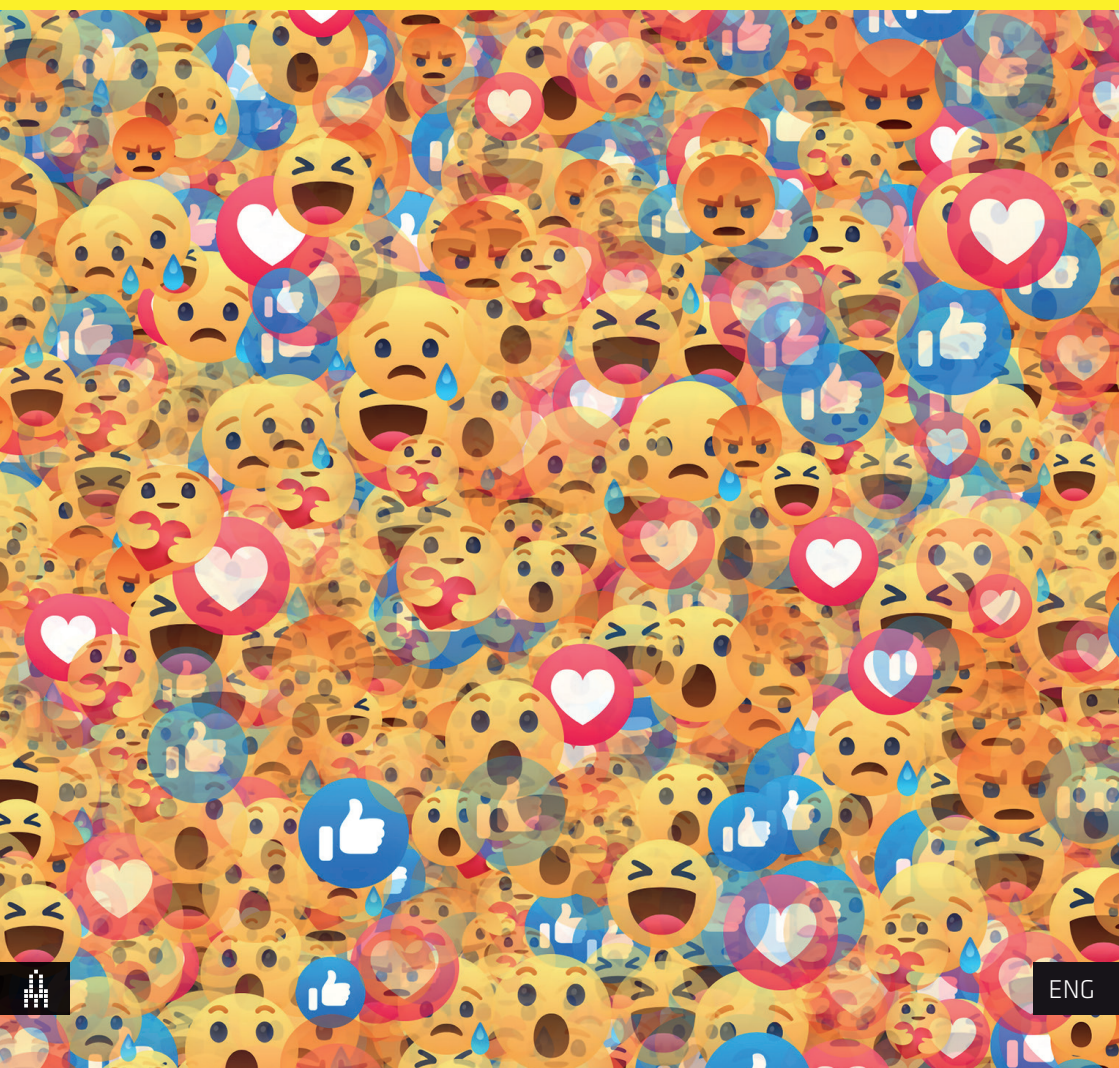


Valentina Tanni

THE GREAT ALGORITHM



PostScript^{UM}

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Yo, first I want to thank the great algorithm that put us all here.

– Donald Glover, Emmys acceptance speech, 2017

According to Taina Bucher, author of *If...Then: Algorithmic Power and Politics*,¹ we should pay more attention to what she calls “the algorithmic imaginary”.² While dozens of books and articles address the growing power of algorithms, discuss their structure and highlight their hidden biases, she argues, very few are focused on the users’ perspective, that is, on how these technologies are perceived in the context of everyday life. “The algorithmic imaginary,” Bucher writes, “is not to be understood as a false belief or fetish of sorts but, rather, as the way in which people imagine, perceive and experience algorithms and what these imaginations make possible.”³

As automated software systems increasingly take over every aspect of human existence, influencing our actions, relationships and ideas, people are becoming aware of their presence, despite their opaqueness, complexity and extreme changeability. Users may not understand the details of how they work – sometimes this task is almost impossible, even for computer experts – but they experience the effects of algorithmic culture on a daily basis, especially in the context of social networks. On these platforms, whose business model is centred on the systematic exploitation of user data, people have to deal with automated systems all the time. Posts are filtered by content moderation tools, suggestions are continuously sent in by

1 Bucher, T. (2018). *If...Then: Algorithmic Power and Politics*. Oxford University Press.

2 Bucher, T. (2017). The Algorithmic Imaginary: Exploring the Ordinary Affects of Facebook Algorithms. *Information, Communication & Society*, 20(1), 30–44.

3 Ibid.

recommendation algorithms, and then there's the greatest stalker: targeted advertising. Another interesting aspect in the analysis of how users react to algorithms is related to the perception of the latter's efficiency and reliability. As Joëlle Swart explains in the essay "Experiencing Algorithms: How Young People Understand, Feel About, and Engage With Algorithmic News Selection on Social Media", "users are unlikely to notice algorithms in their everyday use, until they start producing unexpected, irrelevant or uncanny results".⁴ In other words, software becomes more visible when it fails to meet humans' expectations, i.e. when it "generates incorrect classifications or makes faulty predications".⁵ Otherwise, it tends to disappear in the background.



21st Century Pulp: New We... · 15/07/21 · ...

Let us reflect with somber thankfulness this morning, as we present our offerings of hashtags and jpegs to **the Great Algorithm**.



A New Survival Skill

Surrounded by these intangible and obscure forces that trigger frustration and can sometimes even feel threatening, people react with new adaptive behaviours. Borrowing the well-known terminological distinction between *tactics* and *strategies* proposed by French philosopher Michel de Certeau in the book *The Practice of Everyday Life* (1980), we could say that users are developing creative tactics in order to regain some agency over their online lives, otherwise ruled by the ruthless strategies laid out by a few corporations. According to de Certeau, tactics "must vigilantly make use of the cracks that particular conjunctions open in the surveillance of the proprietary powers".⁶ While strategies are the tools of those who are in power, tactics are "an art of the weak".⁷ And users are indeed the weaker player on this battlefield: not

4 Swart, J. (2021). Experiencing Algorithms: How Young People Understand, Feel About, and Engage With Algorithmic News Selection on Social Media. *Social Media + Society*, 7(2).

5 Ibid.

6 De Certeau, M. (1988). *The Practice of Everyday Life*. University of California Press, 37–39.

7 Ibid.

only are they continuously tracked, measured and censored, they're also kept in the dark about the algorithms' actual functioning, and this leads to the rise of a plethora of shaky hypotheses and folk theories. Like an unfathomable ancient God, the Great Algorithm – that's how people like to call it – *works in mysterious ways*.

When humans try to understand the hidden logic behind a phenomenon, they tend to apply a reverse engineering technique based on pattern recognition. Left to their own devices, without an instruction manual, users look out for clues: they take note of recurring events, conduct experiments, measure results and compare their experiences with those of other members of the community. On the one hand, algorithms are seen as some sort of “necessary evil”; their presence is accepted and tolerated as if it were a natural phenomenon. On the other, their ever-growing power forces people to find ways around them, and engage in a wide range of tricks. In a world dominated by software, *algorithm hacking* has turned into a fundamental survival skill and the forms of resistance are getting more creative and performative by the day.



Bert and Ernie post a mediocre meme on r/bertstrips to prove their theory that as long as you post at 8am, your bertstrip will be top post of the day, regardless of how good it is.

Pics for Attention

Since algorithms are the new decision makers – the indisputable rulers of web visibility – companies, entrepreneurs and influencers need to learn how to “cheat” them in order to get more views, likes and purchases. They have to carefully study the code’s behaviour and devise ways to trick the system into putting their content forward and show it to the largest crowd possible. This is why the internet is flooded with articles entitled something like “10 Ways to Cheat the Instagram Algorithm”, “How to Hack the TikTok Algorithm” and “10 Easy Ways to Boost Your Facebook Reach”. Such tricks were once used mostly by marketing experts and web companies, but are now increasingly common among regular users as well: when it comes to posting, people know they need to pay attention to many different aspects, for instance format, timing, language and hashtags. Just to give an example, once users noticed that Facebook tends to give more visibility to posts that contain photos and videos, they began to add totally unrelated pictures (cute, funny or controversial), just to increase the potential reach. This practice is significantly called “pic for attention”. More recently, when it became clear that links to external websites are not welcome on the platform, users started to move them to the comments section. That’s the “link in the comments” trick. Although there is no actual consensus about the effectiveness of these stratagems, people keep adopting them in the hope that they will get more views and won’t be hindered by The Great Algorithm.



Gaming the System

Getting visibility is not the only issue, though. Since most social networks use an algorithmic timeline, which compiles people's feeds based on what they supposedly "care about" rather than chronology, users also have to deal with the problem of content selection. To determine our interests and preferences, algorithms analyse our behaviours: they measure likes, comments and follows, but they also count the minutes we spend reading or watching a particular content, taking note of every click and scroll. In order to improve our feeds, then, we are supposed to *train the algorithm* ourselves. This task is not easy, and it requires a lot of work on a daily basis, with no guarantee of success. Joëlle Swart, who in her study interviewed a diverse group of 22 young people aged 16–26 years, noted that, "through their everyday interactions with algorithms, young people may build up understandings of algorithmic news selection. The interviewees were aware of various explicit personalisation strategies through which they might intervene in the composition of their news feeds, such as unfollowing accounts and hashtags; using a platform's 'hide', 'mute', or 'report' function; or setting up notifications for particular accounts to not miss out on new posts. Other suggested practices could be classified as practices of 'gaming the system', such as deliberately not clicking on posts to prevent the display of similar content, installing ad blockers, or using a Virtual Private Network (VPN)."⁸



BobDogGo · 8 days ago

YouTube thinks I'm a middle aged Spanish woman. Probably because I use it to listen to salsa music and look for carnitas recipes.

👍 105 🗑️ 💬 Reply Give Award Share Report Save Follow

And yet, sometimes the algorithm just doesn't steer in the right direction, despite our conscious efforts to inform it on our preferences through likes, dislikes, follows and feedbacks of all sorts. As TikTok users often point out in their videos, you can always "end up on the wrong side of the app" and keep

getting content that doesn't fit your profile. You don't know why, and when it happens you can't do much to avoid it. "The Algorithm" is mentioned constantly in user content across all platforms; it is an invisible presence that everyone talks about, a God-like entity that you can evoke, pray to, or try to hide from.

Users also joke about it a lot, addressing its flaws and creating humorous content even on the most controversial aspect of digital culture: unauthorised user surveillance. In a recent TikTok comedy trend, for example, people show themselves purposefully talking near their parents', friends' or spouses' smartphones in the hope of getting the system to *listen* and later display a specific kind of advertising on the phone's owner. Such videos show human beings listing dozens of relevant keywords into the phone's microphone, in an attempt to speak to the algorithm in the language it most likely understands.

Hide and Seek

In 2019, Feroza Aziz, a 17-year-old girl from the US, posted a video on her TikTok account, which started off as a regular makeup tutorial, but then rapidly morphed into something else: "Hi guys, I wanna teach you how to get long lashes, so the first thing you need to do is grab you lash curler, curl your lashes, obviously," she says calmly while showing the process, "then you're gonna put it down and use your phone that you're using right now to search up what's happening in China. How they're getting concentration camps, throwing innocent Muslims in there, separating families from each other, kidnapping them, murdering them, raping them, forcing them to eat pork, forcing them to drink, forcing them to convert to different religions [...] This is another Holocaust, yet no one is talking about it, please be aware and spread awareness."⁹ Aziz was referring to the Uyghurs, an ethnic group that lives in the Xinjiang region of western China. Her TikTok not only successfully dodged the algorithmic censoring system, but went rapidly viral, amassing more than 1.4 million views (her account was later suspended for generic

9 Aziz, F. [Temor Mortaz]. (2019, November 28). *Feroza Aziz Afghan Girl Makeup Tutorial Tiktok China's Muslim Camps* [Video]. YouTube. Retrieved April 28, 2022, from https://www.youtube.com/watch?v=BHE_QfsrCMI

“violations”). However, Aziz is not the only user to adopt the tactic of hiding important messages within popular and frivolous formats.



Tim Brown 🐌

@TimBrown... · 13/10/21

...

The great algorithm in the sky decided I should have an elderly man with a soothing voice teach me how to make lard before I can watch my video.

Numerous users try to trick the algorithm into showing their content on the TikTok “For You” page by hopping on popular trends, performing dances and using the viral sound of the day. A similar idea can also be found in a project that artist and researcher Addie Wagenknecht launched in 2018. Wagenknecht posted a series of YouTube videos in which she shares tips on online security while trying out various beauty products such as face masks, concealers and dry shampoo: “Cosmetics tutorials and cybersecurity may seem like strange bedfellows,” Wagenknecht writes, “one deals in eyeshadow and moisturiser; the other in two-factor authentication and network vulnerabilities.



RPG Cheese

@shadow_kylie

...

"I bet it would be funny to put a pancake on my cats face"...

2 minutes later "JESUS CHRIST!"



But in the world of YouTube – where beauty vlogs are abundant and reliable cybersecurity advice is scarce – they actually make a pretty good couple.”¹⁰

Algospeaking and Voldemorting

Another field of human activity that has been highly affected by the daily confrontation with The Algorithm is language. In order to bypass filters, users on TikTok, YouTube, Instagram and Twitch avoid using certain words that can trigger censorship. For example, they say “to unalive” instead of “to kill”, “seggs” instead of “sex” and “nip nops” instead of “nipples”. In a detailed article on the subject, journalist Taylor Lorenz calls this phenomenon Algospeak: “Tailoring language to avoid scrutiny predates the Internet,” she explains, “Many religions have avoided uttering the devil’s name lest they summon him, while people living in repressive regimes developed code words to discuss taboo topics. Early Internet users used alternate spelling or ‘leetspeak’ to bypass word filters in chat rooms, image boards, online games and forums. But algorithmic content moderation systems are more pervasive on the modern Internet, and often end up silencing marginalised communities and important discussions.”¹¹



Julie Allen-Hartley @Zero0... · 23/11/21 ...

I asked **the great algorithm in the sky**

Is there a way to make people happy

He replied, just let them talk it out

I looked at him with doubt

He said just give it time,

They have been kowtowed

For such a long time

They all have a lot to say



¹⁰ Wagenknecht, A. (2019, January 29). *Skincare and Opsec Forever*. Medium. Retrieved April 28, 2022, from <https://medium.com/read-write-participate/skincare-and-opsec-forever-8d2f4f37b438>

¹¹ Lorenz, T. (2022, April 8). Internet “Algospeak” is Changing our Language in Real Time, from “Nip nops” to “Le dollar bean”. *The Washington Post*. Retrieved April 28, 2022, from <https://www.washingtonpost.com/technology/2022/04/08/algospeak-tiktok-le-dollar-bean>

Emily van der Nagel, Lecturer in Social Media at Monash University in Melbourne, has highlighted two other relevant tactics that users employ to resist algorithmic connections: Voldemorting and screenshotting. The first - which takes its name from the famous Harry Potter villain who has the power to track the people who mention him - is supposed to “make things invisible”;¹² while the second is a way to avoid driving traffic, and therefore profit, to a particular website. Instead of linking a despised resource, users screenshot the content and publish it in the form of a picture, isolating it and making it more difficult to reach.

How to confuse machine learning:



12 Van der Nagel, E. (2018). Networks That Work Too Well: Intervening in Algorithmic Connections. *Media International Australia incorporating Culture and Policy*, 168(1), 81-92.

The Power of Entropy

In the catalogue *Astro Noise: A survival guide for living under total surveillance*, that accompanied Laura Poitras' solo exhibition hosted at the Whitney Museum in New York in 2016, hacker, researcher and artist Jacob Appelbaum writes: "To evade mass surveillance requires entropy, in the technical sense. From encrypting messages to the randomized paths you select as you route through anonymity networks, and in everything between, entropy is essential."¹³ In other words, the more abundant and coherent your data is, the easier it will be for the system to track, filter and even predict your actions. So, apart from disconnecting, the only effective weapon that humans can deploy to resist algorithmic surveillance and life datafication is indeed entropy, a concept that translates into adopting unpredictable and chaotic behaviours. This was exactly the goal of *Go Rando*, a browser extension released by artist Ben Grosser in 2017 with the purpose of obfuscating users' feelings and therefore rendering emotional data analysis useless. "With Go Rando I aim to give users some agency over which algorithm they're at the mercy of," Grosser explains and adds that his "intention for this work is to provoke individual consideration of the methods and effects of emotional surveillance. How is our Facebook activity being 'read', not only by our friends, but also by systems? Where does this data go? Whom does it benefit? Who is made most vulnerable?"¹⁴

In a more recent project, titled *Not For You* (2020), Grosser created an "automated confusion system" made specifically for TikTok. The plugin lets you navigate the platform without any intervention, disjoining the composition of the feed from your personality and taste. This work addresses another crucial side effect of algorithmic feeds: the rise of isolated and closed filter bubbles, a phenomenon that inflates disinformation and favours political radicalisation.

13 Appelbaum, J. (2016). Letter to a Young Selector. In L. Poitras, *Astro Noise. A Survival Guide for Living Under Total Surveillance* (154–159). Whitney Museum of American Art, Yale University Press.

14 Debatty, R. (2017, February 13). *Obfuscates Your Feelings on Facebook and Defeat its Algorithms in the Process*. We Make Money Not Art. Retrieved April 28, 2022, from <https://we-make-money-not-art.com/obfuscates-your-feelings-on-facebook-and-defeat-its-algorithms-in-the-process>



...

Algorithms are causing human language to reroute around them in real time. I'm listening to this youtuber say things like "the bad guy unalived his minions" because words like "kill" are associated with demonetization

10:49 AM · Dec 15, 2021 · Tweetbot for iOS

A similar tactic, albeit manually applied, has begun to spread among young users in late 2020. It consists in using group accounts so that the platform is fed chaotic data that can't be tied to a single person. Teenagers organise in small groups and use the same credentials to post and scroll on Instagram, which gives The Algorithm incoherent information about their location, their preferences and their social connections. "We find out that colleges and jobs are looking for our social media," says 17-year-old Samantha Mosley. "We're trying to live our best life and not have to worry about people watching us and watching every moment we make and have that be associated to our real life."¹⁵

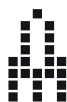
Studying how users perceive algorithmic culture and analysing all the different ways in which they react to its pervasiveness is a necessary and critical endeavour. Not only because it helps us fully understand the psychological, cultural and social implications of the software we write and use, but more importantly because users' tactics, however weak and sparse, represent a spontaneous, creative and genuine form of resistance. In times like ours, it's a precious resource that needs to be cultivated and amplified.

¹⁵ Ng, A. (2020, February 4). *Teens Have Figured out How to Mess with Instagram's Tracking Algorithm*. CNet Culture. Retrieved April 28, 2022, from <https://www.cnet.com/culture/teens-have-figured-out-how-to-mess-with-instagram-tracking-algorithm>



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