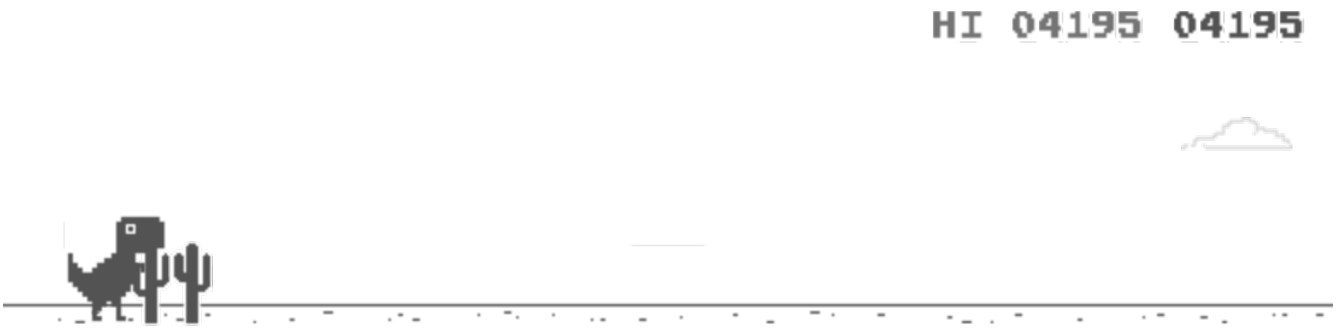

June 2020

Something's lurking behind your computer screen. It wants to know all sorts of details about you:

like what Facebook events you're "attending,"
when you're most likely to check your phone,
where you spend your money and on what,
what medical conditions you've googled,
whether you have insurance and what kinds,
where you travel on your daily commute,
who you vote for if you vote at all,
and what colour your skin is...

It's going to take all this *data* and, following a set of instructions we call an *algorithm,* it'll situate you amongst other internet users whose data has already been gathered. In this way, it decides whether you:

see a certain ad, news story, or search result,
face increased surveillance at borders or airports,
match with a particular person on a dating app,
are shown a specific restaurant on Google maps,
get hired for a job or let go from one,
see a certain Netflix recommendation,
qualify for a loan or an insurance rebate,
are likely to be targeted by police or arrested.

This mysterious force is able to uncover our "revealed preferences," things we don't even know we like. It claims to be capable of noticing when someone is going into a manic episode or feeling depressed before they know it themselves. And this cryptic power is managing more and more of our lives, taking more and more of our money. The ways our personal information might be used are so endless that companies are making fortunes buying and selling troves of data that they don't even know what to do with yet. When I think about how data could be used, I start to imagine futures, only to find out that they've already begun to exist:

(1) I read an article that Larry Lohmann wrote last year about the automation of interpretation, automating choice. He describes a new feature that some shopping sites are proposing where they'll send customers products *before* they purchase them. If a user has bought something regularly or if they've added it to their virtual basket a couple times without checking out, the site will just send it to them, charging them, but providing an easy, free option to return it.

(2) I also recently read an article by Lee McGuigan and Graham Murdock about how digital tools intensify how we consume. They discuss Bluetooth "beacons" in stores that make it so that advertisers can track customers' movements with such precision that, if someone's shopping for groceries and hovers around the ice cream freezer without reaching in to buy a frosty treat, it

can push a personalized promotion or coupon for ice cream to their phone. A similar technology is being used in some countries to track people's proximity to others who may have Covid.

(3) Before my year offline, I was reading about the choose-your-own-adventure episode of the TV show *Black Mirror* that allowed viewers to change the plot at various points during the show. What many viewers didn't know was that these choices were being gathered to help Netflix know more about users' viewing preferences, making the algorithms that sort content on Netflix more personally sophisticated. (Sounds like an episode of *Black Mirror.*…) Pretty soon, I won't be surprised if TV shows and movies start filming alternate versions and several endings that different viewers will see depending on their prior "choices" online.

(4) I read an article in *The Atlantic* last year by Jean Twenge about how Facebook and Instagram use people's data to encourage them to spend more time on their platforms. The company found that people use Facebook/Instagram most when they're feeling down, so they try to encourage that feeling by showing people photos of their friends having fun without them, profiles of people with similar careers who are doing better than them, news headlines that fill them with outrage, etc. And all this while withholding notifications of likes and then doling them out at optimal times of day, based on people's prior use patterns.

In this letter, I want to unpack some challenges with how data-driven decisions are coordinating our online experiences. The most insurmountable relates to the goal of most of these processes. In Langdon Winner's 1986 classic, *The Whale and the Reactor,* he predicted that "narrowly focused economic motives" would continue to drive digital innovation instead of "reflection, debate, and public choice." Earlier this year, Winner published a follow-up to his 1986 book where he discusses the big tech monopolies that manage most of our online experiences. He writes that some open, democratic things are still happening online but he believes they are "relatively insignificant within the vast, deeply rooted institutions that now govern most of what happens in people's daily experience of computing power." Our experiences of the internet are driven by the economic motives of four or five big tech companies, and except in Europe, there is hardly any regulation or public choice in what these companies can or cannot do.

Besides the economic goal, the other major issue I see with computer algorithms relates to how they tame human unpredictability. Outcomes generated from data assume a consistency in character and behaviour. How people – or even just types of people – think and behave in a certain context informs how they – or people like them – are expected to feel and act in a similar context at another time. What about exploring new things? What about being challenged? With enough data and a sophisticated enough way of using it, algorithms may be able to avoid prejudice and work for people who don't fit within discriminatory data-sets on people "like them." But for now algorithms code us into overgeneralized camps and try to keep us there. These algorithms don't only predict human behaviour, they try to make us more predictable.

Back in 1986, Winner also warned that the more life became mediated through computers, the more we would become "susceptible to the influence of employers, news media, advertisers, and national political leaders." He saw the power imbalances of big tech companies as a threat to democracy and certain fundamental freedoms. Two other scholars I look up to have written similar things more recently. Shoshana Zuboff connects this to capitalism while Ruha Benjamin shows how new technologies can both heighten and hide racism.

Without privacy or control over our data, Zuboff explains how we have become ripe for manipulation. She writes about the ways big tech companies are able to manage our behaviour to make money. They use our data:

> "to manipulate subliminal cues, psychologically target communications, impose default choice architectures, trigger social comparison dynamics and levy rewards and punishments – all of it aimed at remotely tuning, herding and modifying human behavior in the direction of profitable outcomes and always engineered to preserve users' ignorance."

The most famous example is probably Cambridge Analytica, the company that gathered and exploited user data (through Facebook) to help Trump win the US election. However, similar coordinations shaping everyday consumer decisions are happening on much smaller scales all the time. By spending the year offline, I am withholding some of my data and companies are therefore less able to use me (i.e. my data) to manipulate others. They are also less able to use data (mine and others') to manipulate me. However, considering everything we have come to rely on the internet for, opting out to the extent that I have is not an option for most people – especially during this pandemic. After reading Zuboff's latest book, my friend Will stopped using Facebook and Google Chrome. Limiting big tech's reach by being more critical of which digital platforms we use is an effective option. Another is to regulate the ways data is gathered and used so that companies with big data repositories cannot trade in what Zuboff calls "human futures." The EU has been regulating how companies gather and use data since 2018. Here in North America, free market ideologies are less flexible. Another solution could be to open up what Zuboff calls the "one-way mirror" of how our data is used so that we know how companies plan to manage us. A trick loses its effectiveness when the audience knows how it's done.

For this month's recommendation, I'm suggesting a book by Ruha Benjamin, who I also mentioned in my January letter. Benjamin's book is called *Race after Technology: Abolitionist Tools and the New Jim Code.* What Benjamin calls the New Jim Code refers to how "tech fixes often hide, speed up, and even deepen discrimination, while appearing to be neutral or benevolent when compared to the racism of a previous era." Most people think of computers as neutral and objective when they process data. However, when I heard Professor Benjamin speak, she described the ways that supposedly objective, state-of-the-art technologies reinforce racism. She used the example of facial recognition programs designed to help flag individuals who may be criminals. The data-sets used to design the algorithms for these programs include photographs of criminals, many of them black. When we think about the ways that we're "tracked, addicted, and manipulated" (to use Benjamin's terms for what Zuboff calls being "tuned, herded, and modified"), we often just think about the consumer consequences without considering how the algorithmic management and judgment of humans is now a part of policing, legal systems, insurance policies, healthcare bureaucracies, and all sorts of other public and private processes. We might think these systems avoid racist and prejudicial biases, but as Benjamin points out, algorithms judge based on existing data that has been "produced through histories of exclusion and discrimination." When a supposedly neutral and objective computer interprets the data it's been fed on crime – like in the example of facial recognition programs – it assumes black people are more likely to break the law without considering how this data relates to police and state agencies disproportionately targeting black people. Robyn Maynard's *Policing Black Lives* traces this reality across institutions in Canada. The protests that have followed George Floyd's murder highlight how urgent it is to challenge racist police systems and government agencies. When computer algorithms presume that consistency of character I described earlier, it's especially unfair to people whose character is coded to be high-risk or criminal. Judging someone before considering their personal context is literally *pre*judicial.

I was talking to my friend Hora, who is also reading Benjamin's book, and he pointed out that it's not always an issue of data that reproduces racism. Sometimes the problem is that data actually fails to capture racist patterns. This can also reproduce racism when that data is used to make decisions. In educational contexts in Canada, lots of high school and universities do not include race when gathering data on students. This makes it less likely they'll notice or change racist realities – or take responsibility for them. In a world where so much is being driven by data, it's just as important to advocate for more better data as it is to try to make more spaces for public conversations about how data is used and when it maybe shouldn't be. Ironically, because of the way big tech companies are using our data, we are stuck in echo chambers and siloed social media communities (feat. bots) that make it difficult to engage in real public dialogue online about how our data is used. As Benjamin asserts, quoting the Brazilian educator Paulo Freire's classic book, *Pedagogy of the Oppressed*, "if the structure does not permit dialogue, the structure must be changed."

So how can we make changes? Beyond just avoiding online spaces or advocating for more regulation, what can we do? One of my friends is helping design a tool that would give users the ability to recall data, retaining ownership over it. Another couple of friends are helping create a community-led database to reclaim data gathered on youth-in-care from government agencies. Inspired by my friends' strategies for working towards data justice, here's CHALLENGE 5: *Confuse an algorithm.* It's unlikely to be as effective as what my friends are trying, but let's push back a bit on the lack of transparency and nuance in processes that exploit our data. Without buying stuff you don't want or watching videos you don't like, I'm not sure how you might complete this challenge, but let me know what you try!

It's hard to say how "data" and "algorithms" are impacting us, but they *are* influencing our lives (and some lives more than others). These impacts are becoming more powerful as more of our lives are mediated online – especially during Covid. We're past the point where not caring about data and privacy can be defended by saying that we have nothing to hide. Protecting data is no longer about getting caught doing something wrong; it's about having some control over the ways our data is used to coordinate our own habits and behaviours, and the lives of others.

And yet as stories come out about countries trying out sophisticated track and trace smartphone apps to help manage the spread of Covid, most people I know are just asking how soon we can get something like that here. I don't hear many people asking who will have access to the location data that's gathered. Will it be for sale? How will vulnerable people's location data be secured? And what about people like me who don't have smartphones? Don't get me wrong; I think it'd be great if Canada had a digital fix that could help us manage the spread of Covid. My friend Alex was living in Hong Kong until recently and told me about tracking bracelets that are being used there to navigate Covid checkpoints, allowing people in areas that are allegedly virus-free to behave like normal. If we had such a system here, most parts of most Canadian cities could reopen. However, I'd only embrace a system like that if the data was secure and private, AND if we could guarantee that the system would be used to support the areas with the most cases – not just to isolate them and go back to our lives. Do we trust big tech companies? The government? Each other? The ways that data will be gathered and used are becoming more cohesive and omniscient. My letter writing ranting won't change that. But I hope we can be more reflective and careful (as in, obstructive and resistant) so that this happens in ways that work *for* internet users and that can support us all fairly.

YT,
Aron Rosenberg