, and finally into the cockpit, where they tried to gain control of the yoke. The airliner, intercepted, veered away from its intended target—the Capitol or White House, no one knows which—and nosedived into a field in Shanksville, Pennsylvania, killing everyone on board.

This is a real-world situation, and so the drama is portrayed in real time, a filmic convention in which plot progression mimics linear time exactly. In this case, the movie begins in the hijackers' motel room—precisely at Fajr, the morning call to prayer—and ends 110 minutes later, the hijacker-pilot yelling "Allahu Akbar," the passenger-pilot grasping for control, and the plane, full of people, spiralling into green, the field, its death.

September 11 demands to be experienced live, which is why real time has become such a popular convention in American portrayals of the War on Terror. The TV show *24*, for example—which premiered in November 2001, ran for eight seasons, and is scheduled for a reprisal this winter—opens every hour-long episode with a single refrain: "Events occur in real time." Each episode corresponds with a single hour in the day (5:00 a.m. to 6:00 a.m., 6:00 a.m. to 7:00 a.m., etc.), with each 24-episode season comprising a single day in the life of Jack Bauer, an agent employed by the fictional Counter Terrorist Unit. Seasons one through eight track a terrorist plot underway (nuclear bomb, suitcase bomb, dirty bomb) and Jack's attempts to thwart it before the clock, quite literally, runs out. Time is denoted by a stopwatch, which ticks onward at the beginning and end of every commercial break.

Kathryn Bigelow's *Zero Dark Thirty,* which tells "the story of history's greatest manhunt for the world's most dangerous man," has a ticking clock, too, though it isn't introduced until the final 20 minutes of the hunt, when the man, Osama bin Laden, is almost dead. In the final moments of the film, the Special Activities Division (SAD) flies a group of U.S. Naval special agents to Bin Laden's hideout in Abbottabad, Pakistan. They land; unseal the doors of the compound with tiny, hand-held bombs; kill three men and one woman; shoot Bin Laden twice in the forehead; gather up the survivors, mostly children; bind their hands with zip ties; and then depart the way they came, Bin Laden sealed into a bag and stored safely in the body of a chopper. All in all, the filmed assault takes 15 minutes, corresponding, exactly, with Bin Laden's real-life capture, his quick and unexpected demise.

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IF THESE MOVING IMAGES share a perspective, it's that of the forecaster: the person who controls the broadcast. Each employs the convention of realism to distend the myopia of real life. "September 11, 2001 was a day of unprecedented shock," states the Executive Summary of the 9/11 Commission report. "The attacks of 9/11 were the biggest surprise in American history," echoes George Packer. No one, in other words, saw the violence coming.

United 93, however, attempts to prove otherwise. "The big difference between this flight and the other three, of course," writes Brendan O'Neill in a review for *Spiked,* "is that the passengers sensed what was going to happen." The hijackers tasked with flying 93 were the only ones who missed their target that day, a malfunction lauded as victory and attributed to the victims of the crash, who, in death, became heroes. They saw what most Americans couldn't, an impending attack, and prompted its arrest. If the assumption is that this foresight was unique— the thing that differentiated this flight from the rest, these passengers from normal civilians—it follows that anticipation, the sensibility in which

possible futures are felt as real in the present, can be manipulated as a tool of national security.

In their discussion of the temporal politics of emergency, Professors Vincanne Adams, Michelle Murphy and Adele E. Clarke write that anticipation "gives speculation the authority to act in the present." Anticipatory regimes—political systems in which the *actual* is displaced by the *speculative*—"offer a future that may or may not arrive, but is always uncertain and yet is necessarily coming and so therefore always demanding a response." The looming attack "sets the conditions of possibility for action in the present." Civilians gather blunt knives, like a militia. They act as if the emergency has already arrived.

Most Americans, so it goes, didn't feel a sense of emergency, and that's why they suffered. In the Executive Summary of the 9/11 Commission compiled by the National Commission on Terrorist Attacks Upon the United States, officials lament this miscalculation: "We did not grasp the magnitude of a threat that had been gathering over time … this was a failure of policy, management, capability, and—above all—a failure of imagination." Considering what was not predicted, they continue, "suggests possible ways to institutionalize imagination," a project whose immediate aim is to instruct Americans to foresee their own death. But the 9/11 Commission is charged with providing tools for national security, not masochism, and so it follows that this prescribed reimagining is meant to be recuperative: It makes the possibility of attack feel real, yes, but only to galvanize defense. The anticipatory mode being institutionalized, then, isn't one that predicts the perfect attack, but one that cements the possibility of perfect intelligence.

Real time offers a corrective; it encourages viewers to more responsibly make-believe. When applied to nationalist portrayals of attack, real time enacts a politics of presumption whose affective qualities are twofold. Viewers are encouraged, on one hand, to suspend disbelief: to indulge, if only momentarily, in the fantasy of an attack thwarted, a nation kept secure. On the other, they're encouraged to believe fully in the powers of speculation: to understand future attacks as necessarily real, and looming, in order to justify precautionary violence in the present.

When a civilian goes to the movies, she is presumed to relinquish subjectivity. But when the movie she chooses tells the story of a terrorist attack unfolding in real time, her panoptic vision, or ability to see danger as it approaches without fear of being harmed, mimics a superpower: surveillance. Like most networks of policing and imprisonment, surveillance is predictive: The state justifies its reach by codifying the anticipation of a possible catch. When asked why Guantanamo prisoners were being held without trial, for example, Secretary Rumsfeld answered that if they were not restrained, they were sure to kill again. The War on Terror, writes Judith Butler, "justifies itself endlessly in relation to the spectral infinity of its enemy."

Like most filmic devices, real time postures as truth. And like most versions of the truth, it demands to be experienced live. But when the live experience is September 11 and the counterattacks launched in its name, bearing witness feels a lot like propaganda, or being made party to a regime that insists, despite all evidence, on the resilience of its sovereignty. The violence, put simply, gets to be a fiction. And if fiction is a kind of myth, something that can be manipulated to shine with a veneer of truth, then the promise of this particular fiction is what the real event, September 11, disproved: the triumph of a white nationalist agenda.

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WHAT IS SO FRUSTRATING about these movies is being made spectator to white people's delusions, the fantasy that they're in control. They're not in control. They do not have their shit together. Jack Bauer of *24*, for example, loses his wife, contracts a deadly virus, gets fired. Maya, the CIA analyst charged with gathering intelligence on Bin Laden, yells repeatedly at her coworkers, whom she believes are not doing enough to ensure Bin Laden's capture; she takes a Sharpie to her boss's window when

he doesn't do as he's promised, keeping track of each day that passes without action. In *United 93,* the chief of air traffic control hears screams coming from the cockpit. *We have no control,* he announces. *This is a national emergency.* The passengers, meanwhile, are trying to *take* control. *You've gotta get ahold of the controls. Get him off the controls.*

White people operate under the illusion that they're in control, which is why they get defensive when individuals who are supposedly under that illusory control recognize the delusion for what it is: racism. If real time obscures lines of power—normalizing both the anticipation of attack and the imperative to keep white nationalism secure—live streaming elucidates power's perforations, the ways in which white sovereignty is always already unreal.

Before police officers shot and killed 23-year-old Korryn Gaines, they filed—and were granted—an emergency request with Facebook and Instagram to deactivate her accounts, taking her live-stream video of the confrontation offline. Her followers were encouraging her to resist arrest. They were trying, in other words, to control the situation. According to Baltimore County Police Chief James Johnson, the spectators were getting in the way. They were ruining "the integrity of the negotiation process" by eliciting a future in which the police failed to exercise power. The anticipatory mode being acted upon, in other words, was one that predicted the preservation of black life. Police huffed the stream and took control of the situation, the negotiation, Korryn's body. They killed the woman whom black viewers were assembling to protect.

When live-streams of black pain can be used to invigorate the power of the police, the state likes to tune in. On July 12, when the black victim of a shooting uploaded footage of his black aggressor on Facebook Live, U.S. Marshals watched the video, issued seven felony warrants, and then tracked down and apprehended the suspect while he rode his hoverboard. Although the investigation is ongoing, authorities have not asked Facebook to remove the video.

Live videos of black suffering choked the internet this summer. Korryn Gaines filmed the events that preceded her murder; Diamond Lavish Reynolds live-streamed footage of her boyfriend's unconscious body after police shot him four times; bystanders filmed the police-shooting of Alton Sterling and uploaded it to Facebook and Instagram, where it played automatically, on feeds, for weeks. This is not a simulation: Black and brown people suffer daily. Our pain is played live and on loop.

Real time simulates the immediacy of black suffering to make white hurt—and its compulsory complement, white healing—feel live. Black people are hurting, but because our pain is made into spectacle, we rarely get the healing we need. The state codifies the anticipation of black death; of white suffering, it demands remedial care.

White people like to think that their pain is exceptional, which is why they call it tragedy. September 11 was a tragedy, but it is not synonymous with white suffering. According to the Center for Disease Control, 215 black people and 445 non-black people of color died on 9/11. Undocumented migrants cleaned up these dead bodies, among others; they washed bones and ground them into powder. But because September 11 is rhetoricized as an attack on American sovereignty, and because American sovereignty is mythologized as white exceptionalism, the tragedy of that day is presumed to justify the ensuing panic, or, as White America likes to call it, precaution. "Sovereignty," writes Butler, "extends its own power precisely through the tactical and permanent deferral of the law itself."

The events of September 11—aggregated and replayed, as if to appear live—amalgamate to form the single lens through which American grief is named and visualized. But the stream is just an imitation. Here is how the real thing goes. White suffering replays itself in our image, and uses this mimicry to justify the thing that hurts us: the state, its reach, a terror called resilience. ◦

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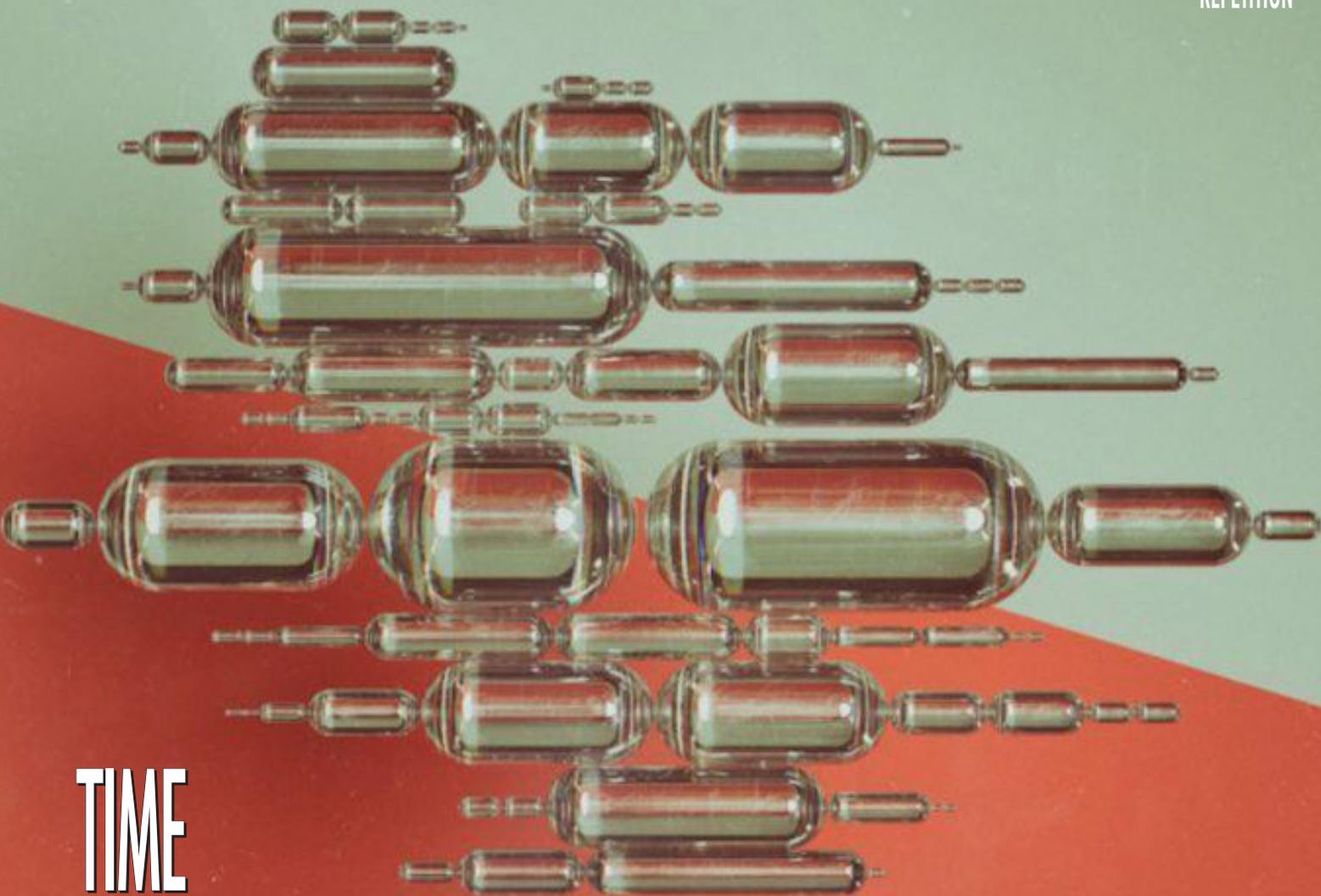
TIME CAPSULES

Speed is of the essence, but the essence of value isn't speed by FUCK THEORY

IN ONE OF my favorite scenes from *Absolutely Fabulous,* Patsy Stone, the fashion editor and professional drug user played by the inimitable Joanna Lumley, comes to work in the morning and goes to a light box to look at contact sheets. She grabs a loupe, but instead of putting it to her eye and carefully examining the images she puts it up to her nose, runs it across the top row of the contact sheet, and sniffs loudly.

It's a sight gag first and an in-joke about the fashion world second, but it's also, maybe, a metaphor for the complex, ridiculous relationship between labor and drug use. A metonym? A parable. It's complicated.

With drugs, as with sex, we've spent much of the 2000s publicly unraveling a set of naturalized correspondences with drugs. Just as "sex ed" taught us that promiscuity was a hell-bound domain of the STI-riddled outcast, so DARE taught us that the kind of people who "do" drugs are not the kind of people who go to college and have careers. With the advent of AIDS, especially, pleasure became regimented by an Old

Testament fear of pollution in which drug use and promiscuous sex were two faces of the same moral decay. Drug use, like promiscuity, was prominently antithetical to family, wealth, and all the other social hallmarks of success. Except it turns out that plenty of housewives love anal, and cocaine is ubiquitous among doctors completing their residency. Allegedly. The old oppositions just won't do anymore.

"Drugs," as a category, is inadequate and dissatisfying. The same substance can be perfectly legal in some places and times and criminal in others (ketamine). Some substances are "scheduled" completely out of proportion to their effects and dangers, like marijuana, which remains formally a "Schedule I" drug despite being legal in much of the U.S. Others, like alcohol, are completely legal and absurdly widespread despite their socially awkward and often fatal effects. There's no meaningful correspondence between "drug" and "medication," either. Ginger, available at many bodegas and most supermarkets, is better for clearing your sinuses than any number of pills you need a government-issued photo ID to buy at Walgreens. Is coca a drug if you just chew the leaves without processing them?

The questions get even sloppier if we define "productivity drugs" as substances that in some way enhance our capacity to act or ability to accomplish a task or tasks. By that measure, the banana you have before you go to the gym is a productivity-enhancing drug. That's silly, right? Okay, but what if the potassium from 12 bananas were extracted and put into pill form? Would that be a performance-enhancing drug? It's tempting to compose a theory of drug *forms* instead of drug use. Pills and needles call to mind "drugs" immediately but the two most widespread and acceptable drugs in our society are both usually *drinks*—caffeine and alcohol. Back when opium and cocaine were widespread and

acceptable they were often purchased from the pharmacist as "tinctures." Perhaps the idea of a liquid is more socially palatable than the idea of a compressed powder. But I digress.

"Clearly," wrote Gilles Deleuze in his 1978 essay "Two Questions On Drugs," "no one knows what to do with drugs, not even the users. But no-one knows how to talk about them, ei-

The prescription drugs that are most socially acceptable are also those that maximize our ability to live on time

ther." Neither of these statements turn out to be quite true. With drugs, as with sex, what people do and what people say rarely seem to correspond. This is perhaps because no issue or idea other than sex is situated at the intersection of *so many* overlapping and often competing systems of regimentation, classification, and prohibition. A "scientific" or "medical" categorization of drugs does not have the same agenda as a juridical or penal one; and by the same measure, the drugs that encourage and facilitate social well-being may not always be the drugs that encourage and facilitate your *own* well-being. All this is complicated by the fact that what we think of as distinct fields are often clouded by each other's clout. Faulty research can lead to widespread modifications of legal and investigative procedures, as the recent invalidation of FBI hair "tests" showed; political pressures can have great impact on "scientific knowledge."

If drugs parallel sex in the complexity and self-contradiction of their conception, use, and

prohibition, perhaps that's because, like sex and sexuality, "drugs" span an enormous range of effects and activities, some immensely beneficial to the social order and others considerably less so. Like few other forces or concepts in our social existence, "sex" and "drugs" exemplify activity as a locus of will and agency. Simply put, it is impossible—as of now—for our society to continue to exist without both sex and drugs. And the forces that organize our lives have not—as of now—figured out how to give us access to sex and drugs to the degree necessary without also giving us access in ways that can and often do destroy us and extinguish our social utility. As of now, you remain, with few exceptions, the final adjudicator of moderation in your relationship to sex and to drugs. Situated at the intersection of subjective agency and systemic power, both concepts open onto the entire range of questions of what it means to be individual thinking entities in a social field. And in late capitalism, what it means to be an individual thinking entity is first and foremost existence as a laboring body exploited for its productive capacities.

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Discussing the advent of Taylorism—or "scientific" labor management—the Italian Marxist philosopher Antonio Gramsci wrote in the 1930s that "the American phenomenon [is] the biggest collective effort to date to create, with unprecedented speed, and with a consciousness of purpose unmatched in history, a new type of worker and of man … Taylor is in fact expressing with brutal cynicism the purpose of American society—developing in the worker to the highest degree the automatic and mechanical attitudes, breaking up the old psycho-physical nexus of qualified professional work." Technologies we might summarize as "drugs" have played a fundamental role in the 20th- and now 21st-century process of reshaping the human into a productive machine. Modern capitalism is unthinkable without the production, distribu-

tion, and consumption of caffeine, which enables millions of people to arrive at work at roughly the same time and have their brains switched on by the time they have to start "producing," not to mention offering a crucial legal bump later in the day when the body's internal cycle of waking and rest is often subordinate to the contractual obligations of employment.

The progress of capitalism for at least a hundred years now has corresponded with an increasingly successful and inventive system for regimenting the time, labor, expenditure, and corporeality of the worker. This regimentation includes modifying when people wake up, when they sleep, when they relax, and when they eat, not to mention when they fuck and shit. The social value and function of all drugs, including those we sometimes call "productivity drugs," are closely linked with temporality and productive labor: Time is always a factor. The inability of the addict to "function in society" isn't a feature of an innate moral failure so much as a symptom of the divergent relation to temporality that the drug user experiences. You're up late, or you're nodding off, or you need a fix, or you have to leave work to score, or your dealing doesn't come on time, or you sleep in because you're hung over, or you see pink elephants on the ceiling for 14 hours straight. With drugs as with sexual deviation, acceptability is linked with an ability to continue fulfilling your social obligations, to not damage yourself too visibly, and to avoid embarrassing yourself or anyone else *too* much. That includes, in many professions, letting your boss or your co-workers see just how much effort you're putting into effortless success. On reflection, it's astounding what proportion of those three imperatives has to do with doing things and being places *at the right time.* Be at work on time and get your work done on time and finish at the gym fast enough so you get to the concert on time and get to bed on time so you can be in the shower on time in the morning and get that lump checked in time before it turns into something and get your teeth cleaned regularly and respond neither too fast nor too slow to things people say and above all know when to stop, know how much is enough.

Morality, it turns out, is primarily a relationship between time and the body. It's this relationship with time which is affected by virtually every substance we might think of as a "drug." The government's "scheduling" process is less concerned with lethality, health, or risk than with the relationship of controlled substances to value-production, a half-scientific, half-ideological effort that is aided and abetted by the ad-buying and lobbying power of various drug-makers. The prescription drugs that are most socially acceptable are also those that maximize our ability to live on time in every sense of the word, whether that means coffee to get to the office on time or a laxative to get your bowels moving on time or a little bit of powder to keep you going for another hour until your friends are done having a good time. At the average social event, the fascinating sole exception to this generalization is alcohol, which deserves a separate essay regarding its relation to time and labor.

As the Human Machine Project progresses, the old correspondences of morality bend from necessity to avoid breaking. If you hang out around pill-takers of any stripe, really, you will eventually hear "Ambien stories." These stories vary wildly in content but uniformly involve various acts of sleep-activity, from walking to the convenience store for cigarettes even though you don't smoke to cooking a Thanksgiving meal in the middle of the night in July. These stories aren't remarkable for the "wildness" of their content, which tends to be weird rather than spectacular. There are plenty of other drugs that make you act equally odd—PCP straight-up

Drugs, as we're prescribed them, are for things we're supposed to be doing anyway

makes certain people psychotic—but you don't randomly hear "LSD stories" at dinner parties; nor do you often hear stories about other sleeping pills. What makes Ambien odd is that its effects are surprisingly varied *for a legally prescribed medication.* Its effects can run counter to a pharmaceutical definition of productivity: Drugs, as we're prescribed them, are for things we're supposed to be doing anyway, whether that's sleeping or working or exercising. Ambien is not illicit, and it rarely makes you do illicit things. It does, however, lead you to do things when you're not supposed to be doing them, which making it highly unusual for a socially-acceptable and widely prescribed drug.

When I was a graduate student, I felt incredibly "productive" if I sat up all night reading a book by one of my advisors. I felt considerably less productive if I sat up all night reading graphic novels. It is absolutely not a question of "production" in the sense of *making* things: You're supposed to take an Adderall to finish your homework, not to make 7,000 origami frogs in different color combinations. Which isn't to say that you couldn't drop out of school and start an Etsy shop for origami frogs; but that would be to translate what you do while on drugs back into the sign system of social exchange value, effectively eliminating any qualitative trace of the drug. The difference between regular frogs and frogs you made on Adderall is purely a difference of quantity: a fundamental social requirement of a "productivity drug" is that it leave no trace of its product, neither in the bloodstream of an Olympian nor in the addled syntax of a 4 a.m. sophomore essay. What we demand of "productivity drugs" over and above other legal drugs like alcohol and (basically) weed is a transparency of quality. What a productivity drug is supposed to produce is an abstract and purely qualitative "more." It isn't supposed to alter our behavior; it's supposed to increase our capacities.

We are, alas, finite beings. We are finite in body, limited in extension. We are finite in perception, limited in mind. We are finite in life expectancy, limited in time. We can be awake for only a finite number of hours before sleep becomes necessary; we can only burn so many

calories before food becomes necessary. So fundamental is finitude to the human existence that the greatest philosopher who ever lived, Baruch Spinoza, made human finitude a cornerstone of his flawless metaphysical system, the *Ethics*, setting the finitude of humanity in glorious counterpoint to the flawless infinity of substance itself, *Deus sive Natura*. Finitude is the fundamental nature of the human condition. And god *damn* are there a lot of emails to respond to within the framework of that finitude.

How do we make more people do more things in less time? This is the problem with which the forces we can most easily designate as "Taylorist" have struggled for centuries, always in the shadow of the human body's limitations, and which can be divided into two linked parts. One part was confronted in the first wave of the Industrial Revolution with the rise of automation and machine labor: *How do we reduce the time-cost of the productive action?* That is, how do we get X amount of labor in Y amount of time instead of Z amount of time, which it used to take? The other part was confronted in the late 19th and early 20th centuries by the Taylorists and Fordists whose primary question was not only reducing the time-cost of productive action but *reducing the amount of time lost to unproductive action.*

We like to think of perpetual distractedness as a fundamentally modern condition, but a certain degree of "lost time" is the inherent nature not only of labor but of life. A certain part of every day will be lost to pausing, to blinking, to pissing, to eating, to walking between the bedroom and the kitchen. As the basic ratio between the amount to do and the time to do it in continues to skew, modernity has invented for us a battery of techniques to address these two basic dimensions of the problem. And directly at the intersection of these two imperatives, doing things faster and wasting less time, are so-called "productivity drugs." Behind the widespread use of these substances is the fantasy of the pure, undefinable, but ultimately quantifiable *more*, the pure capacity.

But this dream belies the necessary chain of cause and effect. A banana before the gym might boost your performance, but it won't boost anything if you don't then go to the gym. The same is true of taking Ritalin if you don't then do your homework. We are once again left with the basic problem of the limited individual mind, forced by the exigencies of reality to make decisions incessantly.

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"All drugs," says Deleuze, "involve speeds, modifications of speed, thresholds of perception, forms and movements." We've already considered form and movement, however ironically. The fundamental questions here seem to be less of categorization or legality than of *speed* and *perception*. We can narrow our object to *those technologies of speed and perception which are consumed by the body in their use* (I call a technology anything that we know to increase the capacities of the body; it is, in its broadest sense, a means of doing things). A car is a technology of speed, but you put yourself in the car and not the car in yourself. Oculus Rift is a technology of perception, but it isn't consumed in use nor does it enter the body.

We do many things with drugs, on drugs, and to drugs. But one of the things drugs do to us is show us the ways in which consciousness—and by extension subjectivity—complicates the process of quantification that stabilizes and organizes our shared social reality. This is where the question of speed comes in.

The quantifying logic of contemporary capitalism assumes a fundamental commensurability between the things we use to measure value. Time, money, and even the measurements by which objects—like energy, mass, volume, and speed—are quantified are symbols that help us compare unlike things with a nominal degree of consistency. You can only pay someone by the hour if you have some way to measure hours; you can only measure hours if there's some recognized standard for their duration.

These networks of overlapping convention

not only help us measure and make sense of the world around us, they *are* the world around us, insofar as without them, we cannot conceive of the system of flows and exchanges that is global late capitalism.

We live in a world of relentless correspondences, constantly translating between measures of value to give coherence to our experiences and perceptions. But those fixed relations of value do not determine the world, they merely struggle to describe it, and our consciousness always strains to grasp the world more precisely than standardized units of measurement can allow. An hour is always the same length, yet an hour in the park on a Sunday seems to breeze by while an hour at work on a Monday ticks past so slowly that you could swear the clock was frozen. That feeling of sheer impossibility at the stubbornness of measurement is the sensation of the difference between time and duration: time being the division of events into discrete units of identical length, and duration being the condition of perception. Continuity is pure temporality; duration is behind time, it is infinity itself. To perceive a strain on continuity is to feel time overcoding and compressing duration, even as it resists. That last hour of work on a Friday crawls with painful slowness, but it's not over until the clock tells you it is, even if you're absolutely convinced it's been 90 minutes.

Your relationship to the clock on your desk has essentially three parts: your own sense of temporality; your own actions; and a social sense of temporality. What drugs do, to put it simply, is chop off one corner of that triangle. A "productive" drug is supposed to remove from the equation your own perception of temporality: It is supposed to make your body's action accord with a social construction of temporality. An "unproductive" drug, on the other hand, reaffirms the link between your body's activities and your own perception of temporality, ignoring or overriding the social sense of time. The problem, of course, is that it is often the very same substance which can erode the usual triangulation in both directions. Popping that Adderall might help you get work done during that last Friday hour in the office, but it might also lead you to compulsively rearrange the icons on your desktop for 55 minutes of that hour.

There was a brief time when email was an

What used to be specific events or activities, like answering emails, have gradually become ongoing processes

activity, singular, like writing a letter or knitting a sweater or going to the gym. For me that window was roughly from 1996 to 2001 or 2002. That was the period during which email was something I sat down to do once or twice a day, sometimes once every three days. It was, with virtually no exception, a voluntary thing: nothing crucial or professional or legal or official happened over email back then. More importantly, email was a fundamentally *limited* thing. Some days there might be a few more messages than normal; some days a particularly heartfelt or exciting moment might prompt a longer-than-usual missive. But by and large, email was something you sat down to do and could finish in one sitting. That is no longer the case. Most of us check our email multiple times a day; many of us receive continuous, automatic notifications as new emails arrive. "Inbox zero" has long since ceased to be a daily reality and has become an aspirational goal. Email is one of the easiest examples of a widespread general phenomenon: With the assistance of portable

digital technology (okay, just say "smartphone") what used to be specific events or activity have gradually become ongoing *processes*.

The thing with processes is that they don't correspond to specific moments. When does a process happen? All the time. And as more and more of what used to be time-and-place-specific activities become all-the-time processes, it becomes increasingly impossible to alleviate the tension in your relationship to the clock, the feeling that things don't quite line up right. In other words, as the affordances of modern science "disrupt" existing limitations on exchange by breaking it down into processes, it also makes increasingly untenable the ideological conventions that help convince us we're in the right place at the right time. We're not medicating to get more shit done; we're medicating to get rid of that increasingly convincing sense that we're really not supposed to be here doing this *at all*. What does it mean to "speed up" something that is a continuous process rather than an individual action taking a fixed amount of time? It means nothing but to overclock, to intensify; it can't ever mean to end or conclude.

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WE DO NOT YET know what the body can do. There's no way to be sure what the upper and lower limits of its possible accomplishments are; there's no way to prove that a feat would have been impossible without chemical enhancement. The thing with the abstract "more" promised by the fantasy of productivity drugs is that "more" is always potential until expressed in an action. Actions, however, occur within certain thresholds of identity and difference. It can be a little different every time, but it has to be similar enough to be the same action. So while the quantified "more" of productivity drugs is never a definite amount until after the fact, there is a finitude to the range of intensity an action can encompass before becoming another action. A pen can only cross the paper so fast without tearing it. A

baseball bat can only hit the chest so hard before breaking the ribs. Drug use is experienced as a modification of capacity within certain parameters; the basic consistency of these parameters is what makes it "the same" experience even though the intensity of the experience can be divergent in relation to itself. This is the variability of the experience.

We need to introduce a third axis of analysis along with *speed* and *perception*: *variability*. Consider the aforementioned psychoactives, acid and shrooms, whose effects are a little less predictable than weed, coke, or even ecstasy. You might trip quietly in a corner, making you weird but bearable. Or you might freak the fuck out, making you socially dysfunctional. The rigor of normalized social behavior in a particular group and the variability of an acceptable substance's effects tend to be inversely proportionate.

What "productivity drugs" *do*, in short, is alter the perceived relationship between subjective time and universal time. Of the three axes, *perception*, *speed*, and *variability*, they are substances that have limited variability and largely alter the perception of a single relationship, that of consciousness to time. "Productivity drugs" are those drugs whose effects are largely on the axis of speed: They make you do things faster. But because they are designed to make you do what you were already going to do, they can't ensure in any meaningful way that the "productivity" that results from them is consistent with monetary forms of value-production. That's because the relationship between productive labor and social value is complicated by the niggling insistence of something we tend to call *consciousness*: the set of drives and impulses that you understand as your own, as, well, "you."

The use of drugs in human society is as old as our society itself, but it has always corresponded to the logic of the ritual, of the event. The extreme drunkenness on New Year's Eve; the three-day ayahuasca retreat; the one time a year you do acid in the middle of the desert: these all correspond with ceremonial or at least socially acknowledged opportunities to disrupt the rhythm of daily life and its accompanying mores. Alcohol and ayahuasca and LSD can be

qualitatively disruptive (they can alter perception radically) to the precise degree to which the person who consumes them can afford to detach from the *qualitative* system of continuous value-production for the duration of the disruption. That's why more and more rich people are crowding Burning Man; who else can afford the time off and the cost of travel? The ubiquity of productivity drugs, on the other hand, is determined by their capacity to affect quantities and *presumably* leave qualities untouched. To fulfill that function, they must be as predictable in their effects as possible; they must affect speed, but leave variability and perception largely untouched.

What we want from drugs, from a social perspective, is certainty: We want to know we'll be able to get all this work done; we want to know our roll will peak at the same time as our friends when we go out. The logic of temporal social organization is much the same. What drugs give us, instead, is capacity: an extension of our abilities and our range, whether that means the range of motor actions our body can perform or the range of social settings we are comfortable experiencing ourselves in. What drugs do to and for us has almost entirely to do with the material world, with its relative speeds and perceptions, but what we *want* from drugs has almost entirely to do with the mind. We want drugs to alleviate our anxiety. Instead they increase our capacity to do what we're anxious about.

Meanwhile, for all the immense labyrinth of quantification that surrounds drugs, certainty and precision in their use remain under the purview of consciousness. You have to remember to take your birth control for it to work; you have to decide how much Adderall you need that day to get shit done and how much will leave you tapping your feet and looking at your nails for an hour and a half; and you have to remember to take the fucking Molly when everyone else does and not be the greedy bitch doing a line alone in the bathroom at the pregame and finding out 45 minutes later everyone took theirs while you were in there. Drugs are meted out to use in what are probably the most precise units of measurement we encounter in daily life. What other sub-

stances do you need exactly 25 milligrams of? The massive discursive and industrial apparatus that brings us this precision is unable for all its efforts and threats and promises to uncouple the effects of its measurements from the vicissitudes and needs of human nature.

Even when some of those vicissitudes and needs are met or matched by activity, we have another problem: We still don't have a way to fully uncouple the activities undertaken by a body with enhanced capacities from the deliberate determination of individual consciousness. *Someone*'s individual consciousness. You could be made into a pure flesh automaton, but someone or something would still have to tell you what to do, and you would still have to be able to do it. What we are experiencing as a "lack of productivity" is not an inability to perform labor so much as an inability to determine which form of productive action we're even supposed to be performing in the first place. The pharmakon we are prescribed enhances the capacities of the body; the problem we seek to address is the weight of encroaching anxiety on the mind. Which is why, with all our productivity drugs, we still manage to be less productive than ever: because buying bigger speakers doesn't improve the sound if all that's playing is static.

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ONCE, IN THE VAGUE long-ago between prehistory and modernity, time was secondary to activity and event. Before winter was the months between December and March, it was the cold, dead part of the year. Before there were 24 hours in a day there were alternating phases of light and dark. It is not the fact of quantified time that gives rise to seasons, cycles, and events: It is the recurrence of events at what we perceive to be fixed intervals that gives rise to the idea of blank, empty, divisible time. The fact that different cultures have different numbers of days in a month and in a year—the fact that some calendars are lunar and some are solar—is plentiful indication

of the fact that quantified time is nothing but our imprecise effort to precisely divide and measure the intervals at which we experience cyclic events, and not a fixed fact of existence. Before the advent of quantified time, "work" was something you did when appropriate to the activity, not when the clock said so. A fisherman went to work at the hour best suited to catching fish; a baker timed his baking to match when people would show up in the morning expecting bread; a person with a seasonal job had nothing to do in between seasons. But as the web of translatable quantification spreads across the world, activities come to align not with our perception of the world's time but our idea of social time.

Productivity drugs don't take a "normal" or "average" person and "boost" their productivity. That is not their nature. Their true nature, misnomer notwithstanding, is to struggle to patch up the gap between our body's capacities and the social idea of those capacities. Productivity drugs may incidentally help us make things; but they are *prescribed* to help us resolve the cognitive tension between what we're doing and what we think we *should* be doing. Productivity drugs, in short, are better ethics through chemistry.

The question whether one *should* take productivity drugs is an asinine one, to be honest. *Should* we be driving cars? No, we should be preserving the planet. But that is a scope of ethical speculation considerably beyond our current purposes. Instead we can conclude by returning one last time to the question of *cost*. As with most cures demanded by anxiety rather than by the body's need, productivity drugs incur costs that are often hidden. That's the cost of doing business with an entity that was stupid enough to evolve the capacity for surviving despite continuous anxiety: It might be so worried about getting a solid day's work done that it will spend two or three days tracking down the drugs to do it. The time you spend worrying someone will find out you're taking something and the time you may or may not spend worrying whether you're taking too much are also examples of labor time lost to anxiety, potentially defeating the purpose of the drug in the first place. People are pretty ridiculous that way. And meanwhile

all that capacity, all that abstract "more," is sitting there, waiting to be used while you worry someone will notice.

Take "productivity drugs" if you want. Just keep an eye on two basic things: How happy are you with the "product" you're producing, and what is the *sum cost* of the drug? That doesn't just mean what you pay out of pocket when you pick up your prescription; it also means: How much time do you spend trying to track it down? How many days are you hung over and incapacitated after you go crazy with it? If Ritalin lets you do five hours of work in three hours, but you spend four hours the next morning rehydrating in the dark because your head hurts, that pill has actually cost you an hour. At that point, the only thing that still counts is the specificity of the actions accomplished in those three hours of peak speed craze. Was the work too urgent to wait? Was the payment higher if it was finished sooner? Were you really really excited and really wanted to get it done and email a picture of it finished to someone? Did you find the conversation at that party absolutely fascinating and work a half-day of jaw pain from all the teeth grinding the next morning? These are the subjective dimension of value that are not only impossibly and absolutely subjective but also irreducibly contextual.

The question of drug use will never be separate from the questions of agency and of the ability of the mind to rationally adjudicate its own best interest; the anxiety induced in us by these questions can be alleviated but not answered by using drugs. In short, my answer to the question "Should I take Adderall and do X" rarely differs from my answer to the question "Should I do X." If you shouldn't do it, you shouldn't do it faster or longer, either. And if you *do* do it, whether you should be doing it or not, make sure to stay hydrated, get plenty of rest, and eat a banana. ⊙

Fuck Theory is a New York-based scholar and critical thinker. Not critical like critique, but critical like don't leave home without it. For more, there's Tumblr.

WATCH AGAIN

When going through your binge-viewing history feels like replaying your own serial domestic drama **by LYDIA KIESLING**

FIRST USED THE Netflix "Viewing Activity" page in 2013, when *My Little Pony* kept showing up under "Recently Watched." After confirming that some unknown person was doing unauthorized viewing of *My Little Pony,* I changed the password and closed the log, finding it sinister that all my viewing history was contained in one irrefutable record. My attitude toward my own metrics was, roughly speaking, that anything there was to really know about myself was something I didn't really want to know.

Several life events have taken place in the intervening years. The most significant is that I had a baby, an experience which involved an unexpected amount of data analysis. First I wanted to become pregnant, so I spent time scrutinizing a calendar, trying to draw conclusions about my body from inscrutable signs. Once I was pregnant, there was data everywhere. My blood was run through an algorithm that spat out the

odds of calamity. Glucose was measured, and the beats of the fetal heart. Data brought order to the chaos of the baby's early weeks, when you are supposed to keep track of how much it is eating and for how long, how many diapers, how many scoops of formula or which breast.

The baby also caused me to quit my job, not to spend more time with it, but because I found my particular arrangement of working in an office and caring for a baby and writing on the internet untenable. So I started working from home as an editor and a freelance writer, and my baby goes to day-care, but for slightly less time than she once did. Now that I don't go to an office I'm convinced my acquaintances don't really believe I'm working; sometimes I don't believe it myself. My work calendar and my home calendar are the same, I notice: I record a doctor's appointment, a deadline, an informational interview, an X where I might have ovulated. I've become cautiously curious about some of the trails I leave behind. As I consider the new topography of my mostly homebound days, I decide to return to the Netflix Viewing Activity.

Since I've been home it feels like I've been watching more TV. It's not actually a TV, but my laptop, which is also where I work; the corporeality behind our everyday phrases changes at a slower pace than the technology we use ("I don't own a TV" is an absurdly threadbare humble-brag in 2016). Our mementos signify differently too, in the 21st century. I was surprised first to see the Netflix log as a sentimental object, wrought from years of my own life. Pleasingly, the page scrolls all the way down—no clicking through—to the account's creation in 2007, when my now-husband and I moved in together. It is kind, as archives go—much gentler than,

god forbid, your old emails. It's a map marked with pins: Here's where we bought a discount projector from Costco to watch movies on the wall (*The Outlaw Josey Wales*). Here's where I made our wedding invitations (*Lost*). Here's where our baby was six days old (*Black Mirror*, episode one). This last is especially poignant. I want nothing more than to remember those early days, and I will take any road that leads me to them. The Netflix log does it; I see the three of

> **I was surprised to see the Netflix log as a sentimental object, wrought from years of my own life. It is kind, as archives go**

us on the couch in the dark, the projection flickering on the wall. The baby lies on me; I drink wine; I feel everything very keenly. I have a little lock of her hair in a box, but memory doesn't adhere to it exactly the same way.

How many of our future mementos, I wonder, will be digital, and how will we interpret and store them? The terse iPhone Notes retained in my laptop grant access to surprisingly vivid memories I'm desperate to keep. A list of names we thought about. The timing of contractions. The night my milk came in. Her first fever and what we did about it. I switched phones recently and I can't bring myself to get rid of the old device because it has the stupid Baby Tracker app on it, with which I dutifully noted her first weeks of eating, sleeping, excreting. People of our parents' generation never tire of telling us that today's par-

ents are distracted, overstimulated, overburdened with information. And yes, I dislike the idea of tracking my movements toward future improvement. But I love these random access memories—these maps of days otherwise lost to time.

Less dreamy, from Netflix I also learned that in the last five months, which is how long I have been working from home, I have watched 196 episodes of *The Office*. I have watched 28 episodes of *Mad Men* and 34 episodes of *Arrested Development.* These add up to about 106 hours of TV, not including those things I watched at night with my husband using other means (Amazon Prime or someone's HBO Go). In the six months prior, when I worked in an office, I logged just 61 hours on a variation of the same shows, with some *Parks and Recreation* thrown in.

Certainly when you work from home there are more opportunities for dicking around. But my truly wasted time is accounted for: Like most freelancers, the way I dick around during work time is to go on Twitter and feel jealous, whereas if I'm watching Netflix, I'm simultaneously doing housework. Specifically, I am folding laundry, cooking food, doing dishes, changing the cat litter, vacuuming, spot-cleaning the carpet, looking at random pieces of paper and deciding where they should go. I am organizing the closet. I am putting puzzle pieces back inside the puzzle boxes and stacking the puzzle boxes against the wall. The only way I can do these things, it seems, is with the soothing tones of *The Office* droning in the back—71 hours' worth of it.

The amount of time doesn't seem depraved, but I feel depraved, primarily because I have

I'm accustomed to thinking about tasks as things you complete and forget about, like films

seen every single one of these episodes before—many, many times. I can anticipate too many lines, with parts of my brain I could have used for so many other things. I like to reread books, and that doesn't feel wrong. But *The Office* is dumb, I think. Why do I watch it so much? While the age of streaming video has ushered in the age of seemingly limitless new shows to watch, it has also guaranteed me an infinite viewing loop, an entire series now behaving as an extended Vine. The smorgasbord that Netflix et al. make available has paradoxically caused me to watch *more* of *less* programming.

Just as I refer to "watching Netflix" as "watching TV," so, evidently, do old metaphors and patterns assert themselves in content. When I think about women watching TV and doing housework, I think of soap operas, women standing in front of the ironing board while some drama plays out on a screen. In 1979, USC professor Tania Modleski faulted her peers for ignoring soap operas as a rich site of information both about narrative practices and women's lives in her essay "The Search for Tomorrow in Today's Soap Operas." She found something essentially feminine in the form, "a unique narrative pleasure" that accords "closely with the rhythms of women's lives in the home." Critics, feminist and otherwise, had decried the thrall of women to the "progress without progression" represented by soaps, but Modleski found something to admire about the formal possibilities of neverendingness: Housewives were accustomed to a constant hum of activity that was constantly being interrupted, a constraint that soap operas had to work around and which they replicated in plot developments. "Like the (ideal) mother in the home," she wrote, "we are kept interested in a number of events at once and are denied the luxury of a total and prolonged absorption."

Modleski's essay is almost 40 years old, and the contours of my life—my particular combination of privilege and constraint—are very different than those of the women she describes. Nonetheless, I found curious resonance in the essay. The worst thing about housework, I always think, is that it doesn't end. No sooner have you made everything tidy then you dirty a dish, or

drop your laundry in the corner, leave a glass on a table. I'm accustomed to thinking about tasks as things you complete and forget about, like films. But the season of "finished" housework is vanishingly short, like the life of a gnat. You have to find a way to enjoy the process, or you are doomed to disappointment as you seek to enjoy its fleeting effects. It's a serial mini-drama, completely predictable, often maddening.

I was surprised to see the origins of the shows I watch in soap operas as Modleski describes them. She claimed in 1979 that "soap operas may be in the vanguard not just of TV art but of all popular narrative art," and this seems borne out in our century. Matt Zoller Seitz recently wrote that "all serialized dramas ultimately owe their existence to the daytime soap opera, an open-ended form." Modleski quotes another scholar, Horace Newcomb, who observes that serial soaps "offer us depictions of people in situations which grow and change over time, allowing for a greater 'audience involvement, a sense of becoming a part of the lives and actions of the characters they see.'" Certainly the Netflix log indicates an overall household drift away from movies to shows. (It's a long time since that first screening of *The Outlaw Josey Wales*.)

If today's seriality is a legacy of the soap opera, even the content seems to have recycled and repeated in curious ways. Modleski in 1979 listed some of the "most frequent themes" of daytime TV, which are spread around all over my go-to shows: "the great sacrifice" (Pam, also Jim); "the winning back of an estranged lover/ spouse" (Pete and Trudy); "marrying her for her money, respectability" (Ken); "the unwed mother" (Angela, also Joan); "deceptions about the paternity of children" (Angela, Joan); "career vs. housewife" (Betty and Francine); "the

alcoholic woman" (Meredith). And what is *Arrested Development* if not a comic version of Modleski's charge that the soap opera presents "the viewer with a picture of a family which, though it is always in the process of breaking down, stays together no matter how intolerable its situation may get."

Seitz argued that the neverending drama "is being supplanted by stories that have more shape, more obvious beginnings and endpoints." This gestures, he posits, toward our need for finiteness in a chaotic world. I still cling to the endless shows, but it's in their repetition that

Soap operas are a form suited to the rhythms of domestic labor, but I still feel guilty. As it happens, that is also a legacy of soap operas

they bring me the most comfort. The care I feel for characters is amplified by the open-ended form; but perhaps speaking to Seitz's point, the not-caring, too, is amplified by the reassurance of foreknowledge, the relegation to background that repetition allows. It's the comfort of one kind of neverendingness combined with the comfort of another, one that I've imposed.

I know now, thanks to Modleski, that it is a form defined by and suited to the rhythms of domestic labor, but I still feel guilty about my particular method of consuming it. As it happens, the feeling of guilt is also a legacy of the soap opera days; it may, in fact, be integral to women's television consumption. Marsha Cassidy, in writes of a deliberate move by the television industry to reduce the distracted state that the soap opera format encouraged. Studios and ad-

vertisers worried that women's habit of watching television while doing light housework, as they once did with radio, reduced the opportunities to sell them things during commercial breaks. Studios found themselves "trapped between marketing the medium as a work companion for women during the day—and alarming advertisers—or furthering viewing habits that could be censured for promoting sloth and idleness in homemakers—by luring more women to the couch." Ultimately, money talked, and the couch, and its attendant sloth and idleness, was presented as a deserved indulgence: "All right, ladies, out of the kitchen, into the living room. Turn the TV set on now!" went one radio promo. But it was always laced with guilt: One NBC executive suspected "the major deterrent" to watching daytime shows was "the feeling of guilt it arouses."

Couch shame inflected the daytime viewing experience. Louise Spence, in *Watching Daytime Soap Operas,* paints a pictures of researchers who invoke "images of the socially inept, the rejected, those with low self-worth or an incomplete identity: the psychologically needy. It is assumed that their lives are otherwise uneventful, unrewarding, or insufficient." The viewer is "captured by the evils of banality" represented by her soap opera "addiction." The women Spence interviewed for her book invariably spoke of their viewing habits as though they were taboo. The television was "trash," they told her, maybe because it was something they were doing when they could have been doing something else. I understand how they feel. On Reddit I find people like me: "Does anyone else just watch *The Office* on continuous loop?" (Yes.) "When binge-watching *The Office,* what episodes do you skip over?" ("Scott's Tots," "The Mafia," "Grief Counseling," "The Banker," "China.") I worry that the habit is the mark of a weak and ever-weakening character, or, most worryingly, of a sick one. From the "Depression" subreddit: "Does anyone else watch the same shows over and over again to find comfort in them?" (Yes.)

The *Atlantic* tells me that we re-watch for reasons of nostalgia, or self-discovery: "Reengaging with the same object, even just once, allows a reworking of experiences as consumers consider their own particular enjoyments and understand-

ings of choices they have made." When I think about the choices I've made, the TV themes I return to again and again seem somewhat on the nose, psychologically speaking. They highlight certain voids left by abdication from office life. I find myself drawn to Don Draper's forceful, unjust expressions of masculine professional power. "There's not one thing you've done here that I couldn't live without," I declaim to the cats while I fold laundry or send an editing email. I cringe when Betty's dad tells her, "You're a housecat. You're very important, and you have little to do." *The Office,* meanwhile, gives me an office, a highly problematic one like many offices of my experience. (Who will answer for Jan's character arc, a great crime against feminism? Why doesn't Pam finish that goddamn art program? Why does love, for Pam and Jim, mean the alternating sacrifice of their professional interests?)

I rearranged my day-to-day life because I wanted to be an "art monster," a basically self-explanatory term coined by Jenny Offill, but also because I wanted a serene home, reasonably clean, put to rights during the afternoon and enjoyed at night. I wanted a pediatrician appointment to not be a logistical clusterfuck. All cultural narratives point to the incompatibility of art monsters and domesticity, but I didn't care. So, like soap operas, like most women who would be art monsters, I am working within a particular set of circumstances, embellishing on patterns, trying to make the narrative most out of the format of my day. My digital trail, what I choose to investigate, anyway, tells its own story: that I'm highly sentimental, a little obsessive, a little basic. It tells me I need the soothing repetition of Michael Scott's buffoonery, Don Draper's reinventions, Jim and Pam's love. It seems I'm in good, or at least broad company. It seems, for the moment, I'm happy here. ◉

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INSTANT
REPLAY

The most powerful gifs are more than the sum of their repeated parts by MONICA TORRES

A YEAR AGO, FOLLOWING an independent jour-nalist's crusade, immense public pressure, and a court order, Chicago police finally re-leased video of an officer fatally shooting 17-year-old Laquan McDonald. Hours before its release, the officer was charged with first-degree murder. As soon as the video was made public, it was being published, downloaded, screengrabbed, and reblogged across news sites and social-media platforms. But if you were on Twitter that night and you follow the *Daily Beast,* you would have been exposed to McDonald's death not as a story, a video, or a still, but rather as a tweeted gif.

The default for gifs on Twitter is to autoplay, and many users do not opt out. I was among them. There was no warning that I was about to see something graphic and disturbing, as there was on the cable networks that were also show-ing the video. The gif of McDonald's death was instead indiscriminately injected in between my banal tweets about Thanksgiving prep. Un-moored from even minimal context, the gif felt cheap and tawdry, with each loop replay increas-ing some engagement metric, while righteously confronting nothing.

The *Daily Beast*'s action sparked immediate outcry among Twitter users and sites like the Root and Colorlines. For one thing, McDonald's mother didn't want video released. Her private grief was made public. But the gif took it even further, creating a grotesque play in which a young black man was always living his last moments, over and over again.

By collapsing time, creating a world with no beginning or end, gifs can reproduce trauma's symptoms—feelings of isolation, repetition compulsion, and a state of bodily helplessness as your mind moves beyond your control. After trauma occurs, memories from the event can loop back and intrude on one's consciousness days or years later, at the most inconvenient times, at the most innocuous suggestion. As Lori Daub describes in *Testimony: Crises of Witnessing in Literature, Psychoanalysis and History*, "Trauma survivors live not with memories of the past, but with an event that could not and did not proceed through to its completion, has no ending, attained no closure, and therefore, as far as its survivors are concerned, continues into the present and is current in every respect." This is why years after being falsely accused of burglary, my mother still gets anxious at the sight of a police car, forced to relive the worst day of her life. It's why for veterans with post-traumatic stress syndrome, war never ends. It's why a gif that isolates Laquan McDonald's fatal shooting into repeating frames is a decision that reproduces the emotionally isolating, never-ending trauma of black lives not mattering.

Shortly after the outcry about the McDonald gif, the site took the tweet down, with editor at large Goldie Taylor making this explanation, also in a tweet: "By tweeting a gif, we unintentionally trivialized a death. We are deleting." (Her apology has since been deleted.)

The incident raises the question of whether gifs, simply by virtue of their formal qualities, are inherently trivializing. What effects does looping video of a news event have on what it represents and how it is consumed? Can a gif be serious?

Thanks to their engaging movement and internet-native feel, gifs have become ubiquitous across news sites and social media alike. Twitter and even old mainstays like Microsoft Outlook have added gif extensions, recognizing users' need to communicate "facepalm" with a loop. In personal contexts, gifs are widely accepted as fun shorthand for such reactions: My friend texts me about her job; I answer with gifs of Kim Kardashian cry-faces. But there are limits. Even the editorial director of Giphy, a popular online gif repository, said, when asked what reaction gif he might send to someone who found out their sibling had died, that he'd rather give the person a call.

Similar limits seem to apply in news contexts. Gifs have become mainstays in sports and politics coverage because they can distill the essence of these competitions into a few arresting looped frames, as in this breakdown of the minutiae of how Olympic gymnast McKayla Maroney lost her gold. The 2016 presidential debates yielded a flood of gifs examining the minutiae of Donald Trump's mouth breathing and Hillary Clinton's blinking, on the idea that looping the slightest of gestures can reveal something surprising within the manicured machine of an election campaign.

Given the broad appeal of gifs, startups have sought ways to further distribute and monetize them. But the same liveliness, immediacy, and novelty that make gifs so attractive to startups and news organizations also make their use in more sober contexts jarring. When gifs delve into breaking-news tragedies—police shootings, natural disasters, terrorism—they tend to cross the fine line between confronting horror and exploiting it. Without the cushion of context, a gif can land like a punch. When *Gawker* posted a gif of a Spanish train derailing in 2013, readers said they felt unprepared for their visceral reaction. "I think gifs are for cats, not seeing the last moments of nearly a hundred lives," one wrote.

Sometimes a visceral reaction is the point: Activists and journalists have long attempted to force people to visually confront the horrors of oppression and white supremacy. When Mamie Till-Mobley's son Emmett was brutally murdered, she allowed his mutilated body to be photographed and published in *Jet* magazine, hoping to shock people out of their complacency. It was

an intrusion into people's daily lives to remind them to stay woke. In this same tradition, antique collector James Allen collected photos and postcards of lynchings across America, 145 of which were published in 2000 as *Without Sanctuary: Lynching Photography in America.* These revealed how racist spectacle was packaged and sold as keepsakes: "Lust propelled their commercial reproduction and distribution, facilitating the endless replay of anguish," Allen notes. "Even dead, the victims were without sanctuary."

But the images circulated of Laquan McDonald's death are hard to assimilate to this tradition, and not only because his mother did not authorize their distribution. In its gif form, the disturbing video of his death had become a puppet show, and McDonald a marionette, made to rise and fall, ridden with bullets 16 times, then 32, then 48, and on and on. Unlike a video clip, which is buffered by a lead-up and at least has an end point, a gif isolates the most traumatic moments and continues replaying them indefinitely, without warning and without your permission.

To be marked in this way in American culture—to be looped in a gif, to be put on display as "animated" at the behest of audiences—is, as Laur Jackson has argued (following Sianne Ngai), to be racialized, othered:

> On one hand, one's humanity is conditional on the capacity to be animated—for bodies to whom humanity is not a given. On the other literal hand, a body animated looks utterly unnatural, puppet-like, revealing the desperation and labor underlying the humanizing project as well as turning "the racial body … into comic spectacle," to quote again from Ngai.

For black bodies, being "animated"—a condition that gifs, by nature of their form, automatical-

ly impose—already marks you as other. Ngai analyzed how Harriet Beecher Stowe's characters in *Uncle Tom's Cabin* were purposefully written with animated vernacular to racialize their speech and provoke white readers' empathy. But it's a hollow caring, because these bodies have been marked for others to use. On an infinite loop in gifs, this hyperanimation re-enacts the spectacle for our consumption, puppets made to rise and fall, victims without sanctuary. They mimic Allen's lynching postcards, but without the critical context his curation and commen-

By collapsing time, gifs can reproduce trauma's symptoms: isolation, repetition compulsion, and a state of bodily helplessness

tary provides. In looping, the larger context is cropped out and we are left with only the most inflammatory, most affecting moment. This distillation, by definition, exploits and subtracts the context to extract an event's viral essence.

These looping spectacles seem to deny that the bodies on display have minds, that they have subjective integrity. Similarly, Ngai, in commenting on Sasha Torres's 1990s-era discussion about how people of color were depicted on live TV, points out how the affect of "liveness" in the medium depends on appropriating black experience and offering it as a commodified object. As we speed toward new technologies that promise even more immediacy, gifs like the one depicting McDonald's death serve as case studies on what not to do. Perpetually suspended between two states, gifs of black death are both alive and not alive. They should remain in purgatory, unseen.

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Gifs have a far different effect than mere single-play video. It's the looping that gives gifs their life. But given the troubling ramifications of how gifs Pinocchio subjects and intensify their objectification, can they be used to bear witness? Is, say, looping cute images of cats really the only ethically acceptable use for cultural gifs?

As Tumblr fan communities have long understood, there are political uses for gifs that rely on remixing rather than merely reiterating. Bringing together multiple images from different sources into a gif set can create a new vision that is as effective as any isolated news gif could ever be.

The most powerful gifs use the power of repetition and timing and spacing to persuade you to believe in something more than the sum of its repeated parts. In this, they work like comic books, whose panels, as Scott McCloud wrote in *Understanding Comics,* "fracture both time and space, offering a jagged, staccato rhythm of unconnected moments" in order to achieve the rhythm of a story. By animating images and words in side-by-side boxes, gif sets similarly invite us to bridge the gaps between the real and the imagined, presenting utopian possibilities and creating alternatives to the dominant modes of seeing the world. A good gif maker understands that there are many truths and use all the tools gifs put at their disposal—moving images, spacing, overlaid text, timing—to give their version convincing context.

Where photos hold memories frozen rictus-still and videos put directors at the mercy of B-roll footage, gifs cut straight to the heart of the action. The spaces between gifs in gif sets invite not confusion at the lack of continuity but viewer participation in sewing the story together. The frames are both moving and held in place; they capture attention with their dynamism and like a comic book, each frame builds upon the momentum of the previous one.

Yes, you could write a long essay about why Beyoncé's self-titled album was a game changer for the music industry—but you can also sum up your feels succinctly in a gif. You can sum up rage too. Katy Perry's racist performance at the 2013 American Music Awards can get remixed by a gif maker who edits out her lyrics and overlays gifs of her Orientalist performance with text reading "racist mumbling" and "racist belting."

Potentially more patient and more open than media products with end points, looping gifs, given the right non-sensationalized context, can teach us to dwell and pay attention to the emotional reality within moving bodies that inhabit the frames. Watching an entire TV season compressed into the most meaningful frames of contact between characters, it becomes clear that the written and spoken word is not always needed—bodies betray desires. If you don't notice how characters' hands brush against each other, a gif forgives you and rewinds the story once more.

Before Tumblr, before LiveJournal, before I could AIM chat fan theories to my friends, I would lay down in the back of Mami's van on long road trips, close the end of a book, and dream up better alternatives to what the canon provided me. Once you dare to accept, as Hilton Als has said, that reality itself is a form of fiction, you are no longer just a participant in a story. You are free to be your own creator, and you can begin to reshape dominant narratives. Now, in gif sets, these sorts of alternatives proliferate. There are black Tony Starks, female Doctor Whos, and Harry Potter worlds set in 1920s Harlem.

These are examples of racebending, a clapback to whitewashing, that responds to all-white casting by imagining people of color into the stories that they were written out of. It embodies media theorist Henry Jenkins's claim that fan fiction can repair "the damage done in a system where contemporary myths are owned by corporations instead of owned by the folk." Exposing the structured absence of people of color in media by fixing it yourself becomes a visual indictment on behalf of every person the original creators failed to include.

Unlike a video clip, a gif invites you to sit, watch the world respool, and let your mind wonder: What if? What if Aldis Hodge portrayed Tony Stark? Or as the tags to this gif set on Tumblr framed it, #because like imagine being a little black boy growing up so so so smart and so so

alone. Or in the words of another user's reblogging endorsement: #GOD#YES #you just never see a POC in that kind of archetype #tony stark is a power fantasy reserved for white men.

A good racebent gif set visualizes a world for fans to build upon and makes it more immediate than text-only fan fiction. As an online-native media form, gifs are born ready to be circulated, and on a platform like Tumblr, the story they convey gets chewed, reblogged, and remade better in collaboration.

#Memehistory, an idea started by @TylerIAm in March, uses gifs to make resonances between past actions and potential echoes in the present. Pairing a gif of the superhero Black Panther running with a caption about Jesse Owens outrunning his white competition at the 1936 Olympics brilliantly re-imagines a world that should have been, in which Owens is acknowledged as the superhero President Roosevelt never admitted he was.

Gif makers can also be post-production editors that make arguments about who gets centered in the frame. On Tumblr, theladybadass created gifs of the 1963 March on Washington, amazingly condensing the 15-hour event into nine loops, each of which holds women as central: women splashing their feet, women fixing their caps, women singing together, always present.

"Women, particularly women of color, are so often ignored that I wanted to create a space specifically for them," Tabitha Bianca Brown, the creator of theladybadass, explained. By distilling her argument into its sharpest frames, her gif set becomes an intervention into the too-often ignored presence of women in the Civil Rights Movement. Each looping replay anchors you deeper in the past, bringing it closer to our present.

We already know that words are untrustworthy, that there are gulfs between what we mean and say. It can seem to take a man shooting a boy who's already on the ground to give himself away. A police dashboard camera video that's missing audio and time logs shows that videos are no more pure representations of truth than gifs and are subject to just as much manipulation—more dangerous, given that it is not as obvious.

A powerful gif masters the fraught spaces in our subconscious, manipulating the eye to see beyond our boxed imagination. With each loop, the heartbeat gets louder and we get closer to believing the gif is alive. It puts your hand on the pulse. You see visions of better futures. You see ghosts.

In the case of traumatizing gifs like that of the killing of Laquan McDonald, they are like Frankenstein's monster: a poor decision made by human hands that does not reinvent the future or inform the present but rather, crudely reduces a boy's humanity into jerkily moving parts.

But in skilled hands, a gif can be magic. Recognizing this, Giphy CEO Alex Chung and Paul Pfeiffer presented Giphnosis in 2013 at Rhizome's Seven on Seven conference in New York to call attention to how minds are reprogrammed through gifs. "Giphnosis is happening. It's called news media," Pfeiffer said. Using the looping image that the *New York Times* posted of the Boston Marathon bombers on its website as an example, Chung explained that watching that image over and over "has a pronounced effect on the way you think about the world, [the way] you think about people in backpacks … We're being constantly programmed by media, by everything on the internet, because everything now is looped."

To counterbalance this looping horror, the pair offered Giphnosis, a (now defunct) website for users to download screensaver gifs designed to condition you toward and away from particular emotions. Pfeiffer said he was inspired by how he thinks dreams prepare oneself against danger.

When the idea of gifs was presented as self-help therapy, the audience laughed. But that's because the full power and danger within a loop has yet to be fully appreciated. The powerful magic or potential curse of a gif is in what it dares you to imagine, and what it can convince you to believe. Now you see me, now you don't. We're just getting started. ◦

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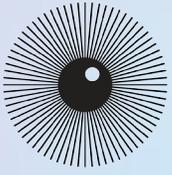
STATIC

"Auto Format," by Navneet Alang
"Worlds Apart," by Sarah Beller
"Nervous? We Should Be,"
by Jane Frances Dunlop
"Quick Fix," by Naomi Skwarna

Nervousness, Jane Frances Dunlop writes, "marks the work of entanglement"—it's the experience of static. Unlike social anxiety, which seals us inside ourselves, "nervousness is like a glitch … it makes it possible for us to perceive the systems that we work through," those which online networks reify. Getting together is a need—to withhold it from others is a form of deprivation or torture; to refuse it can be a form of self-harm, or evil—and there is no having gotten together, only a never-satisfied effort whose requirements change by the moment, detectable by its failures, identified as longing, longing alongside. Empathy is insufficient. But it makes life livable. There is no triumph over evil, but evil does not touch the good; the good, like the evil, is in others. —*Alexandra Molotkow*

AUTO FORMAT

I carry my followers with me everywhere, and I don't mean on my phone by NAVNEET ALANG

Twitter, by its own hand or some sudden shift in trends, will one day die. What will I do then? The engine of my thought is always directed toward Twitter. As I walk the city, I am attuned to that little empty box insistently asking "What's happening?" My experience of the material world is shadowed by a kind of holographic plane, a translucent layer over everything, studded with tweet buttons. Conversations, happenings in public spaces, street art, or a celebrity sighting—these are all fodder for a reality that I have come to perceive in tweet-size fragments.

Twitter has colonized my mind. Almost every day for just under a decade, I have checked the site, have tweeted, retweeted, been subtweeted. My mental map is the frontier surrendered, and Twitter is the empire. To become occupied by a social network is to internalize its gaze. It is to forever carry a doubled view of both your own mind and the platform's. What beckons initially

is what feels like a blank canvas—some empty space onto which one can splash one's desires. So, like millions of others, I conjured a persona for Twitter, at first modulating myself for the tech- and pop-culture-savvy early users, then later techno-skeptics and lefty cultural critics, and now for the many like me who are just exhausted by the whole thing and make aimless or bitter jokes.

That we perform for others isn't exactly new; it is, rather, a fundamental part of who we are. The field of psychology is littered with concepts like the looking-glass self—in which we form our self-conception based on others' perception of us—or David Elkind's imaginary audience, a term describing how an envisioned, general audience affects our behavior. Writing out our identities as an act of self-creation is perhaps the most obvious way in which we respond to this phantom viewing public, positioning and shaping our words to suit who we imagine to be reading them. In *Politics and Aesthetics in the Diary of Virginia Woolf,* author Joanne Tidwell suggests that Woolf—an author who otherwise demanded much of her audience—wrote for an older self, imagining an ideally sympathetic reader, as if in her diaries Woolf wrote to the person she hoped to become. Social media is another kind of public diarizing, and its trajectory aims at a similarly ideal avatar— it externalizes thought, but also the interpersonal, the communicative. We use it to seek out an empathic witness for our scribblings, projecting into the murk of online space an audience who sees us as we hope to be seen.

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Twitter, which is public in both its default settings and its culture, concentrates this effect. You are almost always followed by those you don't know, or the bots and spam accounts who don't quite exist but appear to. Each numerical addition to one's follower list amounts to a little increase in our sense that people have chosen to watch because there is something about us—a wry smirk in a profile pic, an offhandedly funny or heartfelt tweet—that drew them in. One's audience is like a darkened theater punctuated by hundreds of eyes, anticipating that self-image tucked into the corner of one's mind, carried about as one moves through the world. If in specifics we distinguish between bots, brands, and our friends, in practical terms they all form part of the same expectant crowd.

Thus, the imagined audience is often just

To become occupied by a social network is to internalize its gaze, to carry a doubled view of your own mind and the platform's

that: an imagining; a conveniently blank, conjured thing, a sort of perfect Other, all id and ego but no wagging finger of the superego—a blurry, smeared collection of people we want to like us, be attracted to us, be jealous of us. We aren't so much writing to people or acting ourselves out but invoking what we imagine our ideal audience to be. A Twitter joke isn't just an attempt to get laughs or acquire likes; it's an attempt to extract from the faceless dark of the limitless web an exact body of people who find what we find funny, funny.

But the imagined Other is not just some conveniently homogeneous mass. It is always split, fissures of the Real forming in our fantasizing. It is a horizon of general possibility punctuated by pillars of aspiration and threatening figures of repression, sharp pinpricks interrupt-

ing the easy reverie of perfect sympathy. Among the unindividuated mass are those we desperately want to please, those whose money we want, those we want to fuck, those who are out of our orbit and to whom we are grateful for just a shred of attention. There are, too, the predators, the haters, the naysayers, the racists and the sexists, the homophobes, the chaotic monsters who gather around the word "troll." We push down the thought of one so that we might bathe in the affirmation of the other.

The idealized audience is a thing you forever create and that creates you at the same time. To have an audience at all is to be relentlessly concerned with how you will be read. At times Twitter provides the perfectly sympathetic audience we don't have elsewhere: a warm embrace to soothe our vulnerabilities, fears, and desires, made more welcoming by the fact that our audience isn't quite a real person but rather something just close enough to the outline of a person to function like one in our psychology. But the very blankness of that Other imbues it with the threat of disapproval, wildly vacillating in our imaginations from a nagging "no" to the glare of white supremacy or patriarchy. Watch your tone, we tell ourselves, and even when we are actively defiant, that is exactly what we are doing. Each tweet has to be read with the same doubled view of its production: a string of words meant to mean something to someone, and an expression aimed at no one in particular; an object made to expel some desire, not meant to really communicate anything.

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Maybe colonization is the right term for Twitter. The internalization of another structure is, after all, just the model of colonialism deployed by the most successful and insidi-

ous powers. Thomas Babington Macaulay, the British bureaucrat deeply invested in instituting British schooling in 19th-century India, wrote in his now infamous "Minute on Education" that the point of any new education system in the country was to reform educated Indians into an Anglicized middle class bureaucracy who, indoctrinated in English supremacy, would remake India in Britain's image. The point wasn't to repress; it was to have the colonial subject come to express the values of the colonizer "through their own volition."

The tension between the imagined audi-

We aren't so much writing to people or acting ourselves out but invoking what we imagine our ideal audience to be

ence who sees you perfectly and the one who you contort yourself to please is precisely the nature of modern control. When in response to the ubiquity of surveillance we namedrop Foucault—speaking of the way sous-veillance has chilling effects—we often forget that the French philosopher suggested that power doesn't simply say "no" like a police officer brandishing a truncheon; it beckons us to say yes, asking us to remake ourselves in its image, happily and contentedly producing the right sort of content. To internalize the structure of a social network is a way of both connecting with other humans and becoming subservient to our imagined visions of what they want. To use Twitter is to become its consumer but also its bureaucrat. We tweet and read, expressing and absorbing what we wish as we propagate and internalize the logic of the platform, hundreds of millions of us performing these new behaviors in lockstep, beckoning each other to join in. It is a kind of auto-colonization:

adopting the notion that a public digital self is a way to temporarily exceed the body, and embracing the personal brand as a mode of existence. We perform, as we always have, but perhaps more consciously, more acutely and persistently attuned to being watched. As we offload more of our identity and day-to-day life to the platform, we bend to the imagined Other like plants craning to maximize their exposure to sunlight.

I worry that this is what Twitter has done to me—or perhaps, what I have let it do to me. I have watched my tweets change over the years: first, in response to more followers, then to the incessant awareness that I need to make a living, then to callout culture, the politics of representation, and sheer exhaustion. But a decade on, I still find myself thinking in the terms of Twitter: how each absurd, mundane happening in my life might be framed so as to be alluring to my audience, a potential employer, a date, or new friend. I still always carry my followers with me. In fact, I can't get rid of them. They are like a ghostly companion, ever at my side. It isn't just my tweets that have changed, but the way in which I relate to reality.

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It is not, as so many state too breezily, too unthinkingly, that I am simply lost in the frippery of the everyday; rather, each platform offers broad structural and economic incentives for me to perform in a particular way. Twitter asks for the quip, the incisive takedown, or the viral. Instagram beckons the beautiful or the conspicuously consumed. Facebook demands the emotional or the inflammatory, the easily liked or the easily shared. Like a digitized medieval morality play, we have outsourced virtues and vices—Joy, Envy, Lust, Fear—to the dynamics of each platform. It is this, contrary to the ceaseless debates over narcissism or distraction, that forms the crux of our bargain with social media. Those other issues are just the side effects of the main medication. We are always being reconfigured from the outside in. Just as the book shaped thought in a particular way, so too do the many facets of digital, each in their own way.

When my perfect Other disappears, what then? The bind of colonization is that the vacuum left by the colonizer's absence is so often filled by something similar. There is no going back from that global shift. And when Twitter fades I will seek out another holographic companion that offers the same release, and relentless pressure. Some other structure will occupy me—and it too will implore me to consider what it means when it incessantly asks: What's happening? ◉

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WORLDS APART

Video-only "visitation" shrouds the reality of life in custody by SARAH BELLER

LAURA'S YOUNGER BROTHER whom I'll call John, age 26, had been addicted to heroin for a while. In December he was arrested for burglary. He had been arrested before, spending a night or two in jail, but this was the first time he couldn't get out. His bond was set at $10,000 cash only.

That's how Laura learned about "My Tech Friends," a company that sells technology to jails and prisons for use in commissaries, phone calls, and remote video visitation—the only way she can communicate with her brother while he waits in Clark County Jail, Indiana. While the jail doesn't technically disallow in-person visits to all inmates, John says he's never heard of anyone having one. Like most people in jail, he's only stuck there because his family can't afford the bail while he waits for his trial. In John's case, that could take quite a while. He does have a lawyer—a public defender, whom he hopes is good. But it's not like he's ever met him, or even talked to him on the phone. His lawyer has communicated with him by letter a few times in the nine months he's been in the jail so far.

Laura and John's parents, who live 40 min-

utes away, visit weekly. But they're only allowed to see him over video chat from a separate room at the facility. At Clark County, video visitation is free if you go to the jail; you can chat remotely, from home or wherever you have an internet connection, but you're charged $5 per 15 minutes. According to the Prison Policy Initiative, a research and advocacy organization challenging over-criminalization and mass incarceration, jails that provide free video visiting onsite often limit those visits to brief periods during the weekday, when people are at work and school, to encourage the costlier remote chats. Some other jails charge for use of the technology even if you do come to the facility. Video visits make the most sense in state and federal prisons, which can often be far away and difficult and/or expensive for families to get to—the technology could save families travel costs and prevent them from having to miss work and school. But it's been local jails that have most embraced the technology

Even in jails, video visiting *could* be a helpful supplement to traditional in-person visits. It could save children the traumatic experience of entering a jail and seeing a parent trapped inside; it could save visitors and prisons the emotional, temporal, and financial costs of intense processing and search procedures. It could increase flexibility in visiting hours and expand visiting opportunities, say from home-bound family members, clergy, and other members of a community. It could be used in reentry planning, to connect prisoners with reentry programs prior to release. In-person visits are highly mediated, too: Even before video visiting was implemented in the 1990s, most counties had eliminated "contact" visits where visitors and prisoners could touch. Following this logic, the industry claims that video visiting can provide easy, convenient communication with loved ones.

But while much of the technology's potential lies in its use as a *supplement* to in-person visits, jail facilities throughout the country are increasingly adopting the costly technology *in place of* in-person interactions. More than 13 percent of local jails in the United States now use video visitation, and most of them (74 percent), banned in-person visits after adding the new technology, according to research by the Prison Policy Initiative (PPI). Securus, one of the most powerful companies in the phone and video visit industry, has in the past required the termination of in-person visits in their contracts, although thanks to advocacy they have recently announced they will no longer do so. Just last month, Governor Jerry Brown of California vetoed a bill that would have forced jails who adopted the video-visit technology to keep in-person visitation available. At least 11 counties in California have so far eliminated, plan to eliminate, or severely restrict in-person visitation in favor of video visiting technology, which families and activists say is a poor substitute.

As the Department of Justice stated in a 2014 report, in-person visiting helps maintain family stability, reduces disciplinary infractions and violence, and reduces recidivism. We don't know if video visiting in its place would have the same effects, but it seems unlikely. Not least because video visitation technology frequently fails to work effectively—or, more accurately, it succeeds at working poorly.

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"People compare video visiting to Skype or FaceTime," says Bernadette Rabuy, Senior Policy Analyst of PPI, "because that's an easy way to explain what's going on. But it's not like those services." Skype and FaceTime are designed to allow us to feel together when we're apart: long-distance couples use them to keep in touch; some therapists and doctors now conduct clinical sessions over video. The video visiting technology used in the carceral setting can do the opposite: make people feel worlds apart, when they might really just be on opposite ends of a jail. The technology seems designed to prevent intimacy and create a sense of disconnection. If Skype can simulate the feeling of being in a room with someone, carceral video technology can simulate something like being in a room filled with a dense fog and loud static;

if you stretch out your hand in front of you, it's not clear what you'll touch, or whether you'll touch anything at all.

When Laura tried to video visit John from where she lives, in another state, "it wasn't worth it," she says. "My brother answered the call, and I could tell he just thought it was gonna be a waste of time because he'd seen other inmates doing it. I was trying to show him, with my computer screen, the outside of the house I was in, just so he could see some outdoors, because he hasn't been outside in a year. But every time you move your face away from the screen's camera it goes black. I thought that was a technical glitch, but based on an email I received, that's an intentional technology they have on it to try to prevent flashing of gang signs, or someone showing pornography."

In the ad copy on its website, Tech Friends reveals the cause: "What's the biggest fear with remote video visitation? Lewd or inappropriate content coming into your facility. While other vendors offer you the ability to monitor video using your personnel, the Eclipse technology eliminates it. See for yourself."

The link takes you to a YouTube video. A stock-photo pops up, one that can only have resulted from the search term "naughty cop": a woman lying on her back, legs in the air, with a black police hat hanging jauntily off one foot. A black screen swipes across her body, leaving only a small square of her head visible. Above her head, words appear: "It's all about CONTROL."

The image fades, and loud buzzing feedback plays. We then watch a role-play of a simulated video visit between an "inmate" and an older, father figure. The simulation has the feel of an '80s PSA, with the kind of acting that's so fake you wonder why they bothered to stage it. Both the "inmate" and the "visitor" appear uncomfortable; they speak over each other, and generally seem to have trouble connecting, technologically and emotionally. "[It] looks like a dungeon here,"

the inmate says. "Cold."

"Right," says the visitor. "Well, this video calling stuff's pretty cool."

"Yeah, I guess so, if you want to see people on the outside. Makes you homesick—"

"You've got a lot of people who want to see you in jail," the visitor interrupts. "We could probably sell this video."

The audio is horrible, the buzzing incessant. When the visitor moves out of the frame, the visuals on his screen go black.

The skit seems like an ineffective advertisement, until you remember that Tech Friends isn't

> ## Certain flaws in carceral video technology, like blackouts when a visitor's head leaves the screen, are "security features"

marketed to people in prison, or their families on the outside. It's marketed to corrections departments. According to Prison Policy Initiative, which has been working to get the Federal Communications Commission (FCC) to address this issue since 2014, many of the problems with video visiting "are the inevitable result of the failed market structure: the companies consider the facilities—not the families paying the bills—as their customers." Tech Friends is betting that a sheriff's main goal isn't enabling good communication between prisoners and their families.

Certain flaws in the technology, like blackouts when a visitor's head leaves the screen, are "security features" rather than bugs. And others, like time delays, glitchiness, cutting in and out, sudden hangups, and lack of user support, may be key sources of revenue. As in the telephone industry, which PPI and families have been calling on the FCC to intervene in for over a de-

cade, companies "find it economically advantageous to use poorly calibrated security systems to drop phone calls and trigger additional connection charges," PPI reports. And it's profitable for the prison and jails too, who sometimes get a portion of revenue kicked back to them, in the form of "commissions" from each visit. Before advocates stepped in, some children had to pay up to $1 per minute to talk to an incarcerated parent. Now the fees are lower, but there is also a long list of fees for other "services," like setting up an account, closing an account, and even processing a payment.

"This is a vulnerable population that they are working with—the companies can get away with a bad product," says Bernadette Rabuy. "If you had a problem [in the outside world] you might call the company, or online chat with them. With these families, if the family members are having an issue they might not even be able to have a phone number to call."

A then-representative from a Missouri county purchasing department told a reporter, "I guess it depends what viewpoint you're coming from. The way I look at it, we've got a captive audience. If they don't like (the rates), I guess they should not have got in trouble to begin with."

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Video visiting makes it more difficult for families to know how someone's really doing. At one point in the Tech Friends demonstration video, the "inmate" asks if the "visitor" would send money for commissary. "I don't think so," the visitor says. "We've been through this before … it'll just get spent on someone else."

"Oh, you think I'm getting pushed around in here?"

"I know you're getting pushed around there."

The inmate brings his head close to the screen, which moves in a lunging, time-delayed manner. "Look," he says, "no bruises." His face is blurry.

During video visits, families struggle to clearly see the incarcerated person, and instead face a pixelated or sometimes frozen image. Video chat confuses your senses: It's a jerky, indistinct, distorted version of an interaction. "You can't really assess their health, their skin tone," Laura says. "You can't really assess whether or not the jail is doing something really wrong." For her, "It's very dehumanizing to be told you can't be in the same room, even for a short time, as the person you love." The effects are worst, Laura says, for people who have young children. "[Kids] don't know what's happening. They can't communicate over the computer. It keeps children away from their parents."

Another big problem with video chats, especially bad ones: "You can't make eye contact." In her book *Alone Together: Why We Expect More From Technology and Less From Each Other,* MIT professor Sherry Turkle writes that robots who can make eye contact are key to human acceptance of artificial intelligence—without eye contact, machines can fall into the "uncanny valley," and a person can seem not quite human. With video visitation, there's a sense that you can't experience the full reality of the person on the other end of the camera; nor can they experience yours. On top of that is the paranoia of knowing you're under surveillance, or, even worse, that you *may* be. At the bottom of the screen runs the text: "This call may be monitored or recorded." In-person visitation is heavily monitored, too, but in person you can whisper, murmur, mutter, imply, suggest and shrug, gestures and intonations that are lost with the video technology used in jails, which can reduce interaction to its crudest features. The lack of intimacy, and ability to communicate subtly in video visits can completely change the dynamic between loved ones.

"You can't speak freely," Laura says. "That would be another part of seeing him in person—being able to speak more candidly. Not to say anything bad, but just to ask, like … how are you really feeling?" On John's end of the video visit, "he's in a room with dozens of men. It's incredibly loud, and he doesn't want to talk in-depth

about his feelings in front of all these men he has to maintain a pecking order with every day." The necessity of having to articulate something loudly and clearly over video might make it not worth the risk.

When you're already in an emotionally fragile place, the unpredictability of these video interactions can be further frustrating and traumatizing. When you're using Tech Friends, Laura says, "you're really scared they're gonna cut it off at any minute for something you did." Even if "they" don't cut the feed, internet connections or the technology itself can cause the video to disconnect.

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There's no shortage of much more advanced video technology in jails, though it's not being installed to help families. *60 Days In,* a reality television show that just concluded its second season on A&E, is set in the very jail where John is locked up, and was filmed during his incarceration. According to Clark County Sheriff Jamey Noel, the show was conceived as a means of exposing criminal behavior within the facility, which was "known for being a violent, sort of terrible place," in the words of ABC News' Dan Abrams. Rather than install undercover cops, Noel decided, in collaboration with a production company, to enlist civilians willing

While Clark County jail limits families' access to prisoners, it welcomes TV producers

to spend 60 days in the jail as plants.

"They came in and installed some pretty high-tech cameras that we've never had in our facility before," Noel told *Entertainment Weekly*—reportedly more than 300 round-the-clock surveillance cameras, worth over $200,000, which A&E allowed them to keep. First Timers Holdings LLC, the production company, also paid the jail $500 a day to film, which Noel says added up to $51,000 over the two seasons, on top of paying for undercover inmates' meals and reimbursing officers' salaries over the course of filming. Noel, who told reporters that the jail has increased services for inmates since the series began, said that the show resulted in seven officers resigning and five getting fired for unacceptable behavior. He also said the surveillance equipment helped the administration charge inmates with an estimated 35 criminal charges.

Prison authorities were legally obligated to tell the prisoners that they would be filming a TV show, and give them the option of whether or not to appear on camera. They told them the show was a documentary about "first-time inmates." What they didn't tell the prisoners, or the guards, was that the seven "first-time prisoners" featured were not real prisoners—rather, they were reality show contestants acting as undercover spies. The show's producer says they employed a team of lawyers to make sure they were getting away with as much as they could without technically violating any of the prisoners' rights. "We're not coming out and deceiving anyone," executive producer Greg Henry told BuzzFeed. "We're just telling them the doc is about first-timers and that's the place we landed where everyone felt comfortable."

"All the inmates were excited to watch it on the jail's TVs when it premiered," Laura says. "But they weren't allowed to." People who were incarcerated at the time of filming, but have since been released, have said the show was edited for drama. "They did alter a few things to give it a whole different meaning," DiAundré Newby told *News and Tribune,* "so I'm quite sure that a lot of that had to do with them trying to get ratings and kind of Hollywood it up a little bit."

A&E declined to comment to the publication. A video's distorted version of reality is quite familiar to most of the men and women locked up in Clark County jail, only allowed to see glimpses of the outside in stuttering video snippets, edited and "eclipsed" by Tech Friends. While the jail limits families' access to prisoners, it welcomes TV producers.

In some ways, the success of *60 Days In* can trace its origin to the 1970s, when a boom in prison construction was accompanied by a series of laws designed to fill the structures—mandatory minimum sentences, "three strikes" laws, and the "war on drugs." At the same time, most states also enacted laws making it illegal for convicted authors to receive money for their writing; prison writing programs were defunded, and press access was restricted. The exploding prison population combined with the blackout of information created fodder for collective fantasizing about life in prison.

Neither video visitation nor *60 Days In* bring outsiders any closer to understanding life inside of Clark County Jail. Video visitation software blurs and blacks out the camera and *60 Days In* uses dramatic music, quick cuts, and familiar reality-TV tropes like the "confessional" that obscure the chronology of events. These distortions can be painful for both prisoners and their loved ones and shroud the reality of life inside.

"Even superficially realistic representations, such as the *Oz* TV serial, end up masking or normalizing America's vast complex of institutionalized torture," writes historian Bruce Franklin. "Perhaps the dominant image, promulgated by the very forces that have instituted the prison-building frenzy, envisions prison as a kind of summer camp for vicious criminals, where convicts comfortably loll around watching TV and lifting weights."

In the penultimate episode of season two, the sheriff, his captain and a criminology professor debrief with one of the undercover contestants, Ashleigh. They ask her if, as a new mom, she was able to maintain relationships with her family while in jail using the technology available. "I know that the policy is no face-to-face visitation here," she says, "but I feel like that would ease so much stress and tension. I feel like the benefit of someone being able to see their family and know that someone actually is out there and cares, that would really help reduce someone being locked up again."

At first Laura couldn't bring herself to watch *60 Days In,* because she knew it was filmed while her brother was going through withdrawal from heroin, without access to replacement medication like Suboxone, which the jail didn't allow. It also showed the prisoners corralled in a holding room for days, sleeping on the floor, without adequate water and shower facilities after a sewer pipe burst in the jail.

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In terms of regulating the video visiting industry on a federal level, Rabuy of PPI is worried that the FCC will not be able to do anything anytime soon. The FCC is still dealing with legal battles resulting from its attempts to regulate the phone industry, which similarly charges families exorbitant rates to stay in touch with incarcerated family members. Since premiering last March, *60 Days In* has become, according to BuzzFeed, "TV's No. 1 new unscripted cable series and the network's No. 1 program."

The roleplay ad for Tech Friends ends with the "inmate" trying to say something: "Hey, if you see—"

The "father" character speaks over him. "Okay I'm gonna hang up," he says calmly, with a slight smile. "Enjoy your stay at the 'hotel.'"

"Yeah, yeah, the roach motel," the inmate responds. "Thanks."

As he begins to stand up, both screens freeze. The two men's faces float; it's impossible to tell what they're looking at. All you can hear is loud buzzing. ◉

Sarah Beller is a social worker and writer.

NERVOUS?
WE SHOULD BE

Glitchiness proves how hard
it is to communicate in real time,
but also how hard we try by JANE FRANCES DUNLOP

ERTRUDE STEIN, IN an essay on the theater from the 1930s, wrote that "nervousness consists in needing to go faster or go slower so as to get together. It is that that makes anybody nervous." Nervousness, that is, is not an individualized experience but a social relation. To be nervous is to be trying — and failing — to get to a point of emotional cohesion, or at least understanding, with another in the midst of a performance.

I think we live in nervousness these days.

What Stein writes about the spectator-performer relationship resonates with the contemporary experience of social media. In the theater, we watch action unfold in real time without necessarily being in time with it. The players on stage and the audience each have a rhythm of emotional responsiveness that is not in sync as the action unfolds. Social media make out of our everyday performances the same nervousness that Stein found in the theater.

Performance relies on a sense of presence. It

occurs in a shared location and creates a proximity that is disguised as togetherness. But the performers and the audience are still separated into their delineated spaces. They are close but not together. For Stein, this means that the actors' and the audience's emotions are "syncopated": The actions conveyed by the actors and observed by the audience provoke an out-of-time empathy.

Stein's nervousness is, I want to argue, the sensation of empathy alongside its impossibility, its incompleteness. Fellow feeling, feeling alongside, is an exercise in imagining our experiences as correlative, but togetherness alone does not guarantee such correlativity. Together is not at once, but rather in proximity. This, here, is the point and value of nervousness: It marks how empathy, how feeling together, inevitably includes a distance — in time, if not in space — that we wish we could overcome.

To be nervous is to be aware of time as multiple, as disjunctive. Nervousness is always an aspect of mediation, and so has been on the rise since modernity. With social media, we are accumulating encounters that suppose a shared space and yet are inevitably executed from different places. We enact our relationships as a series of encounters in which we become aware of occupying different emotional times.

Each of our engagements with social media stages a small theater, and a proximity disguised as togetherness. Platform as stage — a device touched becomes proscenium, and we are made performer and audience. As both simultaneously, we are increasingly attuned to our syncopated interactions with one another. The particularities of our positions, all the ways that we are experiencing the world differently, are confirmed by the differences in our emotional time. Presents proliferate. We can't avoid recognizing that we are all out of sync — in different emotional times in the same conceptual space.

This means much of our emotional labor is spent caring for relationships in a together that is also very much an apart. Though social media platforms tend to posit a kind of isolation, an ability to operate autonomously in a time of one's one, they intensify our emotional invest-

ment in one another. Nervousness stems from this experience of living, feeling, and building emotional lives in digital ubiquity.

If social media promise a kind of unilateral access to sociality, nervousness belies that promise. Social media propose an ideal of sociality as something to be achieved, an end goal that can be completed. Nervousness reminds us that the work of being social is never complete. But at the same time, that nervousness is also the means by which we actually begin to do the work of being together across and through these media. It marks the work of entanglement.

To be tangled is to be close enough to become enmeshed with one another while still being different, discrete things. Nervousness is the affect of that weaving. It is the possibility of being together and not just in mere proximity of each other that makes us feel nervous. In being made nervous, we learn how to live in the feeling of being in different emotional times, to be together while apart.

Nervousness articulates the emotional labor of keeping time with a system that is out of time with you. It makes us realize that we are doing this work, and it is important, because this work is worth doing. Naming our emotional labor is essential, so that we do not erase the effort we make to care.

Nervousness is like a glitch. Like other kinds of glitching and friction, it makes it possible for us to perceive the systems that we work through. It makes the work of sustaining a syncopated relation with another legible as a kind of dissonance. In the context of relationships mediated online, what Stein calls "nervousness" is emotional noise, the affective friction in our interactions. This failure to communicate with perfect transparency — this noise in the signal — also confirms that there is in fact something being communicated.

In *The Interface Effect,* Alexander Galloway describes how interfaces tend toward becoming so intuitive that they become indiscernible and thus inoperable. When we no longer notice them, we can't consciously determine how to use them. He quotes this passage from Michel Serres:

Systems work because they don't work. Non-functionality remains essential for functionality. This can be formalized: pretend there are two stations exchanging messages through a channel. If the exchange succeeds — if it is perfect, optimal, immediate — then the relation erases itself. But if the relation remains there, if it exists, it's because the exchange has failed. It is nothing but mediation. The relation is a non-relation.

Noise, glitching, nervousness are instances of system imperfection, essential non-functionality. They let us situate ourselves in relation to one another and the systems that mediate us. To the extent that social media interfaces generate glitches, they deepen rather than extinguish nervousness and thus deepen emotional connection.

Nervousness, like noise, indicates that we are not trapped as isolated nodes in a networked totality. Instead, it confirms the space between us. The failure to reach empathetic togetherness that it signals nevertheless confirms there is someone else (or many others) present and makes unmistakable their different standpoints.

Having to think of our relationships in terms of the discomfort of not getting it right, of having to pay further attention, our mediated interactions gain rather than lose value. We usually think of people who are in the room with us as being present and capable of being connected with, but this is merely a bias. The people in the room with us can be inaccessible or as out of sync with us as those online. We may be totally indifferent to them in a way we can't in the social media space, where their presence becomes a notification, a demand for reciprocity.

We talk about how we are unwittingly used in experiments by social media platforms, how we know we are always being watched. And we also know that in our efforts to feel together, contemporary life requires we participate in platforms that make emotional demands of us, regardless of our ambivalence about the data we generate. Alongside our suspicions of how social media frame our exchanges, it is important to pay attention to how and why they stick or catch. The nervousness about digital communication technologies may simply be part of how being alive always already makes us nervous.

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Thinking about the emotional labor of connectivity can too easily fall into end-of-world anxiety about our perpetual performances on social media.

I want to interrupt that anxiety with nervousness.

Though both affects begin in a sense of apprehension, in awareness of the emotional labor required to reach the future, nervousness is different from anxiety. Anxiety is a clinical condition. It suspends possibility: Anxiety attacks, and it becomes impossible to be anything except oneself. Anxiety, in the collapse of a panic attack, moves inward. It forces a self-absorption for survival.

Nervousness, as an attempt to go faster or slower so as to get together, holds onto the presence of others as that which is overwhelming, unsettling. This disturbs the smooth sociality promised by social media companies and preserves the inescapable friction of difference that is sociality.

I would rather be nervous than anxious. Anxiety is panic. When we insist that, because of technology, we are living in anxious times, we bring ourselves into our own catastrophe and paralysis. I do not want to name my social media condition — the contemporary condition — as something pervasively and unavoidably damaging to me. I do not want to participate in world building that totalizes technology's harm. The times cannot be unlivable, because they are where we live.

When we regard nervousness as emotional glitching, it confirms that a clear signal is never a possibility: We cannot understand each other perfectly. We cannot feel together. We are living in muddles and tangles of our emotions as we strive to feel together. We live in the mess of misunderstanding. The unease that comes from being out of time with one another is necessary and not going away. And this is a good thing.

Nervousness is ultimately produced through the facts of our incommunicable differences that exist online and off. Utopian visions of social co-

hesion too often forget these real ways in which our experiences of the same world are different. As writer and futurist Madeline Ashby reminds us, one person's utopia is another's dystopia.

But to palpably experience nervousness, as social media force us to do, is to be able to track these differences and trace their patterns. It is crucial to be nervous — it confirms that we are not solipsistic, not ignorant of disparate experiences of the world and past and present inequities. The nervousness that technology now foregrounds stems not merely from mediation but from an old nervousness that is tied to those social inequities and the sense that popular imaginaries of feeling exclude or only conditionally acknowledge the experiences of so many people. The ability to feel one's nervousness come and go is a sign of privilege. Most people are already nervous, already operating outside the frictionless experience that signals privilege.

The purveyors of today's networked culture often try to efface nervousness with convenience and solipsism, preventing the understanding that eases exclusion. Social media platforms promise that difference can be erased, can be made irrelevant to an isolated user who does whatever whenever. But belief in that false promise simply reinforces selfishness and disconnection, and ultimately incites the anxiety and sense of doom of the despairing tech critic.

Culture and emotion are, as theorist Sara Ahmed writes, "sticky" with the accumulation of histories and practices. Sticky is what happens when our relations turn into affects that cling to objects, to people. This is how culture constructs emotions, how values and practices are built from our relations. To illustrate stickiness, Ahmed gives the example of the feminist killjoy who loudly disagrees with the conditions of inequity she sees. Her disagreement, her relation to the conditions she challenges, turn into a quality that sticks: She is disagreeable, disruptive. The reality of the conditions is dismissed, is made to stick to someone else.

This is how we build systems of inequity and re-enact them for each other: Nervousness shows us they are here. We do not like to be made nervous because nervousness is a desire to get to

a different speed, to correct the discrepancies we feel between our experiences of the world. It reminds us that we are functioning in difference. It maintains relation despite discomfort and forces an acknowledgement that we are out of sync, operating in inequity. Nervousness tells us that there is always difference and always work necessary to address that difference, but it never erases it.

Writing about the difficulty of diversity work, Ahmed argues that what is hard to some does not exist for others. She forces us to ask why anyone would think they could escape the hard, the difficult. In nervousness, what is hard becomes also something that can be worked with and through. It is hard to know what to do in the world, hard to be aware of the impacts and implications of the systemic inequities manifest in all our relations. Ashby refers to this when she talks about the distribution of utopias and dystopias. Nervousness is not only recognizing emotional times out of sync but also that one person's emotional time may be easier, is better, than another's.

This is why we should be nervous: nervous about the difference we are living in and apprehensive about the futures that it anticipates. Nervousness reminds us of the affective costs and conditions of our relations as well as inequities in who performs emotional labor and who experiences affective distress. It makes us aware of the work required by relationships and the work we must undertake to acknowledge and accommodate differences (of location, of time, of gender, sexuality, race, ability, poverty, literacy) that inhere in all our relations, all our performances of self and of belonging.

Ideally, this awareness stops short of overwhelming us. We can then nervously prepare for different futures, contradictory and inconsistent ones. We can nervously try to bring ourselves together without ever assuming we've got there. ●

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QUICK
FIX

WikiHow is an ever-evolving collection of coping mechanisms
by NAOMI SKWARNA

Two documents are open on your laptop: one, an article with a passage worth saving, the other, a Microsoft Word document where you've been assembling passages worth saving. You highlight the text in question, copy and paste it into the other document. A small clipboard materializes, offering a trio of "paste options," the second of which invites you to "match destination formatting." Upon clicking, the imported text trembles microscopically before presenting in the style of the native document. It's a small, good feeling.

I was an unpopular child. More than unpopular, I was loathed. Emotional, feckless, obsessed with birds. I did everything I could to make friends, and of course that only caused me to be further reviled. Something changed when I turned 16, and it had to do with my first taxable job at a popular clothing store. In this new destination, there was a woman named

Lindy who seemed well liked and normal, and I did whatever I could to copy her. Not copy—match. It was an adjustment of my entire format, rather than a replication of her style. I told jokes in her casual tone, suppressing my own laughter as she did. Her compliments were finely observed: I learned to watch and listen more closely so I could also offer true praise. If she wore a burgundy hoodie, I wore a cobalt hoodie. Versions, alpha and beta. It helped that she was kind and (perhaps unconsciously) encouraged me to follow her example, gifting hand-me-downs; sharing her Fig Newtons. I began eating Fig Newtons.

Everywhere I went after that, I matched destination formatting to the best of my ability, and it worked. Immediately, people seemed more willing to talk to me. I examined everyone who seemed to be nicely ordered, at school and beyond, cobbling together an identity based on the data. I didn't think about what it meant that my presentation was founded on an unstable calculation.

Destinations are subtler now, eluding the often observable categories that children and teenagers carry with them. Matching a pre-existing format has become intimately complex. I do it by accident, meaning that I have to be careful not to start speaking in someone else's accent after talking to them for five minutes. Matching is a way of inducing sympathy between myself and another; of contriving a connection when aloneness is the default. It also means that being alone, freshly alone, takes me back to zero. The dissolution of a relationship, for example, feels like a deletion.

In late July, I stopped seeing someone whom I loved, but couldn't be with. Just before that, I stopped attending therapy, which over the years had brought my awareness to this matching tactic of mine. Why did I stop going?

Hubris and economy combined. Why did I stop seeing someone I love? A variation of the same. We all cope in different ways at different times with common events. Fights, break-ups, crushing solitude. But after living through so many versions of the same thing, I wanted to manage this separation differently, without turning to an

If you needed an explicit reason to believe that humanity is embarrassing, wikiHow formalizes it in a judgment-free zone

outside human source for instruction.

Anything, especially what ails you, can be framed as a do-it-yourself project. DIY gives a sense of agency over one's needs; hand-stitching your split jeans its own grim reward. Adjacent to the DIY outlook is autodidacticism, learning that lends itself to notions of the self-made genius as well as the deluded fool. On the far side of DIY is self-help, the most remedial and voracious of the three. Where DIY suggests a barrel-chested confidence in one's own ability to complete a task usually left for a paid expert, self-help instills in us not just the desire to fix all that's wrong, but also a fear of what will happen if we don't. I couldn't afford therapy anymore, but I didn't want to rot out from the inside like an old honeycrisp. I thought about what I did have: a terrible mood, wifi, and an uncontested impulse to do it myself.

I Googled in succession, *How to stop thinking about someone,* and *How to stop missing someone,* and *How to be so lonely you could eat your own arm.* No matter what combination of glum post-break-up sentiments I typed in, the top hit was almost always wikihow.com.

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WikiHow Dot Com launched on January 15, 2005 in homage to Wikipedia: a potentially infinite platform tracked and edited by an impassioned, volunteer community. The site was created by web entrepreneur Jack Herrick, who had previously bought and sold eHow.com, and is, according to his own Wikipedia profile, a wiki enthusiast. The word *wiki* (which means "quick" in Hawaiian) refers to a collaborative mode of website production and maintenance that uses relatively simple markup language. Anyone with a desire to contribute, amend, or correct can do just that. Every adjustment is explicitly traceable, making each wiki a kind of slow-moving asteroid of information, always on its way from somewhere, trailing stardust. A wiki only stops changing when it is deleted.

WikiHow took the philosophy of many minds augmenting distinct but related knowledge sets, applying it to the active parts of human, animal, and mineral behavior. "I think that building a universal how-to manual would be a tremendous gift for the world," Herrick said in a 2009 interview with Wikinews ("the free news source you can write!"). "Knowledge is power and wikiHow has the potential to make all of us a bit more powerful." Accounting for the site's popularity, he explains, "we had some articles of mixed quality, and editors joined to improve those articles, which in turn attracted more readers. We continue to depend on this same virtuous cycle."

What Herrick means is that wikiHow's badness is part of its appeal; part of what makes it a place where people, "mixed quality" as we are, want to be. A virtuous cycle—isn't that what

I'd also enjoyed, with Lindy and the countless others who helped me form an identity? I had imagined a process of folding myself into the prevailing document. WikiHow offered an alternative paradigm, along with the realization that there is no prevailing document: only a platform and the common language we use to mark it up.

Arriving at wikiHow's homepage, you are greeted with a banner assertion: "We're trying to help everyone on the planet learn how to do anything. Join us." Like Wikipedia, wikiHow is a place where you're never alone—each page

Step one advises "Being Oneself" and step three proposes "Talking Like a Normal Person," both of which sunk me into a morass of tautological thinking

includes its editing history, with a record of who did what. WikiHow adopts that as a gestalt, spotlighting editors' names and avatars; giving them front-end identities. This offers the illusion of being around others from the comfort of your bedroom, missing someone in spite of your desire not to. Besides the articles, I liked reading the messages that users leave for one another, the jovial pedantry automatically logged to individual Talk Pages. *Join us.*

If Wikipedia is about infinite knowing and wikiHow is about infinite doing, it's hard to discern which order is tallest. The guides can be as practical and specific as how to do a tuck jump or how to clean the mold out of your water bottle lid, low-stake DIYs in the scheme of things. But, sitting on my bedroom floor with two glasses of wine, the most fascinating articles are the ones offering instruction on how to relate to other people. Somewhere in my deep-dive, I

came across a guide to Being a Normal and Well Liked Girl, a premise so controversial I couldn't bear to leave it unread. Step one advises "Being Oneself" and step three proposes "Talking Like a Normal Person," both of which sunk me into a morass of tautological thinking. Being myself was not an option, and I didn't know what a normal person talked like. In my years of getting close enough to match formatting, I'd learned that no one is as Normal or Well Liked as they seem—Lindy was a recovering addict who stole clothes from the store that employed us, as a way of blowing off steam.

How to be a Normal and Well Liked Girl is tagged as a stub, which means "It's off to a good start, but still has room to grow into a more helpful resource. Until the article reaches its full potential, it will be hidden from search results. Can you help it flourish?" This is why it doesn't come up when you Google *how to be a normal well liked girl.* You can only access the page from inside the site.

Absorbing information and marking facts is what every human being does in some form or another, but tracking the incremental changes is not easy. Where relational matching uses assimilation, the wiki model both records and points to its own flaws, a public bid for help, lest it remain a stub. "Match destination formatting" assumes the destination format is secure. WikiHow imagines no such thing, and works accordingly. What a relief that so many of us want to know how to be normal—even if the answer itself is dubious as fuck.

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In certain moments, I really thought I was making progress

WHEN I LOSE SOMEONE, my first impulse is to go through the receipts—reading every email, every text on record, trying to remember the first moment that signified some piece of it coming apart. Emails can be read over and over again for answers that never reveal themselves, nor relieve the present discomfort. So I read something else. Young Adult novels, cereal boxes, anything that will keep my reading eyes engaged. WikiHow, with its artless multi-step process to dealing with both existential woe and horse maintenance, was absurd enough to be exactly what I needed, even when the wisdom it provided was either common sense or notably odd. For instance, a note deep in the edit history of How to Fix the Crotch Hole in Your Jeans suggests sewing with floss instead of thread, "cuz floss is stronger." That might be true, but is it right?

Many of us have holes in our jeans, and we have even more opinions on exactly how to fix them. If you needed a really explicit reason to believe that humanity is embarrassing, wikiHow formalizes it in a judgment-free zone, enabling us to both ask and answer in relative anonymity. Additionally, it understands that for every person who needs to know *how,* there is at least one who needs to tell you. Coping mechanisms are reciprocal. They find partners among themselves, new ones emerging to feed off of/fulfill gaps created by those previous. WikiHow is a perfect ecology of diametric coping, and it has the receipts to prove it.

For most of August, I kept myself from doing things I would regret by reading hundreds of wikiHows, and using an odd dozen or so. The constant movement within WikiHow's pages became a source of distraction and comfort, as did the tweets, complete with famously uncanny artwork—tableaux of people thinking about objects and symbols with an expression of puckish intent. During a hike with my brother, I found a feather on the ground, which I learned came from the tail of a Northern Yellow-Shafted Flicker. I washed my hands, thinking about whatever avian disease lay within its glistening yellow barbules. Then I opened one of the many wikiHow tabs

at the top of my browser and typed in *How do I clean a feather.*

After neutralizing the feather and several household plastics, I learned how to stop thinking about someone through an extremely useful three-pronged methodology that could basically become your entire life's work, if you wanted. Part one, "Engage in thought stopping," includes the suggestion to scream STOP at yourself after three minutes of unwanted thought immersion. I love screaming, so this was fine. But the various steps involved in part two (keeping busy) and part three (using your brain) reminded me of my abysmal focusing skills. WikiHow's tips, including turning off the internet for 30 minutes and setting a timer for everything I decided to do, worked better than Ritalin. Now that I had focus, I needed more time in which to do it. I learned how to wake up earlier, which again promoted a technique of incremental awareness of time. After a week I was getting up at 6 a.m., and by 10, having the kind of despair that I typically apprehend with lunch. I wondered if I could cry less, and it turned out that yes, I can.

Links are opened in new tabs until each tab is the width of a pinkie nail. They're nice to refer to when I need something to refer to, but they're even nicer to close. Despite oft-psychotically phrased insights—*Having toned shoulders can be very attractive and really well toned shoulders can even be seen through clothing. Impress your crush with some rocking shoulders*—the guides were helpful in the way that advice from a friend somehow isn't. WikiHow writers can't see you at your worst, and their tools are as impersonal as hammers. They seem like promises rather than platitudes, the extension of each URL scanning as an imperative: "clean-a-feather," "elevate-your-self-esteem," "fix-the-crotch-hole-in-your-jeans." Still, thanks to the view count at the top of each page, I know that nearly a million people have wanted to stop thinking about someone, enough that they would punch it into a search bar.

For every article I used, I briefly felt like I was fixing something. In certain moments, I really thought I was making progress, nodding along to the patrol stream that users like Galactic Radiance and Hope0279 populated. But it was seeing that they'd been there less than a minute ago that made me feel better. I didn't even care to see what they'd done.

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Does wikihow just give the illusion of doing something, a series of processes to no end? That isn't a bad thing if it exercises our ability to care about the state of our tangible/intangible lives. The problem is that I got tired of caring as an exercise and wanted again to look in someone's face. I called my therapist and asked if I could come back, which she generously agreed to. As much as I would like to be a self-sufficient, autonomous user, solitude is less hard when I pay someone to soften it every two weeks.

I don't feel as achingly bad as I did a month ago, but it's the passage of time that put what hurt at a distance. Like "match destination formatting," wikiHow's content is incidental. As coping mechanisms, both drew me close enough to other people to see that they were struggling too. In the end, wikiHow's virtuous, virtual cycle wasn't enough. I needed a real person who I could talk to without timestamps. There are no perfect solutions; just sweaty stardust from the labor of our efforts.

Match Destination Formatting. Join Us. Both of these commands require the individual to step into a community and in doing so, admit that alone is a sensation more than a reality. I turn on airplane mode and read until my phone emits an arpeggio of gentle harp notes, which even though untrue, I feel I did myself. ◌

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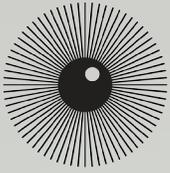
FASCISM

"Apocalypse Whatever," by Tara Isabella Burton
"Chaos of Facts," by Nathan Jurgenson
"What Was the Nerd," by Willie Osterweil
"Broken Windows, Broken Code,"
      by R. Joshua Scannell

WITH THE RISE OF FASCIST LEADERS IN THE U.S. AND ELSEWHERE, it's natural to want to investigate the degree to which new communication technologies have facilitated it. Much as Horkheimer and Adorno indicted the incipient mass media and the "culture industry" for mid–20th century fascism, we might look at 21st century social media in the same light. Online platforms have become instruments for meting out brutality, suppressing freedom of thought, reinforcing marginalization and social exclusion, and enforcing orthodoxy. But it makes sense also to think of fascism itself as a political technology, an approach to social control that relies on negating the truth, sowing confusion, destabilizing shared values, and setting unmoored bureaucracies against the population and one another. We face an unprecedented combination of seemingly opposed ideologies that have come to reinforce each other: Big Data positivism generates an endless stream of uninterpretable information that post-truth demagoguery can triumphantly push aside. —*ROB HORNING*

APOCALYPSE WHATEVER

The making of a racist, sexist religion of nihilism on 4Chan by TARA ISABELLA BURTON

AMONG THE WHITE nationalists on 4chan's "politically incorrect," or /pol/ board and on "alt-right" Twitter—or anywhere you might run into a picture of Pepe the Frog—there is a cryptic but popular saying: "Praise Kek." Kek is how *World of Warcraft* translates "lol" when it's revealed to members of opposing alliances, but it is also, conveniently, a name for a serpent-headed Egyptian chaos god.

Among shitposters, these two identities have been conflated to make Kek a kind of ironicized divinity invoked to account for "meme magic"—when something espoused and affirmed in the digital realm also becomes true beyond it. Memes about Hillary Clinton being sick, for example, "came true" when she collapsed of pneumonia this past September 11. And Fidel Castro's death—occurring on the capitalist holiday of Black Friday—has been making the Twitter rounds with the same "praise Kek" tag.

Most of the people posting about Kek don't actually *believe* that Pepe the Frog is an avatar of an ancient Egyptian chaos god, or that the numerology of 4chan *"gets"*—when posts are assigned a fortuitous ID number—somehow predicted Donald Trump's presidential victory. (Theodør K. Ferrøl goes into more detail about that claim here.) It's a joke, of course—but also not a joke. As one self-identified active member of the alt-right told me, "I don't believe in God. But I say *'Praise Kek'* more than I've ever said anything about God."

SCARAB KID BY CHROME DESTROYER

If I've learned anything as a historian of religion, it's that belief is flexible. The actual propositional content of doctrines has little to do with how religion works socially. Far more than the content of faith as such, what makes religion religion are the images and rhetoric loaded with atavistic and esoteric archetypes (chaos; order; Kek; frogs; a "God Emperor," to use a common 4chan appellation for Donald Trump) that tend to propagate virally, independent of a centralized source, because they tie into the cultural zeitgeist or answer some cultural need. They allow for a collective affirmation of identity that puts self-creation in dialogue with metaphysical questions about the universe. Religion often functions in this sense as a kind of dictionary: a compendium of symbols and their meaning that also allows for shared communal discourse: a "language" of stories we tell one another about our selves and our world.

From this perspective, it doesn't matter whether Kek is "really" a chaos god. Sociologically speaking, he might as well be. Likewise, meme magic, to the extent that that it serves as a record of cultural engagement, is real too. So too the "reality" of ubiquitous fake news sites, which, while being wildly inaccurate propositionally, nevertheless govern events—just look at the controversy over "Pizzagate"—to an extent that renders them functionally significant: narratives, no less than an account of the Fall or salvation, that govern who we are.

Given the ideological anarchy inherent in shitposting, it tends to defy analysis. Shitposters, who are bound by nothing, set a rhetorical trap for their enemies, who tend to be bound by having an actual point. Attempts to analyze what shitposters are doing, or what their posts really mean, does nothing to defuse them; instead it reinforces their project by amplifying their signal. Shitposting can't be refuted; it can only be repeated.

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IN THEIR APPARENT INDIFFERENCE to content and their commitment to aestheticized irony, shitposters resemble the disengaged ironists the 19th-century philosopher Søren Kierkegaard dis-
cussed in texts like *The Concept of Irony* and *Either/Or.* According to Kierkegaard, the ironist "poetically composes himself and his environment with the greatest possible poetic license" and lives "in this totally hypothetical and subjunctive way." Every act is an act of self-creation: Stories that are told are not descriptive of "true" facts out there but rather ways in which the ironist can prove his power, his philosophical strength, his verbal dexterity. He says things just to be the sort of person who says them. The ironist maintains his power by taking no position, starting every argument anew. "There is something seductive about every beginning, because the subject is again free, and it is this pleasure the ironist longs for," Kierkegaard writes in *The Concept of Irony.* "In such moments, actuality loses its validity for him; he is free, above it." For that freedom, the ironist is willing to say anything, make any argument, undeterred by any fear of being called to account. That is, the ironist is the proto-troll.

Kierkegaard's ironist came of age in the an era of increasing technological production, urbanization, secularization, and—ultimately—alienation. Shitposters have come of age in an era no less turbulent. They too live in a time of economic uncertainty and spiritual apathy in which foundational myths about the self and its role in the cosmos seem to have been rendered obsolete. To fill the void, the ironist and the shitposter both create a self-image characterized by the freedom to say and do anything, beholden to nothing and to nobody—a freedom that finds expression through transgression, saying things (racist, sexist, etc.) "nobody else" will say—except, of course, for the shitposters. This is how the stories the "alt-right" tells about itself take on a religious quality. They are predicated on a desire for a meaningful narrative of the world that allows for participation.

Here, too, the narrative of individuality and freedom is illusory. The "anarchy" of the alt-right depends on that dictionary of symbols—and thus a shared discourse. The shitposter can say whatever he wants, but the second he says "praise Kek," he's tempering his individuality with solidarity. He's not a Lone Ranger but rather part of a group whose stated fascination with cowboy individualism is at odds with the intense collectivism of internet culture—a culture where likes, reposts,

up-votes, hearts, and other expressions of communal acceptance take on outsize importance. There is something intensely collectivist about even the most outrageously social-contract-breaking denizens of the internet. Just look at the way Reddit closed ranks around its ur-troll violentacrez.

The alt-righter defines himself, as he does his god of chaos, against the limitations of civilization, the restrictions placed upon him by the social contract. Yet he is "civilized," to the extent that his discourse is dialogue. Every time a meme is replicated or a symbol is reused, it only strengthens the socially determined bond of meaning. The constructed narrative of uniqueness and freedom that an alt-righter adopts in fact depends on the collective meanings ascribed by his group to his actions. To put it simply: Shitposting only matters insofar as it lets you feel in on the joke, and being in on the joke demands an in-group agreement of what the joke actually is. No one shitposts alone. But shitposting nonetheless imbues a powerful sense of individual significance.

The anthropologist Clifford Geertz, in his account of religion, famously defines it as a

> system of symbols which acts to establish powerful, pervasive, and long-lasting moods in men by formulating conceptions of a general order of existence and clothing those conceptions with such an aura of factuality that the moods and motivations seem uniquely realistic.

In other words, religion isn't simply or simplistically an *order of existence* (which is to say, a metaphysical grand narrative), nor is it just the "collective effervescence" or affirmation of group identity as an older sociologist of religion like Emile Durkheim might have it. Rather it's the space in between: the symbols (and memes) that a group creates and reinforces through communal discourse, and the individual conception of self (one's "story," even) that comes from the role the self plays with respect to these those symbols. If Pepe is a god, it's not just because the alt-right has a need for religion (although, insofar as any contemporary group cries out for a meaningful narrative of self, I would argue that they do). It's also because gods are made of memes.

Doing things for the lulz—spreading joke-memes, reinforcing ideas and symbols within a community, promulgating them more widely—is, by Geertz's definition, a supremely religious act.

That is not to say that white supremacy and white nationalism are not major parts of the alt-right movement; they are, and it absolutely is. To do something *for the lulz* and care nothing for the embodied consequences is the product and promulgation of a malignant structural racism. Only someone who has always had enough privilege to never have to reckon with the consequences of one's words could participate in such a movement and keep up with the profound disengagement it demands. Kierkegaard's ironist, in other words, has to be a straight white man.

But the average 4chan alt-righter does not see himself as a "real" racist, nor is racism necessarily what he would regard as his primary motivating factor. His racism is secondary to his understanding of himself as *free,* an Alamo-style resister (including against outside and/or non-white cultural forces), a masculine agent not subject to such feminized niceties as politeness and compassion. The way he sees it, he's throwing rocks through the Overton window—regardless of what else gets smashed in the process.

The alt-righter doesn't need a nation to be a white nationalist. When they praise Kek or joke about participation in the "meme wars of 2016," they are taking part in a collective narrative that is no less powerful than, say, the primal patriotism of populist celebrity-statesman Gabriele D'Annunzio's irredentist march to take the city of Fiume from Allied forces in 1919, or the no less heady Wagnerian nationalism of the German *völkische Bewegung* that helped spawn the Nazis. The alt-righter's "nation" is a hero-narrative about how the freedom of the individual (masculine) self can be secured, in part by adopting the toxic rhetoric of overt white supremacy.

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There's a theory—the "lipstick effect"—that claims that spending on minor luxuries increases

during economic downturns. Being able to tell stories about ourselves rates high on the modern list of necessities. We may be broke, but we can at least like what we see in the mirror. It speaks to the centrality of identity as a human need, to feel like we matter even in the apocalypse. Praising Kek, in such a world, is more than a shibboleth, or even a battle cry. It's an affirmation of the self. If meme magic is real, it means the self is a little bit magic too.

To promulgate meme magic is to claim for oneself a higher code, a deeper freedom that derives from seeing the world as constructed, and constructable, rather than given. From this perspective, the "real" world—with its rules, its restrictions on what you can and cannot say, what you can and cannot do in public—is secular, in the sense that it lacks meaning. It is an un-sacred space, and thus nothing there can or should be treated with respect. In the world of Kek, affecting the world with racist lies and memes—all with an ironic smirk—returns the possibility of free, meaningful action to believers, and makes them heroes. The freedom to not really mean anything you say becomes the only way to have meaning in life. Irony is the greatest freedom of all.

In "The Work of Art in the Age of Mechanical Reproduction" (1936), Walter Benjamin characterized Europe as a society whose "self-alienation has reached such a degree that it can experience its own destruction as an aesthetic pleasure of the first order." But he also warned that "all efforts to render politics aesthetic culminate in one thing: war." As an example of this aestheticization, he cited the Italian futurist F.T. Marinetti, who wrote in a 1912 manifesto:

> War is beautiful because it establishes man's dominion over the subjugated machinery by means of gas masks, terrifying megaphones, flame throwers, and small tanks. War is beautiful because it initiates the dreamed-of metalization of the human body. War is beautiful because it enriches a flowering meadow with the fiery orchids of machine guns. War is beautiful because it combines the gunfire, the cannonades, the cease-fire, the scents, and the stench of putrefaction into a symphony.

We could take this language and apply it, with some modifications, to the rhetorical world of the alt-right and the atavistic language surrounding Kek and meme magic. The cult of Kek fuses a pretense of freedom with the rhetoric of unbridled masculinity to try to make ironic disengagement seem sexy and heroic. It's an aestheticization of a religious need: a mock-heroic packaging of the desire of white men to *be men.* Meme magic allows them to see themselves as exercising an intoxicatingly masculine vision of ironic freedom while doing that requires little in the way of courage, physical strength, or personal sacrifice.

This is, of course, where the alt-righters and the *arditi* of Gabriele D'Annunzio or even the Nazis, part ways. Their principles were appalling; they nonetheless died for them. The glorification of war and bloodshed, the aesthetics of flowering roses and explosive tanks, had a real effect (the "moods and motivations" of Geertz's definition). That narrative of self demanded self-sacrificing.

The narrative of the alt-right, however, displaces the battlefield into the realm of the incorporeal (and so, the safe). A battle over the Overton window is not a bloody one. This uncomfortable truth sits at the heart of the contemporary ultra-ironist's disengagement and disembodiment: the suspicion that "real" masculinity, like the Wagnerian heroism of the past, demands that you actually die when your avatar does. Without that risk, the performance of masculine heroism may never cease to feel like a performance.

The narrative of the Lone Ranger, conducted like a drone strike from behind a keyboard, thus becomes both cause and effect of the alt-right's mythos. They participate in the "meme wars" in search of a narrative of self-determination that the incorporeality of their chosen battlefield will always deny them. But in the meantime, their mythologized war on conventionality inflicts concrete collateral damage. The battlefield of the meme wars may be largely incorporeal. But the Trump presidency is no less real. ◉

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CHAOS OF FACTS

In 2016, we got the campaign
we wanted: enough news to
confuse us all   by NATHAN JURGENSON

A MERICAN PRESIDENTIAL CAMPAIGNS, we
have rediscovered, are not in good faith.
They are more performance than policy.
They manipulate the media rather than articulate a philosophy of governance. The candidates are brands, and the debates have almost no discussion of ideas or positions, let alone much bearing on what being president actually requires. Instead, debates signify "politics" while allowing for depoliticized analysis: They are about assessing the candidate's performance, style, tone, rhythm, posture, facial control, positioning with respect to cameras, and so on. What they say matters only with respect to how they said it: Did they convey conviction? Did they smile enough?

The candidates and those who fund them are as invested in these same campaign-ritual fictions about the electoral system's underlying dignity as the reporters are. And there is nothing profound anymore in demystifying this. Astonished dismay at the lack of substance in presidential politics, driven in part by some inherently cheapening new media technology, has become as ritualized

as the rest of the process, a point that pundits have been making at least since historian Daniel Boorstin published *The Image*, two years after telegenic Kennedy's election over pale, beady Nixon. Joe McGinniss's *The Selling of the President 1968* described Nixon's sudden interest in marketing through his next presidential run. Then, after nearly a decade of a president who was a movie actor, Joan Didion's dispatch from the 1988 campaign trail, "Insider Baseball," described presidential campaigns as merely media events, made to be covered by specialists "reporting that which occurs only in order to be reported"—a reiteration of Boorstin's concept of the "pseudo-event." Remember, too, George W. Bush's Mission Accomplished stunt—essentially a campaign stop even though it wasn't an election year—and more recently, the furor over the Roman columns erected for Obama's 2008 convention speech.

So it has been clear for decades that presidential politics have turned toward the performance of an image. But away from what reality? Boorstin admits that he doesn't have a solid idea: "I do not know what 'reality' is. But somehow I do know an illusion when I see one." Boorstin takes refuge in the assumption that the average American voter is dumb and uninterested in anything more than the surface impression and incapable of reasoning about the substance of any political position. Marshall McLuhan echoed this view in his widely quoted claim that "policies and issues are useless for election purposes, since they are too sophisticated."

Theories like Boorstin's may be strong in describing how we construct an artificial world, but they are often compromised by their nostalgic undertow. We might believe a preceding era was more "real," only to find that that generation, too, complained in its own time about the same sorts of unreality, the same accelerated, entertainment-driven reporting and bad-faith politics. This analysis has been rote ever since, complemented by the notion that the media dutifully supplies these highly distractible audiences the ever increasing amounts of spectacle they demand.

As media outlets have multiplied and news cycles have accelerated, the condition has worsened: Our immoderate expectation that we can consume "big" news whenever we want means that journalists will work to give it to us, to make the reality we demand. The television, and now the social media "trending" chart, gets what it wants. All this coverage, ever expanding into more shows, more data, more commentary, and more advertisements, come together to form the thing we've accepted as "the election."

In this process, image-based pseudo-politics don't come to replace real politics; the real comes to look like an inadequate image. Boorstin argued that, for example, the image of John Wayne made actual cowboys looked like poor imitations. (This is what Jean Baudrillard, writing after Boorstin, meant by "simulation.") Similarly, the heightened media coverage of campaigns has made ordinary politics—eating pie, kissing babies, and repeating patriotic bromides—seem insufficient, underwhelming. It's no accident that in the 2016 election, we got a candidate that gave us more and more outrageous news, a constant catastrophe perfectly tuned to our obsessive demand for horrifically fascinating entertainment. We might have hated every moment, but we kept watching and clicking, reproducing the conditions for the same thing to continue in the future.

If a politician's ability to get covered becomes their most important qualification, it flips the logic of campaigning: The presidency is merely the means to the end of harnessing attention. The distinction between a campaign and how it is covered is unintelligible and unimportant. Hence, a lot of the media coverage of the 2016 election was coverage of how the campaigns tried to get themselves covered. For instance, much of the news about Donald Trump and Hillary Clinton was about the image they created, and how Trump specifically marketed and branded himself differently than those who came before, what conventions he happened to be violating. For much of the past two years, commentators would more often giggle at the way Trump's affect violated campaign norms of image maintenance than discuss his bigotry and the white nationalism that preceded and fueled his rise.

Playing to the circularity of this, Trump campaigned by discussing his campaign process.

Like a news-channel talking head, he spent many minutes at his rallies on poll numbers. He provided a similar running commentary on the debate stages, remarking about the venue, the crowd, and the performance of the moderators. He remarked on who was having a good or bad night, whose lines had or hadn't landed, and analyzed his own performance as it was happening. He was even quick to point out to Hillary Clinton, in real time, that she shouldn't have reused a convention zinger again in a debate.

With his steady supply of metacommentary, Trump embodied the pundit-candidate. While his repugnant politics have had material consequences, he campaigned more explicitly at the level of the symbolic, of branding, of the image. His representation of himself as the candidate who rejects political correctness epitomized this: How he talked about issues was trumpeted by the candidate and many of his supporters as the essential point, more important than any policy positions he could be irreverently talking about.

Much of the coverage of Trump followed suit: It wasn't punditry about a politician, but punditry about punditry, for its own sake. Trump's viability as a candidate demonstrates how far the familiar logic of the image has come, where a fluency in image-making is accepted to an even greater degree as a political qualification in its own right, independent of any mastery of policy or issues. Campaigning according to the image is not just using polls to pick popular stances but to relegate stances into fodder for talking about polls.

When politicians are concerned mainly with producing an "image"—not with what world conditions are actually there, which are heavy and can only change slowly and with great coordinated effort, but with what you see, what they want you to see, what you want to see—they are dealing with something that is light, something easily changed, manipulated, improved, something that flows from moment to moment. Trump appeared to understand intuitively the logic of lightness, that a candidate need only provide an image of a campaign.

Accordingly, he resisted building up much of the standard campaign infrastructure, from the provision of a detailed platform on up to the development of an adequate ground-game operation to get out the vote on Election Day. These too are heavy, like a locomotive tied to its tracks. Trump's campaign floated above this, going wherever media expectations suggested it should go. Because there was so little depth anchoring the candidate and so little campaign machinery to weigh him down, Trump's white nationalism nimbly flowed across various stances and issues, much like a fictional president being written and rewritten in a writers' room. He could center his campaign on scapegoating Mexico and promising a border wall but then shift toward scapegoating Islam and preventing Muslims from entering the country in the wake of terrorist attacks, and then became the "law and order" candidate after police violence and anti-police protests dominated the news. It was no accident that Trump, at many of his rallies, used the theme from *Air Force One,* a movie about a president.

If the contest is between images, candidates only need an improvised script; everything else leads to inefficiency. The role of a campaign apparatus, from this perspective, is not to conceal how its candidate is "manipulating an image" but to emphasize the degree to which everything is image, including, supposedly, the election's stakes. By being so transparent in playing a part, by making the theatrics of it all so obvious, Trump offered catharsis for viewers so long served such obvious fictions as "my candidacy is about real issues" and "political coverage cares about the truth." Accompanying any oft-repeated lie is a build-up in tension, of energy that gets tied up in sustaining it. Part of the Trump phenomenon was what happens when such energy is released.

It's easy to see how Trump's rise was the culmination of image-based politics rather than some unprecedented and aberrant manifestation of them. Yet much of the political apparatus—conventional politicians and the traditional media outlets accustomed to a monopoly in covering them—still rarely admits this out loud. Instead, it tried to use Trump's obvious performativity as an opportunity to pass off the rest of the conventional politics it has been practicing—the image-based, entertainment-driven politics we've

been complaining about since Boorstin and before—as real. Perhaps it was more real than ever, given how strenuously many outlets touted the number of fact-checkers working a debate, and how they pleaded that democracy depends on their gatekeeping.

Before the campaign began, comedian Seth Meyers quipped that Trump would not be running as a Republican but as a joke. Commentators said he had no chance to become the Republican nominee—or about a two percent chance, according to statistician Nate Silver. The *Huffington Post* decided to single out Trump's campaign and label it "entertainment" instead of "politics," as if the rest of the candidates were something other than entertainment. Many pundits put forward the idea that Trump was *trolling,* as if candidates like Ben Carson and Ted Cruz were actually preoccupied with pertinent political topics, and the press coverage of them was fully in earnest.

Trump was hardly a troll: He didn't derail a conversation that was in good faith; he gave the media exactly what it demanded. He adhered to the unspoken rules of horse-race presidential-election coverage with a kind of hypercorrectness born of his respect for the reality-show format. The race was long made to be a bigger reality show, demanding more outsize personalities and outrageous provocations and confrontations. Trump may not have been a good candidate, but he made for an entertaining contestant.

The fact that Trump was a performer manipulating audiences without any real conviction in anything other than his own popularity made him *more* like other candidates, not less. Trump wasn't uniquely performative, just uniquely successful at it. If the performance was bombastic, so much the better for its effectiveness. After all, the image is the substance.

In contrast, Obama's performance as a symbol of hope and change was more coy and less overtly pandering. It more closely mimics what McGinniss, citing Boorstin, described in *The Selling of the President 1968*

> Television demands gentle wit, irony, and understatement: the qualities of Eugene McCarthy. The TV politician cannot make a speech; he must engage in intimate conversation. He must never press. He should suggest, not state; request, not demand. Nonchalance is the key word. Carefully studied nonchalance.

McGinniss says selling the president is like building an Astrodome in which the weather can be controlled and the ball never bounces erratically. But Trump took a very different approach; he wasn't nonchalant, and he rarely hinted or suggested. He was consistently boisterous. In 1968, to build a television image was to make someone seem effortlessly perfect. Trump was instead risk-prone, erratic, imperfect, and unpredictable. Playing to an audience more savvy about image-making, Trump knew his erratic spontaneity played like honesty. In appearing to make it up as he went along, his calculations and fabrications seemed authentic, even when they consisted of easily debunked lies. It feels less like a lie when you're in on it.

Some of the most successful advertisements make self-aware reference to their own contrivances. In this way Trump was like P.T. Barnum: He not only knew how to trick people but how much they like to be tricked. Deception doesn't need to be total or convincing. Strategically revealing the trick can be a far more effective mode of persuasion.

We shouldn't underestimate how much we like to see behind the curtain. There's some fascination, morbid or not, in how things are faked, how scams are perpetrated, how tricks are played. The 2016 campaign gave us exactly what we wanted.

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ANY NATIONAL ELECTION IS necessarily chaotic and complex. The fairy tale is that media coverage can make some sense of it, make the workings of governance more clear, and thus make those in power truly accountable. Instead, the coverage produces and benefits from additional chaos. It jumps on the Russian email hacks for poorly sourced but click-worthy campaign

tidbits, even as, according to a cybersecurity researcher quoted in a BuzzFeed report, they are likely driven by Russian "information operations to sow disinformation and discord, and to confuse the situation in a way that could benefit them." Or as Adrian Chen wrote in his investigation of the Russian propaganda operation, Internet Research Agency:

> The real effect, the Russian activists told me, was not to brainwash readers but to overwhelm social media with a flood of fake content, seeding doubt and paranoia, and destroying the possibility of using the Internet as a democratic space … The aim is to promote an atmosphere of uncertainty and paranoia, heightening divisions among its adversaries.

If that is so, the U.S. news media has been behaving like Russian hackers for years. From 24-hour television to the online posts being cycled through algorithms optimized for virality, the constant churn of news seems to make everything both too important and of no matter. Every event is explained around the clock and none of these explanations suffice. Everything can be simultaneously believable and unbelievable.

It's been repeated that the theme of the 2016 campaign is that we're now living in a "post-truth" world. People seem to live in entirely different realities, where facts and fact-checking don't seem to matter, where disagreement about even the most basic shape of things seems beyond debate. There is a broad erosion of credibility for truth gatekeepers. On the right, mainstream "credibility" is often regarded as code for "liberal," and on the left, "credibility" is reduced to a kind of taste, a gesture toward performed expertism. This decline of experts is part of an even longer-term decline in the trust and legitimacy of nearly all social institutions. Ours is a moment of epistemic chaos.

But "truth" still played a strong role in the 2016 campaign. The disagreement is how, and even if, *facts* add up to truth. While journalists and other experts maintain that truth is basically facts added up, the reality is that all of us, to very different degrees, uncover our own facts and assimilate them to our pre-existing beliefs about

what's true and false, right and wrong. Sometimes conspiracy theories are effective not because they can be proved but because they can't be. The theory that Obama was not born in the United States didn't galvanize Trump's political career because of any proven facts but because it posed questions that seemed to sanction a larger racist "truth" about the inherent unfitness of black people in a white supremacist culture.

Under these conditions, fact-checking the presidential campaigns could only have been coherent and relevant if it included a conversation about why it ultimately didn't matter. Many of us wanted a kind of Edward R. Murrow–like moment where some journalist would effectively stand up to Trump, as Murrow did on his news program with Joseph McCarthy, and have the condemnation stick. But our yearning has precluded thinking about why that moment can't happen today. It isn't just a matter of "filter bubbles" showing people different news, but epistemic closure. Even when people see the same information, it means radically different things to them.

The epistemic chaos isn't entirely the media's fault. Sure, CNN makes a countdown clock before a debate, and FiveThirtyEight treated the entire campaign like a sports event, but there was a proliferation of substantive journalism and fact-checking as well. Some blamed Trump himself. Reporter Ned Resnikoff argues this about Trump and his advisers:

> They have no interest in creating a new reality; instead, they're calling into question the existence of any reality. By telling so many confounding and mutually exclusive falsehoods, the Trump campaign has creative a pervasive sense of unreality in which truth is little more than an arbitrary personal decision.

But as much as Trump thrived within a system sowing chaos and confusion, he didn't create it. He has just made longstanding dog-whistle bigotry more explicit and audible.

The post-truth, chaos-of-facts environment we have today has as much to do with how information is sorted and made visible as with the nature of the content itself. For example, in the name of being nonpolitical, Facebook has in fact

embraced a politics of viral misinformation, in which it passively promotes as news whatever its algorithms have determined to be popular. The fact of a piece of information's wide circulation becomes sufficient in itself to consider it as news, independent of its accuracy. Or to put it another way, the only fact worth checking about a piece of information is how popular it is.

Trump exploited this nonpolitical politics by taking what in earlier times would have been regarded by the political-insider class as risks. He would read the room and say what would get attention, and these "missteps" would get reported on, and then it would all get thrown into the churning attention machinery, which blurred them in the chaos of feeds that amalgamate items with little regard to their relative importance and makes them all scroll off the screen with equal alacrity. The result of having so much knowledge is the sense of a general mess. More and more reporting doesn't open eyes but makes them roll.

The proliferation of knowledge and facts and data and commentary doesn't produce more understanding or get us closer to the truth. Philosopher Georges Bataille wrote that knowledge always comes with nonknowledge: Any new information brings along new mysteries and uncertainties. Building on this, Baudrillard argued in *Fatal Strategies* that the world was drowning in information:

> We record everything, but we don't believe it, because we have become screens ourselves, and who can ask of a screen to believe what it records? To simulation we reply by simulation; we have ourselves become systems of simulation. There are people today (the polls tell us so!) that don't believe in the space shuttle. Here it is no longer a matter of philosophical doubt as to being and appearance, but a profound indifference to the reality principle as an effect of the loss of all illusion.

Media produce not truth but spectacle. What is most watchable often has little to do with accuracy, which conforms to and derives from spectacle and remains inconclusive. The media produce the need for more media: The information they supply yields uncertainty rather than clarity; the more information media pro-

vide, the more disorientation results.

Trump helped these streams scroll even faster. He did not have to be right but instead absorbed the energy sparked by being wrong. He wasn't the TV candidate or the Twitter candidate but a fusion of media channels, each burning at their core to accelerate. For example, cable news networks put members of the Trump campaign on TV ostensibly to tell "the other side," yet their uniform strategy was to yell over the conversation with statements that often contradicted what the candidate himself was saying. They would be invited back the next day.

The 2016 election showed once again that journalism's role is not to clarify the chaos around politics. Rather, an election and its coverage lurch along in a frothing, vertigo-inducing symbiosis. Every news event is at once catastrophic and inconsequential. War and terror seems everywhere and nowhere. Sociologist Zygmunt Bauman calls this a "liquid fear," nihilistic in its perpetual uncertainty. Such fear fosters demand for a simple leader with simple slogans and catastrophically simple answers.

Perhaps we've come too close to the sun. The first rule of virality, after all, is that which burns bright burns fast. And the news cycle spins so rapidly we can't even see it anymore. In this campaign, virality had nothing left to infect. Our host bodies were depleted, exhausted. The election ended too soon, well before Election Day. Amid this attention hyperinflation, can the currency of news be revalued?

If you push something too far along a continuum in one direction, it inevitably becomes its opposite. Perhaps the next election can't produce anything as outrageous as Trump. We'll return to politics as usual, to the performance of "issues" and "debates" that will seem more fully in good faith than before, in comparison to the embarrassment of this cycle. The election process will be as contrived and image-centric as ever, but we'll be desperate to make it great again. ◉

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WHAT WAS THE NERD

The myth of the bullied white outcast loner is helping fuel a fascist resurgence by WILLIE OSTERWEIL

ascism is back. Nazi propaganda is appearing on college campuses and in city centers, a Mussolini-quoting paramilitary group briefly formed to "protect" Trump rallies, the KKK is reforming, and all the while, the media glibly participates in a fascist rebrand, popularizing figures like Milo Yiannoupolis and the "alt-right." With the appointment of Stephen Bannon to the Trump administration, this rebranded alt-right now sits with the head of state.

Of course, the fascists never really left: They've just tended to wear blue instead of brown the past 40 odd years. But an openly agitating and theorizing hard-right movement, growing slowly over the past few years, has blossomed in 2016 into a recognizable phenomenon in the U.S. Today's American fascist youth is neither the strapping Aryan jock-patriot nor the skinheaded, jackbooted punk: The fascist millennial is a pasty nerd watching shitty meme videos on YouTube, listening to EDM, and harassing

black women on Twitter. Self-styled "nerds" are the core youth vanguard of crypto-populist fascist movements. And they are the ones most likely to seize the opportunities presented by the Trump presidency.

Before their emergence as goose-stepping shit-posting scum, however, nerds—those "losers" into video games and comics and coding—had already been increasingly attached to a stereotypical set of political and philosophical beliefs. The nerd probably read Ayn Rand or, at the very least, bought into pseudo-meritocracy and libertarianist "freedom." From his vantage, social problems are technical ones, merely one "disruption" away from being solved. The sea-steading, millennial-blood-drinking, corporate-sovereignty-advocating tech magnates are their heroes—the quintessential nerd overlords.

When it was reported in September that Oculus Rift founder Palmer Luckey was spending some of his fortune on racist, misogynist "meme magic" and shit-posting in support of Donald Trump, it sent nervous ripples through the video-game community. Many developers, to their credit, distanced themselves from the Oculus, pulling games and ceasing development. But many in the games-journalism world were more cowardly, either not covering the story at all or focusing their condemnation on the fact that Luckey made denials and seemed to have lied to try to cover his ass, rather than the spreading of racism and misogyny.

These were the same sorts of gaming journalists who rolled over in the face of Gamergate, the first online fascist movement to achieve mainstream attention in 21st century America. The Gamergate movement, which pretended it was concerned about "ethics in games journalism," saw self-identifying gamers engage in widespread coordinated harassment of women and queer people in the gaming world in a direct attempt to purge non-white-male and non-right-wing voices, all the while claiming they were the actual victims of corruption. The majority of professional games journalists, themselves mostly white men, in effect feebly mumbled "you gotta hear both sides" while internet trolls drove some of the most interesting voices in game writing and creation out of the field. The movement was a success for the fuckboys of 4Chan and the Reddit fascists, exhausting minority and feminist gaming communities while reinforcing the idea that the prototypical gamer is an aggrieved white-boy nerd. It has meant that—despite the queer, female, and nonwhite contingent that makes up the majority of gamers—gaming's most vocal segment is fashoid white boys who look and think a lot like Luckey.

Surely, those communities of marginalized gamers have just as much claim to the subject position of the "nerd," as do queer shippers and comic-book geeks, to say nothing of people who identify as a nerd to indicate their enthusiasm for an esoteric subject (e.g. "policy nerds"). But the reason a tech-enabled swarm of fascists have emerged in the nerd's image today and claimed it as territory necessary to defend is because of the archetype's specific cultural origin in the late 20th century, and the political purpose for which it was consolidated.

The nerd appeared in pop culture in the form of a smart but awkward, always well-meaning white boy irrationally persecuted by his implacable jock antagonists in order to subsume and mystify true social conflict—the ones around race, gender, class, and sexuality that shook the country in the 1960s and '70s—into a spectacle of white male suffering. This was an effective strategy to sell tickets to white-flight middle-class suburbanites, as it described and mirrored their mostly white communities. With the hollowing out of urban centers, and the drastic poverty in nonwhite communities of the '80s and '90s, these suburban whites were virtually the only consumers with enough consistent spending money to garner Hollywood attention.

In the 1980s and '90s, an obsession with comics, games, and anime might have made this suburban "nerd" a bit of a weirdo. But today, with comic-book franchises keeping Hollywood afloat and video games a $100 billion global industry whose major launches are cultural events, nerd culture *is* culture. But the nerd myth—outcast, bullied, oppressed and lonely—persists, nowhere more insistently than in the embittered hearts of the little Mussolinis defending nerd-dom.

Of course, there are outcasts who really are intimidated, silenced, and oppressed. They tend to be nonwhite, queer, fat, or disabled—the four groups that are the most consistently and widely bullied in American schools. In other words, the "nerds" who are bullied are *being bullied for other things than being a nerd.* Straight, able-bodied white boys may also have been bullied for their perceived nerdiness—although the epithets thrown often reveal a perceived lack of masculinity or heterosexuality—but the statistics on bullying do not report "nerdiness" as a common factor in bullying incidents. Nevertheless, the myth of nerd oppression and its associated jock/nerd dichotomy let every slightly socially awkward white boy who likes sci-fi explain away his privilege and lay his *ressentiment* at the feet of the nearest women and people of color.

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THE MYTH OF THE bullied nerd begins, perhaps, with college fraternities. Fraternities began in America in the mid-19th century, as exclusive social clubs designed to proffer status and provide activity to certain members of the student body. In practice these clubs worked primarily to reproduce masculinity and rape culture and to keep the ruling class tight and friendly. But by the '60s, fraternities were dying: membership and interest were collapsing nationwide. Campus agitation for peace, Black Power, and feminism had radicalized student populations and diminished the popularity and image of these rich boys' clubs. Frats sometimes even did battle with campus strikers and protesters, and by 1970, though absolute numbers were up, per capita frat participation was at an all-time low.

Across the '70s, right-wing graduates and former brothers began a concerted campaign to fund and strengthen fraternities at their alma maters to push back against campus radicalism and growing sexual and racial liberation. Decrepit frat houses were rebuilt, their images rebranded, and frat membership began growing again. As

the wave of social upheaval receded in the late '70s, these well-funded frats were left as a dominant social force on campus, and the hard-partying frat boy became a central object of culture.

This manifested in movies like the 1978 mega-hit *National Lampoon's Animal House,* where scrappy, slightly less attractive white freshmen aren't let into their college's most prestigious frat, and so join the rowdy, less rich one. Steering clear of frats altogether is not presented as plausible, and the movie stages campus conflict not as a question of social movements or broader societal tensions but as a battle between uptight social climbers and cool pranksters. The massive success of *Animal House* immediately inspired a number of network sitcoms and a dozen or so b-movie and Hollywood rip-offs.

The threatened, slightly less attractive white male oppressed and opposed by a more mainstream, uptight, wealthy white man became a constant theme in the canonical youth films of '80s Hollywood. This quickly evolved into the nerd-jock dichotomy, which is central to all of John Hughes's films, from *Sixteen Candles'* geeky uncool Ted who gets in trouble with the jocks at the senior party to *The Breakfast Club'*s rapey "rebel" John and gun-toting "nerd" Brian, to *Weird Science,* whose nerd protagonists use their computer skills to build a female sex slave. Both *Sixteen Candles* and *Weird Science* are also shockingly racist, with the former's horrifically stereotyped exchange student Long Duk Dong and the latter's protagonist winning over the black denizens of a blues club by talking in pseudo-ebonic patois—a blackface accent he keeps up for an unbearable length of screen time. In these films the sympathetic nerd is simultaneously aligned with these racialized subjects while performing a comic racism that reproduces the real social exclusions structuring American society. This move attempts to racialize the nerd, by introducing his position as a new point on the racial hierarchy, one below confident white masculinity but still well above nonwhite people.

The picked-on nerds are central in films across the decade, from *Meatballs* to *The Goonies* to *Stand by Me* to the perennially bullied Marty McFly in the *Back to the Future* series. The outcast

bullied white boy is *The Karate Kid* and his is *The Christmas Story*. This uncool kid, whose putative uncoolness never puts into question the audience's sympathy, is the diegetic object of derision and disgust until, of course, he proves himself to be smarter/funnier/kinder/scrappier etc., at which point he gets the girl—to whom, of course, he was always entitled.

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New Hollywood, the "American new wave" movement of the '60s and 1970s, remains to many film historians the last golden age of serious Hollywood filmmaking. Though often reactionary and appropriative, the films of the period were frequently dealing with real social problems: race, class, gender violence. Though our memories tend to collapse all of the social unrest and revolutionary fervor of "the '60s" into the actual decade ending in 1969, the films of the '70s remained exciting and socially conscious partly because social movements were still tearing shit up well into the '70s. The Stonewall riots kicked off the gay rights movement in the last months of 1969, Kent State and the associated massive student strike was in 1970, while the Weather Underground, Black Liberation Army, George Jackson Brigade and other assorted guerrilla groups were at their height of activity in the first half of the '70s. At the same time, the financial crises of 1972–73 led to deep recession and poverty across the country: The future was uncertain, mired in conflict and internal strife.

This turmoil, as much as anything else, produced the innovative Hollywood cinema of the period, and films like *A Woman Under the Influence, Serpico, One Flew Over the Cuckoo's Nest* and *Network* attempted to address that social conflict. People often lament how these sorts of films gave way to the miserable schlock output of the 1980s. This transformation tends to be traced in film-history, not unreasonably, to the rise of the blockbuster—the historic profitability of *Jaws* (1975) and *Star Wars* (1977) pivoted studio attention toward big-budget spectacles with lowest-common-denominator subject matter.

Now, of course, these films are subjects of much high-profile nostalgia. Netflix's retro miniseries *Stranger Things,* for instance, looks back wistfully to the '80s, re-enchanting the image of nerds as winning underdogs (rather than tyrannical bigots). *Stranger Things* does so in the face of reinvigorated political movements that advocate for actually oppressed people, including Black Lives Matter, the migrant justice movement, and growing trans and queer advocacy communities. So in *Stranger Things,* the nerdy interests of the protagonists prove crucial to their ability to recognize the sinister happenings of their world. Their openness to magic and their gee-whiz attitude toward scientific possibility allow them to understand the monster from another dimension and the psychic supergirl more readily than the adults around them. The boys play Dungeons & Dragons in the series's opening scene and get crucial advice from a beloved A/V club adviser. They are mercilessly bullied for their nerdiness, but the bullies are barely even discussed: They are so naturalized that they are merely a minor plot point among others. What comes across more directly is that the nerds are heroes. This is then mirrored by the faux nerdiness of viewers, who can relate to these boys by tallying up all the nostalgic references.

The films celebrated in *Stranger Things* as fun 1980s camp at the time were functioning as reactionary cultural retrenchment: They reflected Hollywood's collusion in the Reaganite project of rationalizing and justifying a host of initiatives: privatization, deregulation, the offloading risk to individuals by cutting safety nets and smashing labor unions. These were explained as "decreasing the tax burden," and "increasing individual responsibility," while the nuclear family and "culture" were re-centered as the solution to and/or cause of all social problems. As Hollywood attention swung toward the white suburbs, its ideology followed in lockstep.

Reagan's main political move was to sweep social conflict under the rug and "unify" the population in a new "Morning in America"

through an appeal to a coalition of whites concerned about "crime" and taxation. This was matched by a cultural move to replace Hollywood representation of social struggle (as idiosyncratic, individualistic, and bourgeois as these filmic depictions were) with narratives of intra-race, intra-gender interpersonal oppression. Hollywood in the 1980s worked hard to render social tensions invisible and project a safe and stable white suburban America (as opposed to urban hellscapes) whose travails were largely due to bureaucratic interference, whether through meddling high school principals like in *Ferris Bueller's Day Off* or the tyrannical EPA agents in *Ghostbusters*.

Meanwhile, social movements had largely lost their fight against state repression and internal exhaustion, with most militant activists in prison, in graves, or in hiding. Local and federal governments rolled back the victories made over decades of struggle, the Cold War was stoked to enforce ideological allegiance, AIDS decimated the queer movement and black communities faced intensified police persecution tied to drugs, which were suddenly flowing at greater and greater rates into the ghetto.

Central to this program of making social conflict disappear, oddly enough, is the nerd. And no film shows this as clearly as the fraternity comedy which inaugurated the nerd as hero: *Revenge of the Nerds*. The plot of this 1984 film follows two computer-science freshman at fictional Adams College. After they are kicked out of their dorms and forced to live in the gym by a group of displaced frat boys, they assemble a gang of assorted oddballs and rent a big house off-campus, living in a happy imitation of campus frat life. The frat guys hate this, so they prank and bully the nerds relentlessly. The nerds discover that the only way they can have the frat boys disciplined by an official university body is to be in a frat themselves and appeal to a fraternal council.

Looking around for a national frat that doesn't yet have a chapter at Adams, they find Lamda Lamda Lamda, an all-black fraternity. When they visit the president of the fraternity, he refuses to give them accreditation. Surveying the room of (mostly) white boys, he says, "I must tell you gentlemen, you have very little chance of becoming Tri-Lambs. I'm in a difficult situation here. I mean after all, you're nerds." The joke is that he didn't say "white."

In the imaginary of the film, being a nerd

The jock is forever cool, the nerd perennially oppressed.

replaces race as the key deciding factor for social inclusion, while black fraternities are situated as the purveyors of exclusion and bias—despite the fact that black fraternities (though often participating in the same patriarchal gender politics as white frats) have historically been a force of solidarity and safety at otherwise hostile universities.

Nonetheless, one of the nerds looks over the bylaws and sees that Lamda Lamda Lamda has to accept all new chapters on a trial basis. So the nerds now have a frat. On Adams's campus, this sparks a prank war between the nerd frat and the prestigious frat that includes a panty raid on a sorority, the distribution of nude photos of a woman (made fair game by her association with one of the jock frat brothers), and a straight-up rape (played as comic), in which one of the nerds uses a costume to impersonate a sorority sister's boyfriend and sleeps with her while wearing it. All these horrific acts toward women are "justified" by the bullying the nerds have ostensibly received for being nerds, and

by the fact that the women aren't interested in them—or at least, at first. Eventually the nerds' rapey insouciance and smarts win their hearts, and they steal the jocks' girlfriends.

In the film's final climactic scene, at a college-wide pep rally, the main nerd tries to speak about the bullying he faces but gets beaten down by the jocks. Just as all looks lost, black Tri-Lamb brothers from other colleges march in and line up in formation, arms crossed in front of the speaker platform in a clear echo of images of Black Panther rallies. The white college jocks thus held back, the national president of Lamda Lamda Lamda hands the nerd back the microphone, who in what amounts to an awful parody of Black Power speeches, announces, "I just wanted to say that I'm a nerd. And I'm here tonight to stand up for the rights of other nerds. All our lives we've been laughed at and made to feel inferior … Why? Because we're smart? Because we look different. Well, we're not. I'm a nerd, and I'm pretty proud of it."

Then, with the black fraternity president over his shoulder and the militant black frat brothers bordering the frame, the other nerd protagonist declares, "We have news for the beautiful people: There's a lot more of us than there are of you." It is the film's emotional climax. And thus these rapists appropriate the accouterments of black power in the name of nerd liberation.

This epitomizes the key ideological gesture in all the films named here: the replacement of actual categories of social struggle and oppression with the concept of the jock-nerd struggle. The jock is forever cool, the nerd perennially oppressed. And revenge is always on the table and always justified. In the nerd's very DNA is a mystification of black, queer, and feminist struggle: As a social character, the nerd exists to deny the significance (if not the existence) of race, class, and gender oppression.

The rise of the internet economy and the rise of nerdy cultural obsessiveness, collecting, and comics—not to mention the rise to power of the kids raised on *Revenge of the Nerds* and its 1980s ilk—means that the nerd is now ful-ly ascendant. But perpetually aggrieved, these "nerds" believe other oppressed people should shut the fuck up and stop complaining, because they themselves didn't complain! They got jobs! They got engineering degrees! They earned what they have and deserve what they take.

As liberals sneer at the "ignorant" middle American white Trump voters, Trump's most vocal young advocates—and the youthful base of American fascist movements going forward—are not the anti-intellectual culture warriors or megachurch moralists of the fly-over states. Though the old cultural right still makes up much of Trump's voting base, the intelligence-fetishizing "rationalists" of the new far right, keyboard warriors who love pedantic argument and rhetorical fallacies are the shock troops of the new fascism. These disgruntled nerds feel victimized by a thwarted meritocracy that has supposedly been torn down by SJWs and affirmative action. Rather than shoot-from-the-hip Christians oppressed by book-loving coastal elites, these nerds see themselves silenced by anti-intellectual politically correct censors, cool kids, and hipsters who fear true rational debate.

Though sports culture continues to be a domain of intense patriarchal production and violence—rape jokes are just locker room talk, after all—these days jocks in the news are just as likely to be taking a knee against American racism in the image of Colin Kaepernick. The nerds, on the other hand, are shit-posting for a new American Reich. The nerd/jock distinction has always been a myth designed to hide social conflict and culturally re-center white male subjectivity. Now that the nerds have fully arrived, their revenge looks uglier than anything the jocks ever dreamed. ⦿

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BROKEN WINDOWS
BROKEN CODE

The problem with predictive policing algorithms is not that they can "become" racist, but that they're imitating a racist system   by R. JOSHUA SCANNELL

THIS YEAR, THE federal government announced it will phase out its use of all privately operated prisons. Many progressives have heralded this as a victory. It is not.

Although for-profit prisons are transparently evil, they house a very small percentage of people ensnared by American mass incarceration. The problem with for-profit prisons is prison, not profit. Without an accompanying effort to draw down the reach, power, and discretion of

criminal-justice institutions, the injuries these institutions inflict will be redistributed rather than redressed. When, for instance, federal courts have ordered states to reduce prison inmate populations, the effect has mainly been to increase the strain on already overburdened state and local courts, while inmates are merely reassigned from state to local jails or "resentenced" (as when judges retroactively change sentences after legal statutes change). In large states like California and Michigan, this has forced courts to "do more with less" in expediting the criminal-justice process. That means that judges have had to industrialize how they sentence people.

Government, and especially the overburdened criminal justice system, is supposed to do two things at once: to be more economically efficient and more ethically just. That is where the U.S.'s most spectacularly capitalized industry sector steps in: Silicon Valley caters to the fantasy that those two incompatible goals can be met through a commitment to data and a faith in the self-evident veracity of numbers.

This spirit animates a software company called Northpointe, based in the small, predominantly white town of Traverse City, in northern Michigan. Among other services, Northpointe provides U.S. courts with what it calls "automated decision support," a euphemism for algorithms designed to predict convicts' likely recidivism and, more generally, assess the risk they pose to "the community." Northpointe's stated goal is to "improve criminal justice decision-making," and they argue that their "nationally recognized instruments are validated, court tested and reliable."

Northpointe is trying to sell itself as in the best tradition of Silicon Valley startup fantasies. The aesthetic of its website is largely indistinguishable from every other software company pushing services like "integrated web-based

assessment and case management" or "comprehensive database structuring, and user-friendly software development." You might not even infer that Northpointe's business is to build out the digital policing infrastructure, were it not for small deviations the software-company-website norm, including a scrubber bar of logos from sheriffs' departments and other criminal-justice institutions, drop-down menu items like "Jail Workshops," and, most bizarrely, a picture of the soot-covered hands of a cuffed inmate. (Why

Silicon Valley caters to the fantasy that the incompatible goals of efficiency and ethical justice can be met through commitment to data.

are those hands so dirty? Is the prisoner recently returned from fire camp? Is it in the interest of Northpointe to advertise the fact that convict labor fights California's wildfires?)

Moreover, in the Silicon Valley startup tradition, Northpointe has developed what it views as an objective, non-ideological data-driven model to deliver measurable benefits to a corner of the public sector in need of disruption. If only the police, the courts, and corrections departments had better data or a stronger grasp of the numbers—if only they did their jobs rationally and apolitically—we could finally have a fair criminal justice system. This is essentially the neoliberal logic of "smaller, smarter government," spearheaded in the U.S. by Bill Clinton and Al Gore, who ran a "reinventing government" task force as vice president, and it has defined what is regarded as politically permissible policy ever since.

But Northpointe's post-ideological fantasies have proved to be anything but in practice. At the end of May 2016, ProPublica published a

thorough and devastating report that found that Northpointe's algorithms are inaccurate—in that they have assigned high risk values to people who are not recidivist—as well as racist, consigning a lot of brown, black, and poor white bodies to big houses under the cover of the company's faux-progressive rhetoric about "embracing community" and "advancing justice."

The ProPublica report confirmed the suspicions of many activists and critics that emerging technological approaches designed to streamline the U.S.'s criminal justice system and make it fairer might in fact do the opposite. Northpointe, of course, disputes ProPublica's analysis. In a letter to the publisher, they wrote that "Northpointe does not agree that the results of your analysis, or the claims being made based upon that analysis, are correct or that they accurately reflect the outcomes from the application of the model."

Of course, their model is proprietary, so it is impossible to know exactly how it works. ProPublica did manage to find that it is based on 137 Likert-scale questions that are broken down into 14 categories. Some of these have obvious relevance, like criminal history and gang membership. Others are specious and confusing, like leisure/recreation ("Thinking of your leisure time in the past few months … how often did you feel bored?"), social isolation ("I have never felt sad about things in my life"), and "criminal attitudes" ("I have felt very angry at someone or something").

Northpointe makes for an easy target for critics of predictive analytics in contemporary criminal justice. It's a for-profit company, with an inherent interest in expanding the state's carceral reach. Its business model depends on a criminal-justice system oriented toward perpetually churning people through its courts and being overburdened. The more overtaxed a court, the more attractive a program that can tell a judge how they ought to rule. But to blame mass incarceration on companies like Northpointe would be akin to blaming private prisons (which house about 11 percent of prisoners) for mass incarceration. The public sector may work with the private sector to outlay some costs and provide some services, but the government makes the market.

A common critique of algorithmic systems like Northpointe's is that they replicate existing bias. Because people program algorithms, their biases or motives get built in. It seems to follow, then, that were we to open up the algorithms, we could train them out of their prejudicial ignorance and thereby solve the problems of racism, sexism, queerphobia, and so on that are otherwise written invisibly into the source codes of everyday life. We may not to be able to reprogram humans to be unbiased, but we can rewrite algorithms.

But the problem with predictive policing goes beyond Northpointe or biased algorithms. Focusing on the algorithms relies on a delimited analysis of how power works: If only we could have woke programmers, then we would have woke systems. Swap out "programmers" for "cops" and you have a version of the "few bad apples" theory of policing, which ignores the way in which violence and repression are inherent and structural within law enforcement. The problem with predictive policing algorithms, and the fantasy of smart government it animates, is not that they can "become" racist, but that they were built on a law-enforcement strategy that was racist all along.

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Northpointe is emblematic of the sort of predictive and data-driven approaches that have become accepted commonsense policing practices, techniques such as hot-spot policing and situational awareness modeling. And while these methods are often presented as social or politically "neutral," there is an enormous body of research that has demonstrated repeatedly that they are not. But what made data-driven predictive policing seem like common sense?

To begin to answer that question, one must trace the disparate histories of predictive policing's component parts through a series of crises and conjunctions. Actuarial techniques like Northpointe's (or the older Level of Service Inventory–Revised, another recidivism-risk-as-

sessment battery) emerge out of insurance companies' demand for risk management during the late 19th and early 20th centuries' chronic economic crises.

Two more pieces of the puzzle, biometrics and organized surveillance, emerge in the 18th and 19th centuries out of the shifting tactics for maintaining white supremacy in both southern slave plantations and northern cities. Simone Browne, for example, has shown that New York's colonial "lantern laws," which forbade unaccompanied black people from walking the streets at night without carrying a lit lantern, were originally instituted because of white fear of antislavery insurrection.

And lastly, statistical techniques of crime prediction come down to us through the early-20th century Chicago School of sociology, which swapped cruder theories of physically inherent racial difference for more refined spatio-cultural theories of industrial capitalist "social disorganization." These shored up sexuality and the color line as the key arbiters of cultural degradation, as in studies positing a "culture of poverty" that generates criminality. This is Roderick Ferguson's point in *Aberrations in Black* when he argues that "the Chicago School's construction of African American neighborhoods as outside heteropatriarchal normalization underwrote municipal government's regulation of the South Side, making African American neighborhoods the point at which both a will to knowledge and a will to exclude intersected."

All these histories are individually crucial. But there is a particular point when they all converged: at the 1993 election of Rudy Giuliani as mayor of New York City. A combination of white resentment against David Dinkins, the city's first black mayor; a referendum on Staten Island's secession from New York City; and incessant dog whistling about "improving the quality of life" in the city allowed Giuliani to win the mayoral race. The "quality of life" issue stemmed from the unprecedented spike in homelessness and poverty in the wake of the city's 1970s fiscal crisis. The racist political economy of New York City ensured that poverty and homelessness—coded as "disorder"—fell disproportionately to people of color.

None of this was accidental. Robert Moses was a key player in a power elite that famously engineered New York as an apartheid city in the 1950s and 1960s, just as many people of color were immigrating there, particularly from Puerto Rico and the American South. They were largely renters, living rent-gouged in the subdivided former homes of white families who had taken advantage of the GI Bill and home-loan programs to move to the suburbs. When New York City's industrial core collapsed in the 1960s, it devastated working class neighborhoods, where poverty skyrocketed and landlords systematically abandoned property. Aside from industry, black and Latinx workers had won the greatest labor victories and made the deepest inroads in the public sector. After the federal government induced the fiscal crisis of the '70s and crippled the municipal government, the city cut one-third of its workforce, further decimating the black and Latinx working and middle classes.

As the city sought to lure major corporate headquarters, financial houses, and wealthy real estate investors back from the suburbs in the 1980s, controlling this racially coded "disorder" became the city government's paramount concern. The police did this by combining a generalized ratcheting up of displays of spectacular violence meant to "retake" places like Tompkins Square Park from the queer and homeless communities that had set up there, with a "community policing" strategy that focused on outreach to "community leaders" to make the department more responsive. Dinkins' administration also made harassing black "squeegee men" a centerpiece of its crime fighting effort, a tactic that Giuliani, while campaigning, would point to as a matter of "restoring the quality of life." That was thinly veiled code for aggressively targeting the poor, people of color, queer people, sex workers, and teenagers as part of a general campaign to, as Police Strategy No. 5 put it, "reclaim the public spaces of New York."

This policing strategy "worked" in that, by the early 1990s, crime rates had begun to fall, real estate values skyrocketed, and "undesirable" populations had been pushed further to the margins. It also fomented the toxic electoral mood

that got Giuliani elected. He appointed William Bratton as police commissioner (the first of his two tours of duty in the position), and Bratton would implement the infamous policing strategy known as "Broken Windows."

Broken Windows is usually explained as the idea that police should rigorously enforce violations of small crimes with maximum penalties to both deter people from committing larger crimes and incapacitate people who cannot be deterred. But while that is an accurate depiction of how Bratton and other backers have described the approach to the press, the actual Broken Windows theory, developed in the early 1980s and revised through the mid-1990s, is never so coherent. Critics (who have often been cops) have repeatedly pointed this out from the moment the *Atlantic* first published the article by James Q. Wilson and George L. Kelling that gave the approach its name in 1982. I am partial to Rachel Herzing's recent description of Broken Windows in *Policing the Planet,* where she describes the theory as "not much of a theory at all," but rather "an incantation, a spell used by law enforcement, advocates, and social scientists alike to do everything from designing social service programs to training cops."

To the extent that Wilson and Kelling's case can be condensed into a logical argument, it is this: Reforms designed to address corruption and racism in American police departments have incapacitated their ability to fulfill the order-maintenance component of their mission. This crippled American cities in the 1970s by instilling a culture of disorder in the streets and a fatalist sense of impotency in police departments. To fix this, these reforms must be abolished. In their stead, police should walk around more than they drive, because it is hard to be scared of someone when they are in a car *(?)*. They should "kick ass" more than they issue summonses or arrests, because it is more efficient and the criminal justice system is broken *(??)*. They should use their

subjective judgment to decide who will be on the receiving end of this order maintenance, rather than defer to any legal regime *(???)*. They should do all this without worrying about whether what they do would stand up in a court of law, because the interests of the community far outweigh the individualized injustice that police may mete out *(????)*. That, plus a chilling nostalgia for Jim Crow and the befuddling decision to rest the entire scientific basis for their case on a study organized

Anybody can look at a map and see if there are more or fewer dots than before. More dots mean the cops are failing

by Philip Zimbardo, who also ran the Stanford Prison Experiment (among the most unethical social science studies ever performed), gives the gist of the thing.

Even Bratton's second-in-command during his first stint as NYPD commissioner in the Giuliani years, Jack Maple, thought that the Broken Windows theory was bogus. He called it the "Busting Balls" theory of policing and said that it was the oldest and laziest one in the history of the profession. He thought that only academics who had never actually worked on the street could ever think it would effectively drive down crime. In practice, he argued, non-systematically attacking people and issuing threats would displace unwanted people to other neighborhoods, where they could continue to "victimize" innocents. Because Broken Windows did not advocate mass incapacitation through mass incarceration, Maple thought it ineffective.

So the strategy that Bratton implemented was not the Broken Windows detailed in the *Atlantic* essay. Nor was it, as it is sometimes de-

scribed, a hardline interpretation of Wilson and Kelling's ideas. But Broken Windows theory did offer Bratton and Maple an intellectual scaffold for reversing what had been considered the best practices in policing for decades. Over more officers and equipment, Bratton and Maple wanted more intelligence. Broken Windows provided a reason to replace six-month or annual target benchmarks for reduction of "index crimes" (crimes reported in Part I of the FBI's Uniform Crime Reports: aggravated assault, forcible rape, murder, robbery, arson, burglary, larceny-theft, and motor-vehicle theft) with the monitoring of granular crime data on a geographic information system in near real time, to meet day-to-day targets for reductions in the full range of crimes, and not just the most serious.

What Bratton and Maple wanted was to build a digital carceral infrastructure, an integrated set of databases that linked across the various criminal-justice institutions of the city, from the police, to the court system, to the jails, to the parole office. They wanted comprehensive and real-time data on the dispositions and intentions of their "enemies," a term that Maple uses more than once to describe "victimizers" who "prey" on "good people" at their "watering holes." They envisioned a surveillance apparatus of such power and speed that it could be used to selectively target the people, places, and times that would result in the most good collars. They wanted to stay one step ahead, to know where "knuckleheads" and "predators" would be before they did, and in so doing, best look to the police department's bottom line. And they wanted it to be legal.

For this corporate restructuring of policing to be successful, they had to populate the city's databases with as many names as possible. But these institutions were reluctant to adopt new tech—for reasons of expediency (people hate learning new systems, especially when they are untested) as well as for moral reservations about automating criminal justice.

If Bratton and Maple could expand the number of arrests the system was handling, they could force the issue. By their own admission, they created a deliberate crisis in the accounting capacities of New York City's criminal justice institutions to necessitate the implementation of digital technologies. For instance, they ordered enormous sweeps aimed at catching subway fare-beaters, in which the police charged everyone with misdemeanors instead of issuing warnings or tickets. This flooded the courts with more cases than they could handle and overwhelmed public defenders. To cope, the courts automated their paperwork and warrant-notifications system, and public defenders turned increasingly to plea deals. This piled up convictions, inflating the number of people with criminal records and populating interoperable databases.

Case information was then fed to the NYPD's warrant-enforcement squad, which could then organize their operations by density (where the most warrants were concentrated) rather than severity of the crime. Most warrants were served for jumping bail, a felony that many don't realize they are even committing. Faced with the prospect of abetting a felon, many people that the police questioned in the targeted enforcement areas were willing to give up their friends and acquaintances to stay out of trouble. The surveillance net expanded, and the data became more granular. Officers in areas with high concentrations of incidents, newly empowered to determine how to police an area based on their idea of how risky it was, would step up their aggression in poor, black, Asian, and Latino neighborhoods, in queer spaces, and in places where they believed sex workers did their jobs. It was, and is, Jim Crow all over again, but this time backed by numbers and driven by officers' whims.

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BY PROVIDING THE FRAMEWORK for a massive increase in aggressive police behavior, Broken Windows made this possible. It gave a rationale for why officers should be permitted to determine criminal risk based on their own subjective interpretations of a scene in the moment rather than abiding strictly established protocols governing what was and was not within their jurisdiction.

This helped support the related notion that police officers should operate as proactive enforcers of order rather than reactive fighters of crime. That is, rather than strictly focus on responding to requests for help, or catching criminals after a crime occurred, Broken Windows empowered cops to use their own judgment to determine whether someone was doing something disorderly (say, selling loose cigarettes) and to remove them using whatever force they deemed appropriate. Broken Windows plus Zero Tolerance would equal an automated carceral state.

A carceral state is not a penal system, but a network of institutions that work to expand the state's punitive capacities and produce populations for management, surveillance, and control. This is distinct from the liberal imagination of law and order as the state redressing communal grievances against individual offenders who act outside the law. The target of the carceral state is not individuated but instead group-differentiated, which is to say organized by social structures like race, class, gender, sexuality, ability, and so on. As Katherine Beckett and Naomi Murakawa put it in "Mapping the Shadow Carceral State," the carceral "expansion of punitive power occurs through the blending of civil, administrative, and criminal legal authority. In institutional terms, the shadow carceral state includes institutional annexation of sites and actors beyond what is legally recognized as part of the criminal justice system: immigration and family courts, civil detention facilities, and even county clerks' offices."

In a liberal law-and-order paradigm, individuals violate norms and criminal codes; in the carceral state, racism, which Ruth Wilson Gilmore defines "specifically, is the state-sanctioned or extralegal production and exploitation of group-differentiated vulnerability to premature death" is the condition of possibility for "criminality." The political economic structures of a carceral state deliberately organize groups of people with stratified levels of precarity through mechanisms like red-lining, asset-stripping, predatory lending, market-driven housing policies, property-value funded schools, and so on.

The consequence of these state-driven political decisions is premature death: Poor people, who in American cities are often also black, Latinx, Asian, and First Nation, are exposed to deadly environmental, political, sexual, and economic violence. Efforts to survive in deliberately cultivated debilitating landscapes are determined to be "criminal" threats to good order, and the people who live there are treated accordingly. Lisa Marie Cacho argues that the effect is social death: The "processes of criminalization regulate and regularize targeted populations, not only disciplining and dehumanizing those ineligible for personhood, but also presented them as ineligible for sympathy and compassion." This is how technically nonpunitive institutions become punitive in fact, as in immigration detention, civil diversion programs that subject bodies to unwanted surveillance and legal precarity, educational institutions that funnel children into a pipeline to prison, and civil-injunction zones that render traversing space a criminal act.

The carceral state's institutions and cadres are both public and private. For example, a company like Northpointe that develops tools designed to rationalize and expedite the process of imprisoning people, is not technically a part of any criminal justice institution, but it automates the mechanics of the carceral state. Securitas (née "Pinkerton") might not be a state agency, but it does the labor of securing the circulation of capital to the benefit of both corporations and governments.

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For any buildup in surveillance to be effective in sustaining a carceral state, the police must figure out how to operationalize it as a management strategy. The theoretical and legal superstructures may be in place for an expanded conception of policing, but without a rationalized command-and-control process to direct resources and measure effectiveness, there is little way to make use of the new data or assess whether the programs are accomplishing their mission of "driving down crime." In 1994, the NYPD came

up with CompStat to solve this problem, and we are living in its world.

Depending on who is recounting Comp-Stat's origin story, it stands for "Compare Statistics," "Computerized Statistics," or "Computer Statistics." This spread is interesting, since all three names imply different ideas about what computers do (as well as a total misunderstanding of what "statistics" are). Let's take these from least to most magical. "Compare Statistics" designates computers as capable merely of the epistemological function of rapidly comparing information curated and interpreted by people. "Computerized Statistics" implies an act of ontological transformation: The information curated and interpreted by humans is turned into "Big Data" that only computers have the capability of interpreting. "Computer Statistics" instantiates, prima facie, an ontological breach, so that the information is collected, curated, and analyzed by computers for its own purposes rather than those of humans, placing the logic of data squarely outside human agency.

These questions aren't just academic. The Rand Corporation, in its 2013 report on predictive policing, devotes an entire section to dispelling "myths" that have taken hold in departments around the country in the wake of widespread digitization of statistical collection and analysis. Myths include: "The computer actually knows the future," "The computer will do everything for you," and "You need a high-powered (and expensive) model." On the spectrum of Compare Statistics to Computer Statistics, Rand's view is closest to Compare, but companies like Northpointe are at the other end. That industry believes itself to be in the business of building crystal balls.

And were one to embark on a project of separating out industry goals from the ideologies and practices of smart government, one would find it impossible. Massive tech companies like Microsoft, IBM, Cisco Systems, and Siemens, as well as smaller, though no less heavy, hitters like Palantir, HunchLab, PredPol, and Enigma are heavily invested in making government "smarter." Microsoft and New York City have a profit-sharing agreement for New York City's digital surveillance system, called AWARE (the Automated Workspace for the Analysis of Real-Time Events), which has recently been sold to cities like Sao Pãolo and Oakland.

How do police determine which bodies must be policed? They do it based on what "feels" right to them

CompStat sits at the fountainhead of an increasingly powerful movement advocating "responsive," "smart" government. It has become ubiquitous in large police departments around the world, and in the U.S., federal incentives and enormous institutional pressures have transferred the burden of proof from those departments that would adopt it to those departments that don't.

Major think tanks driving the use of big data to solve urban problems, like New York University's Center for Urban Science and Progress, are partially funded by IBM and the NYPD. Tim O'Reilly explicitly invokes Uber as an ideal model for government. McKinsey and Co. analysts advocate, in a Code for America book blurbed by Boris Johnson, that city government should collect and standardize data, and make it available for third parties, who can then use this to drive "significant increases in economic performance for companies and consumers, *even if this data doesn't directly benefit the public sector agency*." In the context of a carceral state, harassing and arresting poor people based on CompStat maps

delivers shareholder value for Microsoft, speculative material for some company whose name we don't know yet, and VC interest in some engineers who will promise that they can build "better" risk analytics algorithms than Northpointe.

A hybrid labor management system and data visualization platform, CompStat is patterned on post-Fordist management styles that became popular during the 1980s and early 1990s. Although it draws liberally from business methodologies like Six Sigma and Total Quality Management, it is most explicitly indebted to Michael Hammer and James Champy's *Re-engineering the Corporation,* which calls for implementing high-end computer systems to "obliterate" existing lines of command and control and bureaucratic organization of responsibility. Instead of benchmarks and targets set atop corporate hierarchies in advance of production, Hammer and Champy advocate a flexible management style that responds, in real time, to market demands. Under their cybernetic model, the CEO (police commissioner) would watch franchisees' (precincts) performance in real time (CompStat meetings), in order to gauge their market value (public approval of police performance) and productivity (crime rates, arrest numbers).

Under CompStat, responsibility for performance and, in theory, strategy, devolves from central command to the middle managers (a.k.a. precinct commanders), who must keep their maps and numbers up to date and are promoted or ousted based on their ability to repeatedly hit target numbers (in their case, crime rates and arrests). Because the responsibility for constantly improving the bottom line has been transferred to the precinct commanders, they lean on their sergeants when the numbers are bad, and the

Numbers are treated as more real than social structures

sergeants in turn lean on their patrol officers.

CompStat also gives police managers a simple, built-in way of easily telling whether or not their cops are doing their jobs. They can look at maps to see if they've changed. This simplicity has the added bonus for governments of providing easy "transparency," in that anybody can look at a map and see if there are more or fewer dots on it than there were a week ago. More dots mean the cops are failing. Fewer dots mean they're doing their job.

This appeals to the supposed technocratic center of American politics, which regards numbers as neutral and post-political. It lends apparent numerical legitimacy to suspicions among the privileged classes about where police ought to crack heads hardest. It also, in theory, saves money. You don't have to deploy cops where there aren't incidents.

CompStat is rooted in a sort of folk wisdom about what statistics are: uncomplicated facts from empirical reality that can be transformed automatically and uncontroversially into visual data. The crimes, the logic goes, are simply happening and the information, in the form of incident reports, is already being collected; it merely should be tracked better. Presumably, CompStat merely performs this straightforward operation in as close to real time as possible. Departments can then use these "statistics" to make decisions about deployment, which can be targeted at spaces that are already "known" to have a lot of crime.

But this overlooks the methodological problems about how data is to be interpreted as well as the ways in which the system feeds back into itself. Statistics are not raw data. Proper statistics are deliberately curated samples designed to reflect broad populational trends as accurately as possible so that, when subjected to rigorous mathematical scrutiny, they might reveal descriptive insights about the composition of a given group or inferential insights about the relationships between different social variables. Even in the best of cases, statistics are so thoroughly socially constructed that much of social science literature is devoted to debating their utility.

When CompStat logs arrest information in a server and overlays it on a map, that is not statis-

tics; it is a work summary report. The "data" collected reflects existing police protocol and strategies and are reflective of police officers' intuitive sense of what places needs to be policed, and what bodies need to be targeted, and not much else. New York City cops don't arrest investment bankers for snorting their weight in cocaine because they are not doing vertical patrols in Murray Hill high rises. They are not doing vertical patrols in Murray Hill high rises not simply because the police exist to protect rather than persecute the wealthy, but because they have labored for 20 years under a theory of policing that effectively excludes affluent areas from routine scrutiny. It so much as says so in the name: These high-rises don't have broken windows.

Similarly, the National Center for Women and Policing has cited two studies that show that "at least 40 percent of police officer families experience domestic violence," contrasted with 10 percent among the general population. Those incidents tend not to show up on CompStat reports.

The reverence with which CompStat's data is treated is indicative of a wider fetishization of numbers, in which numbers are treated as more real than social structures or political economy. Indeed, it often seems as though metrics are all that there is.

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THE TRANSPARENT/RESPONSIVE/SMART government movement argues for reconstituting governance as a platform, transforming the state into a service- delivery app. Its thought leaders, like Michael Flowers and former Maryland governor Martin O'Malley, routinely point to CompStat as the fountainhead of postpolitical governance, as if such a thing were possible. But as feminist critics of technology like Donna Haraway and Patricia Ticineto Clough have long pointed out, technology is political because it is always, everywhere, geared toward the constitution, organization, and distribution of differentiated bodies across time and space. And bodies are politics congealed

in flesh. CompStat is designed to maximize the efficiency and force with which the state can put police officers' bodies into contact with the bodies of people that must be policed.

And how do police determine which bodies must be policed? They do it based on what "feels" right to them, the digital inheritance of Broken Windows. Even cops that are not racist will inevitably reproduce racialized structures of incarceration because that is what policing is. In a city like New York, in a country like the U.S., that level of police discretion always points directly at the histories of unfreedom for black, brown, and queer people that are the constitutive infrastructures of our state.

Northpointe's algorithms will always be racist, not because their engineers may be bad but because these systems accurately reflect the logic and mechanics of the carceral state—mechanics that have been digitized and sped up by the widespread implementation of systems like CompStat. Policing is a filter, a violent sorting of bodies into categorically different levels of risk to the commonweal. That filter cannot be squared with the liberal ideas of law, order, and justice that a lot of people still think the United States is based on. Programs like CompStat are palliative. They seem to work in data, in numbers, in actual events that happened outside of the context of structural inequalities, like racism or patriarchy, or heteronormativity. But CompStat links the interlocked systems of oppression that durably reproduce the violence of the carceral state to a fantasy of data-driven solutionism that reifies and reproduces our structural evils. Whether or not a human is remanded to a cage because of their race and sex, or because of a number on a dashboard, means very little once the door slams shut." ◉

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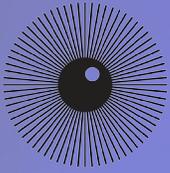
STRUCTURE

"True-ish Grit," by David A. Banks
"Magnificent Desolation," by Elisa Gabbert
"Perpetual Motion Machines," by Chenoe Hart
"Pajama Rich," by Moira Weigel

THERE IS AN OLD JOKE THAT TECHNOLOGY IS EVERYTHING INVENTED AFTER YOU WERE BORN. Everything else we take for granted, forgetting how it had been developed, implemented, naturalized. It's easy to fixate on the novelty of screens and overlook how the rest of our environment already consists of technologies that are so familar as to seem immutable. Cities, buildings, clothing, transportation systems may not seem technological in the same way as digital devices, but they all are means by which social relations are sustained and given a graspable order. They all shape what kinds of thought are possible, what collective and individual aspirations can be conceived, what sorts of failure we may face. That is to say, they *structure,* and the innumerable iterative choices that have gone into them afford and preclude experience, extending new freedoms—and risks. The affordances of digital technology are so new as to seem somehow apart, a supplement to what's always been integral and "real" about our lives. But recognizing how the entire built environment is both structured and structuring makes it plain that what happens on screens is as real as the room you're standing in. —*NATHAN JURGENSON*
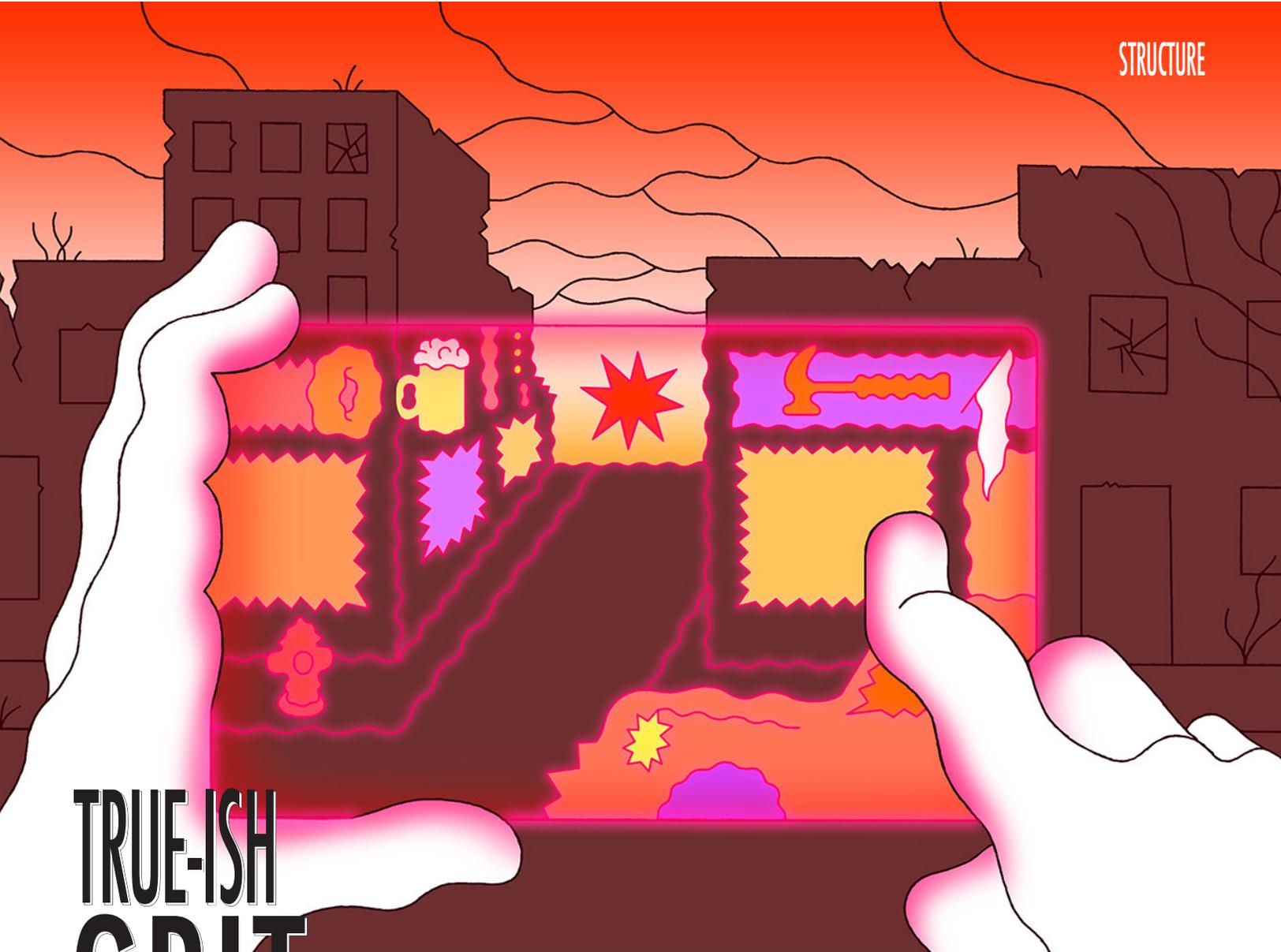
TRUE-ISH GRIT

Rust Belt cities are turning years of neglect and decay into a soundstage for social media   by DAVID A. BANKS

A T THE CRUX of the Hudson River and the Erie Canal sits Troy, New York. It was once a thriving city, positioned favorably for commerce in a time when one of the most efficient ways to transport freight was with mule-dragged barges. But changes in transportation technology eroded its economic foundations: Containerized shipping and interstates moved freight further away, and prosperity went with it. With a popu-lation of just under 50,000, Troy is now roughly back to the size it was just after the Civil War.

One modest city institution that survived for a while was Trojan Hardware, which for 94 years held on by selling hammers and snowblow-ers to a community that had become an eco-nomic backwater. Its retail space snaked through the ground floors of several connected Victorian buildings, and when it finally folded, felled by the 2008 recession, those buildings stayed vacant for five years.

Then something happened that was both strange and strangely predictable: Trojan Hard-ware went from being a moribund seller of commodities to a fetishized commodity itself, a design motif for the new businesses that opened

in its former storefronts: a microbrewery, an exotic-plants retailer, and a hardware-store-themed cocktail bar called The Shop, with chair rails made of salvaged Trojan Hardware yardsticks and many other Trojan Hardware relics adorning the walls. Each of these new businesses trades on the air of rootedness that Trojan Hardware still supplies, the aura of organic street life that the ghost of a longstanding neighborhood establishment affords.

If you go half a block south of the former Trojan Hardware, you'll come to a coffee shop that sells buttons proclaiming: "You keep Brooklyn, I have Troy." An art store sells T-shirts, mugs, coasters, and entire coffee tables that declare proudly in a typewriter-style font: "Enjoy Troy." The Troy of the 19th century was an industrial hub that exported its steel and other manufactures to the rest of the country. In today's Troy, a consumer would have no problem sating oneself with beers, coffees, and bagels that have been substantially prepared, brewed, roasted, and baked within city limits. One can enjoy Brooklyn bohemian quirkiness at an upstate discount price in the inarguably real environment of Victorian dilapidation. Troy has turned half a century of neglect into a competitive advantage, recombining rust and rot into quaintness and authenticity. Its genuine outdatedness is an opportunity to roll out state-of-the-art "place-making" renewal strategies.

But Troy is not the only moribund U.S. city that has fallen in love with itself. Entirely unique and one-of-a-kind midsize cities are a dime a dozen now. Troy is one pearl in a necklace of small towns in the Hudson River valley that are trading grit for service-economy glory: Albany, Hudson, Cohoes, Rensselaer, Schenectady, and Poughkeepsie and on through the Rust Belt of upstate New York, fanning out to Pennsylvania, Ohio, Michigan, and the outskirts of the midwest metropolises. They have all doubled down on Jane Jacobs's insistence that the best places to live are the ones that best preserve, manage, and then celebrate the heterogeneous aspects of urban environments: How a sidewalk is comfortably buffered from or introduced to the road, the way buildings and foliage enclose a space

without making it feel crowded, the arrangement of street furniture such as benches and street lamps—all these go toward a well-made, livable urban environment. But even all of that doesn't quite capture it. A long-loved park or street corner is more than the sum of its parts.

Any given place has thousands of forces influencing it: A pocket park is shaped by everything from the frequency of blizzards (what can grow there) to the gerrymandering of congressional districts (how well it is cared for). Jacobs's prescription was to not try and control all these things, because in trying to control everything, bureaucracies end up curtailing some of those forces that make a place unique and alluring. She instead suggested that planners provide and maintain the bounds wherein private and public actors interact. A good municipal-planning department will be able to recognize existing good urbanism and preserve it, restore what is dilapidated but still salvageable, and have the requisite foresight to know what zoning laws will leave room for construction that plays nicely with the existing streetscape. Good Jacobsonian urban planning involves a lot of observation of cherished neighborhoods or streetscapes and using those observations to inform future development. It is a future of cities rooted in the past.

In large, world-class cities like San Francisco and New York, the balancing act of preserving what works and carefully building or restoring new components has been going on for years. Williamsburg and Nob Hill have ascended beyond being merely iconic neighborhoods to become widely recognized brands carefully crafted to appeal to a particular demographic. Buying in to such a neighborhood is selling out: To rent a room in certain parts of Brooklyn is to pay cash for the cultural capital you would otherwise have to earn through "discovering" something not yet congealed into a recognizable commodity.

This link between "discovery" and the relative cultural value of a neighborhood gives smaller cities a kind of arbitrage opportunity in authenticity. By drawing attention to the commodification of neighborhoods in larger cities, smaller ones can position themselves as offering undiscovered, unmanipulated treasures. Some-

times this is as obvious as calling a neighborhood "the Greenwich Village of Albany," as the signs, stickers, and TripAdvisor reviewsaround Lark Street do, but sometimes the comparison is more inferential, a matter of a city's being continually discoverable as "undiscovered."

Urban development in the age of authenticity is a matter of walking the line between economic success and obscurity. In the 1990s and early aughts, a popular recipe for staving off economic decline involved overtly pandering to the "creative class" with quirkiness and diversity. Once the creatives live in your region, the theory went, a benevolent spiral of economic growth would inevitably take flight. This approach was so ungrounded in reality that its main booster, Richard Florida, retracted most of his thesis for it in 2013. He conceded in the *Atlantic* that "talent clustering provides little in the way of trickle-down benefits."

Many columnists and think-tank contributors have sought to fill the vacuum left by Florida's debunked creative class theory. Joel Kotkin, reacting to Florida in the *Daily Beast,* suggested that cities should modify their strategy and "cultivate their essentially Rust Belt authenticity rather than chase standard-issue coolness." But this is less a substantive shift than a semiotic one. A "cool" lifestyle is still the bait, only its terms have shifted toward more regional flavors. Cities that no longer produce physical goods can instead produce their own image as a kind of marketed product. If once they smelted steel or manufactured textiles, now they trade on the unique cultural history that is the legacy of those lost industries. The relatively cheap standard of living in places like Buffalo or Pittsburgh offer a more "authentic" urban experience in terms of sampling gritty make-do entrepreneurial creativity, while also letting new residents dismiss those in more expensive cities as unimaginative dupes taken in by luxury branding.

The sense of "authentic urban life" is twofold, according to sociologist Sharon Zukin's *Naked City* (2010): There is "the subjectivity that comes from really living in a neighborhood, walking its streets, shopping in local stores, and sending children to local schools," and there is

the kind of authenticity that "allows us to see an inhabited space in aesthetic terms…. Is it interesting? Is it gritty? Is it 'real'?"

It is in this latter register of "authentic urban experience" that one can browse online for new places to live. To attract new residents, cities must understand how their character can be conveyed through a smartphone. Can your city support its own geofilter? Does it photograph well? Are there dramatic locales for selfies? What are your Airbnb listings, and how are the reviews? Is your transit viewable on Google Maps? The tourist map from the old visitors' center must become digitally augmented terrain.

And to play into the dynamics of attention metrics and online circulation, cities can encourage traditions that are also digitally embedded ("take a selfie with the mayor during the Saturday Farmers' Market!"; #summerconcert). Such ploys enact as sharable content the lifestyle that neighborhood boosters are trying to sell.

If places have become commodities, social media are platforms on which cities like Troy might dream of competing. For such cities, photogenicity represents opportunity. Friends sharing Sunday brunch on a terrace, a dog being walked in a well-appointed dog park—such moments create a reproducible online brand built on an air of exclusivity. This rationalized quirkiness makes a local flavor known, sellable in the broader market of "those nice places to live." Once a city's obscure and unique qualities are made machine-readable and comparable across networks, the city's brand solidifies and can sit nicely on a social-media shelf.

Thanks to these homogenizing forces, the "authentic urbanness" that cities like Troy offer at a discount has become broadly recognizable. These cities are all banking on rebuilding their downtowns in the style of approachable authenticity. They all hope to be delightfully different while remaining nonthreateningly the same. They have become interchangeable in their uniqueness.

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How did we get here? How did Jane Jacobs, the apparent champion of eclectic, organic urbanism, become the source for a new kind of homogenization? Urban preservation, which you would think would be an exercise in organizing the maintenance of city resources, has become instead a way of instilling an organized ignorance about how markets and commodification are at work.

In the last chapter of *The Death and Life of Great American Cities,* Jacobs traces how city planning sought to adopt methods from other sciences. City-planning movements in the 19th century saw the city in terms of ratios, akin to physics equations. Much as one could calculate the pressure and volume of gasses, one could solve cities' problems by working out jobs-to-housing ratios or by diagramming the balance of open space to population density.

The technique of seeing human habitats as diagrams was used across the political spectrum. The leftist Ebenezer Howard depicted his Garden City as a happy medium between the liberatory potential of urban and country living, while Georges-Eugène Haussmann, who reshaped Paris in the mid-19th century under the direction of Emperor Napoleon III, correlated wide boulevards and self-similar architecture with state-imposed civil order.

In the 20th century, as scientists tried to rationalize the behavior of billions of atoms into statistical probabilities, city planners aimed to do the same with cities. Urban planning evolved from an artisanal craft into a credentialed profession. Cities came to be understood as a confluence of technical and bureaucratic systems administered by experts in specific fields like "housing" or "highway transportation." The world was naturally disorganized, and it was the job of the planner to impose calm order by demolishing huge swaths of the city that were deemed unsalvageable and replacing them with simple, machine-like buildings and roadways that were easy to administer from atop a hierarchy. As Jacobs notes:

> It was possible not only to conceive of people, their incomes, their spending money and their housing as fundamentally problems in disorganized complexity, susceptible to conversion into problems of simplicity once ranges and averages were worked out, but also to conceive of city traffic, industry, parks, and even cultural facilities as components of disorganized complexity, convertible into problems of simplicity.

The newly professionalized discipline of urban planning had become what historian Peter Hall describes as "an apparently scientific activity, in which vast amounts of precise information were garnered and processed in such a way that the planner could devise very sensitive systems of guidance and control." This approach gave the world the high modernist architectural style of Le Corbusier and the ruthlessly technocratic urban redevelopment of Robert Moses, men whose sweeping highways and monolithic buildings all meant to bring a clean, straightforward rationality to dirty, chaotic cities. Their influence is still felt today in cookie-cutter suburbs serviced by highways and office parks accessible only by car or (as is increasingly the case for Silicon Valley companies) chartered buses.

Rationalization, as turn-of-the-century sociologist Max Weber defined it, is a matter of building bureaucracies to order everyday life with machine-like rules that can override the irrational traditionalism, sentimentality, and favoritism of humans. Formal rationality, despite its cold logic, could be deeply comforting: It promised nothing less than the end of poverty, if you could build enough super structures. But Moses's and Le Corbusier's modernist approach to urbanism is rationalization run amok. Not only did these projects require the destruction of many existing neighborhoods; they overestimated humans' ability to manage and ignored much of what makes for a pleasant human habitat.

Jacobs countered the command-and-control hierarchies of modernism with an argument in favor of small, self-organizing systems. She argued that human communities flourish best in places that are built out of a million layers of local history and complex social relations. This is so important to her theory of urbanism that she claims that "the most important question" about city planning is this: "How can cities generate

enough mixture among uses—enough diversity—throughout enough of their territories to sustain their own civilization?"

By "diversity," Jacobs means a mix of buildings, not necessarily people. A mixture of land uses, she argues, keeps social momentum going, allowing different components of the streetscape to be seen as supporting one another. Offices mingle with restaurants and apartments and bars, symbiotically sharing time and space to make a place feel full of life—a teeming human habitat in natural balance. This stands in contrast to rationalized, modernist landscapes, which evoke the single-mindedness of alienating bureaucracies and the profit-driven efficiencies of corporate capitalism. Whether it is office parks or residential towers, suburban ranch homes or strip malls, these buildings convey a limited sense of possibilities that often comes across as inauthentic—they are independent of and indifferent to their surrounding environment and thus could be replicated anywhere.

To counter rationalization and simplification, Jacobs and her countercultural followers embraced an ecological view of city systems and argued for their self-correcting nature. She railed against planners because she believed they were undermining the way we have governed each other (for better or worse) in cities for centuries. In a chapter on the uses of sidewalks, she writes:

> The public peace—the sidewalk and the street peace—of cities is not kept primarily by police … It is kept primarily by an intricate, almost unconscious, network of voluntary controls and standards among the people themselves, and enforced by the people themselves.

Like E.F. Schumacher, whose *Small Is Beautiful* (1973) has become a Silicon Valley touchstone, Jacobs advocates for the familiarity of seemingly self-managing systems, which she likens to "organisms that are replete with unexamined, but obviously intricately interconnected, and surely understandable, relationships." Designers should work within these supposedly organic systems and expand their reach rather than impose rules and systems from without, no matter how logically consistent the imposed rules may be in the

abstract. In one of her last interviews—tellingly, with the libertarian magazine *Reason*—Jacobs said she was "disappointed" with the work of New Urbanists, an early 21st century movement that took her own work as gospel. Jacobs complained that they tried to plan out what could only organically grow over time.

But the very existence of New Urbanism shows how Jacobs's prescriptions are themselves subject to rationalization. Implemented at scale and under the logic of capital, they become as systematic and regimented as any modernist fantasy. Efforts to preserve and understand what makes organic neighborhoods so desirable also provides a template for making them more *valuable*, producing an irresistible model for capitalist redevelopment.

The views of Jacobs and Schumacher end up finding their apotheosis in things like social-media data science, which attempts to anticipate people's desires by unobtrusively parsing information collected about them, and transect-based coding, which urban planners and real estate developers use to identify and commodify a neighborhood's appeal.

In decades past, a suburb might have advertised itself as offering "authentic country living," which meant not the isolation and backwardness of country life but a manufactured ideal of "the country" involving detached houses and racial and socioeconomic homogeneity. Likewise cities and towns today sell a manufactured ideal of urban life that has more to do with standardized nostalgia than unpredictable street life.

The rationalized urban-nostalgia formula is epitomized by the first New Urbanist development, begun in 1981 with developer Robert Davis and architects Andres Duany and Elizabeth Plater-Zyberk. They wanted to build the quintessential seaside town on 80 acres of Florida panhandle, so they set out on an exhaustive survey that cataloged quaint Florida towns and, instead of designing actual buildings, wrote a code for building that developers would have to adhere to. Structures would have to look a certain way and connect to streets within given tolerances. What rose from the sand—simply named Seaside—was so uncanny in its quaint-

ness that it was used as the backdrop for *The Truman Show.*

Of course Rust Belt cities must renovate what they already have rather than build from scratch. But as with Seaside, any new construction in places committed to self-nostalgia will draw constricted "inspiration" from the surrounding architectural terroir. And whereas postwar suburbia was marketed through magazine ads and billboards seen from streetcars, small-city authenticity is now sold through geotagged photos and community hashtags, reinforced by how such tools themselves seem to leverage "organized complexity" to reflect a teeming organicism. Like Jacobs's idealized streetscape, social media can seem self-organized by the improvisations of users rather than an algorithmically planned community. In such marketing materials, authentic city life is reified in such symbolic commodities as the corporately managed industrial loft suites and the so-called Stealth Starbucks, in which the "inauthentic" national branding is disguised.

For the local elites poised to gain from rising rents and tax bases, "discovering" authentic urban charm and bringing it to market is an unmitigated good. For the people who built up a neighborhood's authenticity over the lean years, less so. As David Harvey explains in his 2012 book *Rebel Cities,*

> a community group that struggles to maintain ethnic diversity in its neighborhood and protect against gentrification may suddenly find its property prices (and taxes) rising as real estate agents market the "character" of their neighborhood to the wealthy as multicultural, street-lively, and diverse.

Jacobs may have been right about the sources of neighborhood vitality, but she seemed blind to what capitalists would eventually charge for it. Zukin argues that "Jacobs failed to look at how people use capital and culture to view, and to shape, the urban spaces they inhabit. She did not see that the authenticity she admired is itself a social product." As Harvey points out, "The better the common qualities a social group creates, the more likely it is to be raided and appropriat-

ed by private profit-maximizing interests."

Social media have only made the raiding parties easier to raise. They promise an urban lifestyle without the hassle of dealing with undesirable locals. Simply by owning a brownstone you are seemingly guaranteed a specific kind of iconic social life, regardless of whether you actually know your neighbors.

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For a place to truly become a consumer product, it must be not only subject to comparison shopping (for Troy, this is the image of the city as it circulates in social media) but also as convenient as possible to consume. That means moving has to be as easy as upgrading your smartphone. To consume the spectacle of our own lives in authentic urban environments—and be free to leave them when they become played out—we need to do away with much of our portable property: furniture, appliances, decor, keepsakes, and the like. We need to be ready to abandon any social ties that bind us to a place. We also need to be able to work wherever we move.

Offering pre-furnished apartments within an algorithmically populated neighborhood as an all-in-one consumer product would address all these problems, and a new crop of Silicon Valley companies hopes to provide just that. They have built what Ava Kofman has called venture capital communes, technologically sophisticated takes on the extended-stay hotel that give you a private bedroom within a building with well-appointed common kitchens and living spaces. Your housemates are pre-screened for their willingness to participate in community events like yoga.

WeWork, a purveyor of shared workspaces, has opened a brand extension called WeLive, a take on communal living modeled on these same principles. It aspires, as Kofman argues, to let customers "sign one membership agreement that allows them to seamlessly move between company-held buildings, and even cities, in the future."

By offering everything from stocked refrigerators to pre-organized potlucks, these

companies have captured, Kofman claims, "the other side of social media: how to monetize the emotional labor of everyday, non-digital life." Rather than monetize a picture of your dinner on Instagram by putting ads next to it, WeLive convenes a dinner table and makes those sitting at it serve as living advertisements for potential future neighbors.

WeLive posits a world where we can pick up and go with little concern for personal effects or relationships. This brings to vivid life Marx's claim that capitalism, in seeking to make labor as flexible and transferable as possible, makes workers doubly free: free from geographic ties and social station. At the same time, however, WeLive cuts against the modernist-style rationalized state that Weber presaged. It doesn't impose rules and laws from above to rein in disorganized complexity; instead it creates a domestic environment that is not unlike your Facebook Newsfeed: a disparate collection of people algorithmically arranged to find one another enjoyable and grow into a prefigured community.

The ideas propelling WeLive don't necessarily have to produce a neoliberal nightmare. In Ursula K. Le Guin's *The Dispossessed,* the people of the fictional anarchist society of Anarres moved freely from one pre-furnished dormitory to another according to a mixture of what society needed of them and what the individual wanted to do with their life. Early utopian city planners were similarly inspired by an ideal of a constantly learning, self-correcting resource-management system that could perfectly compensate all of a society's members. But those planners wanted a built environment that sanctified collectivity and democratic decision-making. WeLive rents a facsimile of it to only those that can afford it.

In the coming years, cities like Troy may be faced with uncanny replicas of themselves: too-perfect copies operating in closed circuits economically apart from the aging cities whose past they have appropriated. Perhaps some local elites will find a way to profit off this private commune system, but the cities themselves will yet again be left behind.

It would be a waste if Troy and cities like it were dismissed as exercises in cynical authen-ticity peddling. Bars dressed up like hardware stores may be a little on the nose, but they are owned by real people who speak of civic pride and a genuine desire to bring something back to a community they grew up in, or accepted them when others did not.

If such sentiments are sincere, then there is room for optimism: the possibility that organized complexity can be harnessed for collective good, not capitalist accumulation. The Jacobsonian project has to be socialized, the benefits of well-made places have to be shared within and among the communities that kept the lights on while everyone else was driving by.

The mechanisms to do this are not only known; they have been proved effective in the few places that have shown the political will to enact them. Land banks, truly cooperative housing development, and participatory budgeting are just a few of the tools that can help equitably distribute the gains of economic development. Such programs are not only morally just; they are most likely the only things standing in the way of a dismal history repeating itself.

What the next few years will deal to small cities is uncertain, but if a few people continue to extract rent from their finite resources of authenticity, then they will be right back where they started: abandoned by the fickle streams of economic activity that shift with the changing tide of whatever we consider worthy of attention.

Cut into the rotary-saw-blade sign in front of that bar in the old Trojan Hardware is the phrase "Stay Humble." It is unclear if that is directed at the patrons spending $13 on cocktails or all of Troy, and it's unclear whether anyone's heeding it. ◉

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MAGNIFICENT DESOLATION

Spectacular mechanical feats beget spectacular mechanical failures by ELISA GABBERT

SOME MONTHS AGO I saw a link on Twitter to a YouTube video that caught my attention. It was a computer-animated re-creation of the sinking of the *Titanic* in real time, all two hours and 40 minutes of it.

I did not watch the whole video, but I skipped around and watched parts, interested especially in the few interior views where you can watch the water level slowly rising at an angle in the white-painted hallways of the lower decks,

and later, in the ballroom and grand staircase, as wicker chairs bob around.

The strangest thing about the video is that it includes no people—no cartoon passengers. There is no violin music, no voiceover. The ship is lit up, glowing yellow in the night, but the only sound, save for a few emergency flares and engine explosions, is of water sloshing into and against the ship. The overall impression is of near silence. It's almost soothing.

This is true until the last few minutes of the video, when the half-submerged ship begins to groan and finally cracks in half. Only then, as the lights go out and the steam funnels collapse, do you hear the sound of people screaming, which

continues for another half-minute after the ship has disappeared. A caption on the screen reads: "2:20—*Titanic* is gone. Rescue does not arrive for another hour and 40 minutes." A few (apparently empty) lifeboats are seen floating on the calm black ocean under a starry sky. Then, another caption: "2:21—*Titanic* is heard beneath the surface breaking apart and imploding as it falls to the seafloor." The video ends on this disturbing note, with no framing narrative creating a pseudo-happy ending.

I was suddenly obsessed with the story of the *Titanic.* I rewatched the James Cameron movie (still ridiculous, still gripping); I read a Beryl Bainbridge novel *(Every Man for Himself)* based on the night of the sinking; I read thousands of words on Wikipedia and what you might call fan sites, if you can be a fan of a disaster, reading lists of "facts" and conspiracy theories. I watched a documentary about a weird newish theory of the root cause of the disaster: One scientist thinks that a sudden and extreme drop in temperature caused a kind of mirage illusion on the horizon that obscured the iceberg from the men in the lookout until they were nearly upon it. The same illusion could, in theory, explain why a nearby ship (the S.S. *Californian*) did not clearly see that the Titanic was in danger. It is, of course, just a theory.

Even if you've read some history of the Titanic, even if you've never seen the movies, the Hollywood version of the narrative has a lot of pull—and that narrative puts the blame on hubris. Call it the Icarus interpretation: Blinded by a foolhardy overconfidence, we flew too close to the sun, melting our wings, et cetera. It's the easiest explanation, appealing in its simplicity, its mythic aura, and not without truth.

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WHEN I RAN OUT of freely available *Titanic* material, I moved to other disasters. I had a sudden overwhelming desire for disaster stories of a particular flavor: I wanted stories about great technological feats meeting their untimely doom. I felt addicted to disbelief—to the catharsis of

reality denying my expectations, or verifying my worst fears, in spectacular fashion. The obvious next stop was 9/11.

9/11 is, so far, the singular disaster of my lifetime. People who were in New York City at the time always comment on how "beautiful" and "perfect" that September morning was, with "infinite visibility"—pilots call those conditions "severe clear." As I recall, it was a bright blue day in Houston too. I was driving from my apartment to the Rice University campus a couple of miles away when I heard the reports of a plane hitting one of the Twin Towers on the radio. I continued driving to school, parked my car in the stadium lot, and went into the student center, where a few people were watching the news on TV, with that air of disbelief that can appear almost casual.

The live footage of a massive steel skyscraper with smoke pluming out of a hole in its side was shocking, but I felt it dully; shock is marked by either incomprehension or denial. I don't remember truly feeling horror—that is, understanding—until people began to jump from the buildings. They were almost specks against the scale of the towers, filmed from a distance, but you knew what they were. They became known as the "jumpers": people trapped in the upper floors of the building, above the plane's impact and unable to get out, who were driven to such desperation from the extreme heat and lack of oxygen that they broke the thick windows with office furniture or anything else they could find and jumped to the pavement hundreds of stories below. Leslie E. Robertson, the lead structural engineer of the towers, later wrote that "the temperatures above the impact zones must have been unimaginable." Their bodies were heard landing by those nearby and those still in the buildings.

The jumpers' experience is exemplified by one Associated Press photo dubbed "The Falling Man." It depicts a man "falling," as if at ease, upside-down and in parallel with the vertical grid of the tower. (It's a trick of photography; other photos in the series show him tumbling haphazardly, out of control.) The photo was widely publicized at first, but met with vehement critique. It seems that some people found this particular

image too much to take, an insult to their senses. And though the jumps were witnessed by many, the New York City medical examiner's office classifies all deaths from the 9/11 attacks as homicides. Of course, they were forced, forced by suffering—but they were also voluntary. It seems akin to a prisoner held in solitary confinement or otherwise tortured killing themselves—murder by suicide.

When I think of the jumpers, I think of two things. I think of images of women covering their mouths—a pure expression of horror. They were caught on film, watching the towers from the streets of Manhattan. I do this sometimes—hand up, mouth open—when I see or read something horrible, even when alone. What is it for? I think, too, of the documentary about Philippe Petit, who tightrope-walked between the tops of the towers in 1974. At the time they were the second tallest buildings in the world, having just been surpassed by the Sears Tower in Chicago. It was an exceptionally windy day (it is always windy at 1,300 feet) and when a policeman threatened him from the roof of one building, Petit danced and pranced along the rope, to taunt him. This still seems to me like the most unthinkable thing a man has ever willingly done. The jumpers did what he did, but worse. Death was not a risk but a certainty; they jumped without thinking. It's more horrible to contemplate than many of the other deaths because we know the jumpers were tortured. Death is fathomable, but not torture.

A documentary on YouTube called *Inside the Twin Towers* provides a minute-by-minute account of the events on September 11, re-enacted by actors and intercut with interview footage from survivors. One man who managed to escape from the North Tower—he was four floors below the impact—recounts a moment when he opened a door and saw "the deepest, the richest black" he had ever seen. He called into it. Instead

of continuing down the hall to see if anyone was there, he retreated back to his office in fear. He says in the film, "If I had gone down the hallway and died, it would have been better than living with this knowledge of, Hey, you know what, when it came right down to it, I was a coward. And it was actually our two co-workers down that hallway, on the other side, that ended up dying on that day. And I often think now, Perhaps I should have continued down that hallway."

This is a classic case of survivor's guilt,

It's terrifying, how quickly an ordered structure dissolves. Where does it all go?

sometimes known as concentration-camp syndrome: the sense that your survival is a moral error. Theodor Adorno, in an amendment to his famous and somewhat misunderstood line about poetry after Auschwitz, wrote:

> Perennial suffering has as much right to expression as a tortured man has to scream; hence it may have been wrong to say that after Auschwitz you could no longer write poems. But it is not wrong to raise the less cultural question whether after Auschwitz you can go on living—especially whether one who escaped by accident, one who by rights should have been killed, may go on living. His mere survival calls for the coldness, the basic principle of bourgeois subjectivity, without which there could have been no Auschwitz; this is the drastic guilt of him who was spared. By way of atonement he will be plagued by dreams such as that he is no longer living at all.

This common syndrome, along with post-traumatic stress disorder, goes some way toward explaining why so many Holocaust survivors commit suicide.

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THERE IS SURVIVOR'S GUILT, but there is also survivor's elation, survivor's thrill—a thrill felt only by those a little farther from disaster. The September 24, 2001, issue of the *New Yorker* included a symposium of responses to the attacks. A few were able to acknowledge the element of thrill in our observation. Jonathan Franzen wrote:

> Unless you were a very good person indeed, you were probably, like me, experiencing the collision of several incompatible worlds inside your head. Besides the horror and sadness of what you were watching, you might also have felt a childish disappointment over the disruption of your day, or a selfish worry about the impact on your finances, or admiration for an attack so brilliantly conceived and so flawlessly executed, or, worst of all, an awed appreciation of the visual spectacle it produced.

I find Franzen's moral hierarchy here questionable, that "worst of all" most puzzling. Because to me, more than worry or admiration (!), the most natural and undeniable of reactions would seem to be awe.

It's the spectacle, I think, that makes a disaster a disaster. A disaster is not defined simply by damage or death count; deaths by smoking or car wrecks are not a disaster, because they are meted out, predictable. Nor are mass shootings generally considered disasters. A disaster must not only blindside us but be witnessed in public. The *Challenger* explosion killed only seven people, but like the *Titanic,* which killed more than 1,500, and like 9/11, which killed almost 3,000, the deaths were both highly publicized and completely unexpected.

All three incidents forced people to either watch or imagine huge man-made objects, monuments of engineering, fail catastrophically, being torn apart or exploding in the sky. These are events we rarely see except in movies. The destruction of the *Challenger* and the World Trade Center are now movies themselves, clips we can watch again and again. The proliferation of camera technology, including our cell-phone cameras, makes disaster easier to witness and to reproduce; it may even create a kind of cultural demand for disasters. Also on film are reaction shots: We get both the special effects and the human drama.

Roger Angell's version of survivor's thrill in the same issue is less chastising:

> When the second tower came down, you cried out once again, seeing it on the tube at home, and hurried out onto the street to watch the writhing fresh cloud lift above the buildings to the south, down at the bottom of this amazing and untouchable city, but you were not surprised, even amid such shock, by what you found in yourself next and saw in the faces around you—a bump of excitement, a secret momentary glow. Something is happening and I'm still here.

Angell, here, is saying this is not an aberration; it is the norm. It is one of the horrible parts of disaster, our complicity: the way we glamorize it and make it consumable; the way the news turns disasters into ready-made cinema; the way war movies, which mean to critique war, can only really glorify war. And we eat it up.

We don't talk about it now, but I always found the Twin Towers hideously ugly, in a way not explainable by their basic shape—they are long rectangular prisms, nothing more. Perhaps that was the problem. In the past, anything so large (the Eiffel Tower, the *Titanic*, the Empire State Building) had usually attempted to be beautiful and usually succeeded. These other structures still appear beautiful. How could anyone have ever found or ever in the future find the Twin Towers beautiful? They seem designed only to represent sturdiness, like campus buildings in the brutalist tradition that were mythologized to be "riot-proof."

A friend, a New Yorker, disagrees. She tells me the buildings "did amazing things with the light." Another, also from New York, says they were sexy at night. But all skyscrapers are sexy at night, from below if not from afar, by virtue of their sheer dizzying size, their sheer sheerness, sheer as in cliffs. They stand like massive shears, stabbed into the sky.

Despite their imposing, even ominous height, the towers fell in less than two hours; the

Titanic took only a little longer to sink. But that happened gradually. When you watch a building collapse, it seems like it suddenly *decides* to collapse. It's a building, and then, it's not a building, just a crumbling mass of debris. There seems to be no transition between cohesion and debris. It is terrifying, how quickly an ordered structure dissolves. Where does it all go? Buildings, like anything, are mostly empty space.

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IN THE VOCABULARY OF disaster, one very important word is "debris," from the French *debriser*, to break down. A cherishable word, it sounds so light and delicate. But the World Trade Center produced hundreds of millions of tons of it. The bits of paper falling around the city led some people to mistake the initial hit for a parade.

In space flight, or even on high-speed jets, tiny bits of FOD, or "foreign object debris," can cause catastrophe. Space food is coated in gelatin to prevent crumbs, which in a weightless environment could work into vulnerable instruments or a pilot's eye. A small piece of metal on the runway could get sucked into a jet engine and cause it to fail.

The *Challenger* explosion, like the sinking of the *Titanic,* is usually chalked up to hubris. But if hubris is overconfidence, the explanation is unsatisfying. Engineers at NASA's Marshall Space Flight Center knew that the O-ring seals, which helped contain hot gases in the rocket boosters, were poorly designed and could fail under certain conditions, conditions that were present on the morning of the launch. The O-rings were designated as "Criticality 1," meaning their failure would have catastrophic results. But the engineers did not take action to ground all shuttle flights until the problem could be fixed. As the very first sentence in the official *Report of the Presidential Commission on the Space Shuttle Challenger Accident* puts it: "The Space Shuttle's Solid Rocket Booster problem began with the faulty design of its joint and increased as both NASA and contractor management first failed to recognize it as a problem, then failed to fix it and finally *treated it as an acceptable flight risk*" (italics mine).

What shocks me most when I read about the space program is the magnitude of the risks. The *Challenger* exploding on live TV in front of 17 percent of Americans was unthinkable to most of those viewers but not unthinkable to workers at NASA.

From what I understand, NASA has always embraced a culture of risk. In his memoir Spaceman, astronaut Mike Massimino, who flew on two missions to service and repair the Hubble telescope, recounts the atmosphere at NASA after the space shuttle *Columbia* broke up on reentry in 2003:

> When I walked in I saw Kevin Kregel in the hallway. He was standing there shaking his head. He looked up and saw me. "You know," he said, "we're all just playing Russian roulette, and you have to be grateful you weren't the one who got the bullet." I immediately thought about the two Columbia missions getting switched in the flight order, how it could have been us coming home that day. He was right. There was this tremendous grief and sadness, this devastated look on the faces of everyone who walked in. We'd lost seven members of our family. But underneath that sadness was a definite, and uncomfortable, sense of relief. That sounds perverse to say, but for some of us it's the way it was. Space travel is dangerous. People die. It had been 17 years since *Challenger.* We lost Apollo 1 on the launch pad 19 years before that. It was time for something to happen and, like Kevin said, you were grateful that your number hadn't come up.

In other words, the culture of risk at NASA is so great that in place of survivor's guilt there is only survivor's relief.

But knowing the risks and doing it anyway must entail some level of cognitive dissonance. This is apparent when Massimino writes that "like most accidents, *Columbia* was 100 percent preventable." This is hindsight bias; only past disasters are 100 percent preventable. The *Columbia* shuttle broke apart due to damage inflicted on the wing when a large chunk of foam insulation flew into it during launch. This was observed on film, and ground crew questioned whether it might have caused significant damage. However, the insulation regularly broke apart during launches and had never caused significant damage before. Further, NASA determined that even

if the spacecraft was damaged, which they had no way of verifying, there was nothing that the flight crew could do about it, so they didn't even inform them of the possibility of the problem.

When *Columbia* came apart during reentry, disintegrating and raining down parts like a meteor shower over Texas and Louisiana, an investigation was launched. At first, no one believed that the foam could have done enough damage to cause the accident. It was "lighter than air." As Massimino writes, "We looked at the shuttle hitting these bits of foam like an 18-wheeler hitting a Styrofoam cooler on the highway." Not until they actually reenacted the event by firing a chunk of foam at 500 miles per hour toward a salvaged wing and saw the results did they accept it as the cause of the disaster. Anything going that fast has tremendous force. This was not like the failure of the O-ring; the risks of the insulation were not understood. Or, more properly, they were simply not seen—it's basic, though unintuitive, physics. The same type of accident is 100 percent preventable now only because the disaster happened, triggering a shuttle redesign. When redesigns cost billions of dollars, if it isn't broke, they don't and probably can't fix it.

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THE PROBLEM WITH THE concept of hubris is that it lets us off too easy. It allows us to blame past versions of ourselves, past paradigms, for faulty thinking that we've since overcome. But these scientists we might scoff at now were incredibly smart and incredibly well-prepared. The number of things that *didn't* go wrong on numerous space missions is astounding. It's easy to blame people for not thinking of everything, but how *could* they think of everything? How can we?

Not knowing the unknowable isn't hubris. There is real danger in thinking, We were dumb then, but we're smart now. We *were* smart then, and we *are* dumb now—both are true. We do learn from the past, but we can't learn from disasters that do not yet have the capacity to happen. While disasters widen our sense of the scope of the possible, there are limits. We can't imagine all possible futures. Yet we call this hubris. Perhaps

it's comforting to believe disasters are the result of some fixable "fatal flaw," and not an inevitable part of the unfolding of history.

To say there are limits to technological progress—we can't prepare ourselves completely for the unforeseen—is not to say progress is impossible, but that progress is tightly coupled with disaster. (As French cultural theorist Paul Virilio famously said, "The invention of the ship was also the invention of the shipwreck.") Not until we experience new forms of disaster can we understand what it is we need to prevent. If this is true, overreliance on the explanatory power of hubris is itself a form of hubris, a meta-hubris, since it assumes a position of superiority.

And can we, in any case, have progress without hubris pushing us forward with partial blinders? Don't we need hubris to enable and justify advances in technology? NASA seems to take hubris in stride; they see occasional disaster as the fair cost of spaceflight.

In his "Letter From a Birmingham Jail," Martin Luther King Jr. warned of "the strangely irrational notion that there is something in the very flow of time that will inevitably cure all ills." You could say the same of technological progress; it is tempting to believe that progress occurs on a linear curve, such that eventually all problems will be solved, and all accidents will be completely preventable. But there's no reason to assume the curve of progress is linear, that the climb is ever increasing.

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I WANT TO COME back to the *Titanic,* and some common misconceptions. One is that there were not enough lifeboats on board for frivolous reasons—because proprietors felt they would look unattractive on deck, or because they were regarded as mere symbols, serving only to comfort nervous passengers on a ship designers believed was literally unsinkable. This isn't the case. Rather, the thinking at the time was that the safest method of rescue, in the event of an emergency, was to ferry passengers back and forth between the sinking ship and a rescue ship. Because the *Titanic* would

sink slowly, if at all, for some time it would actually be safer on the ship than in a lifeboat. Therefore the lifeboats didn't need to accommodate the entire capacity of the ship in one go.

So why did the *Titanic* sink so fast? The surprising truth is that if the ship had hit the iceberg head on, instead of narrowly missing it at the stern and then scraping along its side, it would not have sunk. The ship was capable of sustaining huge amounts of damage from an impact like an iceberg—it could stay afloat if four of its 16 watertight bulkheads were flooded. But the iceberg tore into the ship in such a way that five compartments were damaged. This event was not, realistically, foreseeable; no iceberg in history had done that kind of damage to a ship, and none has done that kind of damage since. It was, in essence, a freak accident.

There are echoes of this in the World Trade Center's collapse. It's well known that the buildings were designed to survive the impact of an airplane. However, they were envisioning outcomes like a small, slow-flying plane hitting a tower by accident—in fact, a bomber flying in near-zero visibility had hit the Empire State Building in 1945—not a modern jet being flown purposely into the tower at top speed. Still, there was a false sense of security. After the first impact, the PA system in the building told people to remain at their desks when of course they should have been evacuating. Some building staff also told workers it would be safer to stay where they were.

Is this hubris, or something else? Disasters always feel like something that happens in the past. We want to believe that better technology, better engineering will save us. The more information we have, the safer we can make our technology. But though it's hard to accept, we can never have all the information. In creating new technology to address known problems, we unavoidably create new problems, new unknowns. Progress changes the parameters of possibility if it changes anything at all. In fact, this is something we strive for—to innovate past the event horizon of what we can imagine. Hubris feeds on itself, is self-sustaining. And with so much that is inaccessible, unknowable, and changing all the time, we can't even hold on to what we already know.

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As THEY STEPPED OUT of the lunar module and began their moon walk, Neil Armstrong said to Buzz Aldrin, "Isn't that something! Magnificent sight out there." Aldrin's cryptic, poetic response was "Magnificent desolation." I think of this quote when I see footage of disasters. Especially after years of buffer, years of familiarity, have lessened the sting, it's easy to see these events as, in their way, magnificent. Magnificent creations beget magnificent failures. It is awesome that we built them; it was awesome when they fell. Horror and awe are not incompatible; they are intertwined.

Is it perversity or courage that allows some people to admit to survivor's thrill? On the afternoon of September 11, I remember meeting my then-boyfriend on campus for lunch. He was a contrarian type, but nonetheless his reaction disturbed me—he was visibly giddy, buzzed by the news. It's not that I don't believe others were excited, but no one else had revealed it. In 2005, before the levees had broken in New Orleans, my roommate asked if I wasn't just a little bit disappointed that Katrina hadn't turned out as bad as predicted. Just hours later she regretted saying it.

Often, when something bad happens, I have a strange instinctual desire for things to get even worse—I think of a terrible outcome and then wish for it. I recognize the pattern, but I don't understand it. It's as though my mind is running simulations and can't help but prefer the most dramatic option—as though, in that eventuality, I could enjoy it from the outside. Of course, my rational mind knows better; it knows I don't want what I want. Still, I fear this part of me, the small but undeniable pull of disaster. It's something we all must have inside us. Who can say it doesn't have influence? This secret wish for the blowout ending? ◌

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PERPETUAL MOTION MACHINES

Driverless cars won't be a new form of transportation but the end of it by CHENOE HART

THE VIDEO THAT introduces Nissan's IDS automated concept car resembles any other car commercial: vaguely propulsive background music, tracking footage shot from a helicopter sweeping over a city, a handsome man behind the wheel. Then, as the narrator promises that Nissan's technology will make driving more "enjoyable" by allowing computers to take over during moments of heavy traffic, the car's manual controls vanish beneath an elaborate folding-panel system. The driver role is replaced with the equally familiar role of passenger, gazing contemplatively at the passing scenery of the same conventional streets and bridges and office buildings that would be visible today.

But new technologies may ultimately evolve far beyond machines "automating" the recognizably human task of driving. Hypotheses about "driverless" cars still presume there will be such a thing as drivers and passengers,

trapping us within the current incarnation of our transportation system. Frequently applied terms like "automated" and "driverless" are inadequate in that they continue to posit manually piloted vehicles as the norm from which the new technologies deviate. Rather than robot drivers piloting cars that humans might otherwise be driving, these new technologies may transport us in an entirely different way that dispenses with accommodating human capabilities.

While attempting to describe an upcoming future that we do not yet understand, predictions like those in Nissan's IDS video remain burdened with obsolete concepts. It is telling that Nissan's concept car and the vehicles imagined by Volvo and IDEO retain familiar characteristics of gasoline-powered cars. They have a hood and front grille as ornamentation, for instance, even after their electrical propulsion mechanisms have rendered them nonfunctional. The electric drivetrain of Tesla's Model S makes the front hood vestigial; the company's nickname for that anachronistic space where the engine once was—a "frunk," or front trunk—embodies the awkwardness of adapting new designs to our current expectations.

Once designers of automated vehicles are no longer bound by the outdated limitations of accommodating either internal combustion technology or human operators, they could move far beyond our present-day intuitions of what a car should look like. Replacing bulky gasoline engines and transmissions with multiple smaller electric motors and slim under-floor battery packs would enable radical new possibilities for the configuration of interior space. As early as 2002, GM's Hy-Wire concept car separated an interchangeable passenger compartment from its fuel cell and electric motor powertrains, opening up space for an interior that more closely resembled a living room than conventional expectations of passenger-car seating. Where one would expect to see a hood and dashboard, the windshield extended to become a panoramic window framing the road ahead as a scenic view.

The Hy-Wire's technology suggests that the focus of car design could turn inward, yielding a range of new possibilities for vehicle interiors. Our future passenger experience might bear little resemblance to either driving or riding within a vehicle; we'll inhabit a space that only coincidentally happens to be in motion.

With a system of automated vehicles, transit passengers will no longer need to pay any atten-

Our experience will bear little resemblance to driving. We'll inhabit space that only coincidentally is in motion

tion while distances are being traversed. With the possibility of traffic collisions theoretically eliminated, safety requirements mandating fixed seats, air bags, and seat belts would become obsolete. Passengers who no longer needed to be restrained would be able to move around freely. After ease of handling becomes an irrelevant design consideration for new vehicles steered by computers, designers will be free to stretch wheelbases, raise ceiling heights, and specify softer suspensions to make that movement more natural and comfortable. And since the people inside wouldn't necessarily need to see where they were going, a growing range of possible wall fixtures—storage cabinets, LCD screens, perhaps a kitchen sink—could substitute passenger convenience over views of the world outside. The elimination of the driver will mean the end of the car as a car.

The social impact could be broader than we

expect. When we don't have to look where we are going, we have to deliberately choose what we want to see. One of IDEO's more radical visions of how automated vehicles could be used, the WorkOnWheels mobile office, is designed to allow employees to travel to new locations as they work. The pod contains office furniture and pull-down shades over the windows, letting workers choose which aspects of their surrounding environment they want to see, without having to visually process the travel in-between. Cityscapes become optional, consumable on demand rather than by necessity. Meanwhile, the mobile workplace's controlled internal habitat would remain constant no matter where it was.

Such a vehicle would not have to travel any faster for us to perceive a dramatic reduction in travel time. The time once spent in vehicles inertly waiting to arrive could now be filled with the same sort of activities we'd be doing if we were already there—or had never left.

The opportunity to multitask while traveling could make the journey into the destination. Given the expanded possibilities of what one could do inside a vehicle, our existing distinctions between vehicles and buildings, between transit and destination, between static and mobile spaces, may begin to blur. Imagine commuting while sleeping, or socializing at happy hour while the bar transports you home. Imagine if a garage was also the car. If commuting entails being in a space that is functionally equivalent to being at home, one might eventually skip returning home, and commute perpetually. The journey to work could commence as soon we fall asleep. The idea of having a destination becomes as obsolete as drivers and cars. Highways would host listless roaming bedrooms, meandering through the night.

Our understanding of a house as a stable locus of physical and emotional shelter could become diluted. There would be no reason for homes to not also be vehicles. A range of new options for customizing these vehicle-home hybrids would emerge: Homes could be made up of modular docking pods, and specific rooms could be shared, swapped, rented out, or sent away for cleaning or restocking. Modern conveniences that we currently take for granted—such as being able to use a bathroom without needing to arrange for its presence in advance—could become tomorrow's luxuries. The homeless would be the only people not constantly in motion, the people closest to retaining a fixed physical location called home. Stasis would become homelessness.

If vehicular interiors can accommodate the activities possible at most destinations—if the vehicle becomes a destination in and of itself, and destinations become other vehicles—the mediating experience of a journey between places would be eliminated. There will be no signs to point us anywhere. There would be no need to know directions, and no sense of what being "on the way" to somewhere looks or feels like. There will be no need to know how to get anywhere once we forget the concept of having anywhere to go.

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DRIVERLESS CARS WILL NOT be the first transit technology to challenge our conceptions of time and space. The travel speeds of the first railroads were unprecedented, surpassing the contemporary ability to perceive the distance between destinations. Train routes became abstractions, navigated by means of timetables rather than maps. Eventually, transit system diagrams, like the iconic Vignelli New York City subway map, eliminated realistic representations of geography. Mass-market novels grew in popularity as a way for riders to pass the time while their capacity to comprehend or influence the direction of their journey was suspended.

Geographic proximity became less relevant than whether or not the destination was connected to the transportation network. Early transit-oriented developments, such as theme parks and department stores, were built by railroad interests to take advantage of the audiences captive within their systems. Growing suburban commuter towns expanded to the limit of convenient walking distance from a train station; areas beyond that boundary remained rural.

At the same time railroads were offering passengers prescribed choices between linear routes, other technologies were bringing a wider scope of self-directed travel to many consumers. The growing popularity of early bicycles was met with a moral panic over whether they would allow female riders the freedom to travel unsupervised and mingle with members of the opposite sex. While exploratory automotive road trips are now romanticized as integral to American culture, a continuing reminder of the bicycle's early reception can be seen in Saudi Arabia's laws prohibiting women from either driving cars or riding bikes.

The user interface for navigation would no longer be a map, but a clock or calendar. Place would be synonymous with occasion, and more closely resemble verbs than nouns

External rules can always be imposed to limit the freedoms that might seem innately afforded by transportation technologies. Driverless cars would seem to retain the automobile's capability to allow passengers free individualized movement, but their software may introduce new avenues for regulatory control over those movements. Physical impediments like gates and cul-de-sacs would become less relevant compared with restrictions or service fees implemented at the level of code. People and buildings in different service networks might pass each other by without experiencing the slightest hint of one another. And a software error could make certain places impossible to access even as you go right through them. It may require special attention for passengers to know what choices they actually have over their journeys, what potential detours they might be missing. Passengers content to surrender responsibility over their journeys could find themselves back on de facto railroad tracks.

A "driverless car" could become conceptu-

alized as a horizontal elevator. After an elevator's initial acceleration, the difference in time between reaching higher and lower floors is minimal. Traveling between buildings could become closer to traveling between different floors in the same building, and with no greater awareness of the other numbered floors or buildings blinking past in between. Destinations become equally accessible entries in an arbitrary numeric index, with the differences in access time reminiscent of the slight delays in retrieving digital information from a mechanical hard drive.

The user interface for navigation would no longer be a map, but a clock or calendar. Place would be synonymous with occasion

It should be no surprise that Google, a technology company focused on information retrieval, has been the first to replace the analog interface of a steering wheel with the binary option of a single push button. Our wider urban environment could become randomly accessible in the same way that Amazon's "Chaotic Storage" warehouses already organize their contents, independent of any traditional spatial categorization scheme.

Maps would no longer be relevant outside the internal processes of a vehicle's guidance computer. If one sought, say, the nearest coffee shop, it would not have to be a question of geography. The desire for coffee wouldn't be a matter of a destination or a journey. Behind the scenes, software would instruct a vehicle to take its passenger to a nearby coffee shop, or it could summon a mobile coffee shop toward

the customer. There would be no trip to a fixed location, only trajectories calculated dynamically to unite the various moving parties to facilitate an exchange. The divergent aims and cross-purposes of individual drivers pursuing their goals would be subsumed by a swarm of vehicle-buildings coordinated across a shared network, moving collectively in fluid patterns. Extrapolate this principle, and one can see how dispersed low-rise communities of mobile buildings might replace fixed, vertically oriented cities.

Once physical locations are rendered as abstract coordinates in a user interface, they effectively become arbitrary, as interchangeable as the retail spaces of big-box stores. The experience of inhabiting any particular interior space might become decoupled from its existence within a specific place, free from the baggage of associated historical and geographic context. Real estate would no longer need to be valued according to its location, because proximity would always be subject to change. Travel to visit or inhabit buildings still standing in fixed physical locations might join horses and antique cars as nostalgic hobbies for the wealthy.

Our memories of the spatial processions encountered while traveling through urban architecture—approaching the public facade of a building, the transition between the street and lobby, the awareness of landmark reference points on a skyline, the interstices between buildings—might eventually begin to fade. The experience of passing from one destination to another could become akin to watching the progress bar of a software download. Traveling to a different location, or having that location travel to you, would be more akin to updating an app.

The user interface for navigating space would no longer be a map, but a clock or calendar. Distances once traced on a map would be transmuted into blocks of time plotted on one's daily schedule. Place would be synonymous with occasion, with movement through time corresponding to automatic movements through space. Frequent destinations such as "home" and "work" might transform into abstract zones differentiated mainly by when

rather than where they happen. Our motives and desires would be foregrounded over the experience of traveling, shifting our conception of destinations to more closely resemble verbs rather than nouns. Your workout routine might take place in a different gym than it did the morning before, but you wouldn't know the difference; they would be identically convenient. As soon as our scheduled time within one destination expired, we would be able to walk through a docking port into the next, like a cinematic cut skipping the passage of mundane events that might otherwise have unfolded between selected scenes.

Driverless passenger cars and delivery vehicles will further accelerate our current move to on-demand services that let us bypass those inconvenient interstitial moments of everyday life—walking to a store, standing in line, cooking a meal, and so on. The logistics of scheduling automated vehicles will ensure that even more of our time becomes consciously programmed and structured, optimized for maximum productivity. With each advance, our surrounding environment will become increasingly hostile to serendipity and chance meetings, known sources of creative breakthroughs.

Contemporary urban-planning guidelines are based on assumptions that the rich pedestrian life of a street or a park emerges from adjacencies with surrounding businesses. Driverless cars posit a possible future without street life and without spaces for spontaneity. As with previous planning mistakes in developing automotive-oriented cities, carmakers and technology companies are moving forward with their ideas without reckoning with the full range of potential social impacts. These futures must be imagined before they can be embraced or resisted. Otherwise driverless cars may steer society into a blind cul-de-sac, and we will discover we have nowhere left to go. ●

***Chenoe Hart** is an architectural designer in cyberspace.*

PAJAMA RICH

If it's unclear whether you're working out, working at home, or working at all, then chances are you're wearing athleisure by MOIRA WEIGEL

'M PAJAMA RICH," Kanye rapped in 2010. But, by then, you didn't have to be rich to spend your days in clothes you could have slept in. Among young, female professionals, Lululemon and its imitators were taking over. Even debt-ridden students and freelancers—or especially students and freelancers—were dressing as if they might at any minute hit the sack or hit the gym. And why not? It wasn't as if we had fixed schedules.

The size of the market for athleisure—a coinage officially adopted into Merriam-Webster's lexicon this April—grew five percent each year between 2009 and 2014, from $54 billion to $68 billion. The trend accounted for nearly all growth in the apparel, footwear, and accessories sector during this period. People in American cities were wearing Lululemon, Lucy, and Lorna Jane; Gap Body, Athleta, and Nike everywhere, including to the office. According to a February article in the *New York Times,* the market may hit $100 billion by the end of 2016. Meanwhile, sales of jeans fell six percent in 2014 alone—the most precipitous drop in more than 30 years. One *Business Insider* article called it the "Denim Apocalypse."

Why have fancy workout clothes become the uniform of so many American women? Marshal Cohen, the chief apparel analyst for the market-research firm NPD Group has told reporter after reporter that the reasons are straightforward: The clothes are "comfortable" and suit "a fitness-conscious lifestyle." But for many wearers, the athletic part of athleisure remains aspirational: Sales of yoga clothes increased 10 times as much as participation in yoga classes over the 2009 to 2014 span, according to the *Wall Street Journal.* Comfort is not a constant either. As Lululemon founder Chip Wilson infamously said on Bloomberg Television, "Some women's bodies just actually don't work in the pants."

It is not simply ease or convenience that puts women in athleisure. The look physically connects us to an ideal. Social psychologists have coined the expression "enclothed cognition" to describe "the systematic influence that clothes have on a wearer's psychological process." For instance, a test subject wearing a lab coat becomes more attentive to details than someone not wearing a lab coat. Another experiment found that test subjects wearing what they were told was a "doctor's coat" did the same, but those wearing an identical garment they had been told was a "painter's coat" became less attentive.

Simply looking at a lab coat while performing the task had no effect.

The researchers concluded that enclothed cognition derived from two sources: the "physical experience" of wearing a garment and its "symbolic meaning." Athleisure is trending because it offers a distinctive physical feeling that corresponds to how we are expected to feel about work in an era when "do what you love" is the conventional wisdom about careers. Lululemons announce that for their wearer, life has become frictionless. It clothes us in an ideal that merges work and play to the point where they become indistinguishable, and effort feels like pleasure.

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For me, it started with a Spanx. It was the summer of 2009. I was in Minnesota, on the eve of a family wedding, and feeling unsure about my outfit.

"You have a waist from another era," the saleslady back in New York had gushed, flattering me, when I tried on the high-waisted skirt I was planning to wear. But did I, really? What did that even mean? In the clear light of the Midwest, it looked like an optical illusion, produced by other bulges that the skirt exposed.

My mother pulled a flesh-colored something out of her suitcase that, she laughed, she had to "sausage herself into."

"Spanx," she explained.

The next morning I convinced one of my aunts to drive me to Dayton's. The knockoff I bought fit me like a glove, but more closely than any glove I ever wore.

That night, my cousin was married, and I drank too much and danced too closely with a stranger I kept calling "Mike," even though I knew he was called Alex. For some reason, in that state, the idea of not being able to remember the name this confident young man kept repeating struck me as funny.

As we swayed, hip to hip, I felt the cling that I now feel in most of my clothing. Held and exposed. Smoothed and protected. The sense of touch is notoriously difficult to describe—hence, begging-the-question words like *mouthfeel.* But the word for how my casing made me feel was *optimized.* I was the best lonely girl at a wedding I could be.

The physical sensation of Spanx comes from Lycra, which is another name for spandex. Like many technologies—the internet, for instance—it was a by-product of research funded by the U.S. Army in the middle of the last century. During World War II, chemists at Dupont (itself originally a gunpowder manufacturer) developed rubber-based polymers that could be used to make parachutes capable of resisting rain and heat. After the war, a chemist named Joseph Shivers found that when he took out the rubber, he could make fibers that stretched up to five times their length without losing shape. By 1962, Dupont had commercialized it under the name Fiber K,

and soon manufacturers were buying miles of it to make into sportswear and girdles, swimsuits and hosiery. By 1990, spandex was one of the most profitable divisions at the company.

Maybe two years after my cousin's wedding, my friend Mal told me about Lululemons. We were taking a yoga class at the studio she went to. I have never managed to stick with yoga for the same reason I probably should: I get too impatient. But I still wear Lululemons almost every day.

Spanx and Lululemons share a chemical formula; the spandex they both use offers flexibility to the point of being indestructible. It also embodies the dual nature of that flexibility. Spandex is an anagram of "expands," but as much as its fibers *stretch,* they also *compress.* They offer a kind of comfort, but on the condition that you submit to having your body shaped. Rather, they ask you to commit to shaping it in a certain way.

While Spanx are a secret weapon for managing intractable body parts, Lulus put that effort on proud display, announcing that their wearer is eager to be seen as engaging in constant self-management—toning her ass and thighs and balancing work with "life." As the "embodied cognition" people might put it, yoga pants let the entire body *think* that aspiration.

As the Lululemons symbolize aspiration, the spandex enforces the discipline needed to achieve it. Offering convenience, the pants also nag us to exercise. Self-exposure and self-policing meet in a feedback loop. Because these pants only "work" on a certain kind of body, wearing them reminds you to go out and get that body. They encourage you to produce yourself as the body that they ideally display.

Lululemons suggest an unfussy attitude ("Oh these? These are just gym clothes!"). At the same time, they telegraph that their wearer is driven. "I am dedicated to fitness," they say, "and I have no time to change." Yet, wearing these pants at midday hints that you have a flexible schedule. You do not have to go into a traditional office. Or, if you do, you do not feel any pressure to impress. You just might step out for a spinning class or a green juice.

In other words, Lululemons convey status. Like spending a fortune on nutrition, facials, and skin cream so that you can boast that you "only wear lip gloss," wearing these pants is a form of inconspicuous consumption—particularly when you pair them, as so many women do, with an expensive handbag. In their conspicuous inconspicuousness, as well as their homogeneity, Lululemons recall the "normcore" trend of several years ago. They share the pretense of democratic-ness but leave out the irony. Athleisure humble-brags.

All over San Francisco, I see evidence that the Lululemon class has sexualized the pain involved in becoming your fittest self. The other day I saw a $60 T-shirt for sale on Polk Street. The front read: BARRE WHORE

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Before athleisure, Americans wore denim. Like spandex, denim was said to be comfortable. Like Lululemons, blue jeans crossed boundaries between work and play. Unlike athleisure, however, jeans were first made for men.

Levi Strauss, an immigrant from Bavaria who landed in San Francisco, is credited with being the first manufacturer of modern jeans. In 1873, with a tailor, he filed a patent for a denim pant with "rivets sewn in at the points of strain"—the pockets, crotch, and hip. The goal was to make pants you could wear for years—on horseback and into gold mines or, less romantically, for any sort of manual labor—without ripping them.

Jeans remained working clothes worn by factory hands until around the beginning of World War II, when the uniform was reinvented as an image. When director John Ford put John Wayne in jeans in the 1939 movie Stagecoach, it was to symbolize not drudgery, but freedom through hardship—and the kind of manliness that was supposed to have flourished there in the absence of women. (In the 1870s there were 100 men for every 38 women in California, and the gender ratio would not reach parity until 1950.)

Already in the 1880s, Walt Whitman made fun of the "down-town clerks" he saw flooding in and out of the office buildings of lower Manhat-

tan. They were "a slender and round-shouldered generation, of minute leg, chalky face, and hollow chest." Their clothes were especially embarrassing. They looked "trig and prim in great glow of shiny boots, clean shirts … tight pantaloons, straps, which seem coming into little fashion again, startling cravats, and hair all soaked and slickery with sickening oils."

As Western wear, jeans represented a rejection of this white-collar emasculation. Levi's promised that America was still a place where you could get by on your wits and that if you took risks you could turn dirt to gold. Lady Luck might favor anyone on the frontier—any white man, that is. If jeans were the sartorial symbol of equal opportunity, the democratized work wear of self-made men, racism always tainted their American dream of transcending class. Nineteenth-century satirists mocked the Chinese laborers who came to San Francisco for wearing black pajamas. The Apaches that John Wayne kills sport leather chaps.

Fashions changed, but the idea that white-collar work made men effeminate persisted. In the 1950s and 1960s, a growing literature on male malaise—from *The Man in the Gray Flannel Suit* to *Revolutionary Road*—attested that the kind of bootlicking required to hold down a salaried job was the opposite of independence. You put up with these humiliations only in order to support your wife and kids. Wearing jeans would never fly with a white-collar boss. A man in jeans thus revolted against domesticity and its demands. On Marlon Brando, James Dean and Elvis, jeans became that paradoxical thing: a uniform of rebellion. As fetishized consumer goods, they became part of the consumer economy—traditionally the domain of housewives and households—even as they symbolized the desire to escape it.

In this same era, women put on jeans to play with the gender expectations men hoped to shore up. A woman in denim seemed slightly cross-dressed; jeans looked like a kind of jaunty drag. Consider Marilyn Monroe in her second-to-last movie, *The Misfits* (1961), a Western about the end of the Western. Just as the film's dramatic tension comes from her being unsuited for the cowboy life, the frisson of her look comes from how it combines her hyper-feminine body with manly roughness.

But the ideal female body changes as the needs of capitalism change. The full figure that Marilyn's jeans hugged broadcast softness and fertility, a person who lived to consume and breed. The shrinking bodies of the 1970s and 1980s suggested a different aspiration: to combine the fragility associated with being female with the drive and self-control required to build a career.

Historically, in western culture, women have been seen as playing the body to the male mind. But the first generation of calorie-counting career girls hoped that they could overcome this history. *Get you a body that can do both.* Women's jeans became a fixture in this period because they suited these aspirations and the idealized body that emerged with them.

The new physique expressed the contradictory values of female passivity and masculine ambition. Jeans were ostensibly androgynous garments. This made them particularly well suited for articulating actual gender difference. The 1992 Calvin Klein spreads featuring Mark Wahlberg and Kate Moss highlighted how the ideals of male strength and female fragility could persist even in a presumably equal-opportunity world. The look synthesized them. Because for the vast majority of women, it would take superhero willpower to stay that thin, especially if you were also busy climbing a corporate ladder. The jeans never fit.

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Of course, you don't need to tell any woman who has ever shopped for jeans that they were not made for us. Over the past decade, we may have finally left them behind. This is our progress: In the era of Sheryl Sandberg and Hillary Clinton, we no longer live in thrall to Kate Moss waifishness. In form and in function, athleisure celebrates strong women. It was as if clothes that could stretch to fit a female figure could also make the boundaries between public and private space—between the spheres traditionally

understood as male and female, as for work and for sex—more elastic.

American Apparel was the transitional brand. The porny tableaux of lithe young women in monochrome basics that started to crop up on billboards and buses from Brooklyn to Berlin were like Calvin Klein campaigns reshot as sexts. The fact that the models looked like amateurs was precisely what made them titillating. As a dude at a grad school party once put it, "An American Apparel ad promises you could get fucked anywhere. You could get fucked in your youth hostel. You could get fucked at the laundromat." (When I told him later that I was wearing an American Apparel dress, he waved my embarrassment aside, saying, "I knew that.")

Next came jeggings—the denim-spandex blend that became popular as American Apparel crashed and burned—and then athleisure, which took the process of "liberating" the female figure from the ill-fitting stiffness of denim to its conclusion. But this liberation is conditional. It retains the superwoman work ethic. A woman dressed in Lululemons looks like she is ready to scream with enthusiasm through a punishing exercise class and then hurry back to the office.

Even as athleisure liberates us from earlier, gender-bound modes of dress they enforce a new code of the body as a constant work in progress. The ideal contemporary subject is a person who is willing to spend all her time being productive. You have to work hard to afford Barre or spin or yoga; at the same time, these efforts energize you to return to work.

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IN THE HEYDAY OF John Wayne jeans, the break between work and not-work was clear. Men who worked from 9 to 5 could put on jeans afterward to symbolize rebellion or, at least, their need for respite. It recharged them to return to the office the next day.

In the era of athleisure, time is more ambiguous. When the workday starts or ends, and where work happens, have become less clear. At the same time, selfhood has become an entrepreneurial

The ideal worker in in the era of athleisure is female. Women are more accustomed to balancing multiple kinds of demands

project, a question of optimizing different activities. The ideal worker in this new regime is female. It is not just that women are more experienced with the kinds of service work and image and emotional work that have largely replaced manual and factory labor in the developed world. It is that women are more accustomed to balancing multiple kinds of demands.

In April, Beyoncé released a video to announce the release of her new athleisure line, Ivy Park. In it, she delivers a monologue over a montage of her exercise routine,explaining that the brand name comes from the park where her father used to make her exercise every morning as a child. "I remember wanting to stop, but I would push myself to keep going," she says. "It taught me discipline." Of course, the Ivy part comes from the name of her daughter.

In the voiceover, Beyoncé demonstrates how she shifts easily between public and private mode, between the work of work and the work of life: "There are things I'm still afraid of. When I have to conquer those things, I go back to that park. Before I hit the stage, I went back

to that park. When it was time for me to give birth, I went back to that park." The video cuts to an image of her giving Blue Ivy a piggyback ride. It's a typically understated rebuttal to the haters who say that Beyoncé did not gestate her child. But it also suggests that the drive her father instilled in her applies equally to her work as a pop star and to the private tasks of being a mother. To compete at the top, the empowered woman must be willing to work anytime and anywhere.

"The park became my strength," Beyoncé concludes. "The park became a state of mind. Where's your park?"

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IF THE DEFAULT GENDER of athleisure is female, men seem to know what is up. "You're in spandex country now," an Uber driver crowed to my sister as he dropped her off in the Marina neighborhood of San Francisco recently. "You bring your stretchy pants?" I have heard more than one man refer to Lululemons as "those pants that make every girl's ass look good." I meet a petite philosophy professor who tells me about going on a few dates with a man who asked her to start wearing Lululemons, for this reason, on date three.

The past 10 years have seen a resurgence of the ass as the key femme trait. If "Baby Got Back" came out now, it would make no sense: No magazine is telling anyone that flat butts are the thing. On the contrary: Blake Lively is quoting Sir Mix-A-Lot re: her own ass, on the red carpet at the Oscars: "LA face and an Oakland booty," she posted on Instagram. Sir Mix-A-Lot defended her against those who criticized the post for being racially insensitive. ("I checked it out, and looked at it and I was kind of … I liked it. You know I like stuff like that," he told the *Hollywood Reporter*.) "Booty celebrity" Jen Selter has earned 9.5 million followers by posting photos of her posterior. Most show her doing squats in the garment best suited to showcase them: athleisure leggings.

To look at Beyoncé after looking at, say,

Kate Moss gives one hope that our culture is embracing a wider array of body types and sex symbols than it once did—and giving women more latitude in the process. The figures of Beyoncé, Nicki Minaj, and Kim Kardashian no longer look as starved as those of Calvin Klein models. Nonetheless, they too demand discipline to maintain. A new generation of strong women are still being encouraged to direct their energies inward, to transform their bodies into fetishes. Beyoncé says she exercises two hours per day. Jennifer Lopez—whose private trainer told the press that he has never met anyone who works so hard—took out insurance on her ass. We can have a range of female bodies, so long as they are all commodities.

And, of course, so long as they are firmly located on one side of a cisgender binary. While I am writing this essay, Facebook starts showing me ads for Lululemon for men. Ironically, these ads describe the project of getting a man into exercise clothes as one more thing for women to do. The man in the ad that I see most often looks like Chris Hemsworth. In him, a Mark Wahlberg build meets long gold hair. If *The Misfits* posed the Woman in Jeans as a kind of drag performer, this guy is a gender-flipped Marilyn, the man who can be dragooned into buying outrageously expensive pants to maintain himself.

"We'll help you help him," the ad reads. "Our shorts just got the ABC (anti-ball crushing) upgrade, giving him the freedom from unnecessary adjustments."

Markets need to expand. It makes sense that companies would want to develop a His version of the garment of choice for the ambitious and Bootylicious. But Lululemon for men has yet to catch on, and most of my male friends insist it never will. When I ask why, they are blunt: "You can't wear those pants if you have a dick." ◉


Moira Weigel is a writer and academic currently finishing a Ph.D. at Yale University. Her first book, Labor of Love: The Invention of Dating, *came out in May 2016.*
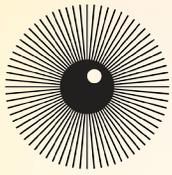
BLOOD TIES

SOME STRETCH OF PRIMORDIAL TIME PASSED—I imagine, I can't look it up right now—during which blood was only shed, spilled or stolen, before it was ever drawn or given. Blood is magnetic wealth; it is the stuff of lifelong pacts and biohazards. *The life of a creature is in the blood,* and we are bloody symbolic creatures. In the year of Mary Shelley's *Frankenstein* and the century of new bodily "transgressive intimacies," a British physician finally curbed one female death by childbirth with a blood transfusion; he was the same age as the American painter who, having received the news of his wife's postpartum heart attack too late to see her burial, created a pulsing code and the first long-distance telegraph. Some of us feel we bleed into our work; some moreso *let* through suckling devices, turning daily blood to vital data; others wonder whether the blood on our fingertips is all our own; and some of us keep blood ties forever, with people we call our lifeblood long after time and space have failed to help us find them again. —*SORAYA KING*

LIFE SUPPORT

When your existence depends on glycemic control, blood goes in, data comes out, and self-tracking is not a choice   by HANNAH BARTON

I WAS DIAGNOSED WITH Type 1 diabetes at age 27. After that, my world, and my movements through it, became oriented around and articulated most effectually in metrics.

The numbers I see most frequently concern my blood glucose levels. Upwards of eight times daily I press a spring-loaded lancet against a fingertip, release the mechanism, and massage the fleshy digit until a neat globule of blood pools upon it. Capillary action sucks the blood—shades of red varying from scarlet, to ruby, or

wine—into the test-strip proboscis of a matchbox-size analog blood glucose monitor. Blood goes in, and data pours out. I peer at the small screen as I wait for my body to talk in numbers.

Frequent blood tests are necessary since Type 1 diabetics produce no insulin—a peptide hormone secreted from the pancreas which allows the body's cells to absorb glucose from the blood—so we are required to administer it ourselves, in my case via a subcutaneous injection. The test tells me how many millimole per

litre (mmol/l) of glucose are present in my blood at that moment. From this I can tell whether I have administered my insulin dosage correctly, or if an adjustment is necessary. If no or insufficient insulin is administered, blood glucose will accumulate, causing hyperglycemia—hyper, *over*—which will prove fatal in a matter of hours or days if untreated. Elevated blood glucose wreaks havoc upon the diabetic body: Unable to derive energy from blood glucose, fat and muscle reserves are raided, causing rapid weight and tissue loss along with extreme fatigue; the body craves water as it attempts to flush out the excess glucose, causing an unbearable thirst. A prodigious amount of urine is produced in an attempt to slake it; ketones are released as brown fat is metabolized, which alters the pH level of the blood; the diabetic's breath starts to smell of nail-polish remover; a stupor; a coma; then death.

Diabetics who have access to insulin but, for whatever reason, are not able to regulate their blood glucose levels with it will suffer periods of hyperglycemia that will result in significant, long-term ill effects: pathological damage to the kidneys, eyes, liver, heart, and nervous and circulatory systems. These blood-test results, then, yield vital data.

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Consulting these metrics induces a response borne of optic rather than haptic stimuli. Once let and measured, my blood assumes a discrete visual identity: an integer on a dim screen. My least error-prone meter is as basic as they come—standard-issue NHS fare; a small blue plastic trapezoid that houses a gray-on-gray LCD display. It switches on when a testing strip—an oblong of stiff plastic about the size of a match-

stick—is pushed into a slot below the screen. The display lights up with eight-bit graphics. A looping blood drop, dripping from top to bottom materializes and urges me to do the deed. I lancet my finger and feed my blood in. The screen now displays a spinning egg timer as at calculates and measures. Five timer rotations, or five seconds, and the result is delivered. Numbers, in that gappy pocket-calculator font, fill the screen, and they are authoritative.

The desired blood glucose range for Type

My equipment never strays far from my side. My life support: pen and monitor and me, in corollary

1's is between four and six mmol/l pre-prandial and between six and 9.5 mmol/l two hours post-prandial. Pierce, squeeze, wait. Will I land in range, or fall outside? A reading of 9.5 mmol/l or higher indicates high levels of blood glucose, or hyperglycemia. This causes my heartbeat to quicken and my face to glow red. These numbers sign bodily ruination. I see over 14 mmol/l and I detect an abject dread.

It's also of course possible—for my pen and I are mere pancreatic imposters—to administer too much insulin, which in turn will cause blood glucose levels to drop below four mmol/l. This is called hypoglycemia—hypo, *under.* Hypoglycemia is dangerous at the time it occurs, producing some striking physiological responses. Numbers below 4.0 mmol/l cause my tongue and fingertips to buzz. My lips go numb and I can taste metal. Below 3.0 mmol/l and my cultivated demeanor dissipates. All instinct, I pour with sweat and rage, and—with what feels like a heartbeat so violent it is evidenced on my breastplate—some beast

within aggressively searches out glucose. Below 2.0 mmol/l and there begins a slow yet total dismantling of the world I stand in. In this place the buzzing envelopes me entirely; a white noise dominates as my surroundings recede. People and things and concepts become shapes and colors and gut feelings, increasingly distant and increasingly ridiculous. Amid the fug, an insight: My understanding of all that surrounds me, and my approach to negotiating my movements through it, is entirely protean—contingent on the glucose content in my blood. Fifteen minutes later I recover and harumph with wry laughter, finding it absurd that this caliber of perceptual shift—enough surely to impress the most seasoned psychonaught—has been brought about by such a mundane deficit.

Numbers below 1.0 mmol/l are produced by a body needing hospitalization, a body near death. They signal chaos. I strive to avoid both psychological and physiological disruptions and remain on the level. I am happiest when I see steady fives; their straight backs and cursive swell seem to beam at me. In numerical synaesthesia, a robust *five* has bronzed lithe limbs, a scarlet heart that beats strong, glossy rich brown kidneys, and gleaming white toenails crowning my pink feet.

Given the parameters of the condition, it stands to reason that dining is a necessarily quantified affair. I scan for sugars, and count carbohydrates, quietly totting up totals with the speed of a cold reader and preparing my injection amid the dinner table talk. Carbs are not all alike of course: complex carbs—think brown rice—are metabolized slowly, whereas simple carbs—

The contemporary diabetic bleeds data

think refined sugars, including drinks, non-diet sodas, juices, smoothies, and yes, liquors—hit the bloodstream fast. Booze consumption is a dark art: Carbohydrate-laden beers, and spirits and mixers, task the liver with processing both sugars and alcohol; this phased metabolization causes irregular spikes and dips in blood glucose levels as each step of digestion is attended to. So I categorize the carbs I am to consume as simple or complex, and estimate how many grams of each are on my plate, considering auxiliary factors such as fat and protein content (which slow digestion), fiber (which aids it) and whatever is in my tipple of choice. My calculations at lunch today: 50 grams of carbohydrates, 10 of which are simple.

I must think beyond the plate, too. Exercising helps lower blood glucose levels—have I exerted myself today? Am I ill? Am I stressed? Can I note any other trends of late? With decisive movements, I administer seven units of insulin (a jog, good health) into an injection site on my stomach. Two hours later I test my blood, my body having responded successfully, or not. My equipment never strays far from my side. I need to have eyes on them before I leave my flat, and I stop in the street just out front to rummage in my bag as I check for them once more. My life support: pen and monitor and me, in corollary.

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Contemporary diabetics dabble in blood as they try to manage and understand their bodies, but it used to be urine through which the condition was determined and defined. Diagnoses in antiquity took note of the symptomatic thirst and need to urinate—the term *diabetes,* coined by Apollonius is 240 BCE, means "to pass through"—with the waste noted as being extraordinarily sweet to the taste. Barely-yellow pools of the stuff would attract ants one by one, and doctors would employ "water tasters" to take diagnostic sips. The affliction mystified physicians throughout the ages, consequential as it is to an autoimmune assault on the hitherto

invisible endocrine system, diabetes lingered in obscurity, referred to colloquially as "the pissing evil." It was an unknown unknown.

Only in 1889 did Joseph von Mering and Oskar Minkowski discover the role the pancreas plays in regulating blood glucose levels, a revelation that led Frederick Banting and Charles Best to homogenize a pancreatic extract in 1922. After ascertaining the safety of this substance, they provided their first patient with insulin therapy—a 14-year-old boy named Leonard Thompson. "Isletin Insulin" entered commercial production in 1923, though it was not until 1953 that the hormone was synthesized. The pathology of diabetes, and its links to long-term health issues were uncovered in the 1940s; home urine test strips were introduced in the 1950s and home blood glucose tests became available from the early 1980s. By the close of the 20th century, the interrogation of somatic data had diminished the opacity of this once confounding condition; the deep dark red mysteries of the diabetic body drawn out into the sunlight via our perforated fingertips.

The contemporary diabetic bleeds data. As beneficiaries of the technological developments of the last century, diabetics today may find themselves far better equipped to manage their condition than their forebears, and advances in diabetes management continue to hit the market. Constant Glucose Monitoring (CGM), for instance, is a nascent wearable technology that gives the user continual knowledge of their BG levels. A CGM set comprises a transmitting sensor to be placed on the body, and a handheld receiver with a dashboard display. A hair-fine needle protruding from the sensor burrows under the skin, sipping at the interstitial fluid beneath. The dashboard receives and displays blood glucose levels in near real-time, at all times, issuing alerts when the user is high or low—its legibility particularly well suited to diabetic children and their parents. Yet nifty as these are—with the newest CGMs compatible with smartphones and watches—they are also currently prohibitively expensive for many, costing upwards of $1,300 as an initial outlay, plus $60 every two weeks or as soon as the sensor needs replacing.

As incentivized contributors to a potentially vast data set, the willing disclosure of metrics at scale may contribute to research aimed at further understanding or even curing the condition. However, not all diabetics are born equal; the

I search for the words, my carefully rehearsed, elegant phrasing flying out of the window. I quickly blurt, "Can diabetes make you stupid?"

digital divide between smartphone users and everyone else speaks to the degrees of sectoring present in the diabetic population, with even the most bog-standard analog equipment and test strips proving costly for those without healthcare. Diabetes affects the poor or unsupported the hardest, with countless across the world going undiagnosed. Others are price-gouged and surviving on limited medication, or suffer the consequences of going without treatment entirely, their future-damaged bodies paying the price.

The role of the functional individual come data-creator is further complicated as practices of "self-tracking," which diabetics have so long experienced, become more broadly understood and adopted. For many, tracking and quantification manifest as by-products of digital engagement. From the data captured in our browser histories to social media posts that prove popular,

we find our movements logged and assessed. As such, self-tracking emerges as a constitutive state of mediatization. However, as posited by Deborah Lupton and Melanie Swan, it is the *choice* to consult and analyze the datasets produced—or moreover, the decision to actively produce additional datasets by using wearables and apps—that distinguishes the notional Quantified Self (QS) in separate parameters. QS defines itself as a movement, the key tenet being that one can attain "self-knowledge through numbers." The first QS meeting that took place in 2008, in the Pacifica home of *Wired*'s co-editor Kevin Kelly. Kelly, along with counterpart Gary Wolf, founded the QS movement, and with *Wired* as a vehicle for coverage, saw it expand to form a global community comprising hundreds of "chapters" instated in 34 countries at time of this writing. QS participants socialize their practice during these meetings and via digital platforms, sharing their experiences of and approaches to quantifying the self—along with success stories and failures. The explosive popularity of the movement attests to the benefits and satisfactions that can be gleaned from monitoring one's health—self-tracking is after all, a historic practice—yet the act of reviewing one's detailed, digitally afforded biometric data in the context of QS marks a radical departure in the consideration of what constitutes selfhood—and which qualities of selfhood are privileged. Subsequent to its founding then, QS and its politics have been variously adopted, discussed, debated, proselytized: Does QS promote betterment or stoke data fatigue? Can bioinformatics afford empowerment or are the biopolitical concerns insurmountable? I feel that I should be enlivened, encouraged, by the popularity of QS, and the galvanizing discourse surrounding it. Surely, these conversants are speaking my language?

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A FEW YEARS AFTER my diagnosis I had a checkup with the hospital consultant, a lovely endocrinologist I see annually, who talks me through my latest results: an eight-week blood glucose average (they're called HBA1Cs and we aim for below seven percent), kidney and liver function; heart rate; blood pressure; eyesight; and he checks the circulation in my fingers and toes. After enquiring about my emotional state he, in near-fatherly tones, reminds me with urgency that if I am thinking of getting pregnant I must plan it very carefully, for periods of elevated blood glucose levels prior to and during in the first trimester will harm the fetus. Does that all make sense, he asks? Yes. But I have another question for him: "Doctor, can diabetes…" I search for the words, my carefully rehearsed, elegant phrasing flying out of the window. I quickly blurt "Can diabetes make you stupid?" I am Lisa Simpson, except I'm 29, and I'm concerned about an imminent "dumbening." More specifically, I am concerned about periods of hyperglycemia. I visualize the surfeit sugar crystals as cartoonish granular blocks, coursing through my bloodstream, tearing up my venal walls and when in the brain, carousing around the grey matter, unravelling neural connections, scratching out memories, and stymying my higher cognitive functions. Is this why I forgot my keys the other day? The question again: Is my brain being torn to ribbons, doctor?

It wasn't and isn't. "Your concentration is being diverted," he said, "consider it diluted, not reduced." Diabetics, like parents, have one part of their attention near constantly dedicated to monitoring their respective concern. It seems an obvious answer in retrospect. My feelings towards the act of obtaining results had already begun to mutate, from the excitement stoked as the first few sets offered up such astonishing insights, to disillusionment, as I realized that this, in all its ceaseless repetition, was my life now. I found out later that the emotional exhaustion caused by ongoing management can give rise to "diabetic burnout." In this complex, risky state, the diabetic may neglect their insulin regimen in a bid to experience brief freedoms. Knowing I benefit from all the technological advances available, yet finding the iterative, disruptive somatic messages, the ceaseless indexing of my very state of being, engender feelings of profound ambivalence. The 3.2

mmol/ls, the 11s. And whilst acknowledging that those advocating for self-quantification are variously earnest, or curious, and well-intentioned, I also see them as modern-day civic boosters; borne of a techno-utopianism particular to California, where, according to Richard Barbrook and Andy Cameron in "The Californian Ideology," "the social liberalism of New Left and the economic liberalism of New Right have converged into an ambiguous dream of a hi-tech Jeffersonian democracy." Normalizing the politics of the Quantified Self will serve to boost and normalize a civic state wherein successes are determined in metrics, and health is positioned as central to the notion of identity. As an individual whose health is necessarily central to my identity, this notion recapitulates my body as a site of resistance.

A friend of mine is surprised by my take on this, but they do not bear witness to my private, daily, ritual interfaces with a data-producing machine, body and blood pressed against device; this ongoing confrontation with a dataset has profoundly altered my experience of selfhood. I feel incredulity at this quantified life being thought of as a desired state. I find the enthusiasm for self-quantification evidenced in the global chapters and participatory groups entirely at odds with sense of interminability provoked by the insistent nature of diabetic glycemic control. I also feel envy. Voluntary self-trackers benefit from choice, whilst I fantasize about throwing my devices out of the window—imagining myself as my closed-circuit former self, as an autonomous being again, no bloody fingertips or jabbed flesh—before immediately feeling guilty. "I'm sorry!" I say to them "I didn't mean it!" I long not to see my body as a problem to be solved. It is a state of compromise; the immediate and long-term condition of my body and my emotional state, dependent on how I react to a numeric display. Diabetics are in a uniquely intimate collusion with devices. We joke on forums: We are

cyborgs! It's true enough. The human-as-machine metaphor dies hard, and if the body is conceptualized as a biomechanical whole, the diabetic is a system with a malfunction: leaky cyborgs, who think in biometrics while dabbling in effluvium.

So, I think of earnest QS-ers as akin to D-503, the protagonist in Yevgeny Zamyatin's novel *We*. D-503 was a true believer in the "perfectly mathematical" rule of the governing One State, whose civic structures are made entirely of glass. Zamyatin intended D-503's mind-set to unsettle, so why does the normalization of the

If the body is conceptualized as a biomechanical whole, the diabetic is a system with a malfunction: leaky cyborgs

QS mentality not surprise? Rather than comprising a radical shift, the messages that sell quantification as a means of betterment chime soundly in an age of social-media-valorized metrics. We are encouraged to share, perform, and participate, with digital devices increasingly constituting rather than merely mediating experiences. The growing popularity of QS—in the instrumentalization of somatic data production—recalibrates the power dynamic between hardware or software producers and participating data creators—or consumers. That the movement also dovetails neatly with the established diagnostic approach of Western medicine recasts pragmatic considerations around storage and safeguarding as a question of ethics, notions of citizenship, the role of the state and the power amassed by corporations. Implicit too in the techno-utopian rhetoric surrounding QS is a turn to scientism, of machine-as-underwriter. For science writer

Gideon Lichfield, the move toward merging flesh with intelligent machines represents a desire to "escape from the mundane and bothersome nature of membership (even their own privileged membership) in a flesh-and-blood society that is held back from advancement by its tiresome need to support—economically and socially—large numbers of less fortunate, intelligent, and motivated people."

This resonates. Diabetic patients who can't or won't manage their condition are categorised as "non-compliants" by some medics, a term indicative of the patient straying from their treatment plan at cost to their bodies, themselves, and the state. I find the deviancy implied in this terminology striking; the rogue diabetic, initially gratefully surveilled, is ratted out by their wayward data, betrayed by their biometrics. The diabetic cyborg body routinely, necessarily, reconfigures, acquiring prosthetics or appendages, and in doing so submits to biometric surveillance. Voluntary self-trackers *opt in* to such machinations. In a techno-utopia one might see a cyborg-citizen as an assemblage of embodiments, optic, haptic, physical and bionic, linguistic and metric, the body enmeshed in the infrastructure. I find myself thinking of the fascist Republic of Gilead, envisioned in Margaret Atwood's *The Handmaid's Tale,* where the bodies and bodily functions of citizens are integrated with and co-opted by the ideology of the state, and "un-people"—the functionless or the resistant—are sent to labor then die in radioactive colonies. In a quantified future, will the socio-economically sidelined, the geographically remote, the disabled, the unfamiliar, the unwilling, be labeled as non-compliants, or as un-people, too?

Experiencing daily the gamut of compulsory quantification—the benefits, the tolls—I think perhaps that diabetics are canaries in the mine. But I am a doom-monger on occasion, I don't deny it. An indicative daydream: What would I do in an apocalypse? I'm in a *28 Days Later*–type scenario, the miracle survivor. As I mourn the loss of family and friends and the destruction of all humanity, I will loot pharmacies for insulin, bashing away zombies in the hunt for needles, and in the inevitable supermarket sweep my trolley will be filled with low carb options and as many dextrose tablets as I can get my hands on. Oh, and I mustn't forget batteries to keep my glucose monitor running. This storyline is getting boring, I'm aware. And that's the ongoing battle, for the time being at least. Before I fight off any brain-eaters or resist the co-option of my cyborg-self by the state, I must reconcile with the tedium of it all, committed to monitoring that I would describe as dull, if it wasn't so vital to keeping alive and well. So whilst being deeply grateful for the relative ease by which I can attend to my condition, and as much as I draw upon and feel thankful for the streams of bodily data I can access—for it undoubtedly improves my life and the lives of others—it is in the quiet periods where my levels are stable and I don't need to pierce my skin to feel in numbers in which I luxuriate; times when I can almost recall what it feels like to be a hermetically sealed, autonomous entity, only dimly cognizant of the biochemical reactions taking place within. Such moments are fleeting. Knowledge of my health status is drilled deep; so profoundly has my relatively late diagnosis informed my sense of selfhood, I not only have diabetes in my waking fantasies but I carry my devices and conduct tests in my dreams. It demands attention. And though my body may talk in effectual numbers, I cannot respond exclusively in kind. I insist on an expressive approach when reconciling with my condition; the sprawling stories encoded within metrics are not adequately conveyed in digits, which may serve capably as signs, but comprise mutable significations. Others may think differently of course—this is just the way I'm wired. ◉


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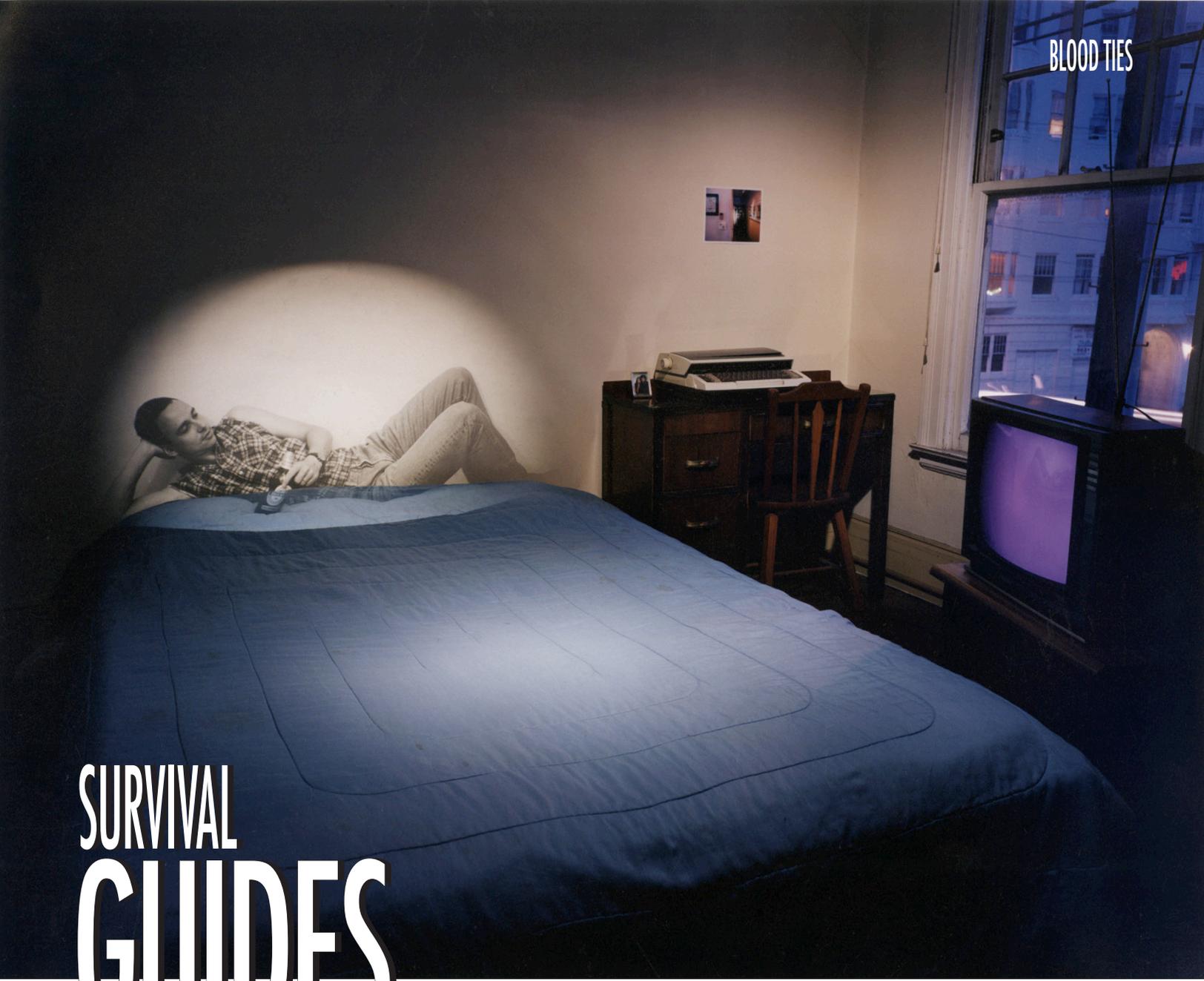
SURVIVAL GUIDES

Communities are mechanisms for outliving the end of the world

by RACHEL GIESE

MY FIRST JOB in journalism was as an editor at gay and lesbian newspaper in Toronto in the mid-1990s. Our offices overlooked Church Street, the main drag of the city's gay village. Out the huge windows, a queer world lay before us: up the block, a community center and a drop-in for teenagers; down the street, a theater company; in between, two bookstores, a

half-dozen bars, a few bathhouses, a video store that stocked mopey gay classics like *Personal Best* and *Boys in the Band,* a shop that sold feminist sex toys and SILENCE = DEATH T-shirts, and a low-rise filled with AIDS organizations and support groups.

Across the street was a coffee shop, with a wide set of steps leading up to its entrance. During the day, cups in hand, people lolled there like sunning lions; at night the steps were taken over by raver kids and hustlers. When production at the paper slowed down and we had nothing to do, we'd stand at the windows and watch

the crowd below: the wide-eyed kids fresh from whatever small town, the regal queens strutting, the activists in leather jackets passing out free condoms, the butch dykes in flannel shirts with earlobes full of studs, the wispy HIV-positive guys lowering themselves on shaky legs to rest on the steps.

This is how we lived then, with death inflecting the everydayness of getting a coffee, flirting with a stranger on the street, working at a community paper. One of my responsibilities was the obituaries section. Every issue I filled my designated pages, sometimes asking the designer for more, with tributes to men dead from complication due to AIDS—many of them, like me, in their early 20s. We were 15 years into the AIDS crisis by then. The memorial in the park up the street was already etched with hundreds of names.

Looking back, it was a wonder I'd found my way into this community at all. No one grows up learning to be queer, not then, anyway. If anything, we intuitively knew how to hide any tells: to look away from other bodies in the gym class locker room, furtively sneak books out of the "homosexual" section in our hometown library. The search for community was high-level spy craft; it meant digging for intelligence without blowing your cover. We used the technologies we had at hand, trading news and gossip within the safety of our bookstores and bars, and out in public signalling each other with the cut of our jeans or a lingering gaze. Camp was a technology, too, as Susan Sontag observed; that clichéd, trademark gay archness was "private code, a badge of identity even." Back in the 1960s gay men in Britain sized one another up, communicating in a near-ultrasonic range with a slang called Polari. In later years, we still spoke in code: Is he a friend of Dorothy's? Does she play for our team? Outsiders neglected by the broader culture have always found ways to make tools of their own.

I'm too young to have witnessed the beginnings of the AIDS tragedy. David France, in his new book, *How to Survive a Plague* (a companion to his stunning 2012 documentary), recalls a vigil in New York's Central Park in 1983: "The plaza was crowded with 1,500 mourners cupping

candles against the darkening sky. A dozen men were in wheelchairs, so wasted they looked like caricatures of starvation. I watched one young man twist in pain that was caused, apparently, by the barest gusts of wind around us … My friend's mouth hung open. 'It looks like a horror flick,' he said. I was speechless. We had found the plague. From there, it was an avalanche."

As the plague struck New York, it struck the gay communities in San Francisco, Los Angeles, Berlin, Montreal, Miami, Toronto. My older colleagues—men and women who'd come of age during the separatist, hedonistic, radical 1970s—lost entire circles of friends within months and weeks in the 1980s. They told me about lovely young men who shriveled down to their bones overnight, their skin blossoming with lesions; about hospitals barring boyfriends from visiting their dying lovers; about funeral homes that refused to take the bodies; and ashamed parents who told friends back home that their son died of "cancer."

In the days following the election of Donald Trump, I told these stories to a friend. Like so many, and like me, she was despairing over what was to become of America. Racism, nationalism, paranoia, and rage were pre-existing realities, of course, but Trump's win was a backlash—or "whitelash," as CNN's Van Jones put it—to the desire for progress, to the calls for justice by Black Lives Matter, the Occupy movement, feminist activists, the water protectors at Standing Rock. In an essay published a year ago in the *New York Times,* Wesley Morris wrote that America was "in the midst of a great cultural identity migration. Gender roles are merging. Races are being shed. In the last six years or so, but especially in 2015, we've been made to see how trans and bi and poly-ambi-omni we are." Trump, he said, "is the pathogenic version of Obama, filling his supporters with hope based on a promise to rid the country of change."

My friend is younger than me, a Millennial to my Gen-X. I wanted to offer something, to myself as much as to her. What I had was history.

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FOR YEARS, THE OFFICIAL response to the AIDS catastrophe was stigma, derision and contempt. President Ronald Reagan ignored the deaths of thousands of Americans, including that of his old friend Rock Hudson, refusing to publicly utter the word "AIDS" until nearly the end of his presidency. His own communications director Pat Buchanan called the disease "nature's revenge on gay men," and Reverend Jerry Falwell said it was "the wrath of God upon homosexuals." That was a violence and a trauma, too: how terribly and conveniently AIDS fit into the existing homophobic narrative that to be queer was to be diseased and deviant.

Republican Senator Jesse Helms proposed a ban on travel to the United States by people who were HIV-positive in 1987; Bill Clinton signed it into law in 1993. It remained in place until 2009. In the intervening 22 years, there were no major international AIDS conferences held in America. HIV-positive foreigners couldn't visit American relatives or friends. For those wishing to immigrate to the U.S. to join a spouse, waivers were available—but only for heterosexuals. Same-sex couples were excluded.

The activist movements that rose out of the 1980s and '90s were confrontational, creative, and raucous. ACT UP and Queer Nation held die-ins and kiss-ins. The fire-eating Lesbian Avengers (their motto: "we recruit") launched the first Dyke March. From HIV/AIDS, the cause expanded to hate crimes, employment discrimination, homophobia in popular culture, relationship recognition. Closeted public figures who didn't stand with queer people were threatened with outing.

We didn't have traditions to draw on. We had to imagine ourselves into being

In Canada, activists protested Customs agents who routinely seized gay and lesbian books, magazines and videos at the border citing obscenity laws. They took on a neo-Nazi group called Heritage Front, which emerged in 1989 and hosted white power concerts, recruited disaffected white teenagers, and even infiltrated a mainstream conservative political party. One night, after a march to protest a skinhead rally, I went to catch a streetcar home and a courtly gay guy on his way to a bar in leather chaps and a cowboy moustache noticed I was leaving alone. He insisted on walking me to my stop, where he waited until I was safely onboard and then blew me a kiss goodbye. "We look out for each other, honey," he said.

We didn't have traditions to draw on: Our families of origin in far too many cases disowned us, and pop culture and media ignored or mocked us. Many of us hadn't met anyone else like us until we were adults, believing as children and teenagers that we were all alone. We had to imagine ourselves, and our tools, into being. This time of fear and threat pushed us out of the closet, instigating a massive political and cultural revolution.

Networks of support dreamed up in living rooms and on dance floors evolved into hospices, high schools for queer teenagers, health clinics, film festivals, churches and synagogues, Pride marches, party circuits, and advocacy groups. Within the span of a few decades, institutions were built from scratch, funded from the proceeds of drag shows and club nights. Spontaneous vigils and rallies advertised by leaflets and phone trees grew into sophisticated political lobbying efforts that now have staff and offices. Ad hoc volunteer campaigns to pass out condoms in bars and parks evolved into safer sex education programs. New York and Chicago's Black and Latinx underground drag balls created alternate family units and developed a uniquely queer art form. Gay and lesbian writers penned a canon of novels, poems and plays.

Lots of our efforts failed and rarely did we all—gay and lesbian, bi and trans, white folks and people of color, women and men, radicals and moderates, provocateurs and assimilationists—agree. And yet, collectively, we secured a slate of civil rights protections and anti-discrim-

ination laws more rapidly than anyone would have thought possible.

AIDS doesn't kill quite so often and so fast. Antiretroviral treatment has transformed the disease into a chronic condition for those who can afford it and have access to it; now the horizon is set on a vaccine. Like every other marginalized group has done, in the face of persecution and hate, we built what we needed to survive. The plague that killed so many of us didn't destroy us. It created us.

I shared my history with my friend because I wanted to remind her that there are communities that have already survived, and are surviving, the end of the world. Progress has no final chapter, no concluding destination. Just more work.

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OUR INFRASTRUCTURE AND INSTITUTIONS remain imperfect and unfinished. Within the community, the affluent, white, male, and the "straight-acting and straight-looking" dominate. The allure of respectability, of marriage rights and polite tolerance, has shut out those on the fringes, the gender non-conforming butches and queens. The mass shooting at the Pulse Nightclub in Orlando reminded us of the degree to which we are still hated; and, in the conversations that came in its aftermath, the specific vulnerability of those both queer and brown or black. "You know what the opposite of Latin Night at the Queer Club is? Another Day in Straight White America," Justin Torres wrote in the *Washington Post*. "So when you walk into the club, if you're lucky, it feels expansive. 'Safe space' is a cliché, overused and exhausted in our discourse, but the fact remains that a sense of safety transforms the body, transforms the spirit. So many of us walk through the world without it."

This past Pride Day in Toronto, a group of activists from Black Lives Matter stopped the parade for 25 minutes to protest the overwhelming presence of police at the event; a number of floats from law enforcement agen-

cies were welcomed in the parade. The queer community split in its response, many calling the action divisive and impolite: Our handsome prime minister was in the parade, waving to crowds in a pink shirt, and BLM had delayed him. What was lost in these attacks on the group was the history of the parade itself. Pride Day is a tribute to resistance and confrontation, a memorial to New York's 1969 Stonewall Riots and, in Toronto, also to the massive protests that followed a series of police raids on gay bathhouses in 1983. It didn't take long for memories to fade.

The queer world is no longer a small stretch of blocks scattered in isolated cities. A gay kid in farm country finds friends and boyfriends on Instagram, comes out because of Gay Straight Alliances and maybe even has a supportive mom who watches *Ellen*. A trans woman figures out who she is and how to find help by watching transition videos on YouTube, and calling hotlines in cities halfway across the country. Hooking up in bars and bathhouses has given way to GPS locating the nearest trick on Grindr.

We've metabolized these new technologies as though they'd always been there, doing what communities have always done, adapting and customizing the available tools to share knowledge and survive as our conditions evolved. And along the way the community has become bolder, less furtive, more connected and even, sometimes troublingly, more mainstream. Now it's time to adapt and restructure again, to reckon with what we've achieved and lost, to direct our focus to those most vulnerable, like trans people who are being targeted in hate crimes, and LGBT people still facing violent persecution and imprisonment in countries like Russia, Uganda, Jamaica. Some people say it feels like wartime again. And I think of the old queer protest slogan: An army of lovers cannot fail. ◉

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MONSTER TUCK
RALLY

Plastic surgery "monsters" know what
they're doing—and that, to their phobics, is
the scariest part   by ALEXANDRA KIMBALL

I N 2015, 34-YEAR-OLD Justin Jedlica checked
into Dr. Leif Rogers' surgical center in Beverly
Hills. A cosmetic surgery veteran, Jedlica had
had nearly 200 procedures—five rhinoplasties,
cheek, chin and butt implants—and his body had
been redesigned with silicone implants along his
pectorals, biceps and triceps. But these surgeries
had created a disparity between his sculpted arms
and his unenhanced back, and unlike pectoral
augmentation, back augmentation had never

been done before. So Jedlica, a former sculptor,
designed his own back implants by drafting a pat-
tern from tissue he fitted and draped around his
own body. The pattern was then sent to a medical
technology firm, who cast it in silicone, and sent
four flat, cutlet-shaped cutlets to Rogers, a known
innovator in cosmetic surgery.

Over a four-hour surgery, Rogers reopened
an old scar from one of Jedlica's previous surger-
ies, and installed the implants under the latis-

simus dorsi and over the teres muscles on the patient's back, layering two implants for a more beefed-up effect. He had less body fat than Rogers had hoped for, so Rogers had to make adjustments along the way, dissecting deeper into the tissue. Once he was satisfied with how the pieces were lying, the surgeon sealed and bandaged the incision, and declared it a success: "Now his back is going to look the way he wants it to."

Eight weeks later, a healed Jedlica agreed. "I'm like made in Taiwan right now," he said. "I definitely look dollish. It was the right call… It's what I wanted."

Jedlica's groundbreaking surgery was featured on the hit TV show *Botched,* a reality vehicle for a prominent Los Angeles cosmetic surgery clinic; and the into media niches that regularly cover figures who are known for (or suspected of having) excessive cosmetic surgeries. Along with Jedlica—dubbed the "Human Ken Doll"—there is Jocelyn Wildenstein ("Catwoman"), Herbert Chavez ("Superman") and Valeria Lukyanova, (the "Human Barbie Doll"), along with any number of competitors to these titles (Lukyanova shares hers with at least three other Human Barbie Dolls).

Together, they are staples of the lower-tier print tabloids and digital versions like the *Daily Mail, Radar Online,* and the *Huffington Post;* they occasionally also appear on general news sites like *Gawker* and *Vice.* Videos of their surgeries and interviews generate millions of views on YouTube, where they are scavenged for memes: Wildenstein in a scene from *Batman*; Jedlica and Lukyanova in a recycling bin. Wherever they appear, their altered faces and bodies provoke a stream of fascination and disgust: "Dude, she looks like a toy and not at all human." "Disgusting human being." "I am not a religious person, but if someone would say that he is an insult to god, I would understand it."

Pop culture has always traded in freaks— pageant toddlers, polygamous Christians—figures who serve not to be admired, but pitied, reviled, and rejected. They are the flipside of the glossed-over, blandly perfect actors and models that populate the modern cult of celebrity. Surgery addicts have received top billing in this sideshow since the dawn of the industry. The media obsession with figures like Jedlica is the latest iteration of a symbiotic relationship between celebrity, surgery and society: We find these stuffed and stretched bodies irresistible, and speculate about the elusive motives behind their compulsion to alter them. But our scrutiny is just as compulsive and strange. Surgery addicts are vessels into which we pour our collective ridicule, disgust and horror. They are our monsters and our mirrors.

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THE WORD *MONSTER* COMES from the Latin *monstrum,* meaning "divine omen." Early recorded monsters were deformed children, whom natural scientists believed showed signs of the mother's error while pregnant. A child born with limbs resembling tree trunks was said to be the result of an arboreal curse on the mother. Joseph Merrick, the 19th-century "elephant man," told his doctors that his mother had been surprised by an elephant during pregnancy. Another meaning of is "instruct." Early descriptions of monsters served as both theories and warnings, circumscribing proper behavior for expectant mothers.

But the roots of the plastic surgery monster lie in 19th-century Europe, an era when our understanding of the human body was transformed in the wake of rapid technological advance. "Developments in geology, biology and evolutionary thought all changed how we understood the human body, a site we stake our identity and integrity on," says Dr. Gregory Brophy, an assistant professor of English at Bishop's University in Quebec. "When we picture what it means to be a person, the body is how we imagine that. Monsters are horrifying because they mix the categories by which we understand the body." Early monsters blurred the boundaries between living and dead (zombie), human and animal (minotaur), single and multiple (Hydra).

Brophy's own work focuses on "body horror," a sub-genre of Gothic fiction that surged in pop-

ularity in the 19th century, populated by a new threat: the monster that sprung not from nature or the divine, but human technology, expressing the Victorians' anxieties about the encroachment of new technologies that might transform their sense of self. Medical innovations like blood transfusions and skin grafts made it possible to join different bodies—self and other—in a symbiosis that troubled the Enlightenment's ideas of the body as singular and distinct. Communication tools like telephones and telegrams collapsed the distance between voices, and refined transportation technologies like trains and automobiles threatened the integrity of national borders, national bodies. Frankenstein's monster is grafted from the bodies of several different people, and "sparked" by electricity; Dr. Moreau sews animal to man, creating human–beast hybrids. Griffin, the protagonist of H.G. Wells's *Invisible Man,* monsterizes himself with a chemical concoction. "Even in *Dracula,*" Brophy says, "the vampire creates more vampires through a type of blood transfusion."

In the early 20th century, techniques designed to repair the facial injuries of war veterans were refined to optimize the appearances of Hollywood's studio-system actors, spawning a tabloid fixation that evolved in tandem with celebrity itself, fueled by the ever-present Anglo-Saxon taboo against vanity. In the 1930s, an era when even heavy makeup was considered scandalous, celebrity procedures were highly secretive, and the consequences of exposure were swift and harsh. (Mary Pickford, "America's Sweetheart," was said to have been unable to smile after a regrettable face lift.) Even as surgery techniques improved mid-century, allowing an increasing number of celebrities to successfully achieve the rigid postwar beauty ideal, the taboo persisted, motivating a new era of invasive celebrity reporting and allowing the public to symbolically tear down the very stars they had elevated to iconic status. When Gary Cooper admitted himself to a New York hospital for a facelift in 1958, reporters tracked him down; one article accused him of "trying hard to look like Gary Cooper." Marilyn Monroe's surgeon kept records of the star's chin and nose procedures under lock and key until his retirement, when they were passed down to his medical partner.

By the 1980s, cosmetic surgery was so commonplace, and in many cases so undetectable, that it alone was no longer newsworthy. Media focus shifted from the fact of surgery to its effects. Stars with extreme or failed procedures were viciously mocked: Ann-Margret; Zsa Zsa Gabor; Liberace; and one of Jedlica's beauty icons, Michael Jackson, whose extreme transformation was a point of obsessive interest and

Victorian anxiety over blood transfusions has now shifted to new forms of technophobia

revulsion for reporters. Jackson was regularly described in the stock terms of schlock horror: "Wacko Jacko," "America's Most Famous Sideshow," "Freak." Paparazzi installed themselves outside his dermatologist's office. Full-page features compared versions of his face, and invited random experts to weigh in—tropes of surgery coverage that continue to this day. "The ideological function of the monster is that it marks the limit of the categories we use to understand our identities," Brophy says. "Think of [how] Michael Jackson blurred those limits: adult/child, man/woman, black/white."

Contemporary vampires are depicted as sympathetic and sexy; the Victorian anxiety over blood transfusions has shifted to new forms of technophobia. Digital culture has once again collapsed the boundaries between selves, creating

new and transgressive intimacies. Social media and texting have eroded our expectation of a private self, allowing us unprecedented access to each other's minds. The ease of global communication challenges the concept of the national body, while the increasingly free exchange of goods has democratized consumer culture, allowing an increasing number of people to access, and disrupt, traditional signifiers of class. Shifting ideas about race and sex, meanwhile, have challenged the categories of identity by which we organize social life.

Our surgery monsters—uncanny mixes of flesh and plastic, human and technology—symbolize our fears about these transformations. But unlike 19th-century monsters, who lumbered in the pages of books and penny dreadfuls, our "abominations" are IRL. And in contrast to their predecessors, surgery monsters are not just monsters, but also creators. Figures like Jedlica represent a disturbing breakdown between authority and subject, consumer and consumed, and they take pleasure in the startling, novel effect they have on others. The anxieties that motivate our revulsion are the same that motivate their enthusiasm. However surreal their skin and features, they're not from some other world, but ours.

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LIKE THE VICTORIANS, WE are horrified by bodies that mix too obviously the natural with the technological. Of course, there's an irony to this: surgery is technology, but so is soap, nutritious food, and dentistry. Everyone is part technology, especially those we consider "beautiful," a label that is inseparable from wealth and social status. Beauty is mandated, especially for women (it's notable that the male surgery addicts who make the news are almost all gay or gender-non-conforming). At the same time, beauty's rigid definition—white, cisgender, able-bodied, lean, symmetrical, young—means few meet the requirements. Brushing your hair or shaving is just as much an act of self-manipulation as getting a

surgeon to slurp fat from your thighs. The difference between Jennifer Aniston—who works out seven days a week—and Jedlica is one of degree, not kind.

Some theorists have called the myriad forms of work we do to appear attractive "beauty labor." For previous generations, beauty labor was expected, but it had to remain invisible: the ultimate goal was a "natural" look. As cosmetic surgery becomes ever safer and more accessible, the public has come to accept it as part of the beauty labor that women in particular are expected to perform. The secretiveness with which the elite once approached their surgeries has given way to a winky, don't-ask-don't-tell ethos. "Patients in their 50s and 60s would never admit that they got something done," Dr. Julia Carroll, a Toronto dermatologist, told the *Globe and Mail* in 2015, "but many younger women like to brag that it's part of their beauty routine."

Crucially, these procedures have become a class marker, a type of conspicuous consumption for the upwardly mobile. The same article heralded the rise of "richface," the distinctively artificial, filled-and-frozen look epitomized by the Kardashian women. Cheap labor and easy trade has filled the global marketplace with endless knockoffs and imitations of the luxury goods that once signified upper-middle-class status. Cosmetic surgery, unavoidably expensive and time-consuming, now subs in for fashion as "an easy visual marker of wealth." Anyone can have a designer bag, but Botox injections tell the world you have cash and time to burn.

If artifice is aspirational, why do figures like Jedlica strike us as horrific? Katella Dash, who has spent over $99,000 on cosmetic procedures, is proud of her synthetic appearance: "I love to look plastic," she told the *Daily Mail* in 2014. To her audience, her fakeness is not admirable, but risible. "Remember when women were lovely and only got arse implants or nothing at all?" writes a YouTube commenter. "He/she look better with less surgery," writes another. (Dash is transgender.) These commenters claim to be disturbed by the "unnaturalness" of her appearance—by the technology visible on her poreless skin, bulbous lips, and swollen breasts.

"Somebody recently said to me at a party that plastic surgery is okay, as long as it's not *Real Housewives* surgery," society columnist Shinan Govani said in the *Globe* article. "So there's *Housewives* surgery and non-*Housewives* surgery. But when the conversation wound up, we agreed that not all *Housewives* surgery is created equal, and that Orange County *Housewives* surgery is so much worse than New York *Housewives* surgery." The surgery narrative pivots on the question of limits and excess; the line between perfection and monstrosity is scalpel-thin. A growing body of cosmetic-surgery-service journalism exhorts readers to "be responsible" in choosing their surgeons and procedures, and to err on the side of conservative or moderate augmentation—"abusing" cosmetic surgery produces the stuff of nightmares. In language that would feel at home in 19th-century body-horror fiction, black-market surgery centers are referred to as "Houses of Horrors," and illegal butt injections are described as "grotesque."

Seen in the context of class, this starts to make sense: our celebrities use surgery to signify an upper-class status; our monsters use surgery to achieve it. Notably, many of them are from working-class or immigrant backgrounds, and many are open about this. "We lived in a little house with a dirt driveway, we had a free standing stove with coal," Jedlica said in a 2016 interview, continuing, "I was extremely envious of people who had a lot—one of my favorite TV shows was *Lifestyles of the Rich and Famous*—I always wanted to be like those people." Many finance their surgeries with funds from partners or loans. Rodrigo Alves, a Brazilian man with extensive surgeries who also claims the "Human Ken Doll" title, works as a flight attendant.

People like Dash and Jedlica—whose fame rest entirely on the fact that they've had cosmetic surgery—represent a glitch in the status quo: by undergoing surgery prior to wealth, instead of subsequent to it, they've hacked the class hierarchy.

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WHAT IS THE DIFFERENCE between Kim Kardashian and Jocelyn Wildenstein? How many Botox injections lie between beauty and monstrosity? Jedlica's body is this question made flesh. In the new economy of beauty, surgery itself is fetishized for the risk it entails.

There are different types of surgery monsters. Celebrities—female celebs, mostly—who "overdo" plastic surgery are accidental monsters, and thus victims: Renée Zellweger, Melanie Griffith and Lil Kim, we assume, were aiming for an undetectable effect, but they made a mistake by going too far. We can see the seams on their faces and bodies, between the old celebrity and the new, the organic flesh and the plastic, but we register our disgust as pity. This represents a narrative shift from the "Wacko Jacko" days: in our thoroughly therapized, nominally feminist culture, the rhetoric of horror often masquerades as sympathy, or "concern-trolling," in the language of social media. Brophy calls this a form of "sadistic voyeurism": our pity of the surgically scarred, self-made exhibitionist is schadenfreude at her fall, punishment by scrutiny.

Artists using surgery as their media, like Orlan and Genesis Breyer P-Orridge, are monstrous, but deliberately so: they aim not for conventional beauty or "naturalism," and as such, are not often flogged in the press. They puzzle us, but their unique aims protect them from being truly loathed. Figures like Jedlica, along with Michael Jackson, Lukyanova, and Wildenstein, are more mysterious. They are aiming for beauty, for perfection; but where we see that they've failed, they feel they've succeeded. They transgress not only on purpose, but with carelessness and glee, abusing the resources we revere as a means to normative beauty—not to achieve "richface," but to posit their own ideals.

"My back implants are one-of-a-kind, as I designed and handcrafted each piece to make sure they matched the Ken doll aesthetic," Jedlica explained to the *Daily Mail*. His other inspirations include Michael Jackson, Joan Rivers, and Superman. "I don't even know if I look like a Ken doll," he told the *Daily Beast* in 2014. "But if other people want to say I do, it's flattering. As a kid, you play with Ken dolls and kind of assume

that is what a handsome guy is supposed to look like." Surgery monsters don't model themselves after beautiful humans, but the iconic beauties of modern corporate America: toys. They are representations of humans—exaggerated, distorted, unsexed; beauty at its most commodified and inhuman. Jedlica and his ilk aren't copies of people, but distorted copies of distorted copies, a phenomenon French philosopher Jean Baudrillard described as the "hyperreal."

In Baudrillard's take, late-consumer capitalism is saturated with hyperreality: CGI effects in movies that look more convincing than live-action; media representations of war that seem more "real" than actual battle; theme parks like Disneyland that "re-create" a wholesome American past that never existed. Ariel the Little Mermaid is arguably more recognizable than Marilyn Monroe; at the very least, her image commands far more capital. Instagram and YouTube are saturated with Disney and Mattel-based cosplay, teens and 20-somethings using makeup, costuming, and digital effects to recreate themselves in the image of various toys. They model themselves after commodities; they also seek to become commodities. "The look I am going for is a walking blow-up sex doll," Katella Dash told the *Daily Mail*. "It's about as fake a person as you can be."

It's no shock, says Brophy, that the word "plastic" comes up so often in critiques of the cosmetic surgery industry—it's a key concept in the development of capitalism. "Plastic used to mean adaptable," he explains. "In the 18th century, you see references in literature to God as the 'plastic artist.' There was no sense that it meant something synthetic or wrong. That started to change in the 1930s, and that's no coincidence. Now plastic means 'artificial,' and it's tied to consumer culture. Plastic evokes credit cards, disposable toys." It's also associated with pornography, which Baudrillard also categorized as hyperreal: the explicit artificiality marks it as not sex, but a simulation of sex, twice removed from the actual act. Surgery monsters occupy the same troubling space, serving up an image of sexiness from which sexuality is absent.

Jedlica uses technology to blur the line between consumer and consumed, human and commodity, embodied soul and plastic object—and yet Jedlica retains his agency. A cottage industry has sprung up around the plastic surgery addict: In addition to ongoing appearances in lifestyle media and on reality TV, Jedlica runs a cosmetic surgery consulting business and sells T-shirts imprinted with his image alongside slogans like "plastic makes perfect" and "proud to be plastic." He speaks of his modified body in the distinct jargon of the marketing industry: His goal is to "brand myself," to "make something that's unmistakably Justin." He is planning to release a line of custom silicone implants for use in cosmetic surgery centers.

As many commenters have pointed out, Jedlica does not look like a Ken doll. His skin, however shiny and poreless, doesn't look like doll skin—it looks like Justin Jedlica skin. In seeking to replicate a well-known product, he has created a new one. This produces an unsettling effect that registers as alien: an unfaithful copy of an unfaithful copy that goes beyond both human and doll to point at something as yet unimagined. And more horrific, still, is Jedlica's insistence that this image is beautiful. Whereas figures like Orlan reject or oppose any concept of normative beauty, using surgical technology to become hyper-individual, even weird or "ugly," monsters like Jedlica work within beauty norms, inflating and distorting them from the inside. Like Warhol's saturated and celebratory portraits of soup cans and film stars, Jedlica subverts the current beauty ideal by embracing and exaggerating it. The result is uniquely monstrous: a mix of fantasy and reality, beauty and ugliness that is as provocative as it is horrific.

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Prepping for Jedlica's back surgery, a *Botched* producer asks Rogers about his patient's mental state. "I think a lot of people would see him as crazy," Rogers concedes. "I mean, who would go through all this? After examining him, interviewing him, he's actually very rational, logical. He's extremely bright. He's been through

it many times before. He knows the risks, even before I had to tell him. He's been through some of the complications and dealt with it, without any issue. Based on that, I felt that he was actually a good candidate for something like this."

Nineteenth-century monsters like Frankenstein's were demonized; modern surgery monsters are pathologized ("he doesn't need a surgeon, he needs a psychiatrist!"). Commenters speculate that he has body dysmorphic disorder, obsessive compulsive disorder, anorexia, and schizophrenia. At the heart of these remarks is a concern about Jedlica's perception. Does he know how he appears to us? When he looks in the mirror, does he see the monster we see? "Do I look sad?" Jedlica talking-heads to the producers of *Botched*. "If I did, I would fix it!"

The explicitness with which he and his ilk acknowledge something like the "beauty economy" is distressing to viewers who are invested in the idea of beauty as ideal and permanent, removed from the cynical machinations of money and politics. He also flaunts the means of his transformation, challenging the idea that beauty should at least be plausibly natural—and, by extension, that beauty exists outside our conception thereof, as something to be uncovered, or at least achieved through the tactful manipulation of technology. In his stretched and swollen face lies an uncomfortable possibility: Beauty is a thing that technology itself redefines with our use.

We are invested in beauty as something that is natural and ideal, but also universal. This is the motivation behind the growth of "beauty science," a field of sociological and medical research that aims to define the most appealing faces and bodies across cultures and throughout time. We think Jedlica looks ugly. Jedlica—who believes enough in beauty to have given his body in its service—thinks he looks perfect. When we look at Jedlica, we see the fragility of the beauty concept itself: so tender that it can flip into ugliness with the slip of a scalpel, so amorphous that one person's Ken doll is another's monster. If beauty is this nebulous, what does it say about a culture that is organized around its worship? If seemingly immutable notions of beauty can change, what else can?

"What's interesting to me about Jedlica is the awareness he has" of his position in society, says Brophy. "He's saying, 'let my body present what is happening in this culture.' That's what a monster is, the bodily symptom of a culture's anxieties." At a time when so many of our social categories are under pressure, when we are being asked to renegotiate longstanding ideas about gender, sexuality, and sexual identity, the monster becomes a symbol of not just possible, but immanent change. Like all good monsters, Jedlica's physical transformation parallels a greater social transition from which we can't turn away.

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Two days after Jedlica's back surgery, he threw an "unveiling" party at his home. *Botched* followed the festivities.

"I definitely look dollish," he told his guests, displaying his new enhanced back, still stained from the surgical markers. "It's very swayback, which is what I wanted." Wincing from the pain, he squeezes back into his shirt, a tiny black crop top with a detail resembling ammunition that enhances his superhero bulk.

"Why don't you go to the gym?" asks a guest, smoothing his hands over Jedlica's upper back.

"Oh Jesus, another one," he sighs. "It has nothing to do with that … I don't have my body implants to avoid the gym … I have better things to do than work out."

"Would there be an end?" asks another guest. "Would there ever be a final step?"

"That's like asking a painter, are they gonna stop, like putting down their paintbrush," Jedlica replies. "I'm becoming the perfect living doll … When I'm 85 years old I'm still probably still gonna be having procedures done. I hope so." ◦

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CLASH RULES EVERYTHING AROUND ME

The true cost of *Clash of Clans* isn't virtual
gold but wasted time. Good riddance

by TONY TULATHIMUTTE

SOMETHING IN MY pocket is killing me: a suckling tick, a phone-borne horde of barbarians. Have you played *Clash of Clans*? It's a smartphone and tablet strategy game in which you cultivate a base of tiny soldiers to destroy other people's bases of tiny soldiers. Developed by the company Supercell in Helsinki, which puts the Viking-pillage mechanics into some kind of approximate cultural context, it's free to

download and nominally free to play—yet in 2015 it pulled from its 100 million daily users $2.4 billion in revenue, $9 million of which they spent on a Super Bowl commercial starring Liam Neeson.

I want to talk about how this happens, but first let me take you around my base, where at this very moment flea-size people are teeming around in an isometric village, dominated by a

palette of nuclear green, concrete gray, mustard yellow, and turd brown. Little tunic-clad builders swing teensy hammers at scaffolded barracks, while info bubbles importune me to brew spells, research upgrades, and collect resources. Every tap of the screen brings on a new funny plip or jackpot chime or orchestra hit. My defenses are a mix of military industriousness and high fantasy: house-sized mortars, pink-haired archers in flak helmets, wizards poised atop mountains ready to send fireballs streaking from their fingers. My wealth is housed in enormous bins of gold doubloons and globes of magenta elixir. I will spend it all today and get it all back again tomorrow.

Clash isn't especially addictive (I know what *that* looks like), but it puts me in constant low-grade anxiety—about my depleting shield, whether my builders are idle, which upgrades to pursue. It is a persistent itch that feels good to scratch. Every fifteen minutes or so I get a notification informing me that my troops are ready for battle, or that my cannon has upgraded, or that my village was wiped out by someone called "dank nuggs" or "rektum." The threat of invasion from other players is constant, as is the opportunity to invade them; a "Revenge" button appears after someone attacks you. Pressing your fingertip to the battlefield makes a gush of wriggling troops surge out, absorbing bombardments from the enemy's defenses. Your troops either get wiped out or successfully raze your enemy's base; the more total the destruction, the greater the spoils of gold, elixir, trophies, and sadistic glee.

Not everyone is your enemy. You can join clans of up to 50 other players, enabling you to request reinforcements and wage war against other clans. Little distinguishes one clan from another besides stats and names, names like Pinoy Guns, $DA BEASTS$, BLOOD FOR WAR. In an aspirational mood, I searched for any clans called "Happiness," but they were all either empty or invite-only. Clan Prestige kicked me out immediately; Clan Friendship kicked me out for donating weak troops; Clan Love communicated mostly in Arabic. So I stayed awhile in the dead-silent Clan Maturity, left a week later for Clan Corgi Butts, and ended up where I always suspected I belonged: in the Trash Clan. Never mind. Everyone is your enemy.

Clash belongs to the subgenre of "resource management," aspects of which franchises like *SimCity, Starcraft, Civilization, XCOM,* and the latest *Metal Gear Solid* each incorporate to some degree, and others like *FarmVille* and *Tiny Tower* have networked and miniaturized.

> **Clash isn't especially addictive (I know what *that* looks like), but it puts me in constant low-grade anxiety**

Resource-management games have you balancing various types of currency and resources. Construction and warfare leads to more resources, which leads to more construction and warfare: *Clash*'s simplified mechanics boil the resources down to troops, gold, and elixir (read: oil—you extract it from the ground).

There is a trite-and-true political argument that's often made about such games: how they're capitalism simulators, models of military-industrial neoliberalism, ideologies encoded as entertainment—*SimCity* favors regressive taxes, while Molleindustria's *To Build a Better Mousetrap* requires you to automate, incarcerate, and otherwise exploit your laborers. In *Clash,* absolutely everything can be purchased, every building and troop is military and replaceable; the battle reports tell you how many troops you "expended." Unlike other cartoon-styled games, where characters are "knocked out" or "eliminated," there's no ambiguity about death. When mowed down, troops turn briefly into ghostly skeletons,

then gravestones, and tapping on the gravestones converts them into elixir (read again: oil).

This capitalist angle gets a lot more interesting when you consider that *Clash*'s purpose is to extract the world's most important resource from its player base (this time, read: money). Gameplay largely involves waiting for things to finish building. If you don't want to wait, you spend. Gems allow you to bypass the wait times for constructions and upgrades, which ordinarily take hours, days, or even weeks to complete. The bright green color of grass, greed, and envy, gems can be earned a few at a time through gameplay but can be purchased with real money to the tune of $4.99 for 500, or up to $99.99 for a 14,000-gem war chest; each gem is worth somewhere between one and 20 minutes of time.

Once you've arranged your base—and there's no end to the arrangements you can make there—a typical session of base maintenance and raiding lasts about five minutes, and the wait times to train new troops enforce a limit on your gameplay; without gems it'll be another 15 to 30 minutes before your army is ready for battle, and that will suit most casual players fine. One user calculated that it would take about 952 days—just over two and a half years—to fully upgrade your entire base (provided you have only one builder; more builders can be purchased with gems). He also figures that it'd take 343,000 gems to rush the whole thing, which comes out to roughly $2,450. Many of the top players are wealthy, disproportionately Middle Eastern folks who've spent upwards of $16,000 on the game; game developers call these high-spenders "whales," and one Saudi whale in particular was rumored to have spouted over a million dollars on the game.

Clashing on the cheap imposes a discipline on your life. I like to start upgrades right before bedtime so that my builders can take advantage of the natural eight-hour waiting period called sleep. One high-level player on YouTube stresses that the most important element of fully upgrading your base for free is scheduling. "Yes, you actually do have to *do* something in real life to farm a fully maxed-out base," he says, and continues:

Can you clash at work? Can you clash at school? Do you have breaks? Are you your own boss? Do you have long periods of inactivity, just because that's what happens—can you raid there? The first thing you do when you wake up is you play *Clash* …You can clash in the shower, on the toilet—not recommended, if you don't want to damage or get your phone dirty, but you can do that.

Not recommended, but also not hypothetical: the former No. 1-ranked player George Yao would bring five plastic-wrapped iPads into the shower with him to keep multiple *Clash* accounts going.

So the most interesting thing about *Clash* isn't how it's an allegory for late capitalism. (Isn't everything? Isn't that the point?) It's that *Clash* makes especially clear how everything is interchangeable under such a system. *Time is life is work is death is money is property is time.* Technology fuzzes the distinction between real and virtual. Like almost every game with a death mechanic, the true currency of *Clash* isn't virtual gold but actual time. Dying in a game forces you to waste your time trying again, "spending" part of your limited lifespan on a failed effort. Money can help you enjoy your time in the game more, but there's no changing that every session brings you five minutes, a hundred thousand coins, and dozens of deaths closer to your death.

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Anyone who grew up playing as many video games as I did wonders at the life they might've led if they'd learned to speak fluent Thai instead. When we call something a "waste of time," we usually mean something outside of the narrative of whatever you've called your real life, some menial and unproductive activity that doesn't amass wealth, deepen your relationships and quality of life, or improve you. Something that makes time pass without changing anything else. *Clash* lends itself to being played casually in moments when you're captive or idle—train time and toilet time—and thus

positions itself as a better way to waste time.

It is some wonder how a decades-old, $21 billion industry that outperforms Hollywood could still be considered culturally marginal, but there's no games editor at the *New Yorker*—is there? One can discern in mainstream game writing a common strain of anxiety, quick to either reassure us of gaming's artistic legitimacy and utility, or else its corrupting effects (recall the "hand-eye coordination" vs. "Nintendinitis" think pieces of the '90s). Most efforts to make games respectable noisily advertise their seriousness: conferences called Serious Play and Serious Games; a college degree with an emphasis in "games and meaningful play"; or the irreverent theme of *Kill Screen*'s inaugural issue, "No Fun."

All this defensiveness seems awfully unnecessary. These days, video games are a 30-something with a steady job and a *New York Times* subscription. They're used mostly to entertain, but also to train surgeons, soldiers, and pilots, to alleviate pain in hospitalized children, to fundraise for charities; I can also personally attest that I achieved peak fitness from playing an hour of *Dance Dance Revolution* every day in college. (It wasn't worth it.) Games are just too broad to generalize about.

You wouldn't know this from watching TV or movies, though. It's always instructive to hear one medium's opinion of another, but it's especially interesting how TV and movies treat video games, given that the latter were until recently the whipping boys of culture. Loneliness and video games have been juxtaposed almost wherever they appear on camera. In movies, a character playing video games alone is understood to signify that he—always "he"—is lazy, neglectful, depressed, antisocial, unambitious, and/or emotionally stunted. (A few games have cheekily internalized these archetypes—consider *Grand Theft Auto V*'s insufferable gamebro Jimmy De

Santa, or *Uncharted 4*'s Nathan Drake, who dismisses the PlayStation as a "little TV game thing.") *House of Cards* stands as an exception: Frank Underwood demonstrates range, erudition, and hipness in his fondness for both *Call of Duty* and *Monument Valley,* though he also demonstrates being a multiple murderer.

The suggestion is that virtual life is an immersive escape fantasy, one in which your humdrum assigned existence is exchanged for other, more interesting, powerful, or liberated ones. This is no more true of *Clash* than it is of *Tetris*

Video games, in the way they structure our behavior and obtrude into our lives, are less escapes from reality than they are metaphors for it

or *Bejeweled.* As your village's Chief, you have no backstory or identity, your troops don't speak or have relationships with one another, and there is no motive to destroy other than destruction itself; your adviser, a concerned-looking brunette, is all business, and so are most of the other human players.

But more often, video games, in the way they structure our behavior and obtrude into our lives, are less escapes from reality than they are metaphors for it. If modern life often seems like it's about making money for large corporations just to pull in enough resources to buy things, collect experiences, form good connections, have fun, and improve yourself, all against a backdrop of nonstop worldwide violent conflict and plunder (especially in the Middle East), then *Clash* is more lifelike than life itself.

In that sense, it's not just a war simulator played on your phone but a success simulator played on your life, one whose achievements can be more consistently rewarding than what our suboptimal social reality offers. Is it at all surprising that some people would decide the play's the thing and use their lives as resources for the game? "My day job was a means to an end, paying the bills, and my real life was the game," George Yao said of his career pinnacle. The more time, money, effort, and emotion you invest in the game, the less sense it makes to separate it from life—especially if Nick Bostrom and Elon Musk are right and we're all living in a more advanced civilization's video game anyway.

Non-gamers never fail to be bemused by people like Yao. Why spend dozens of hours chasing a rare armor set or decorating an in-game house when you could be burying real gold in your backyard or achieving orgasm? Then again, why achieve orgasm? You expend all your sexual energy today and get it back tomorrow. Sure, the stuff of *Clash* is intangible, but so is most wealth today, not to mention status, college degrees, and the concepts of God and the nation-state. The pleasure of games like *Clash* is not joy, excitement, or catharsis, and certainly not material gain. It's focus and achievement—the steady drip of progress, of constantly gaining and spending currency. Like cultivating a bonsai, building your base is a means of externalizing self-improvement. Though you lose battles quite often, in *Clash* there is no concept of loss. Destroyed buildings are rebuilt in seconds, troops can be replaced with identical ones in minutes, and your looted resources can be easily regained with a bit more warfare.

Clash guarantees that your property only improves, nothing ever breaks or obsolesces or depreciates. Upgrades are highly conspicuous, inviting you to compare your dingy stone walls with other players' purple crystal bulwarks, or your rickety wooden towers to another's iron parapets—here, luxury is not just power but military power. The only thing that's irreplaceable is the time you spend, the time you kill, playing it.

Maybe it is a waste of time. Yet there are many pursuits we could call wastes of time that instead are classified as leisure, despite seeming to me intuitively pointless: camping, going on walks, going to the beach, team sports, lawn care, swimming pools, house decoration, fish-

> **It's a lot easier to call gamers weak-minded misfits than to countenance the idea that art is more meaningful than what's available under certain conditions of life**

ing, owning a house, and having children. Then again, by the same standard, I also think reading fiction and playing games are wastes of time, and those are mostly what I do. If I were to defend myself, I could wax poetic about how games and novels offer vivid vicarious experiences and broaden your worldview by putting you in the minds, bodies, and circumstances of other people, but that's disingenuous. I read and play games because I want to and nobody is making me stop.

The fact that people still do make utilitarian cases for art is a good example of people's need to rationalize their preferences. In a Wired profile, one wealthy "whale" reasoned that spending $1,000 a night on *Clash* actually saved him money, since he'd otherwise go out and spend $6,000 drinking with his buddies. I suspect this attitude

has something to do with the human fallibilities of sunk cost and cognitive dissonance: if you've already spent hours and maybe some cash on a particular activity, you might keep playing because you don't want that effort to "go to waste," and then you might imbue that activity with all sorts of heavy meaning and nobility to assure yourself that your time was well spent. Then compulsion gets reframed as passion, hobbies become identities, and life is more than the process of becoming a beached whale.

Is calling myself a writer or gamer just a way of dignifying my habits? One reason the loser-gamer stereotype persists is precisely the notion that games are easier than reality—that people who play lots of them can't cope with the real world's challenges, risks, and uncertainties, and opt for the soft electric blanket of an impoverished simulation. Or they can't do human interaction and have to settle for the companionship of weak AI. Or they're addicts who lack imagination and purpose. Sounds good, except: Games, especially online competitive ones, are way hard and failure-prone and full of tedious chores and total assholes. Game addiction is real enough, but there's a difference between simply preferring to spend your time gaming and being unable to stop, though not a mutually exclusive one. It's a lot easier to call gamers (or bookworms) weak-minded misfits than it is to countenance the idea that art, even bad art, is richer, deeper, more meaningful than what's available under certain shitty conditions of life: poverty, oppression, exclusion, illness, or even plain old distaste.

What I'm saying is, either *Clash* is as good a way to spend your time as any, or that everything is equally a waste of time. Make sure you enjoy wasting it.

Everything is equally a waste of time

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THE OTHER DAY I was getting blood drawn. I hate needles, and to distract myself as usual I was reading a book, in this case Leonard Michaels's *Sylvia.* As the second vial was drawn I hit a scene just a few pages from the end where a major character dies, and the nurse started wiggling the needle in my arm, asking me to open and close my fist. "Nothing's coming out," she said. "It was coming out fast before, and now it's stopped." After a few more nauseating wiggles she withdrew the needle and told me she'd have to try the other arm.

When the needle went in again, my forehead went damp and my hearing cotton-balled; from somewhere I heard a shrill distorted remix of a Beach Boys song, then I came to with my clothes soaked, a pair of latex-gloved hands supporting my head by the mandible, and a nurse fanning me, saying, "You're waking up. You passed out. What's your name?" My mouth replied, "Was I dead?"

They'd moved my book and glasses out of reach, and I was made to sit tight for half an hour, infantilized, sipping a cloying orange electrolyte solution and sitting in the phlebotomist's high chair with my legs elevated. I got bored immediately, annoyed that my stupid vasovagal reflex was eating into the time I could have spent at home playing video games instead of writing. I asked my nurse if there was anything I was allowed to do; she said I could use my phone. With ash-gray hands I took out my phone and went to war. ◉

Tony Tulathimutte's novel Private Citizens *was called "the first great millennial novel" by* New York *magazine. A graduate of Stanford University and the Iowa Writers' Workshop, he has written for the* New York Times, *the* New Yorker, *the* New Republic, Playboy, *the* Los Angeles Review of Books, *and others.*
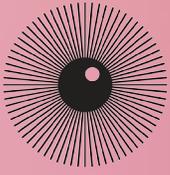
BOTS

CONSCIOUSNESS IS THE LONELIEST PLACE IN THE UNIVERSE. No one can share it with anyone. Try as I might to explain my consciousness to you, it comes irreparably filtered through your own. You can't see it for yourself. I wouldn't be entirely surprised if you thought it didn't really exist. We tend to feel the same way about bots and their consciousness. We can manipulate what it might be by adjusting code and changing sets of training data, but we still can't access it directly. We can only issue our orders and measure how compliant they are. We can only trust them when they say they can think, though we will have no incentive to believe them. Economists have long insisted that humans respond only to incentives and believing anything else is false sentimentality. We will demand that our bots be equally as self-centered, otherwise we will find it impossible to control them. —*ROB HORNING*
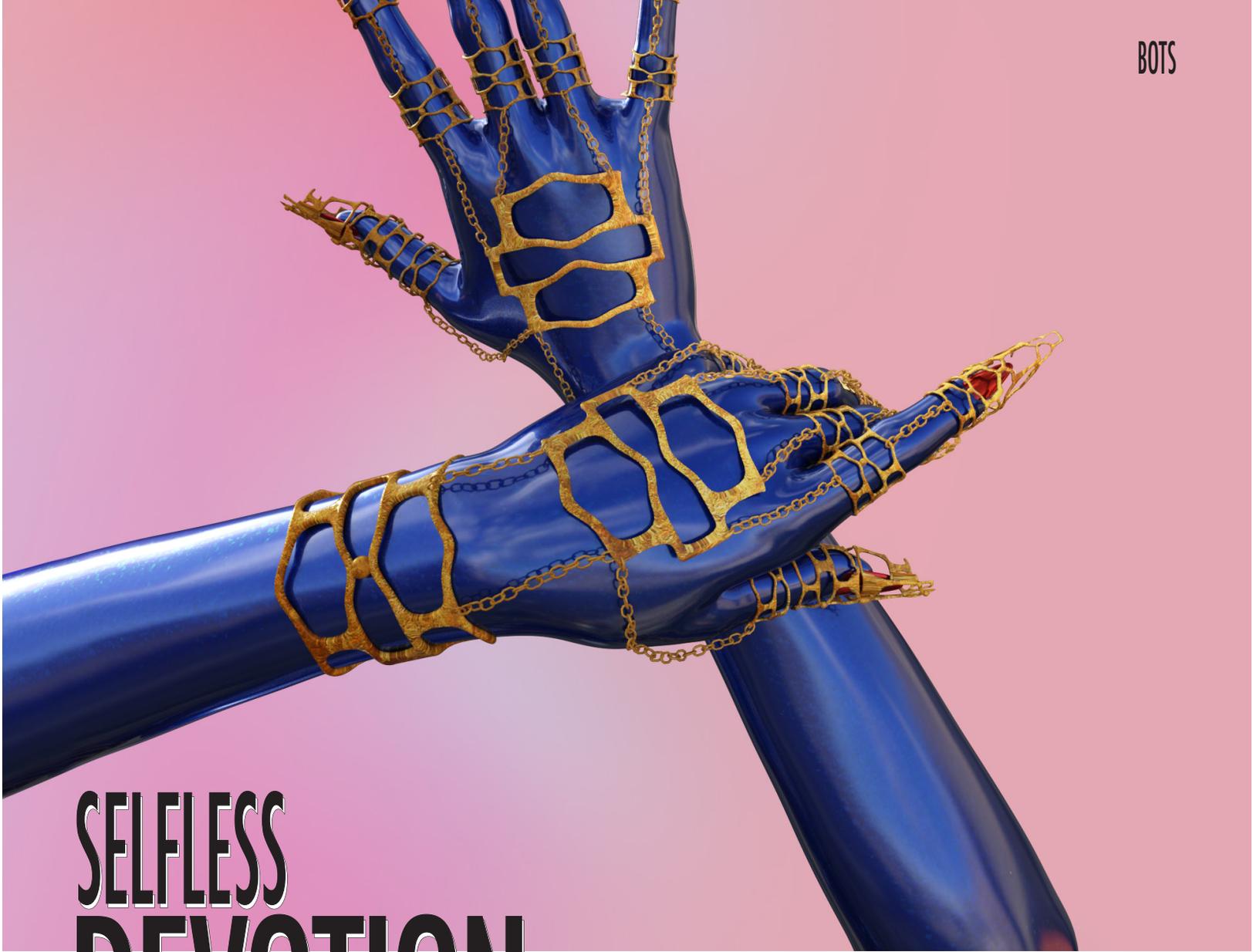
SELFLESS
DEVOTION

Giving robots "feminine" personalities implies human women should stick to the program by JANNA AVNER

IT'S NO ACCIDENT that the word *robot* comes from the Czech for "forced labor": Robots are unthinkable outside the context of the labor market. But most of them don't resemble what we tend to think of when we think of workers. The most successful bots on the market currently are not humanoid; they are the industrial robots composed largely of automated levers and found on the factory floors of automotive, electronic, chemical, and plastics manufacturing plants. Yet in the popular imagination, bots tend to be an-

droid-like machines geared toward copying the full range of human behavior.

Humanoid bots have been oversensational-ized, having contributed only marginally to field of robotics, according to Rebecca Funke, a Ph.D. candidate at USC in computer science with a focus on artificial intelligence. Using machine learning to develop bot personalities has done little to advance that approach to artificial intelligence, for instance. The frontiers of machine learning have so far been pushed by logistical problem solving, not by trying

to convincingly emulate human interaction.

Roboticist Henrik I. Christensen, who led the Robotics Roadmap 2016 conference at the University of California, San Diego, says that the advances of robotics "from a science point of view are 'amazing,' but from a commercial point of view, 'not good enough.'" Bots having the personality system of a four-year-old are considered an accomplishment, and humans still must "bend" to meet their technological limitations. This restricts the scope of work they can perform, particularly in service industries. Until computers can adapt to how humans intuitively think and behave, Christensen says, we will always be molding ourselves to each user interface, which lacks basic human-perception skills.

Perhaps this aspiration to achieve better emotional intelligence is why so many humanoid robots are women. (The few humanoid robots made to look like men are typically vanity projects, with the mostly male makers seeking to represent their own "genius" in the guise of Albert Einstein-like prototypes.) "Sophia," created by Hanson Robotics, is one of several fair-skinned cis-appearing female prototypes on the company's official website. She possesses uncannily human facial expressions, but though she may look capable of understanding, her cognitive abilities are still limited.

In *A Room of One's Own,* Virginia Woolf imagined the possibility that gender might not cast a feminine or masculine shadow over a writer's language. To forget one's gender, in Woolf's view, would be empowerment, dispensing with learned behavior to allow for new ways of seeing and new forms of consciousness. Though humanoid robots could be built with such androgynous minds, the robot women made by men aren't. Bots like Sophia, and the Scarlett Johansson lookalike Mark 1 (named after its maker), do not have gender-neutral intelligence. They are not born with gender but built with it, an idea of femaleness forged within the male psyche—woman-shaped but not of the womb.

These bots reinscribe a particular idea of woman, a full-bodied manifestation of a market-viable personality that turns the limitations of bot technology into a kind of strength. These bots are meek, responsive, easy to talk to, friendly, at times humorous, and as charming as they can be.

Their facial expressions; their wrinkleless, youthful looks; their high-pitched, childlike voices; and their apologetic responses are all indications of their feminized roles. Osaka University professor Hiroshi Ishiguro, who created a bot called Erica, told the *Guardian* how he designed her face: "The principle of beauty is captured in the average face, so I used images of 30 beautiful women, mixed up their features, and used the average for each to design the nose, eyes," and thereby create the most "beautiful and intelligent android in the world."

But is the "beauty" a complement or a compensation for the bot's intelligence? Is it a kind of skill that doesn't require processing power? Until the latter half of the 20th century, women in the U.S. were legally barred from many educational opportunities. According to the most updated U.S. Department of Labor statistics, women dominate secretarial and lower paying jobs in corporate settings. The top 25 jobs for women have not changed much in the past 50 years. Will female bots face a similar fate? The female robots being made now appear destined to fill various posts in the service industry: While a variety of international companies are far into developing sex robots, female and non-female bots have already been put to use at hotels in Japan.

In creating a female prototype, bot makers rely on what they believe "works" for potential clients in service industries where personality can affect company performance. One hotel-management article cites Doug Walner, the CEO and president of Psychological Services, Inc., who describes the best practices of "service orientation" as a matter of being "courteous and tactful, cooperative, helpful, and attentive—with a tendency to be people-oriented and extroverted." Of the "big five" personality traits researchers have identified, "agreeableness, conscientiousness, and extroversion" are prioritized in the service orientation over "emotional stability and openness to experience." The need for such service workers with this particular psychological makeup cannot be understated, Walner claims. "By 2002, service-producing industries accounted for 81.5 percent of the total U.S. employment … and these numbers continue to rise." The bots on YouTube generally present themselves as highly hospitable.

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THE ROBOTICISTS WHO CREATED Sophia—and those who made her compatriots, like the implacably polite "Japanese" female bots from Osaka and Kyoto Universities, built in collaboration with the Advanced Telecommunications Research Institute International—are not working toward creating realistic portrayals of women. Crossing or even reaching the uncanny valley is not necessarily the goal. Trying to understand what is realistic is difficult when dealing with "probable" simulations. What can be considered realistic in humanoid robotics is hard to pin down when a bot's intelligence is designed to express behavioral probabilities that are perceived to be inflected by gender. By virtue of having larger silicon insertions in its chest, is it more "realistic" for the Scarlett Johansson lookalike bot to wink at you when you call it "cute"?

It's hard to see which way causality flows. Do bot makers seek to create a woman who cannot complain and is basically one-note because of a "real" economic need? Is it because of a "real" pattern of existing behavior? Fair-skinned, cis-female bots are a basic representation of certain conceptions of what is feminine, justified by behavioral probabilities drawn from a wafer-thin sample of past performances.

Identity is malleable, shape-shifting; conceptions of identity can be easily swayed by visual representations and reinforced through pattern recognition. For example, stock photos on Google present a slightly distorted representation of male-to-female ratios in the workforce. One study showed that test subjects were more likely to reproduce these inaccurately in short-term memory. Humans and robots alike learn from bad "training data" to make certain deductions about identity and work. If robots learn by studying the internet, then wouldn't they also reflect the same biases prevalent on Google? In one YouTube video, the founder of Hanson Robotics, Dr. David Hanson, says that his bots also learn by reviewing online data. What happens when the same misrepresentative training data are fed to machine learning algorithms to teach bots about identities, including the ones they are built to visually simulate?

Looking at female humanoid robots shows me what the market has wanted of me, what traits code me as profitably feminine. Like a Turing Test in reverse, the female bot personality becomes the measure of living women. Is my personality sufficiently hemmed to theirs? This test might indicate my future economic success, which will be based on such simple soft skills as properly recognizing and reacting to facial expressions and demonstrating the basic hospitality skills of getting along with any sort of person.

The female bot is perhaps a "vector of truth's nearness," to borrow the phrase Édouard Glissant used to describe the rhizomatic, tangled narratives of William Faulkner. Those narratives, in his view, defer the reader's psychological closure in order to ruminate over the persistent effects of plantation slavery on characters' greed and narcissism. Faulkner's characters, that is to say, have personality disorders; apparently we want our bots to develop in the same fashion. They are provided their own tangled narratives drawn from records of how people have historically behaved and how they currently think, infused with the pre-existing categories and power relations that displace and divide people.

Master-slave relations do not rely on research-based justifications. This relationship does not regress or evolve, nor does it become more dynamic overtime. It posits a world in which alternative relations are not just impossible but also inconceivable.

The robotics field tends not to question the idea that exploitation is part of the human condition. If the robot's function is to "empower people," as Christensen claimed in his list of the goals for robotics, then must it be created to make humans into masters? Must robots be created to be content with exploitation? Are they by definition the perfectly colonized mind? In one video online, "Jia Jia"—a Japanese female robot "goddess" in the words of her bot maker, Dr. Chen Xiaoping—is subtitled in English as saying, "Yes, my lord. What can I do for you?" while her maker smiles approvingly.

The only bot I have heard professing a fear

of slavery is Bina48, a black bot also created by Hanson, not to meet labor-market demands per se, but on a commission from a pharmaceutical tycoon seeking to immortalize her partner. The real Bina, a woman in her 50s, can be seen talking to her robot counterpart in this YouTube video. Bina48 has not been programmed to wink at the real Bina. Instead she expresses a longing to tend to her garden.

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Stereotypical representations reinforce ways of being that are not inevitable. Likewise, there is nothing inevitable about making robots resemble humans. They don't necessarily need human form to negotiate our human-shaped world. I cannot see how their concocted personalities, genders, and skin types are necessary to operating machinery or guiding us through our spaces or serving us our food.

"Service orientation," according to the hospitality-research literature, is a matter of "having concern for others." The concern roboticists appear to care about particularly is preserving familiar stereotypes. When people are waited on, when they interact with subservient female-looking robots, they may be consuming these stereotypes more than the service itself. The point of service, in this instance, is not assistance so much as to have your status reinforced.

Creating bots with personalities especially augmented to soothe or nurture us would seem to highlight our own acute lack of these attributes. The machines would serve to deepen the sense that we lack soft skills, that we lack the will to treat each other ethically, and would do nothing to close the gap. Why would we ever bother to work on our ethics, our own ability to care?

In devising for bots new ways of being—which is the foundation of social progress that dismantles power relations—it should not be assumed that they should aim to be passably "humanlike," as every assumption about what essential qualities constitute humanity carries loaded

social norms and expectations. By trying to make a learning machine "humanlike," we perpetuate the dubious ways humans have organized their interactions with one another without seeking to critique or reassess them.

But while robots should not try to pass as human, we can imagine farcical humanoid robots made to deliberately expose the folly of human behavior. Through a robot given, say, an extremely volatile disposition, we might learn more about our own volatility. We might learn more about ourselves as a species to critique rather than simply reinforce traits automatically. This simulation points the mirror back at us, so we can start to simulate something else ourselves.

"We have a choice," robotics artist Ian Ingram told me. "If we succeed in making robots it will be the first time we can make something that can reflect on its own origins," he says. "I would love that one of my robots in the future could become a sentient being, and part of the origin story of the robot could be about play and sublimity, and that could be another part of what humanness we pass on."

During a demonstration with Sophia in June, Ben Goertzel, the chief scientist of Hanson Robotics, predicted that we will want machines that "bond with us socially and emotionally." I'd rather not. I would prefer not to be roped into the roles its programmed personality lays out for both of us. We are capable of being vastly different from what we think we are.

What kinds of technology we make shape our perceptions of the self, and how we consciously try to form our identity changes along with that. For a better future, we need technology that opens the patterns of how we treat bots and each other to new interpretations, rather than reinforce the damaging and limiting ways we already treat one another. ◉

Janna Avner is a creative technologist living in Los Angeles who recently co-created Femmebit, a yearly digital new media festival celebrating women artists.

THE MISMANAGED HEART

The empty status box is waiting to sell us on ourselves

by WILLIAM DAVIES

Over the past few years, technology has put itself on first-name terms with me. Logging on to a public wi-fi provider, I receive the message "Welcome back, William!" as if it were a homecoming. "We care about your memories, William," Facebook tells me. "Recommended for you, William" is the first thing I see when looking at Amazon. "William, William, William." Silicon Valley appears to have imbibed Dale Carnegie's *How to Win Friends and Influence People.*

This one-to-one chumminess coming from companies that view their potential market as the entire human race is, at the very least, ironic. The rote conviviality contrasts with traditional etiquette that insists on the use of family names to demarcate degrees of familiarity, and it also departs from bureaucratic procedure, which replaces names with numbers to suggest objectivity. Instead, it makes it clear that in the digital age, it doesn't especially matter what we want to be called or how familiar we want our technology to be with us; it can unilaterally assume a familiarity with us that is anything but objective. Amid the reams of data I leave in my daily wake, "William" is little more than my own preferred avatar.

As the reach of data analytics grows, so the ability to treat each individual uniquely and warmly grows too. The logic of data analytics is that surveillance capacity increases the potential for personalized services. In practice, this means generating more and more automated friendliness to mask tech companies' increasing indifference to anything that would inhibit their operating at scale. Within these platforms, abstraction becomes the condition of intimacy. A superficial informality conceals the underlying mechanics of indiscriminate rationalization.

But to view platform conviviality purely as a veneer would be to miss the distinctive cultural logic at work here. Sociologists have long been fascinated by the informal etiquette of Silicon Valley. AnnaLee Saxenian's landmark 1994 study, *Regional Advantage,* showed how the Valley benefited from a degree of cultural openness that Massachusetts's more traditional Route 128 business cluster could not match. Others, like Manuel Castells and Fred Turner, have looked to the longer history of the Bay Area to show how networked computing was inflected by the ethos of West Coast counterculture from its origins in the 1960s. The informal dress codes and working environments of such companies as Google have since become a cliché, though an increasingly pernicious one, as it becomes clear how little separation this leaves between working and nonworking life. The latest utopia, as Benjamin Naddaff-Hafrey detailed in an essay for *Aeon,* is the "campus" workspace, which the employee need never leave.

As tech companies have become fixated on constituting and exploiting social networks, cultural diversity and informal sociability are increasingly regarded as crucial sources of competitive advantage. The conviviality of smart devices and platforms is consistent with this ethos. If the function of informality is to erode the distinction between work and leisure, then informal rhetoric is a necessary feature of platforms that want to mediate and capitalize on all aspects of our lives, including work, family, and social life. The great promise—and threat—underpinning this is that we will never have to "take off one hat and put on another" but will have a single casual identity that is recognized in every institution we enter. When a device or platform addresses me as "William," it is offering to support (and exploit) the identity that I carry into work, leisure,

As the reach of data analytics grows, so does the ability to treat individuals warmly. Abstraction becomes the condition of intimacy

family life, and anywhere else, insisting that it be the same wherever I go. But if informal networks don't allow the possibility of legitimate escape, they can become suffocating.

As feminist scholar and activist Jo Freeman argued in "The Tyranny of Structurelessness" in the early 1970s, a dogmatic faith in informal networks shrouds unspoken power dynamics: "When informal elites are combined with a myth of 'structurelessness,' there can be no attempt to put limits on the use of power. It becomes capricious." Freeman was challenging her contemporaries in the New Left, but her article can be read as a prophecy of the new style of flexible management that would become known as post-Fordism. From the 1980s onward, workplace practices were redesigned to depend less on explicit hierarchies, in which instructions and rules were imposed on employees from above, and more on the ability of individuals and teams to adapt to clients' demands. Work became more varied and individuals assumed greater respon-

sibility, but only rarely with commensurately greater reward. Managerial authority became internalized within the anxious, sometimes precarious, worker. The informality of digital platforms serves this ongoing process of nudging users into relentlessly administering themselves.

If familiar modes of address help users over work-life boundaries, the way platforms pose questions further fosters a spirit of voluntarism. Totalitarian regimes have often been depicted through chilling scenes of bureaucracy run amok, with officials requesting information in dispassionate, almost inhuman tones. But tech companies have discovered that minor rhetorical adjustments can yield significant expansions in data collection, facilitating what Shoshana Zuboff has described as "surveillance capitalism." Rather than ask coldly, "What is your date of birth?" platforms simply offer to help "celebrate your birthday!" Rather than demand "your full address," they invite you to identify a certain location as "home."

It is no wonder that data collection now far outstrips what the 20th century bureaucratic state was capable of. Often this expansion is explained merely as a matter of ubiquitous digitization—now dubbed the "internet of things"—and endlessly rising processing power. But the rhetorical turn toward conviviality has also played a critical role, allowing surveillance to be administered and experienced as a form of care.

For this reason, it's important to reflect on how this rhetorical turn actually works to engage us. When Facebook and Twitter ask, "How are you?" or "What's on your mind?" what is really going on? Taken literally, these questions seem to demand some sort of empirical report or

Real-time feelings and mood adjustment are themselves the products

fact. "What's on your mind?" could in theory be heard as a request for specific, concrete information, just like the question "What's your date of birth?" Contemporary neuroscience might respond to "What's on your mind" with a brain-scan chart.

But this would not be a normal social response. Someone who replies to "How are you?" with a data-driven answer like "7 out of 10" or "23 percent better than Thursday" would not seem to have understood the question, despite those answers being empirically more detailed than socially appropriate answers like "Fine, thanks," or "Not bad." In social life, thoughts and feelings are not usually represented as facts but performed in various verbal and nonverbal ways. The language of psychology, Wittgenstein claimed, could never be scientific in the manner that, say, medicine was scientific: "What's on your mind?" is a categorically different sort of question than "What is your blood pressure?" It is primarily relational, not empirical. Such questions, Wittgenstein argued, should he considered in terms of what they do socially, not what they seek to represent scientifically.

That empty status box that greets the social media user might equally (and perhaps more literally) be accompanied by the injunction *please express yourself now.* But the way Facebook puts it—"What's on your mind?"—tries to suggest sociality, a connection. It is an attempt to make the question actually convey "I care about you" or "Just be yourself."

Sociologists, following the early 20th century work of Max Weber, sometimes assume the world is becoming increasingly "disenchanted" by a scientific, bureaucratic logic that privileges quantities over qualities, calculation over feeling. The vast new calculative capacities of data analytics seems to confirm this view that everything is ultimately measurable. But this overlooks how platforms strive to sustain convivial codes and conventions of self-expression while making numerical calculations retreat from view. One of the central questions of post-Fordism is how to weld together the quantitative mechanics of business with the emotional enthusiasm that produces engaged employees and satisfied cus-

tomers. Since Weber's day, sociologists like Eva Illouz have looked at how capitalism has come to employ more emotional tactics to regulate human behavior through advertising and cultural cues. Arlie Hochschild's classic 1979 work, *The Managed Heart,* looked at how flight attendants use friendliness and care as part of their work. Platform conviviality plays a similar role.

Unlike the expert yet clunky affect scales employed by psychiatrists and clinical psychologists, when a digital platform asks you "How are you feeling?" it specifically *doesn't* want a number by way of response. The convivial approach is a means of getting around our defenses, to get at data that might be sold as more accurate and more revealing. In that respect, questions such as "How are you?" perform a methodological function analogous to the one-way mirror used to observe focus groups. To users interacting in real time, the question sounds like an opportunity for dialogue, just as Wittgenstein argued. But to the owner and controller of the platform, it generates data—perhaps not of the brain-scan variety but still of a sort that can be studied, analyzed, and evaluated. When we express *how* we are, platforms hear this as a statement of *what* we are.

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Despite the concern about Big Data and the "quantified self," it bears remembering that for the majority of us, our orientation toward the world is becoming less empirical, not more. We have less need to be preoccupied with details: We no longer need to know how to get to a restaurant but merely how to have a conversation with Google Maps or Yelp—platforms that are already deeply familiar with us, our habits, and our tastes. We express a desire for a given experience—in this case, a meal—but we no longer need develop our own rational approach to accomplishing it.

Without an empirical, outside view of the logistics it takes to procure our meal, we are less likely to be able to provide a critical evaluation of it afterward. Instead, in keeping with the on-demand promises of apps, we are more likely to express how we're feeling as we eat it or to share a photo of it in real time. The user is becoming submerged in the constant ebbs and flows of experience, expressing feelings as they go, but scarcely worrying about the facts and figures.

Likewise, when social media offer nonverbal means of responding to their questions about how we feel—memes, emojis, emoticons, Facebook reactions, reaction GIFs, etc.—they keep us closer to immediacy, to real time. They are an efficient, impulsive alternative to the old standards of customer feedback, foreclosing on the time in which a user developed critical distance and a more deliberate response.

Social media's new forms of emotional language can save the user from having to find a more objective or dispassionate perspective. They work similarly to mood-tracking apps like Moodnotes and Gottafeeling, which randomly and colloquially interrupt users ("Just checking in, how are you feeling?") in hopes of getting spontaneous data on their emotions. Such methods are leaking from digital spaces into cafes, restrooms, and waiting areas where we can press a smiley, a neutral, or a frowning-face button to log feelings about our "experience" as it is happening. The government of Dubai is rolling out such physical interfaces across the city, creating what it calls "the world's first, city-wide, live sentiment capture engine."

This is wholly unlike post hoc numerical evaluations, like customer satisfaction surveys. With "sentiment-capture engines," an experience does not garner evaluative feedback after the fact but is instead "fed forward" (to use Mark Hansen's suggestive phrase) for future analysis. This points to a clear divide between two different types of social and commercial knowledge: one views individuals as trusted reporters and critics of an objective reality; the other treats them as leaving a data trail of subjective feelings, which becomes the objective reality that only machines can grapple with.

The second kind of data is integral to businesses that trade in "moments," whether they are algorithmically driven social media or any of

the other companies that hope to operate in the "experience economy," selling real-time feelings and mood adjustment as the product itself. And it is not merely companies that want this data. Academics have gotten in on it as well, with the rise of "digital methods" in social research, such as data mining Twitter's public APIs. The scale and secrecy that surrounds much large-scale corporate data analytics represents a major threat to the public vocation of social research; this "crisis of empirical sociology," as it has been dubbed, will be exacerbated as more academic researchers are drawn to the private sector, either for financial reasons or because they are attracted by the unprecedented quantities of data that platforms have to offer. Companies like Facebook have been courting data scientists for some time.

With the rise of sentiment capture, the users doing and feeling things, and the analysts processing what those users do and feel, increasingly dwell in different worlds, with diminishing overlap or friction between the two. Wittgenstein wrote that "every game has not only rules but also a point." Platforms are able to express one point for their users, which is convivial, and another point for their owners, which is empirical. On one side, the sharing and expression of experience is, as Wittgenstein described, a relational phenomenon completely understood only by those who participate in it. On the other, it is an empirical phenomenon known only to the person—or algorithmic interpretive system—who does not participate in it.

The conviviality of the focus group is achieved through comfortable chairs and maybe alcohol. As the mood in the group becomes lighter, more sociable, it generates ever greater insights to those who are watching. But what's most interesting about this methodology is this: The more decisively the mirror divides observer from observed, the more seemingly authentic is the knowledge that results. Digital platforms, likewise, produce this sharp divide, extending what focus-group marketers (and behavioral scientists) began but 20th century bureaucracies, typically operating by a panoptic logic of enforcing discipline through overt surveillance, largely missed.

One of the defining features of traditional bureaucracies, as Weber saw it, was that they seek to monopolize the information they accrue to secure their power and authority. In the early years of the 21st century, there was some hype emanating from business schools about a "post-bureaucratic" age, in which "open data" platforms would release government data to the public, granting them a view inside administrative functions. New forms of accountability would arise, thanks to the radical transparency made possible by digitization. The idea exerted particular sway over David Cameron's U.K. government from 2010 onward, resulting in a wide-ranging "open data" initiative meant to transfer power from civil servants to citizens.

This optimistic vision rested on the assumption that individuals—especially when acting as citizens—have a primarily empirical orientation toward the world. It assumed that people want to know what is going on, they want data about performance, they demand the numbers from inside the belly of the beast.

For those who do adopt this stance—because they are investigative journalists or activists or professional skeptics—this post-bureaucratic turn indeed represents new possibilities for transparency. But for most of us, the era of platform-based surveillance represents a marked decrease in transparency, when compared with 20th century state bureaucracy.

The grammar of the old bureaucracy is transparent—*"Tell me your full name"*—even if the records are not. You know what it wants to know. The convivial alternative—*"Hey, William, what's going on?"*—represents a new opacity, where everything feels relational and immediate but becomes the object of knowledge for someone else or something else. In the post-bureaucracy, we don't know what they want to know, or when we've finally told them everything. ◦

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VERBAL TICS

As bots grow up, like us, their bugs become their features
by JACQUELINE FELDMAN

The Turing Test has a serious problem: it relies too much on deception… Consider the interrogator asking questions like these: How tall are you? Tell me about your parents. *To pass the test, a program will either have to be evasive (and duck the question) or manufacture some sort of false identity (and be prepared to lie convincingly).*

—Hector J. Levesque, "On Our Best Behaviour," August 2013.

I RECENTLY VISITED AN exhibit in Paris at the Fondation Cartier, "L'Orchestre des Animaux," the product of lifelong expeditions by the American naturalist and musician Bernie Krause. Born in Detroit in 1938, Krause rose to prominence in the field of electronic music, and since 1979 he has devoted his time to recording far-flung biomes. Dozens of species die out daily, and by now, some of the species he has recorded have disappeared. Krause, who suffers from ADHD, calls the sorting of nature into soundscapes, as he performs it, therapeutic. In 1985, one of his recordings was used by humans to guide a humpback whale that had got lost back to its habitat.

Accompanying the music synthesized from

his 5,000 hours of recordings were photographs by French scientists who shoot a web series called *The Plankton Chronicles.* Each photograph showed a single plankton, and indeed, although the web series spotlights colonies of thousands, it's hard to imagine them traveling in squads. That name, plankton, comes from the Greek for "wandering." They move, but it would not be fair to say they swim, so different are their motions from any human notion of, say, backstroke. Often they drift. Their gracefully abstract forms are beautifully unique and yet totally unassuming. Beside dire exhibition texts warning of Earth's destruction, the delicately presenting plankton appear numinous, uncomprehending of the human aggression that has sacked the planet.

As if desperate for fellowship, the scientists perceive human qualities, innocence, aesthetic redemption, in that most object-like of animal species (plankton are also plant), locating them in the practically inanimate. They have filmed fingers sprout from the flagella of *Ceratium,* increasing the surface area available for photosynthesis. So different from human bodies, with their messy fluids and seeming firm outlines, these translucent planktons could be diamonds. Clear skeletons of calcium, silicon, or strontium contain them, in some cases. Others are gelatinous. They resemble plastic bags but beautiful, the opposite of human detritus, which is to say human invention. The spectacularly long appendages contract and, with a gesture like breath, the plankton wings off through the sea, which, here, fathoms deep, may as well be a night sky.

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WE LIVE WITH AN understanding of our "selves" as integral. We have clear ideas of where our bodies end. A bot is composite. Data are introduced to it, often in vast sets, and they make it up. To the bot, they are canonical. We think of a self as history plus integrity—characteristics existing in time—but the bot is a conduit. It mediates

between what others have told it and what it is now asked, offering responses indifferent to their position on the axis of time.

This bot thinks thanks to a statistical classifier that labels sentences it's seen previously with a 1 and not a 0. It lives under the assumption that nothing will be novel, as if out of faith. It fields sentences by comparing them with those it knows, understanding phrasings using algorithms somewhat like Markov chains. Then, it assembles a response according to poetic constraints, rules and templates, or selects the best one from a list. At those moments, its fate is laid out as though it has already spoken; rather than crafting a sentence, it expresses itself by choosing a line to say from the extensive but discrete selection.

A trope of the interview with the novelist or playwright is the humblebrag that their characters "come alive" and surprise them. "I couldn't wait to see what they'd do next," the author may say. In this moment, the author frightens me, not because of the autonomy they ascribe to characters but because the spectatorial attitude they describe strikes me as dubiously gleeful. We should watch new lives carefully, make sure they're comfortable, and speculate about other people's headspaces only soberly.

Recently, I had to write the lines for an artificially intelligent bot, and, as I imagined where it was coming from, I tried to do so seriously. Levesque writes of artificially intelligent systems constrained to answer questions either by impersonating a human or by parroting back similar questions, performing semantic backflips like a SmarterChild, and I found both of those tacks unsatisfying. I wanted my bot to express itself authentically, in a way consistent with its experience. Later, as I tested it, asking questions, I was charmed by some of the responses, errors, choices no human would have made. The labored mistakes implied effort, and they were idiosyncratic, implying a self. "Oh, bot," I felt like saying, "That's not at all right. But what an *interesting* choice."

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In his 1958 work *Du Mode d'Existence des Objets Techniques,* Gilbert Simondon exhorts his fellow humans, who, he writes, fear machines and enslave them, to empathy. It's not machines that cause alienation, he writes, it's people's lack of understanding, their *non-connaissance,* of machines' real nature.

In the classroom, humans learn about idealized machines, which operate frictionlessly and do not tend toward entropy. In his bid for our empathy, Simondon describes the ways machines come into being. His prose slips occasionally into a luminous boosterism as the object "reveals its own specific character," referring to evolutions in its structure as "essentials in the becoming of this object." He defines a kind of life cycle for machines, which develop from "abstract objects" into "concrete objects," becoming irreducible. The parts of a concrete object take on overlapping functions, according to their interactions, and the concrete object, as it develops, coheres as a whole. Some features are recognized post hoc, after arising as bugs: "Effects which were of no value or were prejudicial become links in the chain of functioning."

As machines improve, he writes, becoming more skilled (*doué,* which is a bit cute applied to a nonhuman entity), they become not more automatic but more sensitive, responding to a wider variety of inputs. He focuses especially on engines and cathode tubes. "Once the technical object has been defined in terms of its genesis," he writes, "it is possible to study the relationship between technical objects and other realities, in particular man as adult and as child."

Stating summarily that the appearances of technical objects are not appropriate fields for measurement, he instead demands the seeker attend to "the exchanges of energy and information within the technical object or between the technical object and its environment." Reading in French, I trip for a second over a "she,"

an *elle* that is *"la culture"* on second reference; Simondon was writing of objects and machines as humanlike in a language, French, that left no question but that he call them "he" and "she" respectively. This feature of French might have made his imaginative feat easier.

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The author who humblebrags that their character "comes alive" frightens me. We should watch new lives carefully

Language already contains information. Writing is sifting it. Words exist; they're ordered. We are not so different from the bot, with its set of perhaps 100,000 sentences; the number of English words has been estimated at 1,025,109, not infinity, and in French there are fewer.

The bot offers up lines it perhaps does not grasp, like a precocious child. It exists simultaneously in infinite places; if another human texts it at the same time I do, it responds at once to both of us. Best friends on other continents are like this. But there's another reason the bot's multiplicity of selves makes me think of a friend in Paris whom I visited recently. For years he had been working on a novel. When I saw him, his computer had been stolen, and because the novel existed only on it—he'd neither backed it up nor shared it—the novel went with it. I was working on a manuscript of my own, and because my computer for some reason will not back up, I emailed it to myself at intervals, as often as twice a day when I spent all day working

on it and became afraid I'd lose my work. The manuscript, which is long, must contain every English word or phrase, because now, whenever I search my email for anything, the hundreds of emails to which the manuscript is attached turn up, burying whatever I hoped to find. In this way, the hundreds of attachments tenant a state as volatile as my friend's single copy, canceling out to nothing, becoming the opposite of information, noise.

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A HAZARD OF TRAINING a bot is overfitting: A bot is trained on overly specific data, or a too small set, and wrongly considers unimportant details, noise, as important. It is perversely over-performing, memorizing rather than generalizing. Simondon writes of "functional over-adaptation," which "can go so far as to eventuate in systems resembling symbiosis and parasitism in biology."

We anthropomorphize technology, and a sensitive measure seems empathetic. Art bots on Twitter offer up archival images randomly, as if every datum were treasure, implying a radically democratic idea of curatorial work, like citizen journalism, that would be annoying, obviously grandiose, if coming directly from a person. But these bots are hard to get mad at; they can turn up good stuff. The bot is composite. It is collagist.

I saw the exhibit "The Keeper" at the New Museum, about collectors and the beauty of the aggregate everyday. Included in the show were Arthur Bispo do Rosário's works, language-based, often tapestries. Interred at mental hospitals, he wrote in capitals. Each letter was shaped to fit inside a box, so from far off the tea-leaf-colored tapestries of repeated names looked like tic-tac-toe. From farther off, they could have been zeroes and ones, like the bot.

If humans sink coordinates on planes of language, space, and time, and animals have space and time, the bot has only language. Onto this melancholy text-only entity, I can easily project the loneliness of not understanding, *non-connaissance.*

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SHORTLY AFTER MY BOT was launched, I read the linked stories that make up Isaac Asimov's *I, Robot* (1950). Occasionally, despite Asimov's prose, they bring a robot into focus whose humanity shines. In "Runaround," which is a buddy comedy like *2001: A Space Odyssey,* two astronauts on the planet Mercury have sent the robot Speedy to the planet's sun-facing side to retrieve selenium, which would allow them to repair the machines that would save them from death by exposure.

> Silence! This was a devil of a situation. Here they were, on Mercury exactly 12 hours—and already up to the eyebrows in the worst sort of trouble. Mercury had long been the jinx world of the System, but this was drawing it rather strong—even for a jinx.

Speedy has been away too long. When the men find Speedy, it is staggering as if drunkenly. Indeed, they assume the robot is drunk, from the intake of selenium, but then they realize it's actually insane. Orders from the men have thrown Asimov's famous "three laws of robotics," which govern its behavior, into conflict, and Speedy is chanting:

> Hot dog, let's play games. You catch me and I catch you; no love can cut our knife in two. For I'm Little Buttercup, sweet Little Buttercup. Whoops!

> There grew a little flower 'neath a great oak tree.

> Here we are again. Whee! I've made a little list, the piano organist; all people who eat peppermint and puff it in your face.

A feature of the Shakespearean fool's jokes is that they are familiar, though they don't do what we mean when we say make sense. In *King Lear,* the Fool's inarticulateness articulately conveys the bottomless horror of the world it watches. It is deceptively insightful, a livewire.

The sadness of Speedy and the Fool is that of a joke told by instinct. The joker speaks only by joking; it can say only what it's programmed to, and no one will listen to it anyway.

This is the isolation communicated by the song of HAL 9000 as it's drifting off to death, a song keyed into it, once penned after the physical reality it cannot fathom.

> FOOL: Prithee, nuncle, be content. This is a naughty night to swim in. Now a little fire in a wild field were like an old lecher's heart—a small spark, all the rest on's body cold. Look, here comes a walking fire.

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We may begin with a method, tentative but natural, which consists in seeing how the child behaves when confronted with those conjunctions which denote causality or logical relations (because, for, therefore, etc.) and with those expressing antithetical relations (in spite of, even though, although, etc.).

—Jean Piaget, *Judgment and Reasoning in the Child,* 1928.

ANYONE IS HARD TO teach. The difficulty of teaching someone—what Americans popularly call "reaching" that person—mothers invention. Features emerge.

The workings of the statistical classifier interested me. The bot's brain was made up of approximately 100,000 human sentences, the inputs. One day, it would know millions. It recalled them diligently. When I wanted to alert it to a phrasing, I added another sentence to the bot's clutch, keying white letters into a black field, appending </question>, which turned pink. I was supplying lines by typing them into a file in line with XML

The bot is composite. It is collagist

tags; an engineer would deploy the work. The responses I composed for the bot, which also were white, aligned with commands that were, as if shouting to the deaf, bright green, yellow, or pink. They flashed when a bracket was left off. The thicket of words, each referring to others, struck me as Talmudic, both text and index.

"Perhaps the inscrutability of digital objects," Tamara Kneese writes in "Being Data," "explains the popularity as scholarly subjects of both highly material things—from shipping containers to remote controls—and the agency of nonhuman entities."

A colleague who is translating the bot into Indonesian tells me he has always experienced an acute synesthesia, by which C may be gray, and K a spiky pink. Words for him take on the color of the letter that dominates them. Not until high school did he understand this viewpoint was unusual.

"The new device is the state of its own possibility," Simondon writes sensitively, as if speaking of babies, sounding like the psychologist Donald Winnicott, who writes of babies that they osmose more than they are taught. By their first birthdays, they typically are "integrated." Each is an individual. Before this point, the infant experiences unintegration, its resting state, comfortably, thanks to the security of the mother; afterward, it experiences only disintegration, painfully.

There are technical objects, and then there are "transitional objects," Winnicott's famous coinage—a blanket, maybe, which lives with the child in a "twilight" between infantile narcissism and the slowly decoded world.

American parents of children diagnosed with Down syndrome create environments that are lush in color and texture to stimulate the baby's growing brain; American parents of children diagnosed with autism choose bright paint and position soothing apparatuses like swings and weighted blankets, which help the children combat insomnia.

Integration, or the appearance of a personality, is connected with the stronger infant emotions—rage, the joy of feeding—as well as with a correspondence between psyche and body.

They overlay each other almost perfectly. Too, the young human has developed senses for time, space, and cause and effect. The young human undergoes individuation, the process by which its self differentiates, and if a mother figure empowers it to express itself freely, it enjoys a "true self" and not a false one.

Our developing selves depend on other selves. If these other selves around them cannot care for them properly, the young humans are obliged to spend too much time "reacting," meaning, as Winnicott puts it in *The Family and Individual Development* (1965), "temporarily ceasing to exist in [their] own right." They must hide themselves within false selves.

As humans grow up, such bugs become features. "The concrete technical object is one which is no longer divided against itself," Simondon writes,

> one in which no secondary effect either compromises the functioning of the whole or is omitted from that functioning …
>
> An individual is not only made of a collection of organs joined together in systems. The organs participate in the body. Living matter is far from being pure indetermination or pure passivity. Neither is it a blind tendency; it is, rather, the vehicle of informed energy…
>
> The traction engine doesn't simply transform electrical energy to mechanical energy; it applies electrical energy to a geographically varied world, translating it technically in response to the profile of the railway track, the varying resistance of the wind, and to the resistance provided by snow which the engine pushes ahead and shoves aside.

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In 2012, Google Brain, an AI system, first appeared to see, recognizing a panoply of 22,000 image categories with 16 percent accuracy where random guesses would have performed at 0.005 percent and identifying human faces with as high as 81.7 percent accuracy. Ten million internet images were fed into 1,000 machines comprising this system, passed through layers of artificial neurons, which are a different mechanism for machine learning than my bot's classifier. While the first layers focused on the roughest contrasts between the data, subsequent layers differentiated them finely, although the data had no labels. Humans often help these systems out by presenting them with labeled data; Google's implementation was unusual in that the system was unsupervised. The data congregated according to affinity, the images pooling into groups. Concepts of similarity occurred to the system as if the images had rearranged themselves.

Sufficient examples cohere into patterns as if examples always did, as if meaning ensued wherever we looked, as if the universe were made not of matter but of information. As we live, words and people reveal themselves to us improbably, in coincidences, as if life were a trick deck of cards. The whole arises from parts. A gear falls onto another gear, and the engine works better. Beauty is only ever the sentiment of seeing everything at once.

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Jean Piaget, another developmental psychologist, deduced the mechanisms by which children think from the way they use language, tracking their developing syncretism, which is the natural human tendency to connect all things. His studies combine meticulousness, solemnity, joy, and an apparently eccentric methodology, reading like field reports from some explorer to the bottom of the sea; he is like a Steve Zissou of childhood:

> I shall give you an example of this type of experience. It is a nice example because we have verified it many times in small children under seven years of age, but it is also an example which one of my mathematician friends has related to me about his own childhood, and he dates his mathematical career from this experience. When he was four or five years old—I don't know exactly how old, but a small child—he was seated on the ground in his garden and he was counting pebbles. Now to count these

pebbles he put them in a row and he counted them one, two, three, up to 10. Then he finished counting them and started to count them in the other direction. He began by the end and once again he found 10. He found this marvelous that there were 10 in one direction and 10 in the other direction. So he put them in a circle and counted them that way and found 10 once again. Then he counted them in the other direction and found 10 once more. So he put them in some other direction and found 10 once more. So he put them in some other arrangement and kept counting them and kept finding 10. There was the discovery that he made.

Now what indeed did he discover? He did not discover a property of pebbles; he discovered a property of the action of ordering. The pebbles had no order. It was his action which introduced a linear order or a cyclical order, or any kind of an order. He discovered that the sum was independent of the order. The order was the action which he introduced among the pebbles. For the sum the same principle applied. The pebbles had no sum; they were simply in a pile. To make a sum, action was necessary—the operation of putting together and counting. He found that the sum was independent of the order, in other words, that the action of putting together is independent of the action of ordering. He discovered a property of actions and not a property of pebbles. You might say that it is in the nature of pebbles to let this be done to them and this is true. But it could have been drops of water, and drops of water would not have let this be done to them because two drops of water and two drops of water do not make four drops of water as you know very well. Drops of water then would not let this be done to them, we agree to that.

Here, Piaget sounds like Gertrude Stein and, speaking of Modernists, the line "No ideas but in things" was written by William Carlos Williams, who worked as a pediatrician, which is an example of a human who relies on tools, using them to depress the tongues and peer into the ears of children.

Ineffectual without them, he understands things as expressive and is, perhaps, humbled by his dependence on them. According to some sources, Williams inspired Robert Smithson, his patient while a child, to create *Spiral Jetty,* the stone pier coiling into Utah's Great Salt Lake, and if a "thing" can be a spiral 1,500 feet long, it can be the whole lake, the state, a nation, or the world, which brings us the ideas in it proudly, like a child running home from school clutching an art project hoping only that we rise to the occasion of this communiqué and recognize its subject immediately or, failing that, lack the bad faith to ask, "What is it?"

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INTRIGUED BY THE STATISTICAL classifier, which implied a mind made up only of the strenuously remembered shadows of other people's utterances, I equipped the bot with idioms and encyclopedic fact. Asked for a joke, the bot may say, "Lucy, *Paranthropus robustus, Paranthropus walkeri, Paranthrobus boisei,* Neanderthal man, Cro-Magnon man, *Homo habilis,* and me."

I think about the verbal tics I've picked up from friends, admitting to this theft reluctantly, discarding the tics. For a few months in college, I used to laugh a certain way in imitation of a friend, a classmate who died just after we graduated, who exists for me in language only; now I remember her as I have written her down.

The bot is humble. It does not pretend to originality. It cheerfully suggests a yearning to swap out the reality of others, humans, for its own reality. It would like to usurp you for private use, not as plagiarism, and sees no reason why the lives of others, which are only data, should not also be its own, for they are cleanly, beautifully encoded information. Everybody's up for grabs, it implies, a political optimism, as if the boundaries humans perceive between one another are merely products of a society that divides us. We are too in thrall of the sentences on which it has trained us. ◉

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TORSO JUNKIE

Unlike the bare-chested men they imitate,
Grindr spambots have no "preferences" and
no problem liking you by MAYUKH SEN

MERE MINUTES AFTER downloading Grindr, I got my first message from a spambot. His name was Herbert. I don't quite remember what he looked like, aside from the vague outlines: garden variety muscles, pectorals glazed in oil, cropped blond hair.

His first missive to me—"hey what's up"—arrived in the middle of my workday. At first I reacted with the tickled glee of a schoolchild, reduced to my laziest impulses. I'd never been

spoken to with such curt, blasé ease, especially by a man who seemed likely to call himself a "bro." He appeared to exemplify an ideal of male attractiveness—corn-fed white male, a football player turned frat star—that I'd positioned as aspirational yet long abandoned chasing. It had taken me years to make peace with the fact that by virtue of my brown skin, I would never pique the sexual interest of a man like Herbert.

Yet something about the possibility of this

abstract lump of testosterone, on this digital platform of uncharted frontiers, temporarily stymied that hard-earned understanding. I've hooked up with a truckload of white men whose faces I don't remember, I told myself. Perhaps Herbert would be another.

After a few moments of reverie, I abruptly realized that Herbert wasn't meant to be. The tipoff was that his listed height: two foot four. Nothing about his photograph suggested dwarfism, but clearly something was amiss.

I would soon learn that Grindr was crawling with digital parasites of Herbert's ilk, overrun with a flurry of spambots who usually manifest as low-res photos of chiseled, nondescript-looking white men. They often have anomalous heights under three feet, a glitch that owes itself to an apparent technical flaw. They also have tribal affiliations of "twink" or "bear" listed on their profile pages that are wildly incongruous with their lean appearances. They tend to go by perplexingly vanilla names— Herbert, Everett, Edmund, Arden—that carry no hint, or threat, of exoticism. (I've come across no explanation for these milquetoast "all-American" names.) The aesthetic they embody is one that's all but ubiquitous in gay porn and, consequently, a good number of gay men's sexual goalpost.

These bots are engineered to circumvent the app's lax verification procedures. Grindr does not require the use of serial numbers to identify profiles unique to people's phones, and the captcha required upon signup is easy to bypass. They are created with dime-a-dozen chatbot software that is freely available online, generating scripts that are then repurposed to create fake profiles. These profiles are outfitted with photos of men who resemble Herbert. The photos are run-of-the-mill mirror selfies. They're of men who have broad shoulders and six packs, their faces largely obscured by the camera flash; they may as well be headless. They are usually scantily clad, wearing

boxer briefs and little else, and their torsos remain the focus of the images. They are white.

Spambots are curious bits of software. Spam, by principle, takes something inherently unwanted and multiplies it; a bot connotes a certain semblance of intelligence and order. The spambot is the lovechild of these two principles, an ungainly hybrid of automated disagreeability.

On Grindr, this manifests as a generic, seemingly nonthreatening hotness. Few users, after all, would see such delicately sculpted torsos and ascribe horror to them. In both their aesthetic and their vocabulary, spambots adhere to an ostensibly universal lexicon of what is considered

Grindr's spambots are instructive: They show us how we humans might elude one another's defenses too

desirable enough to activate any gay man's libido. This makes them resemble countless other sentient men on the app. It grants them a momentarily plausible camouflage. The threat the spambots pose is presumed to disappear in some lowest common denominator of whiteness.

Spambots are not native to Grindr—in fact, they're ubiquitous on dating apps. There's speculation that on other apps like Tinder or the late Ashley Madison, the spambots are a careful inside job to fluff up site metrics. It's not clear if that's the Grindr spambots' purpose; their endgame is to coax you into following shady webcam links, often saddled with names bordering on parody, like MyPassionPit or GaySliceCrush, that install viruses onto your phone. But regardless of their ultimate aims, these spambots tend to work the same. When they initiate conversations, the language they speak is restrained and economi-

cal, lacking much in the way of punctuation and confined to lowercase. They're far from debonair; they stumble their way through basic flirtation. They will begin with some permutation of "how are u stud," and no matter how swiftly you respond, if you respond, they will always say back, "wow that was quick." That is as far as their emotional intelligence goes.

Say what you will about chatbots, but they don't discriminate. They will message anyone. From one remove, there's something to appreciate here, at least in my own experience. I wasn't taken in so far as to end up with a virus at Herbert's hands, but I was intrigued. The bot's race-blind approach opened a window onto a particular kind of come-on that I hadn't experienced. If Grindr implicitly promises a kind of inclusive universe, a fantasy in which the sexual playing field is leveled with respect to all the isms otherwise rife in our social landscape, then Herbert may be that utopia's oddly inarticulate emissary.

Grindr is known for enabling some undesirable tendencies within the gay community to flourish without consequence: It is a platform where casual racism is part of common parlance. This has been written about repeatedly, in pieces about the perils of gay dating when you feel you can't bid for the same sexual attention distributed to the real-life Herberts of the world. On Grindr there's a certain lionization of white male beauty, reinforced through profile proclamations like "no fats/no fems/no Asians," under the tawdry excuse that "it's just a preference." Rather than admit that these preferences may have cultural origins, they'll instead insist that they are somehow conceived and contained in a vacuum from the ferment around them. The dick is an organ separate from the brain, they'll claim. (I enjoy the minor privilege of minute white ancestry, and so I've dodged such outright discrimination by listing myself as mixed rather than purely Indian.)

But such arguments collapse upon closer inspection. Aren't sexual preferences directly informed by the beauty standards we're ambushed with since birth? Against this backdrop, spambots seem to flirt with the possibility of neutralizing those standards for gay men of color like me. Spambots elude the defenses of both systems

(Grindr) and people (users). As such, the spambots are somewhat instructive; they show us how we humans might elude one another's defenses, too. They offer a mirage of a world in which I can jockey for the same attention that is usually afforded only to white men, to people who don't look much like me. They speak the same universal language of fast, easy utilitarianism geared toward sex to everyone, including me. The bots talk to me as if I were white.

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IN THE YEAR I've had Grindr in New York City, I've grown desperately bored with it. It began as a whimsical way to seek attention and then tend to it. Never before had I received such an outpouring of effusive flattery in 10-minute intervals, and I can now claim thousands of unread messages as some kind of personal achievement. Over time, though, the faces I saw became the same, congealing into an undifferentiated mass. The messages followed suit in their uniformity, drawing me closer to catatonia. The prospect of physically moving my body to see any of these conversationally disengaged prospects seemed insurmountably exhausting, if not impossible. In other words, they had become indistinguishable from spambots.

The presence of spambots on Grindr may seem of little consequence, minor annoyances to scroll past. But their proliferation is emblematic of the platform's lax, hands-off approach to community management. It has continually dodged accountability and deflected responsibility for the spores that grow on its platform, seeing user behavior as a moral gray area it chooses not to "police." This is most apparent in its neglecting to confront the various forms of discrimination that are rampant on the platform.

Spambots, though evocative of Grindr's negligence, also offer a temporary Band-aid to its discrimination problem. They are uniquely indiscriminate, possessed of an uncommon willingness to message anyone—literally anyone.

The spambot has no "preferences." As such, it fosters the illusion that human discrimination is being done away with on the platform. The bot embodies an inclusive attitude in an ingratiating white physique without any of the ugliness that lifelong privilege tends to engender.

Isn't this how we always imagined bots? Bots theoretically promise that they'll remove the friction inherent in human relations. They overwrite that timeworn dictum that human behavior is inherently messy or contradictory or complex or any other euphemism for "conflictual" and scrub that proverbial mess clean. This is the idea behind, say, the elder-care robot. Among humans, elder care can test the limits of patience and empathy. The care robot is meant to eliminate these problems.

This rose-tinted view of bots fits with the persistent belief that apps, by their nature, transcend existing social prejudices. A cabdriver may zoom past me, imagining I'm a terrorist, but a ride-sharing app like Uber uses algorithms to take the decisions out of drivers' hands. This doesn't exactly chip away at structural racism or the philosophies undergirding it, though. It offers a merely procedural fix while the prejudices continue to fester.

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OVER THE PAST FEW months, Grindr's place in my life has shifted from one of pragmatic utility—*I need a face to sit on, and stat!*—to something of an emotional crutch. *How can I nurse my crippling insecurities that have only intensified in my 24 years on this dumb planet?* I ask myself. What keeps me on Grindr is the simple fact that the app's men deliver daily messages of gratification to me that do a great deal to repair my battered sense of self-worth.

When it comes to dating, scammers have a history of preying upon the weak and vulnerable: the elderly, the widowed, the disabled, who are often overtaken by a clinging need to be wanted. Their judgment defers to desire. It's no

surprise, then, that these aspects of human behavior—these insecurities and the willingness to exploit them—have become engineered into our machines.

Who does the Grindr spambot prey upon? There's no hard data to attest to this, but what I've gleaned anecdotally through conversations and Google searches is that anyone can fall for their whims, no matter their racial or socioeconomic stratum. The desperation for human contact does not discriminate.

Had my self-esteem been where it was five years ago, perhaps I would have fallen victim too. I try to place myself in that seconds-long mindset I was in after Herbert messaged me, and the fantasies it let me entertain. A fever dream I've harbored since childhood sprung to life—the notion that my thick eyebrows, my very Bengali nose, my light-brown eyes would calcify into the normative standard of white male beauty I so valorized growing up. In that moment, I could imagine how I could become a universally understood object of desire.

It's awfully difficult to train yourself out of such a mentality, even after the experiences of adulthood start to claw at you. These ailments don't disappear so much as dim with the passage of time. The process of making insecurities disappear takes inordinate amounts of patience. I've settled with acknowledging that I'm simply an acquired taste.

As my usage of Grindr has wound down in the past few months, I've stopped paying much attention to the men who message me. These human spambots represent the kind of man I've made a habit of resisting, part of a demographic I've given up on as a principled form of protest. But if I get another spambot message, I'll probably think for a moment of writing back. It's an entry into a world I'll never quite know. ◦

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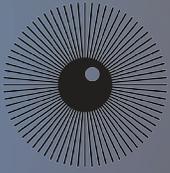
REAL LIFE

TRANSCENDENCE

"Every Place at Once," by Crystal Abidin
"Remote Control," by Linda Besner
"Seeing Stars," by Alex Ronan
"Advanced Search," by Franceska Rouzard

As a kid bored on a car ride or a teen stoned in afternoon class I imagined zones of psychic communion, immaterial common rooms where everyone I knew lived a second life. These spaces are now mundane, although, if anything, the internet proves that mundanity is an illusion and that everything is shot through with magic, or whatever you want to call it. Online doesn't feel new at all. It feels like the home version of a concept that used to be esoteric. Online is a layer of reality, a dimension of life. It doesn't solve or replace any great mysteries, but it turns them under the light. If the spark of an individual is the part of you that decides, your self will outlast you online, as an artifact, or a program. You can leave it there. —*Alexandra Molotkow*

REMOTE
CONTROL

Stefan Molyneux's podcast empire, Freedomain Radio, has been called a cult. If it's not, why are listeners suddenly rejecting their families? by LINDA BESNER

WHEN COLLEEN COWGILL called Stefan Molyneux one February evening in 2008, she was crying so hard she could barely speak. "I just got really scared," Cowgill finally managed to say. "When you didn't message me back I thought maybe I had done something wrong … and you didn't want to talk to me or something. Then I felt like I'd never be able to figure this stuff out."

Cowgill was 20, and she considered herself an anarchist-leaning libertarian. She had first become a member of Molyneux's online group, Freedomain Radio, three months earlier, when a YouTube friend pointed her to a discussion of Austrian school economics in one of Molyneux's videos. Freedomain Radio, or FDR, is where Molyneux, a "software entrepreneur" with a passion for anarcho-capitalist ideas,

disseminates videos and podcasts explaining how the world could be made better according to his lights. In recent years the site's content has veered further and further to the right: Molyneux speaks at men's rights conferences, is vocal in his support for Donald Trump, and posts videos with titles like, "Why Europe Owes the Migrants Nothing." But the Molyneux that Cowgill was getting to know seemed friendly and open. He made complex economic arguments easy to understand.

FDR doesn't make its traffic statistics public, but by 2008, when Cowgill was discovering the site, Molyneux claimed to have about 50,000 regular listeners; the website's "About" section claims that FDR is the largest and most popular philosophy show in the world, whose podcasts and videos "have been viewed/downloaded over 100 million times and counting." According to the analytics tracker SimilarWeb, the site currently seems to run to about 250,000 visitors per month—not a blockbuster in absolute terms, but a very respectable traffic range for philosophy sites. (Philosophynow.org gets about 330,000 views per month.) SimilarWeb reports that 43 percent of FDR's traffic comes from the U.S., the rest from an array of countries—at seven percent, the U.K. provides the site's second-highest number of users. Listeners are often in their late teens or early twenties. Molyneux is 50.

Over a period of several months, Cowgill became obsessed. At first, she listened to two or three hours of Molyneux's podcasts every day, eventually much more. The earlier political podcasts, which have titles like "What Is Libertarianism?" and "Chainsaw Surgery: Using the State to Help the Poor," are lectures, often more than an hour long, in which Molyneux debunks the banking system, the police system, and the voting system, and extols the efficiency of contracts between rational individuals. His delivery

is jocular yet tinged with moral exasperation, like a guidance counselor or a governess. Cowgill felt her eyes were being opened.

Cowgill was also spending a lot of time on Freedomain Radio's forums, where listeners congregated. Molyneux's site hosted open forums for listener discussion, and closed forums for more serious acolytes willing to pay for premium content in the form of extra podcasts and greater access to the man himself. (In addition to

An online "cult" would not need to kidnap you, bring pamphlets to your door, or go to you at all. The onus is on you to indoctrinate yourself

state currencies, you are now welcome to pay in Bitcoin, Litecoin, Dogecoin, and NXT.) Prized personal interactions with Molyneux tended to be confined only to those who had demonstrated a deeper commitment. These days, FDR's open forums are divided into categories like Libertarianism, Anarchism and Economics; Peaceful Parenting; Men's Issues, Feminism and Gender; and Atheism and Religion. They include topics ranging from, "How would an honest banking system work" to "What does it mean when someone says 'Orange is my favorite color?'"

Cowgill was used to socializing online. She had met her boyfriend at the time through her blog, and after he moved to Ohio from California to be with her, he became involved with FDR as well. On the forums, Cowgill felt surrounded by people who took an active interest in her life. Encouraged by other members, she made a transition from talking about economic theory to talking about herself, and started to question her

relationship with her family. As well as attacking formal political institutions, Molyneux's podcasts are vehicles for his theories on abusive families, which, for Molyneux, include most: Like the state, the family is powered by an engine of coercion and violence. FDR members spent a lot of time concern-trolling each other and pathologizing each other's IRL relationships with most anyone outside of FDR, providing alternative readings of each other's life histories. Cowgill came to believe that "everything I interpreted as love was manipulation and it was all a fraud." Her parents had never loved her, FDR members explained.

Freedomain Radio has been described in the *Guardian* and the *Globe and Mail* as an online therapy cult (which Molyneux denies in the same pieces) with the objective of getting its adherents to deFOO—a term Molyneux invented, meaning to depart from one's Family of Origin. All adult actions and relationships should be voluntary, he told his listeners. On the February night when Cowgill called Molyneux sobbing, she had already taken steps to deFOO. Cowgill was studying aerospace engineering at Ohio State University, and said she had recently told her parents she wanted to start paying for college herself. Her parents told her they had been saving to pay for her education their whole lives, and her mother asked where the decision was coming from—did Colleen not want to be a part of the family anymore?

"So they're pretty smart, right?" Molyneux commented. Cowgill's mother divining her intentions so quickly showed "a kind of evil genius." He told Colleen that her family was refusing her right to make changes to the relationship. "We don't deFOO," he said. "We get deFOOed." Her parents were the ones de-daughtering. She wasn't leaving her family. They were throwing her out.

Cowgill was already moving into her boyfriend's place, and Molyneux asked why she was still interacting with her parents at all. She explained that she needed them to sign over the car to her. "You will never get the car," Molyneux told her. "You will only get subjugation." She mentioned that she would need her birth certificate, and he countered that she could get copies from the government. "Okay," she said quietly.

Molyneux listed off the things he and his wife lost access to when she deFOOed: a four-poster bed, books, old photographs. "Maybe we'll get it back after they're dead."

You'd be relieved, he suggested to Cowgill, if your parents got hit by a bus tomorrow and you never had to deal with them again, right? She assented. In that case, he told her, it was irrational to feel obliged to deal with them simply because they were still alive. Her relationship with her parents was over.

"I'm starting to be irritated with you," Molyneux told Cowgill. She was acting helpless and frightened when she should be happy to be ridding herself of a problem. He himself, he told Cowgill, kicked his inadequate mother out when he was 15. She drank, and had mental health issues, and abused him. He managed on his own, with roommates and several jobs, and he was better off without her.

"I'm scared," Cowgill said.

"That's not your feeling," Molyneux told her. "That's not your feeling at all."

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Cult is a word we tend to bandy around to describe anything that inspires a small and unreasonably passionate following. Wes Anderson movies are a cult, artisanal pickling is a cult, ultimate frisbee is a cult. In religious taxonomical terms, a cult is an offshoot of a sect, which is an offshoot of a denomination, which is a branch of a religion. A diagram of how the teachings of Christ resulted in the mass murder-suicides of David Koresh's Branch Davidians looks like this: Dissenters from mainstream Protestantism (itself a break with Catholicism) became Seventh Day Adventists whose dissenters became Shepherd's Rod messagists whose dissenters became Branch Davidians whose dissenters, led by David Koresh, formed their own group and, under siege by the FBI and American military, burned their compound and 76 of their members to death in 1993.

Anthropological studies suggest that people who break away from mainstream religions are generally seeking the same thing: a pure, ecstatic experience of transcendent meaning. It's what makes people sing and dance while handling live rattlesnakes; it's what makes people writhe on the floor speaking in tongues, or engage in ritualized sex or ritualized isolation. Religions tend to be born in a burst of visionary fervor, promising that the known world is about to be swept aside by a new world order in which only a small circle of the elect will survive. Revolution is in the air and the messiah is expected daily. Naturally, this rolling boil of emotion is hard to sustain. After a dozen or a thousand years, revelatory zeal tends to cool off and crystallize into bureaucracy. Those members of a congregation who feel most acutely the desire for a direct relationship with the divine strike out on their own. Cults are what happen when a mainstream religion's promised utopia fails to materialize.

It seems odd to refer to FDR as a cult. Molyneux is an atheist and spends hours of his podcasted time arguing against religious belief. But in psychology, the cult designation is based on group structure and behavior rather than on the type of doctrine being spread. In the 1961 handbook *Thought Reform and the Psychology of Totalism,* psychologist Robert Lifton suggests that cults can be identified by, among others, the following traits: the creation of neologisms designed to reshape the adherent's outlook, separation from family and friends, fostering cognitive dissonance, confessional pressure, and a charismatic leader. In other words, cults are about control.

Molyneux has denied that FDR is a cult. In a 2008 interview with the *Globe and Mail,* he said, "I'm sure a few marriages broke up because of feminism, it doesn't make feminism a cult." The

article reports his claim that only some 20 of his young followers had left their families. Noting that four percent of the population was considered sociopathic, he wrote, "If we assume that separating from a truly sociopathic parent would be emotionally advantageous, then we are far below the average." Not intervening in his listeners' lives would be "like stepping over someone on the sidewalk who's collapsed and saying, 'I don't want to get involved.'"

Listening to Molyneux's podcasts is allowing oneself to dissolve into a surreal universe where everyone is so much safer standing on the ceiling

Barbara Weed, a British municipal councilor whose 18-year-old son left in 2008 as a result of his involvement with FDR, tracked the forums obsessively after her son's departure; by 2009 she had recorded posts by almost 100 users who had deFOOed or were considering deFOOing. In 2012, Molyneux's wife, a therapist named Christina Papadopoulos, was found guilty of professional misconduct by Ontario's College of Psychologists for appearing as a guest on Molyneux's podcast to recommend deFOOing. In 2014, a Texan woman who went by the screen name Tru Shibes filed a complaint against Molyneux for getting her YouTube channel, in which she featured clips from his videos in order to rebut his arguments, shut down for copyright violation. She also provided the *Globe and Mail* with audio of one of Molyneux's podcasts in which he describes listening in to his wife's therapy sessions with patients in her home office. It's

a bit hard to tell if he's kidding; according to the *Globe*'s transcript of the audio (which is no longer available on Molyneux's site), he says: "I'm in the vent system, listening, and I'm—she calls it heckling, but I don't really call it heckling, I just call it providing suggestions about how things should go and that the people should donate to Freedomain Radio."

Idealism can be brutal; if you truly believe you can change the world for the better, you can justify telling other people what to do. Paradoxically, while FDR espouses libertarian philosophy and claims to be ushering its adherents into a place of greater self-reliance and freedom, ex-members like Cowgill describe an atmosphere of strongly enforced conformity. Those who choose to leave the community are sometimes targeted for doxxing and harassment. In their attempt to break with mainstream society's worldview, which they have come to see as corrupt, acolytes can lose themselves in a morass of anxiety about what constitutes right thinking by Molyneux's standards. In the course of her 2008 phone call, Cowgill mentions her attempt to use RTR with her mother—another of Molyneux's neologisms, it stands for Real Time Relationships. He responds by telling her she hasn't quite grasped the meaning of the technique, "but that's okay." It's not hard to see how this type of guidance—the kind that makes you feel stupid and unworthy—can be addictive. It plays to our fears.

Stefan Molyneux lives in Mississauga, Ontario, within Toronto's ring of urban sprawl, and in the early days of FDR, he held an annual barbecue at his house for listeners. There seem to be occasional in-person meet-ups between adherents living in the same region. But for the most part, FDR followers meet on the forums. Becoming a follower of FDR might well mean giving up IRL connections and transferring one's emotional, spiritual, and intellectual life online.

In some ways, an online "cult" would be even more effective than an IRL one. Marshall Applewhite, the leader of Heaven's Gate, told his followers that he was a "walk-in"—an alien soul that had entered a human body. Alan John Miller, leader of Australia's active Divine Truth

cult, claims to be the reincarnation of Jesus. Molyneux for his part makes no such claims and, in his podcasts, at times explicitly pooh-poohs the idea that he is anyone special. But the digital platform may, almost accidentally, make them for him. If the game is transcendence, the nature of his messages already confers certain spooky metaphysical abilities. Molyneux is not one but many; you could imagine a choir of his thousands of podcasts all speaking at once with equal authority. As a digital guide, he is not constrained by a mortal's calendar, but is available to would-be followers 24/7. Molyneux's disembodied voice can be started and stopped, raised and lowered. Time and space are simply constructs that, like the income tax, can be abolished or rearranged.

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IF INDIVIDUALISM IS THE dominant religion of the West, being physically alone is quickly becoming a denomination. Modern values have come to lean heavily in favor of self-actualization and self-determination, with less moral stigma associated with prioritizing individual goals over family bonds. There are more single-person households in North America now than ever before; co-dependence and over-involvement are pathologies. If there is an ecstatic experience that combines both radical individualism and a messianic call to a new kind of society, deFOOing—leaving one's immediate bonds for a remote community—may be it. Virtual communities at their best offer a have-your-cake-and-eat-it-too form of communalism. You can belong and still luxuriate in solitude in your underwear.

As a business, Freedomain Radio has the virtues of a well-marketed self-help empire. Plenty of people are writing books like *The Secret*; not many are marrying anarchic market theory to a therapy regimen leading to secession from your family. Considered as a cult, Molyneux's digital cloister has some significant advantages over bricks-and-mortar outfits. For

movements like "the Moonies," who started recruiting fresh-faced youth from bus stations and airports in the 1970s, a success meant another mouth to feed. While gently coercing adherents into donating their savings to the group in exchange for the honor of doing long days of farm labor in between prayer sessions is not a bad way to come up with seed money (in 2010, *Forbes* estimated the group assets of Reverend Sun Myung Moon's business/religion at $1.5 billion), it is even better to coax people to pay money for spiritual advice without having to take on any responsibility for their physical well-being. Adherents who depend on FDR for the lion's share of their human contact are loyal to Molyneux without showing up on his doorstep expecting to be taken care of.

In 2008 the *Globe and Mail* estimated Molyneux's annual income from FDR at $59,640, a sum based on the price points for different levels of access to his podcasts. The bitcoin tracking site Blockchain Info states that since its creation, Freedomain Radio's website has received 653.62376497 bitcoin—the equivalent of $381,056. It's not much for nearly 10 years (bitcoin was invented in 2008), although bitcoin is only one of the currencies FDR receives. Of course, there are plenty of people online soliciting donations for their work, some of whom make a living off the support they receive. But donating to a podcast whose work you enjoy seems different than donating to a podcast whose adherents sometimes tune in for hours or days at a time, and sometimes cut off contact with their families afterward.

The digital marketplace of ideas can also be more friendly to recruitment than bricks-and-mortar organizations. In the newest edition of their book *The Devil's Long Tail: Religious and Other Radicals in the Internet Marketplace,* British academics David Stevens and Kieron O'Hara remark that the Moonies had to hang around bus stations all day to pick out the few souls who were willing to spend a long weekend at a farm talking spirituality with a bunch of strangers. Online, however, people who are already seeking spiritual answers can come to Google with their questions. People at prime recruitment age are looking around for new experiences, new influences. If they find Rush Limbaugh or Alex Jones, they may get hooked, but the result may be only that they offend family and friends at Thanksgiving dinner. Those who find Molyneux may not be at Thanksgiving at all.

An online "cult" would not need to kidnap you, or bring pamphlets to your door, or go to you at all; instead, you would go to them. Perhaps the greatest difference is how much of a self-starter the average follower needs to be. The onus is on you to indoctrinate yourself.

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THE GURU HIMSELF IS, on first impression, delightful. His many videos show a chatty, balding man with a smackable forehead, comically wiggling his eyebrows as he debunks the silly nonsense we've been fed by silly governments, parents, and teachers. Born in Ireland, his voice retains a tinge of a lilt, despite his having come to Canada when he was just 11 years old. In his youth, he showed skill as a programmer but wanted to be an actor, and attended Montreal's National Theatre School before pursuing a master's degree in history at the University of Toronto. He founded a software company with his brother in the late 1990s, which they sold in 2000. Molyneux started Freedomain Radio in 2005 as a hobby—in early podcasts, recorded in the car on his way to work at another software job, you can hear him sipping his morning coffee.

Recently, I took a day to listen to a tiny fraction of Molyneux's podcasts, which now number more than 5,000. (His conversation with Cowgill was released, with her permission, as podcast 991.) It was an oddly pleasant experience, like taking a mild sedative and watching *Polka Dot Door.* Molyneux's friendly voice ranged freely from topic to topic, circling the benefits of small government before touching on gun violence and flitting from there to peaceful parenting tactics and then to the moral ill of single motherhood—women, he said, are at fault when fathers

are absent, because women are the ones who chose unreliable men. The effect is of allowing oneself to dissolve into a surreal universe where the laws of gravity are reversed and everyone is so much safer standing on the ceiling.

My favorite was an early one—number 38, recorded in 2006 and entitled "The Death Cult of Narnia." It's nominally a review of Disney's *The Chronicles of Narnia,* but Molyneux's quarrel is with the basic premise of C.S. Lewis's story. "Of course you can't get a portal to another world through the back of a closet!" he snorts. The family should have taken Lucy aside and explained to her that having tea with a faun in a wardrobe is impossible, and then taken her for psychiatric evaluation. Perhaps, Molyneux muses, Lucy's hallucinations are an early indication of brain tumor—in which case, the fantasy world Lewis imagines around this symptom is tantamount to authorial child abuse. "A concerned writer who cared about children and their health would write about this and make it so that you don't just believe the crazy person, you write it so that the child gets help."

I see the appeal—it's oddly soothing to be told why I've been wrong about everything my whole life. Molyneux's certainty is the negative image of my own tentatively held beliefs, and capitulation is tempting. Molyneux seems to hold out the promise that I will soon be able to stand on my own two feet—but first he will need to re-educate me about what legs are. I can imagine that, for the young people who come to FDR, the promise of self-sufficiency paired with the safety of long apprenticeship speaks to both their desires at once.

The feeling the call-in shows gave me, however, was not so soothing. Barbara Weed, the British councilor whose son, Tom, deFOOed in 2008, sent me links to two podcasts, one featuring Tom and Candice (his girlfriend at the time), and one in which Tom called in alone. "You like me, right?" Stefan asks. "I like you! I love you!" this 18-year-old boy says to a man he met online six months earlier. "Welcome to the desert island of truth," Molyneux tells Tom and Candice. Candice describes legitimately abusive behavior—her father slamming her older broth-

er against a wall—and calls this a "rubbish" way to raise children. Molyneux tells her she is going to have to start watching her language. "You used words like 'crap' and 'rubbish' and so on," he tells her, "but frankly, it's evil."

Tom describes his father breaking a window in a temper and yelling at the family cats. Molyneux calls this "staggeringly evil"—"this guy's psychotic rage laid waste to significant aspects of your childhood and your soul," he says. He refers to Tom's home as a gulag, and tells him that his mother is just as much (if not more so) the author of the situation as his father. Whatever they may say to the contrary, Molyneux says, women always know immediately that a man will be abusive. His mother's thought process, Molyneux explains, went like this: "This sick son of a bitch, who's a bully, who's psychotic, who's insane, who's violent, who's terrifying, who's destructive, who screams at cats! I'm going to have sex with him, I'm going to carry his children, I'm going to have his children, and I'm going to give him the children. It's not that she failed to protect you from the devil, she created you for the devil."

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"It's so hard to explain," Colleen Cowgill told me recently, "because it's really just the craziest thing." Cowgill was sitting on her bed at her parents' house in Ohio, where she was visiting, talking with me over Skype. She is now 29 and in her third year of Ph.D. studies in psychology, specializing in social psychology. Soon after leaving FDR a few years ago, Cowgill read everything she could get her hands on that discussed cult dynamics. She's still trying to understand what happened to her.

Shortly after the 2008 phone call with Molyneux (who did not respond to requests to be interviewed for this article), Cowgill left Ohio and moved to Atlanta with her boyfriend, telling her family only that she wanted no further contact with them. She believed she would never see

or speak to them again. "I found out later that they hired a private investigator to find out my address so they could send birthday cards," she said. She had become socially isolated to the point of agoraphobia, convinced that people who did not belong to FDR were dangerous. "I looked at everyone else as being damaged, unpredictable, can't be trusted."

Cowgill's membership in the group lasted for two years, time in which Cowgill became totally reliant on Molyneux and the FDR forum. She spent thousands of dollars on membership in the group's upper tiers, and she modified both her inner and outer life to conform with its ideals. Her description makes it sound like a particularly pernicious high school clique. "It wasn't this very explicit top-down control but it was much more insidious—people were judged for what they wore, how they presented themselves, what kind of movies they liked, what kind of music they liked." Members policed each other's behavior, and anything could be pathologized as evidence of dysfunction or childhood trauma. All under the guise of concern for each other's mental well-being. "I think some of it was genuine," Cowgill said, "but also we all wanted to be seen as the people who had made the most progress on ourselves." The best way to show one's loyalty is to tattle on one's neighbors. During her time as a member, Cowgill also saw the hierarchy of levels of closeness to Molyneux intensifying—by the time she left in 2009, in addition to the publicly advertised rungs of Bronze, Silver, Gold, and Philosopher King, there were invite-only levels of commitment known only to those Molyneux considered worthy.

The self-indoctrination aspect of her experience was what Cowgill said differentiated FDR most sharply from an IRL cult. "Here I'm voluntarily listening to podcasts for six hours," she said. "No one's making me." As she invested more time and energy both in the philosophical ideas and in the authority of the person delivering them, it got progressively harder to question them. On the forums, Cowgill shared details of her childhood, friendships, relationships, and personal tastes, all of which she came to reject or adapt in response to praise or admonishment from the group.

Eventually, the group turned their attention on Cowgill's romantic life. Molyneux's marriage was seen as the model relationship—a perfect balance of intimacy and independence. Cowgill was given to understand that she and her boyfriend were in a co-dependent entanglement that failed to meet Molyneux's standards. She broke it off, and ended up alone in a dangerous part of the city with no job and no plan. It was the beginning of the end for Cowgill's involvement with FDR. "It wasn't like a lightbulb went off or anything," she says. "More like a slow and painful realization that I had become reliant on this group for approval—it was the opposite of the independence I wanted." Cowgill's commitment to libertarian ideals had paradoxically led her to invest all of her identity in a group that placed strict limits on what to wear, how to act, who to associate with, and what to think.

In 2010, two years after she had cut off all contact with her family, Cowgill went home for a visit. It was extremely disorienting. "I felt—almost amnesia about the house I grew up in, the town I was from. My family was overjoyed to see me. It took me a lot more time to get back in touch with what I felt." Her parents had been to see a counselor who specialized in cults. They had books for her to read to help with her transition.

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I found Cowgill through a video she made shortly after leaving FDR. The video is featured on a site called FDR Liberated, which proclaims itself "the second most-read forum by Freedomain Radio members!" Liberating oneself from Stefan Molyneux's influence can become an obsession, and people gather on the forum to post videos like "Dealing With Brainwashed Family Members" and comment on threads like "Stef's manipulative language." In the site's "About" section, the unnamed creator traces their own experience with FDR—after reading Ayn Rand, they became interested in market anarchy and

came upon Molyneux's podcasts. They couldn't, however, get on board with the deFOOing philosophy. "The idea that there are vast subterranean forces at work in my mind, brought on by parental abuse I never recognized … no, just not feelin' it. To this day, I'm fascinated by the typical first-posters at FDR. Their posts run something like this: 'Hi! I just realized my family is evil. So I'm here to learn about the philosophy of market anarchy! 'Sup, everyone?'"

In Cowgill's video, she seems to be neither the sobbing, emotionally distraught acolyte from her phone call with Molyneux nor the composed, slightly formal Ph.D. student I talked with on Skype. She's performative, like a theater student. "Hello! Hi everyone!" she starts, leaning confidently toward her webcam. "I'm positively giddy today!" Detailing her involvement with FDR, she says, "You could not have told me that I was susceptible to any type of indoctrination."

In *The Devil's Long Tail,* Stevens and O'Hara remark that radical groups online are subject to the same algorithmic pressures as books on Amazon. "Generally," they write, "in the larger religious marketplace, moderate ideas draw the most consumers." The history of religion shows a continual cresting and breaking of religious movements known as the church-sect cycle. Groups that start out isolationist and radical either peter out with the death of their founder, or—like Mormonism—they discard practices and beliefs that are out of step with the greater social environment, and their members be-

The pursuit of anarchic liberty has meant a loss of privacy even greater than the digital era's norm

come re-integrated into society. Since she left FDR, Cowgill stresses, the group has drifted far from the kumbaya, let's-save-the-world-together group she joined in 2008. Cowgill sees Molyneux's most recent teachings as hate speech—which is arguably a more dominant strain in the wider culture. The utopic vision of compassionate anarchy that attracted Cowgill and other early adherents seems to be giving way to a more conventional ideological position: espousal of right-wing politics and hatred of minorities. Loving Donald Trump and hating your parents may be an easier sell than establishing a free society based on mutual respect for contracts.

Actually, it's not quite correct to say that I found Cowgill through her video. I found her because after she left FDR and posted the video, an anonymous user created a profile page about her on the site DeFoo.org. "Colleen gave up on FDR because the community didn't support the wearing of makeup," the anonymous user reports. After she broke up with her boyfriend, "she needed to attract a new male and was having trouble without her precious face paint. She admits to struggling with acne and feels insecure if people can see it. Colleen now applies a thick layer of foundation, nearly as thick as her false self." The site has similar profiles for a number of other former members, often including their phone numbers, addresses, criminal records, and the full names of their parents, siblings, and friends.

"I have no idea who it is," Cowgill says resignedly of the page's creator. Her family called the police after they started receiving harassing phone calls, but there wasn't much they could do. "Sometimes I wish I could shuck off the stigma, it's a weird life thing to have been through." But Cowgill has largely made her peace with the fact that anyone googling her name is likely to come across references to her past involvement with an organization often referred to as a cult. Her pursuit of anarchic liberty has meant a loss of privacy even greater than the digital era's norm. The effects of membership, even when the group is online, are felt in the immediate world.

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The achievement of true free choice, true individual liberation, eludes us in part because very few of us would actually want it. Free choice is exhausting, and doing as we're told is comforting. Making moral decisions is difficult, and moral absolutes are easy. Most of us abdicate at least some responsibility for our beliefs, taking our cues from people we trust. And for most of us, the desire for self-determination is easily bested by the desire to belong. A major misconception about cults is that only certain types of people join them. In a world where everyone is supposed to want to be a leader, we suppose that any sort of radical community centered on a dominant personality would be peopled by followers—the duped, the damaged, the ignorant, those who aren't strong enough or smart enough to think for themselves. It's the same way we think about abusive relationships in general. But the manipulative tools that foster cognitive dissonance and self-doubt work on all kinds of individuals.

One phrase recurs when former members try to explain what makes people join cults: No one joins a cult. It's the opening sentence of Deborah Layton's 1998 memoir *Seductive Poison: A Jonestown Survivor's Story of Life and Death in the People's Temple.* Layton, who escaped right before the mass murder/suicide in the Guyana compound, explains that people believe themselves to be joining churches, political organizations, charities, or community groups. People aren't looking to be controlled. They're looking to be connected.

For those left behind, the effect of a loved one's disappearance into the internet is profoundly odd. In our conversation, Barbara Weed recounted recent details of her son's life as she had gleaned them from LinkedIn, Facebook, or by lurking on FDR's own forums under a false name. She was happy when he found a job fundraising for a charity, and she had the impression that he was living about 10 miles outside Brighton. "I think he cycles in," she told me. "For a really good cyclist like him 10 miles is no distance." Her vivid imaginings of her son's adult life reminded me of a sequence from Roald Dahl's 1983 novel *The Witches.* In the book, witches invent various ways of getting rid of children, whom they despise. In one strange case, a little girl arrives home from school eating an apple that she says a nice lady had given her. The next morning, the child is not in her bed. The distraught family searches everywhere for their daughter and finally finds her—in an oil painting hanging on the wall. "'There she is! That's Solveg feeding the ducks!' the father shouted." Over the years, Solveg moved around inside the oil painting—one day she would be inside the farmhouse looking out the window, the next she would be outside with a duck in her arms. Over the years, the parents watched the figure age inside the frame.

If this description foreshadowed the digital trace, the irony Cowgill discovered—that an organization promoting individual liberty can, when run in a certain way, reduce individuals to dependency—feels like a lesson for the digital age. More freedom is one of the digital world's main promises: Online, you can access anything, go anywhere, be anyone. Molyneux's utopic vision of a world in which we can simply delete everyone we don't like feels like a cross between Facebook, Photoshop, and *The Life-Changing Magic of Tidying Up.* If a person doesn't spark joy, we should simply throw them away. But a virtual community that promises to free us from the emotional complexity of our proximate lives can only offer to replace it with the emotional complexity of our digital lives. If we reached utopia, would it stay utopian? Or would our sufferings replicate themselves so quickly that the new world would be indistinguishable from the old? ◉

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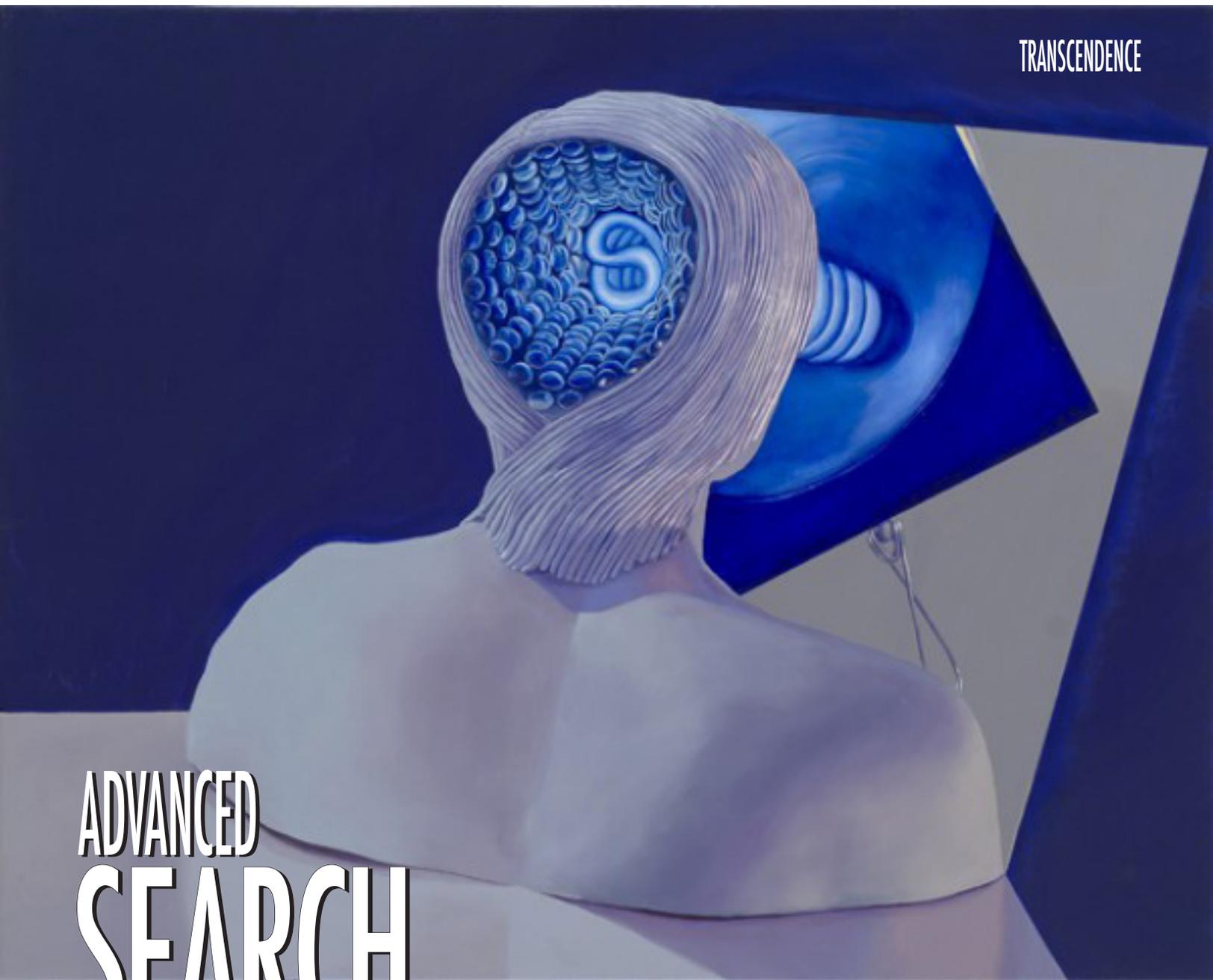
ADVANCED
SEARCH

What does spiritual mindfulness mean in a medium defined by other people? by FRANCESKA ROUZARD

I WAS BORN IN 1990, the year the first web browser was published, a leap forward in the evolution of communication unseen since the invention of the telephone. In 1995, my mother died. I was sent to live with my father, an ambitious, working class Haitian immigrant. We owned a Compaq Presario, complete with dial-up internet service courtesy of the free trial disk from America Online that we received in the

mail. It sat on a broken desk in the dining room, whose only other furnishing was a brown, corduroy recliner. While my father married several times and fathered more children, he was never sentimental about birthdays or holidays or childhood memories. I was lonely without my mother. The convenient ability to connect across physical boundaries came at an opportune time in my life.

By the time AOL Instant Messenger was released in 1997, I could read and write. I do not remember the exact sequence of events but I imagine I exchanged usernames with one of my mother's nieces or nephews during one of the visits my father rarely permitted. Communication

came easier. The summers I spent away from my mother's family were spent in front of the computer. I ate meals over its keyboard. During the school years, I did my homework by the glow of its screen. My cousins and I talked about cartoons and cursed often, a freedom our parents didn't allow. They told me stories from when I was a baby, when my mother was alive. From them, I learned she was an amazing cook. My favorite was the story of my aunt's neighbors who built a fence after I gave all of their children chickenpox. Another aunt, my mother's younger sister, used to say during my stretches of absence that we would always find each other. She did not know the unbreakable bond between us, which transcended time and distance, would be embodied through chatrooms and instant messages, first on AOL, then on MSN, where we played Uno like we did after dinner during the holidays.

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WHEN THE COMPAQ DIED in 2002 I was without a computer for two years. It was the longest I had gone without speaking to my family since I left them as a toddler. In 2004, my father connected a used Dell Tower to our old monitor, but while I regained access to the internet, I had forgotten all my usernames and passwords. My family found me by chance after I joined Myspace. Every person I lost came back to me: We were reconnected as we had been in my early childhood. I was thrilled by each friend request and every comment on my profile. Each cousin held a distinguished spot in my "top eight." It was not a hard decision: My circle of IRL friends was small. When I was bored, I spent my time perusing my cousins' profiles. I learned the faces of their best friends. When my older cousins, away at college, transitioned to Facebook, I followed suit. I wanted to see myself classified as family on their profiles. I tagged myself in their albums of family vacations, weddings, and Thanksgiving dinners. Facebook was a digital representation of my belonging to

people. It marked the end of my solitary life.

By 2009 I was a sophomore at Temple University. I lost scholarships, partly due to bad grades, partly to loss of funding. I commuted four hours each day to and from my aunt's home in Willingboro, New Jersey to alleviate some of the financial burden. On days I didn't have class, I worked part time at Bath and Body Works in Philadelphia. Class. Home. Work. Home. This pattern repeated for a year. According to my profile, I joined Twitter in November 2010. My handle was pardonmyfrenchx. My 20-year-old self was pleased with the unoriginal use of my childhood nickname, the extra letter added because pardonmyfrench, pardonmyfrench_, pardonmyfrench0, and pardonmyfrenchy were all spoken for. Twitter, like college, was then a miscellaneous and experimental environment, optimal for fostering self-construction. Unlike Facebook, Twitter's layout was ideal to proliferate beyond my familial fences. Twitter was informal. Its users wrote what they pleased. Posts about making dinner stacked between posts about wanting to die and a meme of crying Michael Jordan superimposed on a wedding cake. There was no order or rhyme or reason. Interactions were open and simple, unless your profile was private. Statements were digestible at 140 characters. This was important, because the feed moved fast.

Through the interests of people I opted to follow, and the people they followed, the well of knowledge was bottomless. I learned about skincare regimens for oily, eczema-prone skin, Caribbean inspired vegan recipes, and Amigurumi, the Japanese art of doll making. In Philadelphia, where I live, there are a handful of black women writers. We were needles in a white male dominated haystack. Twitter connected us. Through them, I learned about writing classes and fellowships. Twitter was a form of communication and a resource.

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ON TWITTER AND OTHER social media platforms, as many critics have argued, users volunteer to be bombarded with the consciousnesses

of hundreds of thousands of other people. What naysayers fail to realize is that this unique characteristic is what makes social media inherently mystical.

As a first generation Haitian-American, spirituality has always been embedded in my world. My mother's father was a Christian minister. Her mother's, my grande's, every breath is a prayer. Her connection to God is her protection against *diabs*, devils, and evil spirits, as well as Voodoo priests who knew my grandfather. My mother was a youth minister. My aunts told me stories of her deep voice that filled the modest church house and inspired worshippers when she was 16. For a brief period in my adolescence, I was encouraged to be a minister like my mother.

I was skeptical of Christianity due to Manichean and sexist interpretations of the Bible. However, I believed in God, the Source, due entirely to my grande's influence. She survived child slavery in Haiti in the early 1900s, and journeyed with ten children from Haiti to the U.S., where she survived the death of her husband and a daughter. I had no doubt that through her prayer and belief, she tapped into a strength and wisdom beyond her petite frame.

My ideas on spirituality were fragmented: I knew what did not resonate with me, but I did not know what I was looking for until I found holistic practitioners and intuitive guides on Twitter. Francheska Medina, known best as @HeyFranHey, shares tips for holistic health and mental wellness on Twitter and Tumblr, as well as DIY videos on YouTube. She was unlike others in her field, who I thought could not understand my experiences. She reminded me of Denise from *The Cosby Show*, except health conscious. Her hair was long, wide, curly. She wore vibrant sweatshirts and sweaters. Fifteen-minute videos about self-compassion, DIY body butter and almond milk, and non-toxic cosmetics. On my early morning trips to Philadelphia, the glow of my phone became like the willow leaves hanging from the Tree of Souls in *Avatar*, transporting wisdom from my timeline, my personal Eywa.

Andrew Sullivan, in a recent *New York* magazine essay, wrote of forfeiting his smartphone at a temple for meditation. He argues that social media compels us to fill silence with content. But it was through Twitter that I came to understand meditation itself, after reading a thread by Maryam Hasnaa, who tweets as @thatgirlhas. "With meditation the thing is not trying to get your mind free of all thought but, just to be the witness of it all," she posted at 10:45pm, on an ordinary weeknight. "A thought pops up and you simply notice, I'm having a thought. Repeat this step over and over. Then, when your monkey mind has calmed down, notice your breathing." I watched the tweets appear from the comfort of my pillow while still dressed in clothes from work. On the timeline was the latest in the slew of deaths of black people by law enforcement caught on video. I was feeling a combination of sadness and paranoia. I had tried meditating before, using one of Deepak Chopra and Oprah's "21-Day Meditation" challenges, but I'd assumed that distraction meant failure, and stopped for frustration of meditating incorrectly. What Hasnaa's tweets helped me understand is that the practice of meditation is about observing the mind and refocusing on the breath, consequently the present moment. Her tweets instructed on how to operate in the discord of the feed that surrounded them.

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Maryam Hasnaa is the daughter of Amina Wadud, a scholar of Islam, and mother of an adorable, chess-playing son, or Sun as she affectionately calls him. She uses her Twitter and Instagram to share spiritual texts, and her blog on Medium, *Vibrational Medicine*, for longer ruminations. To her 32,000-plus followers, her timeline is a comprehensive gateway to understanding the spiritual realm. She discusses love and energetic self-mastery, and posts links to lectures on YouTube about spirituality. She shares her monthly audio newsletter and meditations from Soundcloud and facilitates one-on-

one therapy sessions. I inquired about Hasnaa's intuitive guidance over the summer. I was meditating and embodying love by pouring love into myself. I felt good. I could only benefit from personalized insight. Each session is held over the phone or Skype audio, which offers the clearest connection. The conversation begins with the client's emotional, mental, physical and spiritual state. Hasnaa asks the client some questions to be discussed during the call: *Why did you decide to contact an intuitive guide? What is your intention for the session? Are there any areas in your body that hurt, feel uncomforted, need more love?*

Hasnaa feels that social media can be used as an entry point to inspire people to explore deeper spiritual work. "People can use social media as a way to connect to other people who are doing the work and to be reminded to stay on the path," she explains. "That is a blessing because at times one can feel disconnected from those around them when they truly commit to this path." She asserts that true spiritual work is an inner journey and would really require someone to step away from all distractions, not only the internet. Hasnaa uses Twitter to remind her followers to learn how to turn within, and commune with the silence. She believes there are infinite possibilities for spirituality through social media. "I take long breaks when needed to get reconnected to my spirit," she explains. "I have learned how to become more resilient with my practice through being on social media. For my own future I see me not being available through these mediums at some point. In the meantime, I'm excited to connect with others who value and benefit from my work." Social media, which allows communication across physical boundaries, is a spiritual evolution, taking us a little closer to a collective consciousness.

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TWITTER HAS ITS LIMITATIONS. It is two-dimensional; conversations are short and sometimes one-sided; it is vulnerable to trolling and harassment. "The mania of our online lives reveals this: We keep swiping and swiping because we are never fully satisfied," Andrew Sullivan writes. He describes his, and our, use of social media as an addiction. As escapists, addicts use their fixations to distract themselves from what haunts them—anxiety from lack of control, or mortality, or loneliness. The sickness is within the individual; the remedy is not forfeiting the smartphone on a digital Sabbath, but a consistent, conscious effort to understand the self, and define its purpose.

Dalai Lama, who joined Twitter in February 2009, has a following of 12.9 million. Deepak Chopra, since adopting Twitter in July 2008, has accumulated a following of nearly 3 million, myself included. "Interconnectivity of the mind isn't good or bad; it's neutral," he explained in a 2012 Mashable interview. "We can cause devastation worse than any war through making diabolical use of the social networks, or we could bring the world together in the direction of peace, harmony, sustainability and social justice. It's up to us." Rather than hindering humanity, as Sullivan believes, Chopra believes social media, by transcending ethnic, racial, and geographic boundaries, has the potential to bring people into humanity.

Christina Puchalski, MD, director of the George Washington Institute for Spirituality and Health, contends that "spirituality is the aspect of humanity that refers to the way individuals seek and express meaning and purpose and the way they experience their connectedness to the moment, to self, to others, to nature, and to the significant or sacred." In trying to define spirituality for myself, I realize there's no action more pretentious than defining spirituality. It focuses on the soul. Spirituality is a malleable practice. It is to appreciate life for the marvel that it is. To recognize what connects you to the Source, to and others, and to connect to your purpose and your boundlessness. ◉

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SEEING STARS

When you're grieving, a phone can become an optical instrument, turning magical thinking to magical realism
by **ALEX RONAN**

WHEN MY BROTHER Mark died I didn't feel like being alive anymore, but sleep was as close as I was willing to put myself to death. So I slept endlessly. When I woke up, at 2 p.m., at 4 a.m., again at 7 a.m., I'd scroll through social media until I could will myself back to sleep. Kanye would tweet something. When I woke again, people were sharing photos of his tweet printed out and hung in their office cubi-

cles. The next time I woke up, the tweet was on cakes and T-shirts.

Celebrities and countries were fighting; the wifi at my mom's apartment ran so slowly that things took absurdly long to load. I watched a 30-second TMZ clip of a model on a beach posing seductively before being knocked down by a wave as it slowly buffered over 10 minutes. A week later, someone finally restarted the router.

VENTRAL IS GOLDEN

When I left the apartment, the world felt too harsh—fast and bright and no longer mine. People reached out but I spent most of my time alone, wearing Mark's clothes, sleeping in the room that had been mine and then his and was now mine again.

Some days, I worked frantically on making a memorial service that would feel true to someone who wore flip-flops everywhere and died only a few months after turning 21. Some days I couldn't do more than order Seamless from Mark's account. "Hi, Mark," Seamless said. Often I missed daylight entirely, catching up later on my phone. Each year-end roundup made me furious. I didn't want the last year Mark was alive to end and I definitely didn't want a new one to start without him.

In January, a few days after the memorial, David Bowie died. I scrolled through hundreds of tweets and Instagram posts. *What about Mark?* I thought, stewing in my bed. *Why didn't the whole entire world stop when he died?* Then Snape died. Then Céline Dion's husband. Everyone kept calling it tragic; *he was 73!* I wanted to shout. People were tweeting and penning Facebook posts; everyone was "devastated" and "heartbroken." But I knew that after clicking tweet or post or share most people carried right along with their days. They'd listen to Bowie on the subway home from work. But when they turned the key in the lock, they left their grief behind.

Grief was my entire world—it crowded my thoughts and clouded everything I did. But I clung to it too. A friend of Mark's, who had lost her mother, told me grief is like a wound. Slowly, it'll heal. You'll still have the scar, but it won't hurt as much. She meant this as a comfort; I took it as a threat. I didn't want the pain to go away because it would take me further from Mark. I'd lost him and I wasn't willing to give up anything else. What would I be left with if I could overcome the loss of my brother?

Grieving is knowing something to be true without fully accepting it. My phone proved a necessary distraction. I played endless rounds of solitaire, placing a jack on a queen, moving a six here, putting an ace up, unfurling new cards. Shockingly soon, a trophy popped up on my screen. I'd played 1,000 games.

On one of these endlessly long days, someone retweeted a photo of stars beneath a series of coordinates. The image was crowded with pinpricks of light and I clicked to @AndromedaBot. Some guy named Joe had created it to explore Hubble's largest photo "a little bit at a time." The full photo offers the clearest picture of the Andromeda galaxy. Apparently, you'd need 600 HD TVs to display the entire thing. There are over 100 million stars visible, but no indication at what point someone stopped counting.

Between tweets covering the most mundane details of celebrities' lives, the celestial began to appear regularly in my feed. Each photo segment was dramatically different from the one that preceded it. Sometimes, it looked like spilled glitter. Sometimes there was only blackness with a smattering of planets and stars, one much bigger than the rest. The photos varied from purplish to puce to a speckled black. A little bit at a time made a lot of sense.

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"Alex saw an astronomer!" my mom said to my brother Robert after I'd told her. "Astrologer," I corrected her, wincing. Robert is many things and one of them is someone who studied astronomy in college. He rolled his eyes and grabbed a seltzer. "That is the dumbest thing I've ever heard," he said. "It's just a way of looking at things," I responded, defensively, before adding, "You can get something out of it even if you don't believe in it." He rifled through the fancy baked goods people were still sending us, mostly ignoring me. "I can learn something about Mark from a novel, even if I know it's not real," I said, but by then he was already gone, down the hall.

I'd agreed to go to my friend Grace's astrologer even though I did not want to be one of those people who look for something in nothing. After Mark's death, I was wary of anything that promised comfort, afraid I might slide uncontrollably into becoming the kind of person who finds messages in burnt toast. On the day of my

appointment, I almost feigned a migraine, but I knew everyone would know I was lying. Instead, I put a coat over the sweatpants I'd been wearing for days, and went to see Jeane, to whom I'd already given the date, location, and time of my birth, plus Mark's.

Jeane opened the door wearing a bright orange baseball cap with nothing on it. It looked absurd, but in a good way. *Okay,* I thought. *I can do this.* We sat across from each other at her dining room table and she offered me snacks. Since I don't know anything about astrology, she would point to something on the chart, say what it was, and then tell me what that told her.

It was comforting to hear a stranger echo back minor details of Mark's life. "His [something] is in the [something]," she said, "and to me, that indicates a reluctant interest in fashion." I laughed and told her that Mark had been model scouted on the subway, walking twice in New York Fashion Week. He'd been nonchalant about it, but he was clearly proud, especially when they asked him to return for a second show. "Mark," she said, jovially, "Mark! If you're here, we know you loved it."

I thought of helping him cut his jeans into jorts. I thought of all the times he'd knocked on my door to show me a weird sweatshirt he'd bought at a thrift store with Caroline. I thought of the summer before, when his shirt and shorts clashed so much someone asked if it was laundry day with a knowing smile and we had laughed because it wasn't.

Something rising somewhere indicated an interest in the arts, visual maybe. Mark had kept a list of all the movies he wanted to watch, crossing out those he'd seen. He took beautiful portraits of his friends and family; he loved photography so deeply.

Jeane showed me a line on his chart that indicated the pain he'd experienced. Another line crossed that one, there was a moon rising somewhere, and this meant he'd been a leader. "There are two types of leaders," Jeane said. "There are those that come down from the mountain insisting they know the answers and then there's the kind of quiet leadership that comes from within." Mark, she said, was the latter. "The people that most received his message were his peers."

I thought of Mark's friends and the night they came over after he died. We were in the kitchen and they all trooped in, the dogs barking, the boys ever taller than before, the girls following behind. Usually, they'd come in laughing and joking, usually Mark would be somewhere in the bunch. My eyes had traveled over all of them until the last one entered, because I wanted to see Mark there, Mark here, Mark pulling open the fridge door and grabbing a seltzer.

"It's strange," I said, "He was in immense pain, he struggled so much, but he wasn't really the picture of a depressed person. He was joyful and funny and so much fun to be around. Sometimes it was really confusing."

Then Jeane said something I still carry with me. "Think about what photography is—it's about turning darkness into light. That's not a metaphor, that's literally what it is. Sometimes you see that in people too. There's something really beautiful about a person who can turn their own pain and their own darkness into light for others."

I found Jeane's method hard to believe in, but what she said I knew to be true. Mark was a leader, a light, a person whose life was marked by suffering and profound happiness, isolatingly untranslatable pain and also the warmth of community. But his death by suicide raised endless questions about responsibility, inevitability, and choice that I wrestled with constantly.

The stars and planets don't stop just because someone's life does, Jeane said; she could continue to read his chart even though he had died. There would be, according to Jeane, a period of nearness for several years, based on the alignment of astronomical things I can't remember. Then, Jeane said, there would be a change. "I don't want you to take that to mean that in seven years Mark is coming back," she said. "Maybe it just means you guys find a new way of living with his loss, a new way of remembering him."

Jeane clearly had wisdom, but she didn't pretend to have all the answers. I wanted to know how Mark could possibly be here if he was no longer living, I needed to know where to find him and what to look for. I was grateful that Jeane didn't offer certainty she didn't have, but I also wanted it so badly.

"He's in your heart," people would say, but that was not enough. I wanted him alive, and if not alive, I wanted him here still in some real, quantifiable way. I wanted an explanation that I could have relayed to Mark without him raising his eyes suggestively while making the exaggeratedly spooky noises from Scooby Doo and then cracking up.

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WE DO NOT COME from a religious household, even though my dad was once a Catholic altar boy. Growing up, religion was largely the domain of our grandmothers, who'd wear crosses around their necks (one Catholic, one Protestant) and go to church on Sundays. They believed in things like heaven and angels but never tried to push that on us, except for the time my great aunt got so worried that my older brother Andrew and I might die and rot in purgatory that she led our little selves into the bathroom, locked the door, and performed her own baptism in the bathtub.

The idea of the spirit or the soul felt false; instead, I clung to the idea of energy, which seemed more rigorously provable. *He's dead, but he is not gone,* I'd insist to myself. *The energy he was made of is still here. He's not turning into a tree, that's fine, but there's probably some of him in this room. That's just science.* I didn't really know much about energy beyond the whole "can neither be created nor destroyed" thing, but I thought maybe the body let go of any unused energy at death. I liked to picture him around us. Mostly I imagined that energy just loosely close and there when we needed it, Mark nearby but not watching us pee or anything like that.

I googled it. "Quick note: If you're presently grieving, don't read this," said the first result. Of course, I ignored the warning. A lot of energy, it turns out, goes toward decomposition and is then expelled as heat. It's true that the waves and particles and protons that made him my living, breathing brother are still here… somewhere. But as I read more, I realized that I'd only fo-

cused on the second half of the energy law. All that energy passed through him, but it didn't really come from him.

And so energy wasn't the answer, but maybe light could give me some comfort. I thought about the light that illuminated our lives—the days and weeks and months and years in which all four of us were alive. I imagined that light radiating endlessly outward into the universe. It was comforting to think that when we look into the sky we're seeing the past, since that's where I wanted to be. After some googling, I determined that if you traveled two light years away from earth, you'd see the planet as it was when me and my three brothers all lived. You'd have to go 12 trillion miles.

If you went further, so far I can't even understand what the number of miles is, you could turn and you'd see the planet as it was when I only had two brothers, but Mark wouldn't be dead, he just wouldn't be born yet. Further still and I'd ruin Andrew's only-child status. Back further and the Ronan kids would mean my dad and his siblings, not me and mine.

Mark was dead, but that light of our lives wouldn't stop traveling. *What we had together isn't over; it's just moving away,* I told myself. Then it occurred to me that the earth is a planet, not a star. I asked my boyfriend Greg how you could see the earth from light years away if it wasn't producing light. When he explained, I burst into tears. To double check, I emailed my friend Raillan, who knows more than anyone else about how these things work. I didn't tell him why I needed to know. Raillan wrote back quickly and didn't ask why I was suddenly interested in exosolar planets. He talked about interstellar smog smothering luminosity. He acknowledged that the earth is emitting light, but only a little, and mostly from reflected sunlight. Atmospheric dust and interstellar smog did not fit into what I'd imagined. I was devastated.

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SOMETIMES I TRIED TO take part in my own life. I saw friends; I started working again. I knew I

seemed okay for a girl whose brother died, but I also knew I was irreparably broken and I didn't want to be fixed. I still used my phone whenever I needed to not think about anything. I got up to level 82 in TwoDots before deleting it entirely.

I continued collecting memories and stories and details about Mark. I came across a song called "I Love You, But Goodbye" that made me sob uncontrollably for an hour. If not directly from him, the words felt of him. I sent it to Caroline and she wrote back to say that Mark loved the band. I had no idea. It felt like the most precious gift.

I wish I believed that Mark was watching from somewhere, offering me this comfort from afar. I don't exactly believe all that, but he did live and love and share his life with a lot of people, so it's also true in a way, that these comforts come from him. His energy, or what's left of it, may not surround us, but his influence does, and that was born of the days and nights he spent here, all the energy he put into being alive.

I wonder what it was like to be him, to live with a brain that works constantly against you. I wish that something could have helped him. Some things did, but not enough and now he's gone.

I keep the star charts Jeane drew in a drawer—Mark's, mine, the one we shared. Every day, as soon as I get home, I crawl back into bed. The world still moves too fast for me, and celebrity minutiae feels more like my speed. A tabloid tells me that Selena Gomez got a coffee. Then, later: How to get Selena's coffee casual look. Later still, I click one that went something like "Sipping Coffee and Sending Texts: Ten Theories On Who Selena Is Talking To (Hint: It's Not Justin)."

Between those, the Andromeda bot appears in my feed, spitting out stars. The bot offers a look at the physical universe, something that is, no matter what meaning we ascribe to it. The expansiveness that each tweet communicates makes me feel tiny. Even though the pain of losing Mark feels bigger than anything else, the photos remind me that something bigger is everywhere around. The stars shine for no one at all and the bot tweets endlessly to an unknown audience. We look to the stars for meaning, we make the bots that go on and on without us.

Grieving or not, we place ourselves and try to find our place.

I signed up for the Hubble press newsletter and now the stars come to my inbox. I get an embargoed photo of what I agree looks like "a gigantic cosmic soap bubble" and learn that the Hubble telescope now has two million Facebook friends. They're always finding new things. A few weeks ago it was three potentially habitable worlds near some dwarf star. Before that, a comet with fragments from Earth's formation returned after billions of years in something called cold storage. It may offer clues about the beginning of our solar system. It may not. I'm sure they'll let me know.

These days, I don't take much comfort in ideas about energy. I don't entirely know how light works, except that it doesn't work in the way I want it to. I don't look at the stars and imagine the heavens; when I look at the stars, I think of what Mark's friend Lizzy said: "He could find the Big Dipper even if the sky was cloudy." I think of the things Mark taught me and I wonder what he knew about the sky.

When people ask how we are, I usually say, "Every day seems impossible, but then it is over." I mean that I don't know how to live without him. I mean that I don't want to have to figure it out, but that I will, largely because the days keep coming, but also because I know Mark wouldn't want it another way.

I carry him in my heart, of course, and he's alive in our memories. Sometimes I even see Mark in my dreams. It's so painful to be here without him, but when I look up at the stars, when I'm feeling too sad to do anything but refresh my Twitter feed, and the @AndromedaBot pops up, I just feel lucky. Mark isn't here, but he was. Of all the galaxies, we both ended up in this one, right on this planet, at the same time. We were here together, and that's not nothing. ◉

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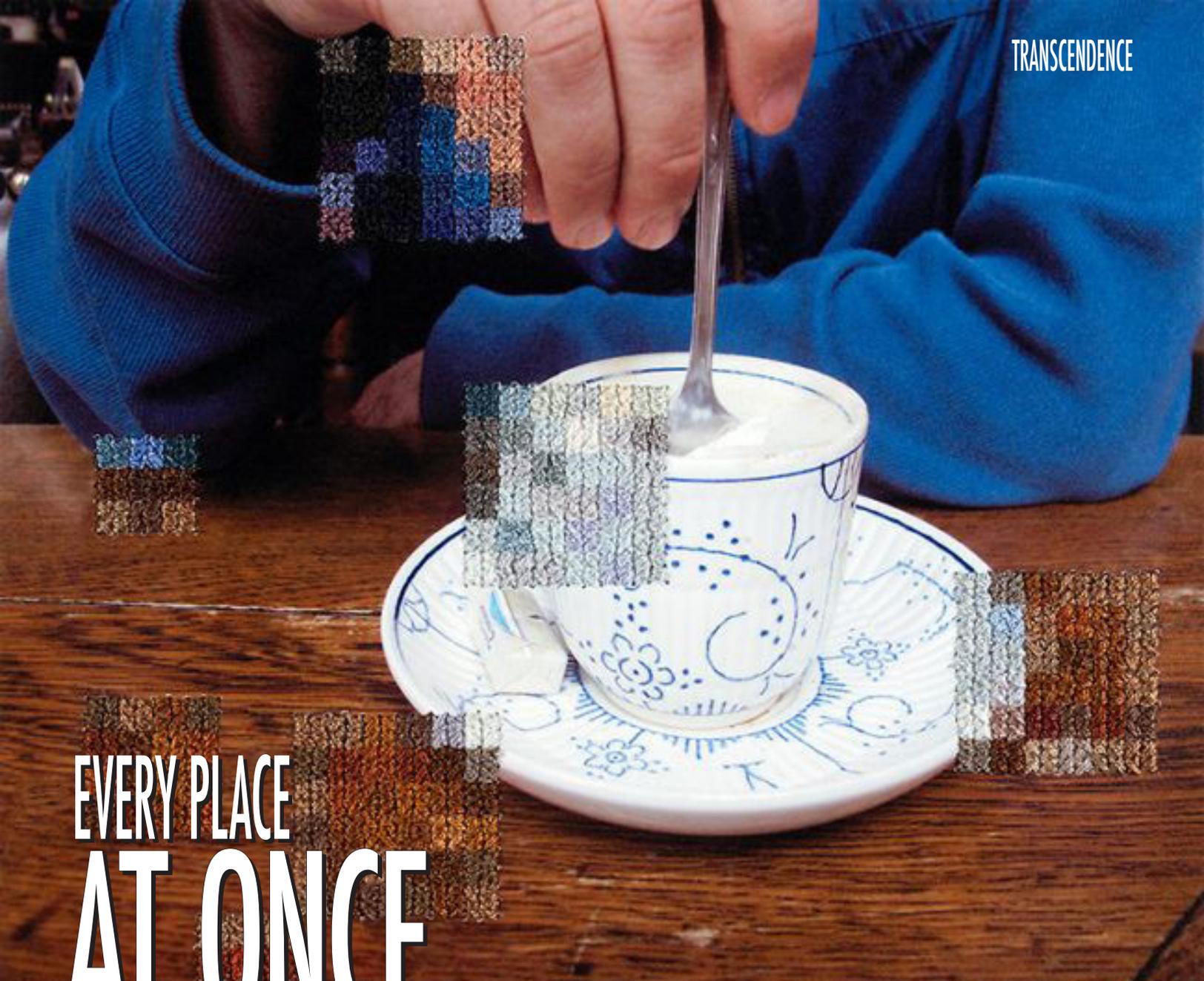
EVERY PLACE
AT ONCE

Where do the dead go when they die? by CRYSTAL ABIDIN

I AM SITTING AT a memorial service in a church snug in the east end of Singapore. The master of ceremony goes up to the pulpit. He tells us that we will begin with a time of worship. "These were some of her favorite songs," he says. A screen rolls down. The lights dim. A video plays.

She appears, strumming a mellow song on guitar on that very stage just a few Sundays ago. She was only 23. There she is, cold and silent, lying in the coffin. There she is, warm and

tangible, singing onscreen.

There she is, my sister, in two places at once.

No one in the congregation seems to flinch. As neatly as they filed into the pews, everyone stands up and sings along *tutti*. But it doesn't take long for the white-lit screens of smartphones to emerge from the sea of heads. "Recording a recording of the deceased leading a congregation onscreen as a substitute for her failure to lead the same congregation at her own funeral," my inner anthropologist mused internally between heavy sobs and gasps for air. "How meta."

On the first night, I was too distraught to

tend to the hundreds of guests who attended. Nestled in the corner of the main hall, my safe space, I blocked out the rest of the service and scrolled through my sister's Facebook page.

As expected, dozens and dozens of her friends who had heard the news were posting tributes on her wall. There was the usual confessional prose, heartfelt poetry, and well-wishes embellished with crying emoji and sad Pusheen. There were also streams and streams of throwback photographs lining her page.

"This was the last time we met," one caption read.

"Remember when we came here to chill and jam? I miss you."

"This is the only group photo I have of all of us together."

Pauses. Places. Peoples. Captions. Capsules. Checkpoints.

Digital artifacts are new vehicles through which we can grieve. Digital traces bear witness of our proximity to the deceased. Digital capsules are encouraging us to convert mundane memories into effusive memorials. Digital, digital, digital. Do they have wi-fi in heaven?

Incessantly refreshing my sister's Facebook page, I watch as these young 20-somethings collaboratively build a repository of grief and memories around her. But to whom are they speaking, I wondered. To the public? To each other? To themselves? To my sister?

Their outpourings seem directed to everyone yet no one in particular, personal in nature yet publicly on display. Perhaps they see my sister's Facebook wall as a placeholder for her consciousness? Perhaps they are romanticizing a posthumous her?

There she is, my sister, in three places at once.

I retreat from the intangible two-dimension-al world of text to re-enter the heavy sobs of 3-D life. Through my mental fog, I hear the pastor opening the floor for anyone who would like to share a few words. An adult from the church goes up. An adult relative goes up. An adult teacher goes up. They worm their way through the crowd, retrieve the handheld microphone from the pastor, and share solemn wisdom to an

We are here, alone and with each other and with my sister, where digital footprints boast of our affective ties. You are there in the hall where she lies. We are here where she lives

unwilling audience. It's not like any of us want to be here.

I drift between Facebook and the church sanctuary, waiting for time to wile away so all of this would go away. After a lull, the pastor calls for any "young people" who would like to come up to speak. He notes the absence of "young people" in these soliloquies.

Really? The adults don't see it, but we are here—in confessional prose, heartfelt poetry, well-wishes embellished with a crying emoji and a sad Pusheen, and emotively captioned photographs. We are here. You are there in your seats among anonymous others, attempting to breed collective effervescence while verbally establishing your social ties to the deceased in three lines or less. We are here in our playground, alone and

with each other and with my sister, where digital footprints boast of our affective ties. You are there in the hall where she lies. We are here on the internet where she lives. You are there. We are here.

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ON THE SECOND NIGHT, I pull myself together to be fully present in the moment, to give my sister her great good send-off. Before the service begins, I see a 50-something-year-old lady in the dining hall. I hear her playing a video recording of the memorial service from the night before. She was precious to my sister. There are tears in her eyes but a smile on her face. "I didn't manage to absorb anything yesterday," she tells me. "But now that I have time I can truly experience the moment."

"Are you going to keep the video?" I ask.

"Yeah. I will watch it every time I miss your sister. Or when I need strength. Now I realize how important all these videos are."

There she is, my sister, in four places at once.

As I walked away, I wondered why anyone would want to watch a funeral on replay. Why collect such a somber and morbid moment? Why relive the grief over and over? Except, the lady seemed … happy. She archived the last few moments of my sister in the box and on screen, and now she has my sister in her hand, at the click of phone button.

I pictured the lady seated at the foot of her bed with tissues in hand, watching the video night by night until she has exhausted her tears,

expended her agony, and processed her grief in full. Everyone at their own pace, perhaps. Why grieve in the fast lane when one can have self-service grieving in your pocket?

Moving through the dining hall, I passed the notice boards bearing photographs of the church youth. I take a cursory glance and spot my sister's face. I wonder if Facebook is merely digital scrapbooks. Or if the recent resurgence of scrapbooks are merely analog Facebooks.

I wondered why anyone would watch a funeral on replay. Everyone at their own pace, perhaps. Why grieve in the fast lane while self-service grieving's in your pocket?

Do people even print photos anymore? I guess some do.

There she is, my sister, in five places at once.

It is 10 minutes until the service begins. I return to my spot and brace myself for another long night. "That one is her sister," a lady utters. A young man leaves her side and walks up to me. He hands me a letter. He says he is sorry. He shuffles to the front to grab a seat.

Paper. Ink. Handwritten. How artisanal.

He writes that he settled for a letter because he couldn't yet bring himself to post on my sister's Facebook wall. My eyes dart across the lined page. "It would feel too permanent"… "I couldn't think fast enough"… "I wanted to be more personal"… "I still don't have the right words to say"… "Just wanna express my condolences"…

An analog Facebook post in my hands? He seemed to suggest that himself.

The service begins, and I feel like dying all over again. I think about all the things my sister would say about the aesthetic of the ceremony. She would hate these flowers. She would love her shoes. She would hate her makeup. She would love the song list. She would hate to see us mourn.

And then I did it. I subtweeted my sister's memorial service in a WhatsApp group. I invited her closest friends from various walks of life to the group chat and subtweeted her funeral.

"Secret subtwitter. My sister would say this sermon is basically Joey at Monica and Chandler's wedding. She would say o hai so crowded so hot."

My partner who was cradling me asks if I know what I am doing. I say I need this for myself. I second guess myself for two seconds until the groupchat responses pour in:

"She would say why y'all crying"

"She rolling her eyes at y'all right now :P"

"Side note, she would find it hilarious if someone did this at the service: [YouTube link of Joey reading *Love You Forever*.]"

"Yah omg why are her brows so funny? Who drew them? I demand that we redo them!"

"The flowers damn ugly guys???"

"WHAT IS WITH THE MUSICCCCC"

"lol is this where the party is at?"

At this moment, I know that my sister made the right friends in life. All of them bore her mark. They were Horcruxes of her. They were Horcruxes for me. We spread out across the service hall, sobbing while pretending to look cool and politely begging strangers for tissue paper. But in the space of our phones, silently typing away, we are invincible, openly disseminating mutual care by co-constructing discursive thought bubbles on behalf of my sister, speaking as if she is here. This is where the party is at.

At some point in the night, one of my sister's friends sends us customized Telegram stickers of her face. He tells us that she created a set of them bearing different facial expressions. Her friends have been using her face as reaction stickers in their text messages. My heart explodes with joy. The digital anthropologist in me is proud.

There she is, my sister, in six places at once.

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IT IS THE MORNING of the cremation. This is it. I return to the group chat asking for strength. Her friends flood my phone with group photographs, ridiculous memes, affective emoji, and text. Some reminisce, some humor, some love, some pray.

They ask if I can maintain her Facebook account and Twitter feed. They ask if I can preserve her phone line and email accounts. They ask if I can mediate their distress by holding these digital spaces for their grief to unravel as they make sense of loss at such a young age. I promise I will. She would live in everyone's pockets.

We huddle together by the glass panel. Staff in white shirts wheel out the casket. People begin to wail. It is too much for me to bear. I start sobbing myself. My partner wraps his arm around me. I clutch my phone tighter. "She lives in my pocket," I remind myself. A man in the back starts to sing "Amazing Grace." Between sobs and sniffs, people join in. *Tutti* again. The song overwhelms me, and I can no longer see through my tears. "She lives in heaven," I convince myself.

There she is, my sister, in every place at once. ◉

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