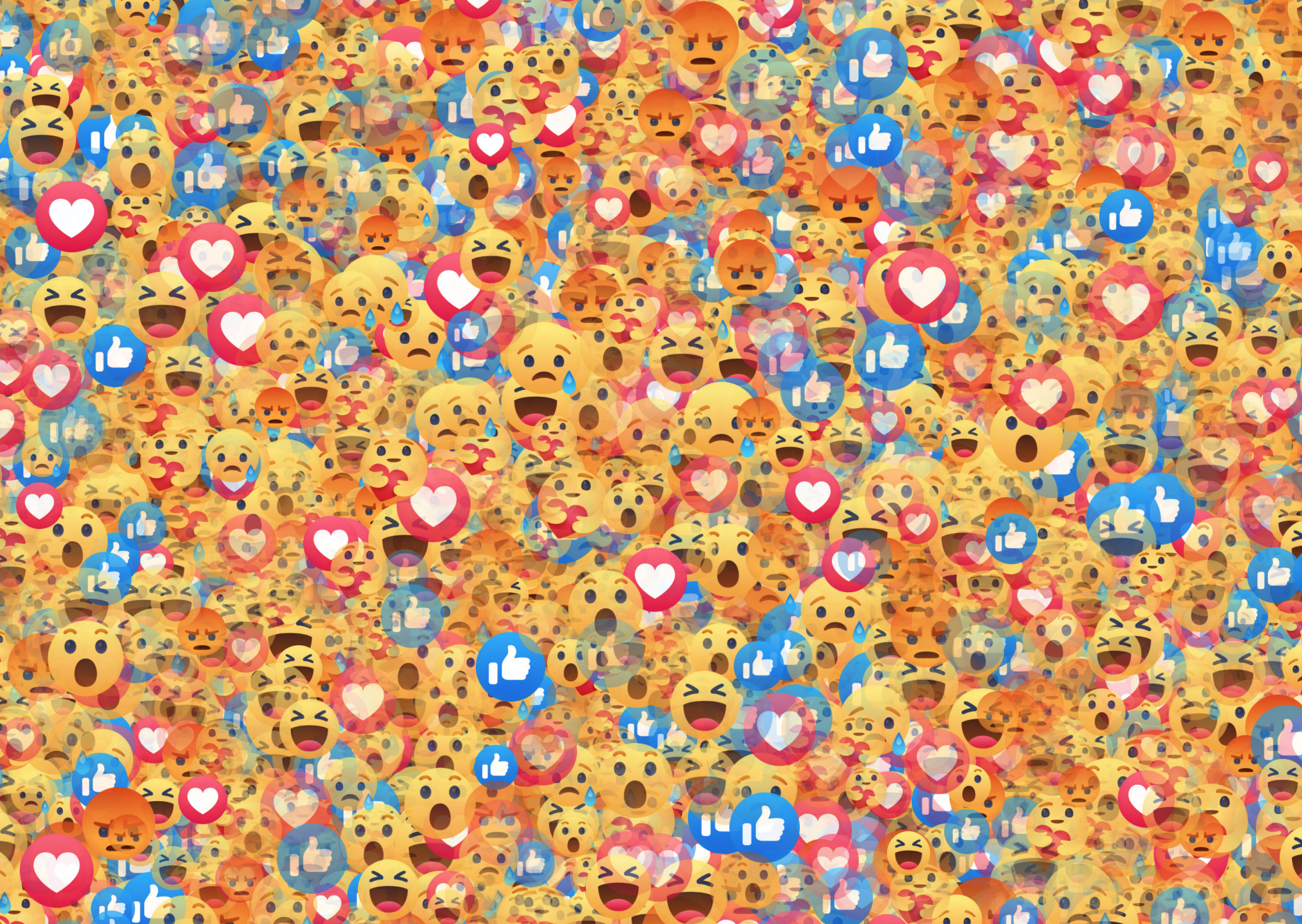Ben Grosser

20 August - 23 October

# SOFTWARE
# FOR LESS

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@arebyte

# *Software* *for* **Less**

The last twenty years have been characterized by the rise of software. Software has enabled the web, animated the smartphone, and made possible, in the words of one big tech CEO, a world "more open and connected." Yet software, which is now used by billions across the planet every day, has embedded within it the capitalist ideologies of those who make it. Coming out of growth-obsessed entrepreneurial culture from Silicon Valley in the United States, today's software wants what its creators want: more. This want is fundamental, driving how software works, what it does, and what it makes (im)possible. The result is a global populace now dependent on software platforms that intentionally activate within users a "desire for more," a need software meets with its "like" counts and algorithmic feeds and endless notifications, all in service of what big tech most seeks to realize their hopes and dreams: more users, more data, and more profit. And though wealth and fame has come to those who craft the platforms, their relentless focus on growth and scale has left a trail of destruction across society. Mental health, privacy, and democracy are all diminished, while authoritarianism, racism, and disinformationism are emboldened. Twenty years after the rise of software, big tech's drive for more has transformed its most lauded asset into its biggest liability.

After years of artistic efforts to define, examine, reveal, and defuse how software activates the desire for more—to "demetricate" social media, to defuse emotional surveillance, to confuse big data algorithms, and to track and trace how the politics of interface become the politics of humanity—this exhibition presents the first outcomes from a new experiment, one that aims to generate a Software for Less. How would users feel if software platforms actively worked to reduce engagement rather than to produce it? What if software interfaces encouraged conceptions of time that are slow rather than fast? Why can't software want less instead of more? Utilizing custom methods such as software recomposition, techniques like data obfuscation, and genres that include video supercuts and net art, Software for Less offers functional applications and media-based artworks that tackle those questions, presenting works that produce less profit, less data, and less users. It includes a social network that aims to limit compulsions to use it, systems that make AI-driven feeds less attractive to those they profile, and the artifacts from investigations that reveal how a tiny few manipulates a broad public into a hyper state of more—and how disrupting that manipulation could point the way towards an alternative future. Not software for more, but *Software For Less*.

— Ben Grosser, 20 July 2021

# More or Less

It's 1995, and Bill Gates is dancing onstage to the Rolling Stones' 'Start Me Up' with a cohort of other white, middle aged men, all dressed in khakis and button down polo shirts, all indistinguishable from one another. They shuffle their feet, sway their wide hips and click their fingers off the beat. They look as self-conscious as a group of men who have seen the future of the internet and know it's just an endless scroll of YouTube comments mean enough to make a grown man cry.

It's 2007, and a baby-faced Mark Zuckerberg takes the stage at F8 to the soundtrack of Daft Punk's 'Harder, Better, Faster, Stronger': "More than ever/ Hour after hour/ Work is never over/ Work it harder". He's dressed in a North Face hoodie and pool slides with socks. His eyes glitter with all the fervour of a child preacher but his voice and gestures feel awkward and stagey, more high school debater than true believer. The presentation kicks off with Facebook's annual growth figures, a huge PowerPoint of climbing line graphs thrown on the screen while Zuckerberg paces the stage below and intones a dizzy list of figures "growing by more than 100,000 users a day", "growing at a rate of 3% a week" "just about tripling every year and doubling every six months – sorry – growing by 300% - quadrupling every year" "It's roughly like adding the Size of San Francisco once a week" "if you do the math". The specific figures matter less than the performance. This is an economy based on exponential growth, one where figures today need not only match yesterday's but exceed them. But in a strange way, this is also an economy based on less. Facebook does very little in the way of manufacturing or producing goods, there's no product as such beyond the data and hype that grows around real goods made in some distant elsewhere.

Not long ago I attended a Tech expo held in a five star hotel on the Las Vegas strip. The hallways between panels are full of middle aged men dressed like Gates and a younger cohort dressed like Zuckerberg, a collision of old school finance and bitcoin evangelism. These delegates are exhaustively male and at every bathroom break I share a conspiratorial smirk in the mirror with whatever woman is at the sink beside me, breezing in and out while outside the tech bros hop up and down in line and miss the coffee and free cookies in the breakout area. There's stages everywhere where CTOs pace back and forth and speak about 'cookies for the real world', or the 'robots in the sky' that will make decisions in the near future better than any human ever could, where an Israeli child prodigy who needs a stool to see over the podium showcases his smart contract locks for Airbnb. On the floor below is the exhibition centre, an endless stream of booths with dishes of free swag that I squirrel away in my free tote bag, keychains and pens and candy and t-shirts bearing the logos and slogans of up and coming start-ups specialising in algorithmic credit scores and risk optimisation. The sounds of 8-bit slot machines and wild gambles drift up from the hotel's casino on the ground floor.

I've scored a free ticket with an uncharacteristic bit of smooth talk. I'm here to get under the hood, to find out what is really going on in the tech industry. This is where the industry shapes itself, after all, where decisions and fortunes are made. For five days I attend back-to-back panels and live coding sessions and wander the corridors of the exhibition centre. By the end I have a dizzying sense that the more I see, the less I know. The expo isn't the space for truth. It's a space of front and swagger, a space of excess. This desire for more, projected in keynotes and slogan T-shirts, will be translated into software that goes out into the world and demands more of its users. This is not only a case of 'more data', it's also a case of asking more of the user: not only worktime but 'downtime' needs to be productive, not only physical work but intellectual and now emotional labour. Capitalism grows by asking us for more.

*Software For Less* takes the vernacular of the standard tech expo. Works are presented like products. Bowls of free swag throughout the exhibit(s) offer the user Love heart candy, stickers, and t-shirts. Where the soundtrack to the expo is usually an upbeat techno piped in from everywhere and seemingly nowhere at once, the soundtrack here is Zuckerberg intoning figures. One supercut, *ORDER OF MAGNITUDE*, features a dazzling array of growth figures spliced together from public interviews with Zuckerberg. Grosser has scraped these from

the web, capturing every time the CEO intones a metric: projected profits, user numbers, energy consumption. It's 47 minutes long. *ORDER OF MAGNITUDE* takes the rhetoric of growth and exaggerates it so that there is nothing else left, no context or humanising touches. The counterpoint is *DEFICIT OF LESS*, a supercut drawn from the same archive, but this time extracting every time Zuckerberg spoke about less. Adding up to scarcely a minute of public footage, here the CEO is more circumspect. In this iteration, the footage has been slowed down to match the length of *ORDER OF MAGNITUDE* and so Mark's every "less" emits a smeary sub bass drone through the space. In slow motion, Zuckerberg's gestures seem even more robotic. In a single gesture that lasts over a minute, he brings his open arms together, closing the negative space between his cupped palms. Less. "I feel like I'm animating Zuck' into who I wish he was" Ben tells me, "getting him to talk about less at least as much as more. but it's such a stretch (literally/figuratively) that it goes somewhere else, part rock music played backwards, part incantation". I'm reminded of a K-punk post where he writes that listening to the electronic musician Burial is a lot like listening to the ghosts of 90's rave culture, of wandering through a derelict building after all the partying has finished[1]. Wandering this exhibition is like encountering the spectres of web 2.0.

The exhibition and its layout invokes what the artist describes as a 'spiral of strategies' that confront big tech platforms, but to be reductive we might say that Ben Grosser asks what happens when the logic of growth - of software for more - is exaggerated or distilled to nothing. On the one hand, a number of Grosser's works exaggerate or extrapolate the desire of the platform for more – more users, more engagement, more metrics. Other pieces work to pare back the platform to its bare essentials, removing metrics so users can reflect on how these shape online experience.

**More**
Works like *Go Rando*, and *Not For You* are based on excess. By giving the platform *more*, they give it less.

*Go Rando* is a Facebook plugin that randomises a user's emotional responses to other user's posts. Clicking 'Like' randomly shuffles through

[1] Fisher, Mark. "London after the Rave." In 'Fisher, Mark. *Ghosts of my life: Writings on depression, hauntology and lost futures*. John Hunt Publishing, 2014.

the spectrum of reactions – like, love, angry face, crying, wow and so on. It's through these prompts for emotional engagement that Facebook builds profiles of users that are in turn used for advertising and risk analysis. Facebook infamously experimented with 'emotional contagion' in 2014, undertaking an ethically dubious research experiment where users of the platform were unknowingly exposed to angry, sad or upbeat posts in their feed, to experiment with how this exposure shaped their future emotional state. By randomising a user's emotional responses, *Go Rando* produces more data for the platform, but less value.

Obfuscation techniques are a feature of Ben's work, from earlier pieces like *ScareMail*, which randomly inserted suspect noise into user's emails to overwhelm NSA surveillance, to recent works like *Not For You*, an 'automated confusion system' designed to confuse TikTok's video recommendation algorithm. The system navigates the site in the background, clicking on indiscriminate links and following unlikely paths. An excess of data makes the user less visible to the platform. For users, the result is an experience less tuned to what the platform thinks they want, puncturing the filter bubble that determines future content from past data. This might seem at odds with the platform - surely users have spent time working to finetune and be seen by the algorithm?

When I showed *Not For You* to a group of art students over Zoom in late 2020, that wasn't their reaction at all. In fact, most felt that the TikTok algorithm didn't really see them; it projected back a pale data shadow of their real selves with no space for nuance or surprise. This is an algorithm that wants you to be *more yourself*, where that 'self' is a recognisable profile of desires and drives that can be captured and sold. The 'you' it finetunes is not really 'for you' at all.

**Less**
Grosser is probably best known for his *Demetricator* works, which conceal the metrics of social media platforms such as Facebook and Instagram. Ben's first iteration was with the *Facebook Demetricator*, creating a plug-in that obscured the user's figures from Friends to Like Counts to Notifications. Instead of an interface overwhelmed with numbers, the user gets a platform free of metrics. A user could continue to use the platform and Facebook could continue to use the metrics to profile and advertise to them in the background, but the behavioural prompts that push and guide the user to engage more, or share more, or change and subtly adjust their behaviours to drive more engagement, are absent.

*Facebook Demetricator* is a design experiment that asks how software programs its users, how users are shaped by and respond to the algorithms that demand more of them. Ben has designed Demetricators for Facebook, Twitter, Instagram and TikTok (the latter, humorously, was a piece of tape applied to the screen to obscure the figures in the margin). As a research experiment, the piece runs ahead of theory on metrics and quantification, but in this instance it also anticipated, by nearly a decade, future changes that the platforms considered, and in some cases, made to visible metrics.

The conclusion of this is *Safebook*, a plugin that removes all the data from the Facebook page leaving behind empty placeholders that structure our use of the platform, the 'boxes, columns, pop-ups and drop-downs that enable 'likes', comments and shares'. This is Facebook emptied of prompts for engagement. And yet, Grosser argues, despite this, the site is still usable, drawing questions about how familiar we are with the platform interface that we can navigate it quite literally blind.

A new work, *Platform Sweet Talk*, abstracts the personalised messages offered to users about their precious memories into their basic programmed strings. It's a bit like the moment when a personalised email goes awry and accidentally reads 'hello [insert_username_variable] we wanted to offer you a special treat for being such a loyal customer!' Here the personalised variable is replaced with an amorphous 'Someone' who liked your photo, or a comment you are mentioned in, or sent you a friend request, or asked something of you. 'Reminder: Someone invited you to like something'. It strips back the cosy veneer of personal connection, reminding you you're just another metric, just another data point, one user in billions.

**Under the Hood**
In the tech expo, the logic of 'more' gets translated from business rhetoric into executable code. Code scripts social interactions, gearing them for more engagement, for amplified emotional content rather than along axes that might be more socially, emotionally and politically beneficial for users and society. Grosser's practice runs this process in reverse, writing code to investigate and critique code, to start a conversation, to ask 'what if we had a different script?' It's the kind of under the hood investigation I was hoping for when I visited the expo in Las Vegas , but which I didn't find.

At a moment when 'online culture' has become...well, culture, where opting out is not only a privilege but also an impossibility for many, Grosser uses platforms to struggle against platforms. It's a fine balance; to gloss Mark Fisher, nothing runs better on Facebook than a protest against Facebook[2]. But maybe this is the whole point. Every year or so a meme goes around where people tell Facebook, contrary to the terms and conditions that they've already agreed to, that it has no ownership over their data. They share hashtags exhorting others to #deletefacebook. One way of looking at this gesture is as a meaningless bit of Boomer resistance. Another is that it gives us a glimpse of how control is never complete in social networks. When the wealth of networks are based on network effects, the most effective way of disrupting them is often from the inside.

**Minus**
At the very centre of the expo is a new work called *Minus*. Unlike the other works in the exhibition, which interrogate existing platforms, this piece offers a radical alternative. This is a social media platform whose design features deliberately go against the drive for endless engagement. The main principle of *Minus* is that every user gets 100 posts - for life. The only visible metric counts *down*, showing where the user is in that countdown and the stakes that number represents. Other values, such as the length of time since a post was written are couched in deliberately vague language like a culture without quantification, time or numericity when things happened 'recently' or 'a while ago.'

I sign up for the Beta version. As a late adopter, I normally join social networks when the FOMO rises up and overwhelms me. The party is usually in full swing or dying down by the time I arrive. The exception was Signal, where for a long time my contacts were almost exclusively geeky men I slept with in my twenties and never wanted to speak to again. *Minus* is not only minus metrics, it's, as yet, minus the noise of other people. Unlike Facebook, which continues Zombielike through its acquisition of Instagram, this is a platform with built in obsolescence, a platform whose definition of success is less rather than more engagement.

[2] "[N]othing runs better on MTV than a protest against MTV". Fisher, Mark. *Capitalist realism: Is there no alternative?*. John Hunt Publishing, 2009, p.9

My husband has a theory that the more people share on social media, the unhappier they are IRL. I want to complain that this theory is ageist, and very probably sexist, but deep down, I suspect it is very probably true. The 'ideal user' of the social media platform might be a lonely and occasionally outraged academic, hungry for support and affirmation re: the trials of interdepartmental politics. So reads my newsfeed anyway. I'm not sure who the ideal user for *Minus* is. Does having 100 posts for life suggest a desire to Marie Kondo your feed, the social media equivalent of a banana plant and Farrow and Ball's Schoolhouse White? I'm reminded of a segment from Lena Dunham's 'Girls' where Jessa, the nonchalantly cool English girl, says she isn't on Facebook and try-hard Shoshanna breathes 'you're so fucking classy.' Jessa is an influencer; in 2012 she already senses that Facebook is a dying medium. Grosser's Demetricator was prophetic and I feel like this might be too.

Logging in for the second time, I notice I'm immediately primed to read metrics for signs of connection and approval and their absence leaves a blank space for me to project all kinds of insecurities into. I know the names of quite a few of the other Beta testers and feel vaguely anxious that their Ascii dragons are somehow more authentic and less earnest than my contributions, that everyone here knows the right way to do digital culture but me. After using it in bed when my family has all fallen asleep and the house is quiet, I close my laptop, tuck it under my side of the bed and fall asleep too. I dream I have posted something clever to Twitter and am refreshing the page, looking for new likes instead of doing my work. This happens occasionally when I am awake. This happened to me a while back.

Like a lot of speculative design, it's hard to imagine the business plan for a social network that succeeds if its users share less rather than more. It takes me a while to realise why this registers as strange. Maybe it's a platform driven by the user's desires rather than those of the market.

**Feeling Free**
I was at a panel on digital art and activism in 2014, shortly after the first round of Snowden revelations. The mood was circumspect – what was the point of artistic critiques of software in the face of monolithic platforms and widespread abuses of power? It's a question that's never far from digital art. Just as the panel were about to agree that there was maybe no point at all and we should all become PGP experts instead, the documentarian Laura Poitras spoke up. We can be told something

- we can know the facts - she said, but that's not the same as a feeling, an emotional engagement that's necessary for change to happen. This feeling - this affect - is where aesthetics come in. Grosser draws our attention to what we don't normally see, or to what the platform would rather we didn't see. It's so much more than being lectured by a Linux kernel developer at a party that there's a problem with Facebook. We learn something, about ourselves and the platform, but we also might feel something.

In the middle of writing this essay I drop my phone one night in the dark. My outstretched finger puts a professional spin on it as I fumble to catch it. The device hits the ground and breaks into two neat slices and the insides fall out. Like a sandwich. I borrow an old phone in the meantime. I don't know how to enable screen notifications and make no effort to find out. I have no idea what is being asked of me. I feel a little bit free.

Many of Grosser's works give me a confused feeling; at times they can feel less like artworks and more like working prototypes in Beta form, things that might just show up in a social feed or expo near me sometime soon. Arguably it's this uncertainty that gives the works their aesthetic power. As uncomplicated artworks they can be easily consigned to clever commentary or critique. As something uncertain – the working plugin and prototype - their effect and status is more disturbing. They suggest that things could be different, and they take steps to build a different kind of world, one with software that works for less.

- Rachel O'Dwyer

Rachel O'Dwyer is a lecturer in Digital Cultures in the School of Visual Cultures in NCAD. She is an associate researcher in the Orthogonal Methods Research Group in Connect, the SFI Centre for Future Networks, TCD, a former Government of Ireland Research Scholar and Fulbright Alumni. She is the founder of Interference a Journal of Audio Culture (2009 – 2017) and co-editor of Neural Magazine for Critical Digital Cultures and Media Arts. Her research centres on the intersection between digital cultures and digital economies with a particular focus on surveillance capitalism and artistic modes of resistance to online surveillance. This is the topic of a forthcoming manuscript. She frequently curates events on digital cultures including DATA (2007 – 2016), Openhere (2012 – 2014) and Ascend: artist methods for engagement with algorithms (2019-).
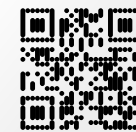
# Get More

*TESTS THE LIMITS OF OUR DESIRE TO SEE NUMBERS GO UP*

## 2016 - present

The broad reach of capitalism and the overall businessification of everyday activities has embedded itself so deeply in society that we're now constantly confronted with metrics that measure and quantify every aspect of daily life. From test scores in school to sales figures at work to follower counts on social media, numbers have become the primary way we are judged by others and often by which we judge ourselves. One result of this cultural condition is an overall obsession with personal metric performance: we want our numbers to go higher.

But what are the limits of this desire for more? Have we become so conditioned to value +1 that any number will do? Get More probes this question. The work's mechanics are simple: a visible metric displayed on a screen goes up by one when anyone visits the URL getmore.io. For those who can't visit, occasional photographs of the number's latest state are posted on social media with a link to the site. While those who stand in front of the work may for a moment enjoy the moderately satisfying interaction when a tap on their mobile changes the metric in front of them, what about those who only see it on social media? Despite not being able to watch the number go up themselves, are they compelled to participate as well?

Prior installations of the project have shown that both groups can become obsessed with the number, sometimes activating them into repetitious reloading of the page in order to move the work's metric to a new high. Why might either of these groups care to increment a number that counts nothing more than those who incremented it? How little information or context is required before we want a number to get bigger? In other words, what are we getting when we get more?

# *Get Less*

## *TESTS OUR INCLINATIONS TOWARD SUBTRACTION*

**2021**

For five years, the installation Get More—which lets people increment a number on a screen by visiting a website—has been installed in galleries and office buildings and homes, and has enjoyed periodic presence on social media. Throughout these installations, viewers of the work and visitors to its site have incremented the work's count from 0 to nearly 300,000, probing the limits of our desire to see numbers go higher. So far, it hasn't found many.

But while it may be surprising to hear that visitors felt compelled to increment Get More's counter using hundreds of thousands of webpage reloads, the general act of adding is broadly familiar within contemporary society. We are constantly taught to walk more steps, to earn more money, or to gain more "likes." So what about the inverse? In a world so saturated by obsessions with growth and imperatives to accumulate, perhaps nothing is more alien than a composed digital opportunity to make one number go down.

Get Less offers that opportunity. As a companion to Get More, it's a visible metric that gets smaller by 1 with every visit to the URL getless.io. The number on the screen still means nothing in particular—the only difference is that this time reloads of the site subtract instead of add. Will visitors feel as compelled to decrement Get Less as they are to increment Get More? What does it feel like to help a number go down, to register one's digital presence not through addition but through subtraction? Between Get More and Get Less, which most activates you?

getless.io

MORE

MORE MORE

MORE MORE MORE

MORE MORE MORE MORE

MORE MORE MORE MORE MORE

NOT LESS
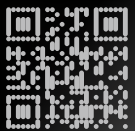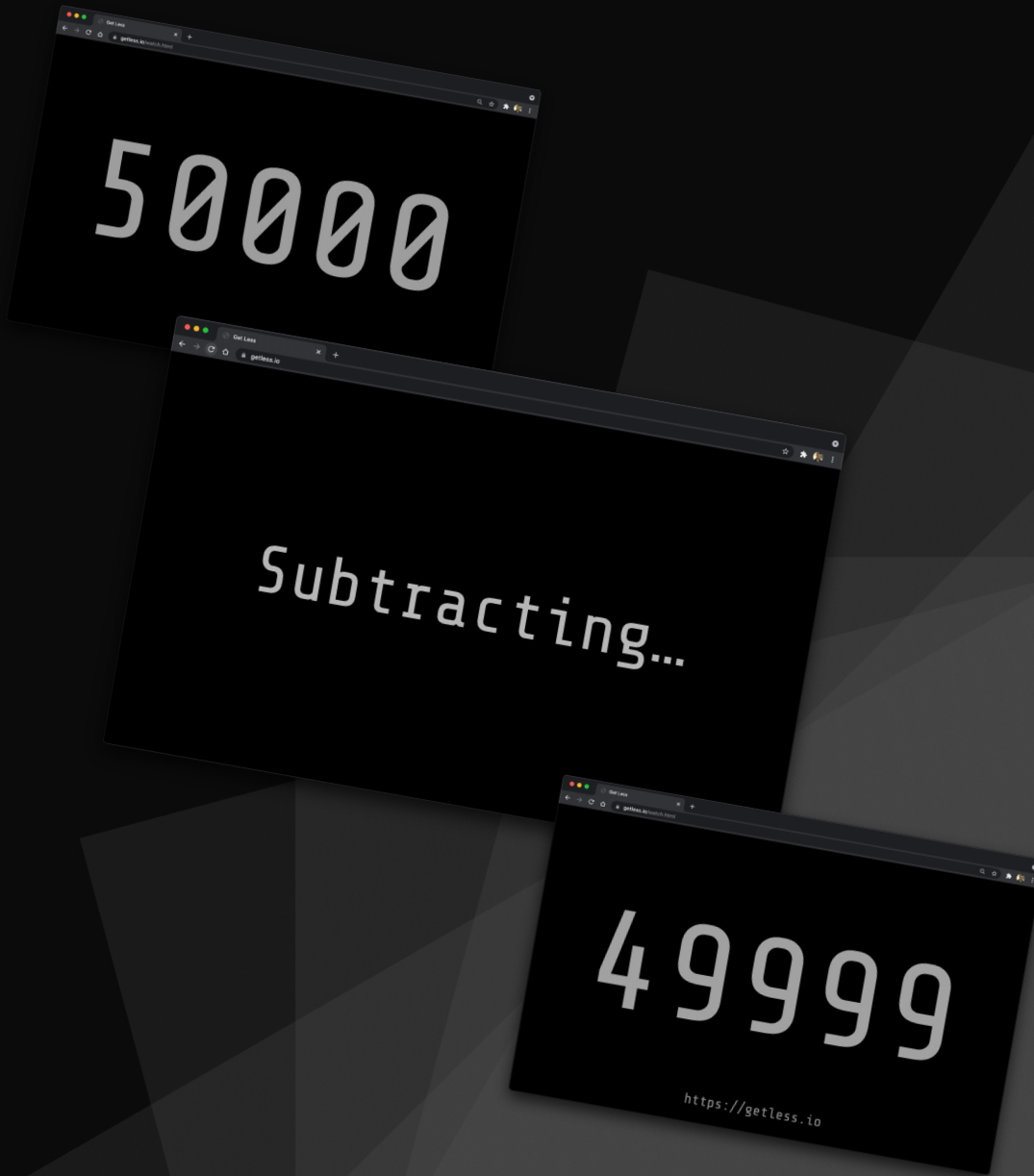
# ORDER OF MAGNITUDE

## A SUPERCUT THAT EXAMINES MARK ZUCKERBERG THROUGH A FEW OF HIS FAVORITE WORDS

2019

As the founder and CEO of the world's largest social media corporation, what does Mark Zuckerberg think about? While we get clues from his posts on Facebook and elsewhere, a primary window into this question is through his public video-recorded appearances. Covering the earliest days of Facebook in 2004 up through and beyond Zuckerberg's compelled appearances before the US Congress in 2018, these recordings reveal what's changed and what hasn't changed about the way he speaks and what he says. For ORDER OF MAGNITUDE, I viewed every one of these recordings and used them to build a supercut drawn from three of Mark's most favored words: "more," "grow," and his every utterance of a metric such as "two million" or "one billion." The result is a nearly fifty minute film that reveals primary topics of focus for the tech CEO, acting as a lens on what he cares about, how he thinks, and what he hopes to attain.

# DEFICIT OF LESS

## A SUPERCUT THAT REIMAGINES MARK ZUCKERBERG THROUGH ONE OF HIS LEAST FAVORITE WORDS

**2021**

Two years ago—before Facebook became the fastest company in history to reach a $1 trillion dollar valuation—my film ORDER OF MAGNITUDE extracted a few of Mark Zuckerberg's most favorite video-recorded words to examine just how growth-obsessed he'd been over the company's first fifteen years. By assembling a supercut out of every time he spoke about "more" or "grow" or a rising number, the work's 47-minute final length revealed the astonishing scale of his primary focus. Two years later, I've found myself wanting to revisit that same archive, to look back and see if he'd ever spoken about the inverse of more. Had the architect of history's premiere digital engagement machine ever thought or spoken about less?

So this time I mined those same fifteen years of videos looking for every time he said the word "less." And while I predicted the clips would never assemble into a video as long as ORDER OF MAGNITUDE, I was still surprised to find that his every public utterance of more's opposite—from age 19 to age 34—added up to less than 60 seconds of footage. While this finding certainly reinforces the previous film, it also made me wonder: what might the world look like if Mark had thought about less as much as he had about more? So with this new work I set about to reanimate the CEO into an alternate reality, expanding his less to be just as long as his more, taking those few bits of video and slowing them down to nearly fifty times their original length. How might the world be different if Mark had been this inert? Where would we be as a society and a planet if he hadn't been so focused on growth and engagement to "make the world more open and connected?" What if Facebook had been engineered to give its users time rather than taking it? This project considers those questions, and uses Mark's words to illustrate just how far our current reality must be distorted to equalize big tech's obsession with more with its DEFICIT OF LESS.

# *Safebook*

## *FACEBOOK WITHOUT THE CONTENT*

**2018**

Given the harms that Facebook has wrought on mental health, privacy, and democracy, what would it take to make Facebook "safe?" Is it possible to defuse Facebook's amplification of anxiety, division, and disinformation while still allowing users to post a status, leave a comment, or confirm a friend? With Safebook, the answer is yes! Safebook is Facebook without the content, a browser extension that hides all images, text, video, and audio on the site. Left behind are the empty containers that frame our everyday experience of social media, the boxes, columns, pop-ups and drop-downs that enable "likes," comments, and shares. Yet despite this removal, Facebook remains usable: you can still post a status, scroll the news feed, "watch" a video, Wow a photo, or unfriend a colleague. With the content hidden, can you still find your way around Facebook? If so, what does this reveal about just how ingrained the site's interface has become? And finally, is complete removal of all content the only way a social media network can be "safe?"

bengrosser.com/projects/safebook
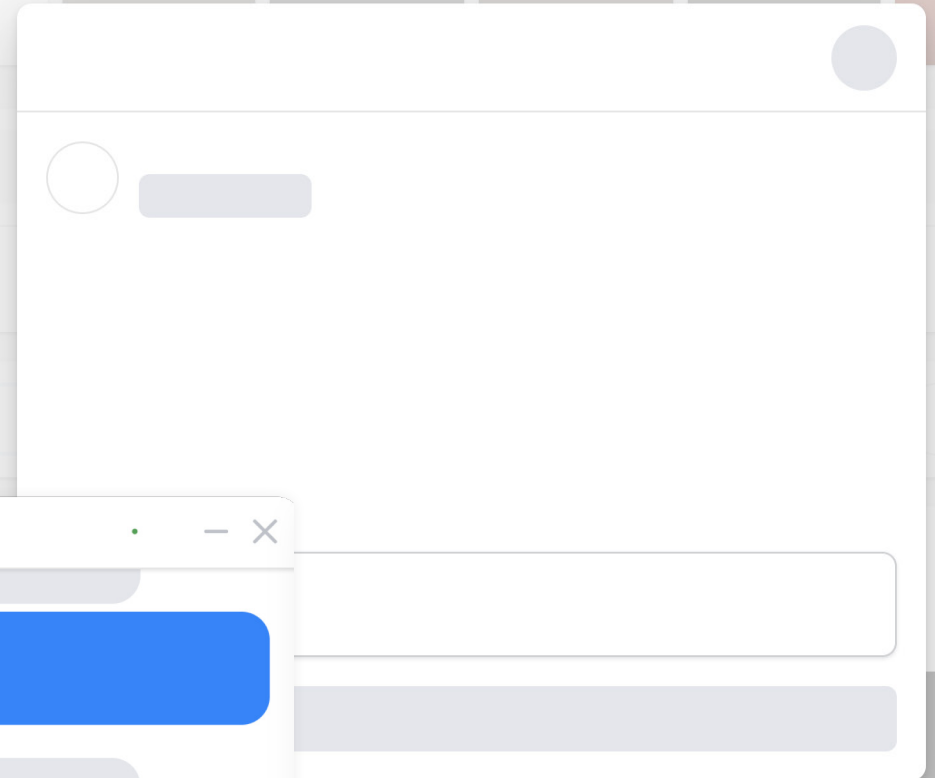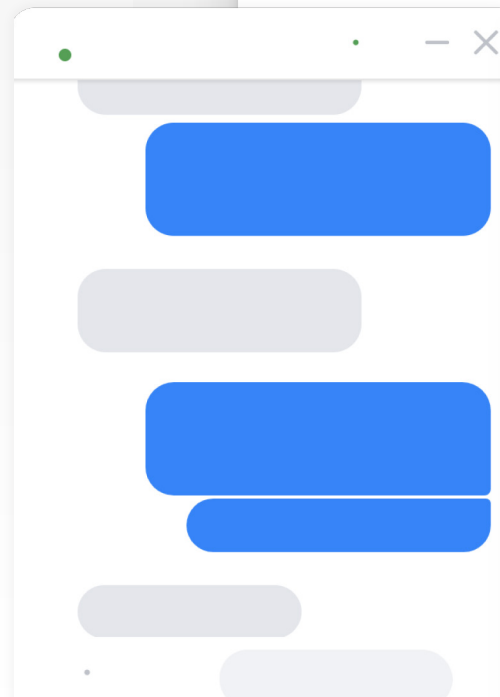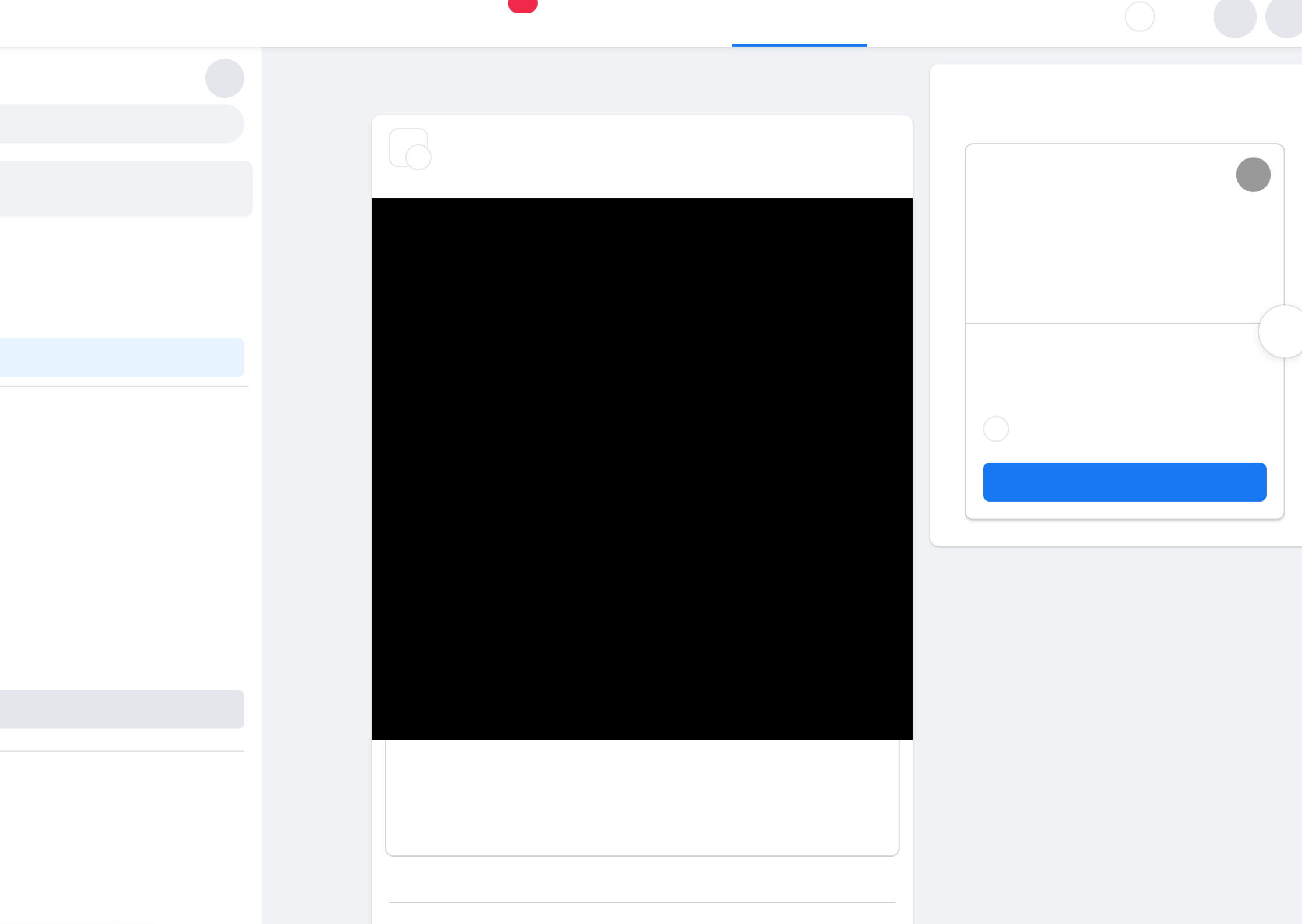
# The Endless Doomscroller

## *AN ENDLESS STREAM OF DOOM, WITHOUT ALL THE SPECIFICS*

Key Metrics Getting Worse

The Numbers Look Bad Again

They're At Capacity

No Agreement On Horizon

Shutdowns Imminent

This Is Not Even Close to Being Over

Experts Say Luck May Have Run Out

Decline is Accelerating

Anxiety Rising

Variants Surging

Future Uncertain

Risk Conti

Not A Test

This Is A Crisis

No Upside

Spread Continues

Elevated Risks Now Apparent

Cases Surging to Record Highs

**2020**

"Doomscrolling" refers to the ways in which people find themselves regularly—and in some cases, almost involuntarily—scrolling bad news headlines on their phone, often for hours each night in bed when they had meant to be sleeping. Certainly the realities of the pandemic have necessitated a level of vigilance for the purposes of personal safety. But doomscrolling isn't just a natural reaction to the news of the day—it's the result of a perfect yet evil marriage between a populace stuck online, social media interfaces designed to game and hold our attention, and the realities of an existential global crisis. Yes, it may be hard to look away from bad news in any format, but it's nearly impossible to avert our eyes when that news is endlessly presented via designed-to-be-addictive social media interfaces that know just what to show us next in order to keep us engaged.

As an alternative interface, The Endless Doomscroller acts as a lens on our software-enabled collective descent into despair. By distilling the news and social media sites down to their barest most generalized messages and interface conventions, the work shows us the mechanism that's behind our scroll-induced anxiety: interfaces—and corporations—that always want more. More doom (bad news headlines) compels more engagement (via continued liking/sharing/posting) which produces more personal data, thus making possible ever more profit. By stripping away the specifics wrapped up in each headline and minimizing the mechanics behind most interface patterns, The Endless Doomscroller offers up an opportunity for mindfulness about how we're spending our time online and about who most benefits from our late night scroll sessions. And, if one scrolls as endlessly as the work makes possible, The Endless Doomscroller might even enable a sort of exposure or substitution therapy, a way to escape or replace what these interfaces want from and do to us. In other words, perhaps the only way out of too much doomscrolling is endless doomscrolling.

Someone shared your post.

Someone and Somebody Else commented on your photo.

Someone likes a video you are tagged in.

# Platform Sweet Talk

*EXAMINES THE ENGAGEMENT ROMANCE BEHIND SOCIAL MEDIA NOTIFICATIONS*

**2021**

Today's dominant social media platforms are designed to produce, above all else, user engagement. Engaged users contribute increasing amounts of data, transforming platforms from empty containers of nothing into profitable private stores of human behavior and culture. But this production doesn't happen by itself; it requires careful engineering to craft and present the right message at the right time in a way that compels users to keep scrolling, liking, and posting. Platform Sweet Talk examines a primary tactic Silicon Valley employs to seduce its users into a one-sided relationship: notifications. Based on longitudinal research into a major platform's notification strategy, this work presents their extensive notification language in a depersonalized form, revealing how notifications operate to encourage, manipulate, and woo users into maximal platform engagement.

platformsweettalk.com

Someone added something to their story.

# *Go Rando*

## *OBFUSCATES YOUR FEELINGS ON FACEBOOK*

**2017, 2021**

Facebook's "reactions" let you express how you feel about a link, photo, or status. While such data might be helpful for your friends, these recorded feelings also enable increased surveillance, government profiling, more targeted advertising, and emotional manipulation. Go Rando is a web browser extension that obfuscates your feelings on Facebook. Every time you click "Like", Go Rando randomly chooses one of the seven reactions for you. Over time, you appear to Facebook's algorithms as someone whose feelings are emotionally "balanced"—as someone who feels Angry as much as Haha or Sad as much as Love. You can still choose a specific reaction if you want to, but even that choice will be obscured by an emotion profile increasingly filled with noise. In other words, Facebook won't know if your reaction was genuine or not. Want to see what Facebook feels like when your emotions are obscured? Then Go Rando!

Wow

Picking...
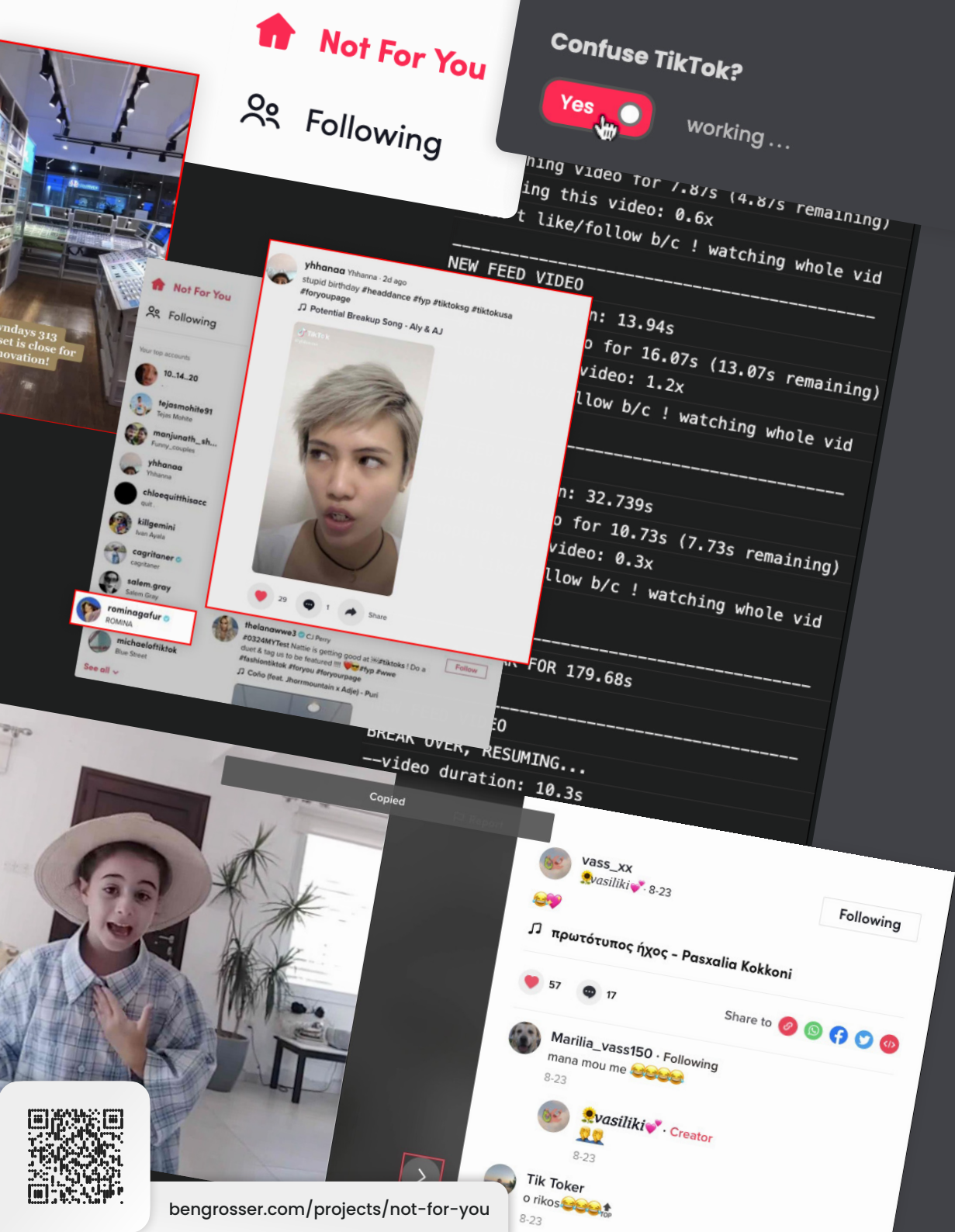
Comment

# Not For You

*AN AUTOMATED CONFUSION SYSTEM FOR TIKTOK*

**2020**

Not For You is an "automated confusion system" designed to mislead TikTok's video recommendation algorithm, making it possible to see how TikTok feels when it's no longer made "For You." The system navigates the site without intervention, clicking on videos and hashtags and users to find the nooks and crannies TikTok's algorithm doesn't show us, to reveal those videos its content moderators suppress, and to surface speech the company hopes to hide. Through its alternative personality-agnostic choices of what to like, who to follow, and which posts to share, Not For You should make the For You page less addictive, and hopefully steer users away from feeling like the best path to platform success is through mimicry and conformity. Perhaps most importantly—on the precipice of yet another critical election in the USA—Not For You aims to defuse the filter bubbles produced by algorithmic feeds and the risks such feeds pose for targeted disinformation and voter manipulation. Finally, the work stands in opposition to letting corporations opaquely decide what we see and when we see it, to their intentional crafting of addictive user interfaces, and to the extraction of profit from the residual data left behind by users. Ultimately, Not For You asks us to think about who most benefits from social media's algorithmic feeds, and who is made most vulnerable.

# Tokenize This

### A GENERATOR OF UNIQUE DIGITAL OBJECTS THAT CAN ONLY BE VIEWED ONCE

**2021**

A central construct of the booming cryptoart market is the creation of artificial scarcity through the "tokenization" of digital objects using non-fungible-tokens (known as NFTs). These certificates of ownership act as indexes to digital artworks, pointing anyone to the objects themselves (e.g., an image file on a server) and making possible the easy sale and resale of (presumed) ownership rights. This push towards commodification not only comes with high ecological costs (due to the energy use incurred with each cryptocurrency transaction) but also threatens to reconfigure the focus of many digital/software/net artists into the production of saleable and non-threatening work that is easily recognizable as "art" to the speculative finance crowd. Tokenize This proposes one possible structure of resistance against the threats posed by NFTs. The site, available from tokenizethis.link, produces upon each new visit a "unique digital object" that includes a custom color gradient and guaranteed exclusive identification code, all referenced by a matching URL. Yet different from the typical website whose URLs act as persistent indexes to a page and its contents, Tokenize This destroys each work right after its creation. While the unique digital object remains viewable by the original visitor for as long as they leave their browser tab open, any subsequent attempt to copy, share, or view that URL leads to a "404 Not Found" error. In other words, Tokenize This generates countless digital artifacts that can only be viewed or accessed once. While this structure doesn't block someone from selling an NFT that points to a Tokenize This page, it does ensure that the page it points to will never be seen by the purchaser of that NFT. Most broadly, the work acts in opposition to the capitalist ideologies embedded in NFTs and the ways in which cryptoart markets have already thrust an often anti-capitalist and anti-corporate art medium into a 21st century gold rush get-rich-quick kind of frenzy.

tokenizethis.link

20 pages remaining

# Facebook Demetricator

## HIDES ALL THE METRICS ON FACEBOOK

**2012 – present**

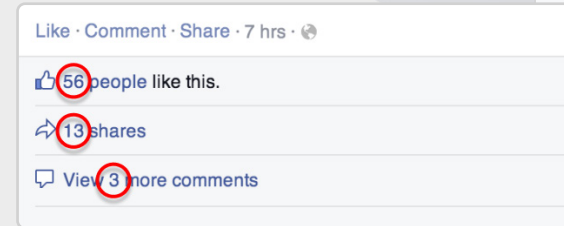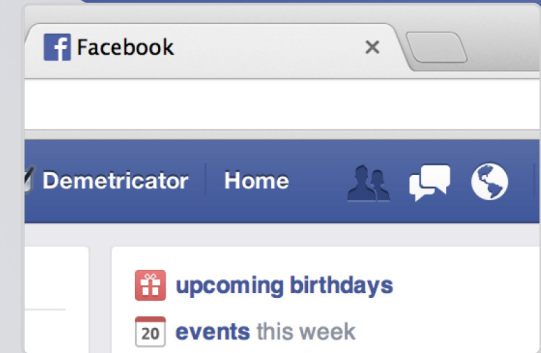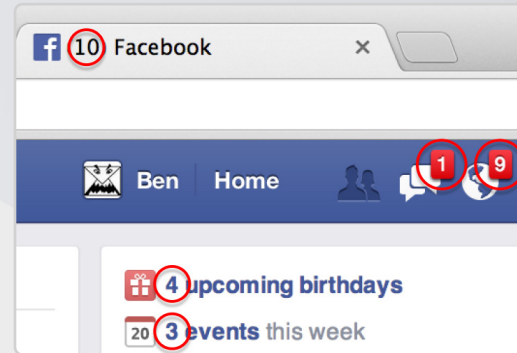The Facebook interface is filled with numbers. These numbers, or metrics, measure and present our social value and activity, enumerating friends, likes, comments, and more. Facebook Demetricator is a web browser extension that hides these metrics. No longer is the focus on how many friends you have or on how much they like your status, but on who they are and what they said. Friend counts disappear. "16 people like this" becomes "people like this." Through changes like these, Demetricator invites Facebook's users to try the system without the numbers, to see how their experience is changed by their absence. With this work I aim to disrupt the prescribed sociality these metrics produce, enabling a network society that isn't dependent on quantification.
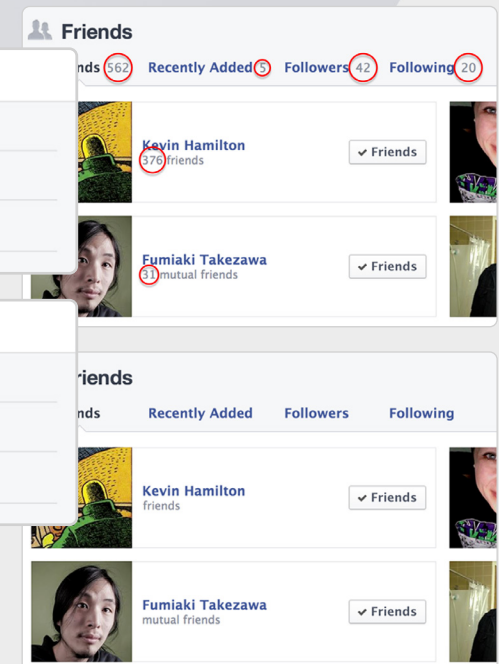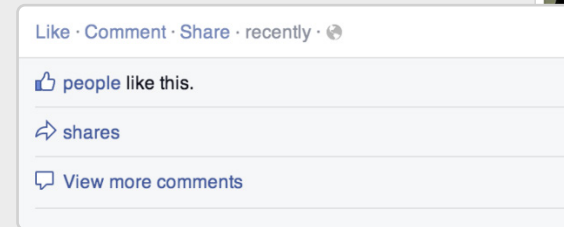
# Twitter Demetricator

## HIDES ALL THE METRICS ON TWITTER

**2018-present**

The Twitter interface is filled with numbers. These numbers, or metrics, measure and present our social value and activity online, enumerating followers, likes, retweets, and more. But what are the effects of these numbers on who we follow, what we post, or how we feel when we use the site? Inviting us to consider these questions through our own experience, Twitter Demetricator is a web browser extension that hides the site's visible metrics. Follower, like, and notification counts disappear. "29.2K Tweets" under a trending hashtag becomes, simply, "Tweets". Through changes like these, Demetricator lets us try out Twitter without the numbers, to see what happens when we can no longer judge ourselves and others in metric terms. With this work, I aim to disrupt our obsession with social media metrics, to reveal how they guide our behavior, and to ask who most benefits from a system that quantifies our public interactions online.

bengrosser.com/projects/twitter-demetricator

**minus**

*A FINITE SOCIAL NETWORK WHERE YOU GET 100 POSTS—FOR LIFE*

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## minus

Write something here.

Submit Post (73 remaining)

**Ashley Booth** [96]
@Raignn

Minus does feel lonely. How terribly used to all the noise and pictures and colors and advertisements we've become that when its stripped away we are bereft.

Posted recently, when @Raignn had 97 left.

Reply | Read Replies

**Kate McDowell** [98]
@katemcdowell

I crammed as much as I could into my first post. Now I feel an urge to make a second one without any attempt at poetry or melancholy, without trying to summon or reject this mid-pandemic malaise, defying the very dwindling that I have signed on here to do.

Posted recently, when @katemcdowell had 99 left.

Reply

**Jonah Brucker-Cohen** [97]
@coinop29

I have 97 left

Posted a while ago, when @coinop29 had 98 left.

Reply | Read Replies

**Jonah Brucker-Cohen** [97]
@coinop29

---

Despite their lofty mission statements, today's big social media platforms are centrally focused on one singular concept: more. These capitalistic software machines are designed to stoke a pervasive and ever-increasing cycle of production and consumption for the purposes of growth and profit. To accomplish this they leverage data and scale to produce signals and interface patterns that keep us engaged, promising connection and joy in exchange for increasing shares of our time and attention. The platforms embed within us the idea that our own sociality is best evaluated and understood through quantity. They reconfigure our sense of time in ways that can make minutes or hours ago seem old. And their personalized feeds teach our brains that the only content worth watching or reading is that which we can already imagine. In its tireless pursuit of users and data and wealth, big social media sacrifices human agency and potential on the altar of more.

But what if social media wasn't engineered to serve capitalism's need for growth? How might online collective communication be different if our time and attention were treated as the limited and precious resources that they are? Minus is an experiment to ask these questions, a finite social network where users get only 100 posts—*for life*. Rather than the algorithmic feeds, visible "like" counts, noisy notifications, and infinite scrolls employed by the platforms to induce endless user engagement, Minus limits how much one posts to the feed, and foregrounds—as its only visible and dwindling metric—how few opportunities they have left. Instead of preying on our needs for communication and connection in order to transform them into desires for speed and accumulation, Minus offers an opportunity to reimagine what it means to be connected in the contemporary age. The work facilitates conversation within a subtractive frame that eschews the noise and frenzy for a quieter and slower setting that foregrounds human voices, words, and temporalities. Though it may be disorienting at first to navigate an online social space devoid of the signals and patterns Silicon Valley uses to always push for more, Minus invites us to see what digital interaction feels like when a social media platform is designed for less.

Write something here.

Submit Post (100 remaining)

# Leave Me Alone

*Software For Less* mimics the aesthetics of a corporate tech trade show with architectural motifs often implemented in this arena of selling, beta-testing, and branding. Pop-up truss structures have been configured to mimic large-scale exhibition stands, showing promotional videos, live programming, and other visuals. A central stage is set up for the promotion of a new social platform, and one-time-use banners display logos for software created to posit alternatives for the current prescribed use/misuse of social media platforms. The exhibition exposes processes via live interaction and works that are generative, leaving interesting liminality between the finished product and beta product. To think of *Software For Less* as a space for "product launching" allows it to speculate on the future of the user/creator relationship. It also makes space for the artist to exist as a product-designer-cum-startup, entrepreneur-cum-inventor. There is nothing fictional about the works in the exhibition, however - in fact, most already exist and have been utilised by 1000's of users who share Ben's vision for developing a critical position towards platform use, and to adopt an analytical stance where a user can reflexively understand the ulterior motives of big tech and make more informed decisions about how platforms infiltrate their routine.

Platforms surround our lives more than ever as we constantly switch and move between them twenty-four hours a day. From the moment we wake up, we're tuned in; checking our emails and reading the latest news headlines; counting the various metrics afforded to us from friends and unknown digital acquaintances on Instagram, Facebook, or TikTok; ordering breakfast, lunch, and dinner from dark kitchens; and streaming whatever is pushed to us from Netflix, Prime Video or Hulu - platforms are at the core of our digital engagement and they want our attention.

To understand why these platforms want our attention it might be helpful to understand exactly what a platform is. In his 2017 book, *Platform Capitalism*, Nick Srnicek developed a typology of platforms and distinguishes four main types: the first type is the advertising platform (Google and Facebook, Instagram and Snapchat whose business model is based on selling data to advertisers); the second type is the cloud platform (Amazon Web Services or Google Cloud, which rent out the software and hardware necessary to run a modern business); the third type is the product platform (these platforms rent out goods as services, like car or clothes rental); the fourth is lean platforms, like Uber or AirBnB which seek to connect buyers and sellers of a service while maintaining a minimum of assets).[1]

According to the most prominent articles listed from a quick search engine, it would seem that our understanding of the way platforms behave and fight for our attention has left us in a state of crisis. Headlines like, "There's a war for your attention. And you're probably losing it"[2] or, "Our Minds Have Been Hijacked by Our Phones"[3], or even "Your attention is the hottest currency on the Internet"[4], are provocative and rely on strong verbs and quippy phrasing to instill a sense of fear, urgency, and distrust between ourselves and our smart devices. Whilst the articles may be true (to a degree), there's often a heightened sense of fear evoked in opinion pieces that maintains this idea that tech = bad, human = good; the joining factor between the two is data, where one generates it (human) and the other (data) transforms it into capital and power. The unequivocal need for groups of all kinds of people to come together and defeat rogue algorithms seems pertinent in the era of post-truth, where reclaiming what is rightfully yours (data, race, sexuality, gender, reduction of pay-gaps...) is rightfully encouraged.

[1] Srnicek, N. (2017). *Platform capitalism*. Cambridge ; Malden: Polity.

[2] Illing, S. (2016). *There's a war for your attention. And you're probably losing it.* [online] Vox. Available at: https://www.vox.com/conversations/2016/11/17/13477142/facebook-twitter-social-media-attention-merchants [Accessed 1 Aug. 2021].

[3] Thompson, N. (2017). *Our Minds Have Been Hijacked by Our Phones. Tristan Harris Wants to Rescue Them.* [online] Wired. Available at: https://www.wired.com/story/our-minds-have-been-hijacked-by-our-phones-tristan-harris-wants-to-rescue-them/.

[4] Kessler, D. (2018). Y*our attention is the hottest currency on the Internet | The Mozilla Blog*. [online] blog.mozilla.org. Available at: https://blog.mozilla.org/en/products/firefox/katharina-nocun-social-media-networks/ [Accessed 1 Aug. 2021].

The way that social media, the internet, video platforms and other forms of communication vye for our attention is often cited as being within the theory of The Attention Economy. The attention economy is built on the premise of creating a marketplace where consumers are happy because they are shown relevant information, or information they want to see. Newsfeeds, images, status updates, and anything else posted to platforms is fed in an endless, seemingly random, loop to suspecting and unsuspecting viewers day and night. The algorithm's job is to make sure you see more of what you like, or think you like, and less of what you don't, in the hope of keeping you within said platform, and within potentials for marketing and direct advertising; aka money.

However, this is not new territory. The concept of attention economics was first theorized by psychologist and economist Herbert A. Simon, who wrote about the scarcity of attention in an information-rich world in the early 1970s. "[I]n an information-rich world, the wealth of information means a dearth of something else: a scarcity of whatever it is that information consumes. What information consumes is rather obvious: it consumes the attention of its recipients. Hence a wealth of information creates a poverty of attention...."[5] He noted that many designers of information systems incorrectly represented their design problem as information scarcity rather than attention scarcity, and as a result, they built systems that excelled at providing more and more information to people, when what was actually needed were systems that excelled at filtering out unimportant or irrelevant information.

There's been a recent shift in the way we understand The Attention Economy. In September of 2020 alone, viewers watched 1.6 billion hours of Twitch streams, there were 4 billion views of YouTube content about just one video game – Among Us – and TikTok users spent on average 45 minutes on the platform every day. Research from Accenture shows a 22% increase in the consumption of streaming and gaming content as opposed to 2019. Of course, this was primarily due to the worldwide lockdowns enforcing entertainment to be sought indoors, but these numbers have been rising steadily for the last decade with annual increases in the number of people with access to smartphones and gaming devices.[6]

For newer platforms like TikTok and older ones like YouTube, success is driven by the size of audiences. Those who can persistently attract huge numbers of users with an audience-first mindset will continue to thrive.[7] In a whole other realm of attention vying, are the multi-purpose messaging, social media, and mobile payment apps, like the Chinese app WeChat. These apps measure success primarily on conversion rate - they keep users within them by providing everything they might need to communicate, shop, play, and watch, acting as a one-stop-shop for all a user's entertainment needs. But what does an audience-first mindset look like in real terms? Putting the audience first may sound philanthropic, but it's clear that the agendas of big tech companies are perhaps only surface-level and not so philanthropic after all. The user is being used; if everything is free, you are the product. Buzzwords like tactics, feedback, and strategy are often bandied about in the world of e-commerce, media marketing, and platform capitalism, as best-practice approaches of "knowing your consumer" and "monitor your users" are repeated without question. However, the wellness of the consumer, the way someone might feel about being "targeted", and the monitoring of behaviour for monetary gain lacks a personal, and genuine strategy of care. The real person behind the screen is regularly neglected and replaced with metrics and analytics.

According to Charles Arthur in his 2021 book *Social Warming*, all social networks live by three rules. Rule number one is to get as many users as you can. Rule number two is to keep the user's attention. Rule number three is to monetise the attention of the users as much as you can. He says, "if you do any one without the other two, you will have minimal success. Execute two well, and you might prosper. Do all three at once and you can own the world."[8] In the case of social platforms, these rules are predominantly completed by algorithms. All three work in tandem to create the most users, the most time spent on the platform, and the most money generated.

[5] Greenberger, M., Johns Hopkins University (Baltimore, M.D and Brookings Institution (Washington, D.C (1971). *Computers, communications, and the public interest*. Baltimore (Md.) Johns Hopkins University Press, p.40.

[6] (2021 figures show 82.9 percent of the population in the UK has a smartphone, and 85 percent of people in the U.S)

[7] Murdoch, R. (2021). *World! Can I have your attention please?* [online] www.accenture.com. Available at: https://www.accenture.com/gb-en/insights/software-platforms/winning-the-new-attention-economy [Accessed 1 Aug. 2021].

[8] Charles Arthur (2021). *Social warming : the dangerous and polarising effects of social media*. Editorial: London: Oneworld Publications, pp.43–46.

One fundamental change in social networks being able to keep our attention within the platform was the development of a system that revolutionised the way we interacted with posts. In 2006, a small, but not insignificant piece of software, called EdgeRank, was developed. It labelled each piece of content (post, video, group, update) on Facebook as an "object". These objects were ranked and given a score depending on values such as, your relationship with the poster, the type of content of the object, how old the object was, how you had engaged with similar objects in the past, who else interacted with the object, and so on. The outcome was less chronological consumption, and more about consumption that aligned with what you were interested in, and what others around you in your peer groups were interested in. EdgeRank has since developed, but paved the way for how users of all kinds of social media platforms will consume content. In early 2021 Facebook introduced machine learning to help power the News Feed ranking algorithm, helping to create, in their words, "a valuable experience for people at previously unimaginable scale and speed."[9]

One problem with having what you think you want to see put right in front of you is the lack of labour that needs to occur to satisfy the desire. This in turn makes us lazy consumers, *doomscrollers*, receptacles of information and content no matter how relevant or irrelevant it might be, no matter how important or unimportant it is to our day. The addictive nature of this cycle makes it difficult to break, therefore keeping us within the platforms and exactly how they had intended. Boycotting Facebook or Instagram will only partly solve this problem, and even then it will only help at an individual level. With smart objects and the IoT forever looming over us, the question about how to decrease consumption and eliminate addiction is less about the algorithms changing, big tech admitting to its faults and better regulation of content and the effects of content on mental health, and more about how we learn to live without in a world where we're constantly told to live with*in*.

To bring this back to *Software For Less*, Ben Grosser invites us to rethink our relationship with the platforms we engage with and the way they engage with us. Questioning why software is the way it is are the works *ORDER OF MAGNITUDE* and *DEFICIT OF LESS*. These twin works, synced for the exhibition, provide us with every instance Facebook founder Mark

[9] Facebook Engineering. (2021). *News Feed ranking, powered by machine learning.* [online] Available at: https://engineering.fb.com/2021/01/26/ml-applications/news-feed-ranking/.

Zuckerberg has ever said the word more, conveying Silicon Valley's obsession with growth, and every instance Zuckerberg has uttered *less*. The website artworks *Get More* and *Get Less* prompt users to reload the page, increasing or decreasing the number on the screen by one each time. All four works play on Silicon Valley's "desire for more" and ask visitors to think about their inclinations towards addition vs subtraction, and why or where those inclinations come from.

*Endless Doomscroller*, *Platform Sweet Talk* and *Creative Just Like Me* examine how software platforms work to manipulate users. For *Endless Doomscroller* the focus is on platforms' use of the infinite scroll function and how it plays on our curiosity and fear of missing out. *Platform Sweet Talk* addresses how platforms barrage us with personalised notifications and intriguing updates on our relationships, often concealed until you click-through the notification pop-up. *Creative Just Like Me* (coming later to the exhibition) playfully engages with the way platforms like TikTok craft content and encourage users to produce videos that "duet" with other users, ironically producing homogeneity and conformity despite the platform's mission statement to "inspire creativity".[10]

Recognising the ways in which users might want to retrieve some agency back, some artworks assist users in their fight over platform manipulation algorithms. These include, *Go Rando* and *Not For You* which both utilise obfuscation techniques to disguise a users true emotions and confuse sentiment analysis.

At the centre of the exhibition is a new work, *Minus*, which is part of a set of works created as an antithesis to the current platforms we engage with, and which all foreground less rather than more. Minus gives users of the platform only 100 posts for life - with pared-down design, minimal interactivity features and a lack of metrics (except for the one visible count of how many posts a user has left, a metric that counts *down*), ads, and colour - the impetus is on quality over quantity, true engagement and an attention focus, rather than a rollercoaster of enforced behaviour.

Other works in the exhibition include *Safebook*, which is Facebook without the content; a browser extension that hides all images, text, video, and audio on the site. There's also *Tokenize This* which generates a unique

[10] TikTok (2018). *About | TikTok - Real Short Videos.* [online] Tiktok.com. Available at: https://www.tiktok.com/about?lang=en.

digital object that can only be viewed once, as a direct proposal for resistance against the NFT boom. And then the *Facebook Demetricator* & *Twitter Demetricator*, plug-ins that hide all metric data usually displayed to users.[11]

These kinds of tweaks facilitated by Ben's work might not seem so significant, but these disruptions of prescribed sociality and their associated metrics create a crucial opening. Simply, Ben Grosser's works (or tools?) allow users to better question and understand why they've been so dependent on quantification, and ask: "who benefits most from a system that incessantly quantifies our public interactions online"? [12]

— Rebecca Edwards

[11] Interestingly, earlier this year Instagram added a setting to allow users to hide the amount of likes and views their posts receive: instead of "Liked by @person and 12 others", if a user decides to *hide public counts* they look like this, "Liked by @person and others." Even more interesting is the fact that Ben was 10 years early to the demetricator party, *and* that Facebook had come after him for his efforts in 2016 and 2020. For an accounting of much of this history, see: Oremus, Will (2019). *The Illinois Artist Behind Social Media's Latest Big Idea*. OneZero. [online] Available at: https://onezero.medium.com/the-illinois-artist-behind-social-medias-latest-big-idea-3aa657e47f30.

[12] Inspired by many conversations with Ben, and paraphrased from texts written by Ben Grosser.

# BEN GROSSER

Ben Grosser creates interactive experiences, machines, and systems that examine the cultural, social, and political effects of software. Recent exhibition venues include the Barbican Centre in London, Museum Kesselhaus in Berlin, Museu das Comunicações in Lisbon, and Galerie Charlot in Paris. His works have been featured in *The New Yorker*, *Wired, The Atlantic, The Guardian, The Washington Post, El País, Libération, Süddeutsche Zeitung*, and *Der Spiegel. The Chicago Tribune* called him the "unrivaled king of ominous gibberish." *Slate* referred to his work as "creative civil disobedience in the digital age." Grosser's artworks are regularly cited in books investigating the cultural effects of technology, including *The Age of Surveillance Capitalism, The Metainterface, Critical Code Studies*, and *Technologies of Vision*, as well as volumes centered on computational art practices such as *Electronic Literature, The New Aesthetic and Art*, and *Digital Art*. Grosser is an associate professor in the School of Art + Design, and co-founder of the Critical Technology Studies Lab at the National Center for Supercomputing Applications, both at the University of Illinois at Urbana-Champaign, USA.

bengrosser.com

2 pages remaining

# ⊞ arebyte

arebyte leads a pioneering digital art programme at the intersection of new technologies and social sciences. Following the long tradition of artists working across emerging artforms, multiple voices in digital cultures are invited to create immersive installations at arebyte Gallery (London) and online experiences on arebyte on Screen.

Alongside the art programme, arebyte Skills features short courses on digital theory and introductions to creative software.Through workshops led by digital artists, arebyte Skills provides digital practitioners and newcomers with practical techniques for digital making.

arebyte also supports a vibrant community of artists, designers and creative technologists through arebyte Studios, an initiative that provides affordable workspaces to 150 creative professionals across London.

arebyte.com

# *REALITIES*

arebyte's 2021 artistic programme Realities explores various speculative truths (and fictions) present within the complexities of living and nonliving bodies, those who are represented within real-life experiences and encounters and those who are present in avatars and online platforms. Questioning the circumstances surrounding our states of individual and collective being, the programme traverses the myriad ways we conduct ourselves and our behaviours - our emotions and body language, our learned social etiquettes and intimate gestures, and our ability to work and talk together to enforce change - as a way of asserting new forms of experience. The layering, multiplicity and diversity of our collective existence is interrogated in the programme through computational, cultural, political, and other perspectives.

Our supposed reality is in a constant state of flux, and increasingly so when faced with major global transformation. The premise of the global village (with all its inherent systems of community, care, movement of goods and transport) is narrowing physically but expanding digitally, and is not exempt from change; the fundamental structures of our societies are volatile, with each depending on the other in times of growth and subsequent decline. We are facing a new reality which is yet to be fully unveiled to us - A New Normal - parts of which we negotiate through endless speculations on the one hand, and through scientific knowledge on the other. New (or renewed) markets for technology, science, food and stocks, and the distribution of communication are shifting and now exist via dispersed elements of rationing, multi-platform communications, video conferencing, social distancing, community driven initiatives and the abundance of so-called free voice-video messaging applications.

arebyte.com/2021-programme

# Someone, Somebody Else, and others mentioned you in their comments.

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