



Unregulated Tech Mediation → Inevitable Online Deception → Societal Harm

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“Software is eating the world.” – Marc Andreessen, founder of Netscape

While we used to say that technology platforms have *eroded* the social fabric, it’s more accurate to say that tech companies have *become* the social fabric. Tech has become the infrastructure that manage civilization’s global “social organs” and our personal lives.

- **Broadcast:** YouTube’s algorithms have effectively become the video broadcast infrastructure for the world, without any of the regulations that used to protect children or other ethical standards.
- **Social Relationships:** Facebook, Twitter, Instagram have become the *infrastructure for making sense of our social world* – shaping how we determine what the majority of people around us seem to believe or agree with, how popular or influential people are, how happy our ex-romantic partners seem to be, even how we track each other’s psychological health.
- **Democracy:** Micro-targeting and lookalike models through Facebook and Google Ads have become the *infrastructure for competing in elections*, without any of the regulations ensuring equal-price slots for political candidates as regulated on TV.

- **Children:** While children may spend hours at school, they often spend *more hours* per day on their devices and platforms like YouTube, TikTok or Snapchat – often while at school – effectively becoming the *infrastructure for children’s development and learning*.
- **Family and Relationships:** Look around you at dinner tables in homes or at restaurants, smartphones have *intermediated the private spaces that used to make up family time and meals*, and set the background for our relationships.
- **News:** Facebook’s algorithms have become the *news and social commentary infrastructure* for 2.7 billion people.
- **Communications:** WhatsApp, Instagram or FB Messenger have become the *primary communications infrastructure* for one-to-many broadcast communication.

Consider the scale. Facebook has more than 2.7 billion users, more than the number of followers of Christianity. YouTube has north of 2 billion users, more than the followers of Islam. Tech platforms arguably have more psychological influence over two billion people’s daily thoughts and actions when considering that millions of people spend hours per day within the social world that tech has created, checking hundreds of times a day. In several developing countries like the Philippines, Facebook has 100% penetration. Philippines journalist Maria Ressa calls it the first “Facebook nation.”

But what happens when infrastructure is left completely unprotected, and vast harms emerge as a product of tech companies’ direct operation and profit?

Social Organs of Society, Left Open for Deception

These private companies have become the eyes, ears, and mouth by which we each navigate, communicate and make sense of the world. Technology companies manipulate our sense of identity, self-worth, relationships, beliefs, actions, attention, memory, physiology and even habit-formation processes, without proper responsibility. Technology has become the filter by which we are experiencing and making sense of the real world. In so doing, technology has directly led to the many failures and problems that we are all seeing: fake news, addiction, polarization, social isolation, declining teen mental health, conspiracy thinking, erosion of trust, breakdown of truth.

But while social media platforms have become our cultural and psychological infrastructure on which society works, commercial *technology companies have failed to mitigate deception on their own platforms from deception*. Imagine a nuclear power industry creating the energy grid infrastructure we all rely on, without taking responsibility for nuclear waste, grid failures, or making sufficient investments to protect it from cyber attacks. And then claiming that we are personally responsible for buying radiation kits to protect ourselves from possible nuclear meltdowns.

By taking over more and more of the “organs” needed for society to function, social media has become the de facto psychological infrastructure that has created conditions that incentivize mass deception at industrialized scales. There are three core aspects of the problem:

- 1) **For-profit companies operating for private interest have taken over critical, intimate functions in society that should -- and used to -- operate in the public interest.** Instead of operating for the public good they operate to their own benefit. Even though they have sensitive information about each of us, involuntarily given due to their infrastructure role, they are not required to treat that information with sensitivity -- with regard to the wellbeing of the people or the cultures that they inherently affect.
- 2) **The infrastructure they built has both enabled and been left vulnerable to mass deception and manipulation by:**
 - a) Directly taking advantage of our psychological vulnerabilities (self-image, addiction, infinite scrolling feeds) to capture attention necessary for their profits,
 - b) Automating that attention with gameable algorithms and impersonated user identities, and
 - c) Renting access to the manipulation and targeting of our deepest vulnerabilities with unprecedented precision for advertising purposes, unreviewable by any real regulatory process. The amount of deception that can be created far exceeds that of any realistic process of review.

Technology companies have covertly “tilted” the playing field of our individual and collective attention, beliefs and behavior to their private commercial benefit. Naturally, these tools and capabilities tend to favor

the sole pursuit of private profit far more easily and productively than any “dual purpose” benefits they may also have at one time -- momentarily -- and occasionally had for culture or society.

- 3) **Once becoming the obligate infrastructures that manage civilization’s global “social organs” they have lead to myriad individual and collective harms (isolation, anxiety, depression, suicide, polarization, war).** Because this loss of unmediated interpersonal communication and relationship is beyond the means of the public to fight back or change, it is the equivalent of extortion. These platforms pollute the information environment and are damaging to all forms of public deliberation and society, indirectly leading to many other collective problems (disease, pollution, collapse and other environmental damage).

Further critical and consequential outcomes occur *on top* of these lower level infrastructures managed by private companies, including the upbringing and education of the next generation, our national psychological health, and the information environment that determines the outcome of elections.

While tech has taken over each “organ” of the social fabric, they have failed to also take responsibility for managing that system in a healthy and integrated way. They are inherently acting in ways which are deeply harmful to the communities that they claimed they were in service to -- “to connect all the people,” so that they could “live more meaningful lives.” While this is the dream, it is not the reality.

The private tech company takeover of social process poses enormous harms and risks to the people and to those societies that are using this tech, along with the greater civilization. Deep Fakes dismantle our shared capacity to make sense of the world, to determine what is true, what is real, and what we can or should trust. This leads to all sorts of consumer product advertising and marketing issues, hijacking of our election process, and creating a situation in which the most deceptive and least moral actors win, without accountability.

Truth Loses

Truth loses. In an [MIT Twitter study](#),¹ fake news spread six times faster than true news. Someone limited to speaking only truths is *constrained*, it takes time and energy to investigate and carefully articulate accurately what is true. By contrast, those speaking falsehoods are unconstrained. You can say anything without exerting any energy to censor yourself. In a competition between the two, the least constrained (least ethical actor who's willing to say *whatever works*) wins. This incentivizes a "race to the bottom of the brain stem" to go lower and lower into unconstrained, fear, outrage, existential, trust-destroying conspiracy thinking to win. If you don't play the game, you lose.

Deception and distortion of our relationships, narrative, and social lives, of our sense of community meaning, takes advantage of our innate human vulnerabilities -- the psychological bias that we all have built in. The development of tools for advertisers to leverage our natural social interests is at the root of what has gone wrong in our current use of technology. Both individually and collectively, the unrestrained use of content amplification and context manipulation capabilities are dismantling, directly disrupting, and disabling our democracy -- our great nation is at risk of ruin.

They Have Become a "Digital Frankenstein" That is Out of Control

The manipulation-for-profit (MFP) business model of large technology companies (Facebook, YouTube, Instagram or TikTok) are existential to the sustainability of the societies in which they operate, and cannot be allowed to continue with their current business model.

This manipulation occurs at multiple levels – manipulating our lizard brains to keep people hooked, and then using automated systems for routing content and ads that cannot distinguish between what is true or deceitful (fake accounts, fake users, deep fakes vs. regular content), because it is not profitable to pay actual human editors.

In each case, in support of paid marketing, technology enables the mass deception of consumers to think that things which are unhealthy are "good for them," that things which are false are "popular knowledge," and that things which are actually dangerous are "in the public good." Most of what is causing harm in technology can be broken down into exploitation of human weaknesses:

¹ <https://news.mit.edu/2018/study-twitter-false-news-travels-faster-true-stories-0308>

- Netflix exploits our *reliance on stopping cues* to keep kids and adults alike binge watching and losing sleep.
- “Likes” and “filters” *exploit teens’ need for social validation and approval* from others.
- Notification sounds (“you have mail!”) *exploits operant conditioning* and habit formation *to expect frequent rewards*.
- Infinite scrolling feeds, “pull to refresh” notifications are designed to operate like slot machines, offering “intermittent variable rewards” as you check for notifications, maximizing addiction.
- Moral outrage *exploits our vulnerability to anger*, fast agreement and desire for tribe membership.
- Fake news and conspiracy theories *exploit our need for significance and confirmation bias* -- that what we feel is more important than what we think.
- Deepfakes (including bots, deeptext, etc) exploit the shortcuts our brains rely on to discern what’s authentic or trustworthy, and have now become completely and fundamentally indistinguishable from the real thing. This is a trust-breaking deception. This is “checkmate.”

A vehicle that results in people more likely getting hurt in car accidents is a product that could be purchased or not, or perhaps purchased from some other maker, because they had a better safety design and public reports. And there are regulations concerning what vehicles will be allowed on the road. Yet Metcalfe’s law “winner take all” dynamics ensures that everyone is involved -- willingly or not -- in social media.

It is like the choice of a community to accept that some company wants to build a nuclear power plant. The people in the surrounding community will be affected, if something goes wrong, regardless. And in such an event, we do not expect that the general public to be responsible -- to have their own radiation detectors, or hazmat suits, or to deal with radiation, fallout, etc. With infrastructure, the level of responsibility should be *higher* than it would for an automobile manufacturer. The Nuclear Regulatory Commission puts policies in place to protect the people, when it is clear that asking them to handle the hazards -- to make them responsible for the errors of the company -- is simply inappropriate. When radiation is everywhere, what does it mean to move away?

It is not a personal responsibility for people to protect themselves from grid attacks, from nuclear waste issues, from chemical spills, quack doctors, toxic food vendors, or anything else which is inherently a commons or utility. Asking “individuals” to be responsible for pollution effects of a business, or to assume that an industry can “regulate itself”, is like asking a passenger to “be responsible” for flying the 737 Max plane, or to “take care of themselves” in a crash. Creating unsafe aircraft is not a pilot problem, nor is it a “personal problem.” Dangerous and addictive drugs are FDA “controlled substances” for a reason. Gambling must be licensed and sanctioned by the state.

When you create infrastructure that millions or billions of people rely on for the daily function of their lives and their social contracts (information, news, etc.) you become responsible for the harms, direct or indirect, created by that infrastructure. This is the message of responsibility that we need to teach tech companies -- like all other types of infrastructure businesses -- to adhere to.

Unless the government acts, the competition between technology businesses’ never-ending interest in capturing human attention, will irreversibly dismantle the information environment, accelerate polarization leading towards civil war, degrade the mental health of a generation of children and teenagers, and break down the basis for trust itself, leading to market collapse and near permanent civil disorder.

Currently, social tech companies are building infrastructure -- but they are not acting responsibly -- for the harms that that infrastructure is creating at both personal and societal levels. Therefore, the government must act, and not expect the industry regulate itself. It is not possible for an industry run on optimizing quarterly profits to think in the long term. Yet, it is inherent in the creation of public infrastructure to imply public responsibility and policy.

Therefore, as with all other forms of public works, infrastructure, and common utility, there is also with social tech, media, and communications companies, now a need for similarly clear, effective, and actionable government process, policy, and law, holding such commons infrastructure implementations to reasonable and responsible standards, designed to promote the public good. New law is needed to protect the health and welfare of the consumer, culture, and community, to restore and maintain the value of the commons, the practice of free and open commerce, and the vitality and utility of the digital environment as a whole.

Our current use and deployment of technology is not properly aligned with the limits and vulnerabilities of human nature. It is currently being implemented in a way to weaken us and to disadvantage nearly everyone, so as to favor only a few. Most of what is going wrong with technology today -- harming and deceiving the consumer - - is based on this misalignment.

Dismantled Shared Truth – The “Flint Water Supply” of Information

By creating 2.7 billion “Truman shows” (personalized channels of automated news feeds) keeping us engaged for hours by calculating what will most likely keep us glued to screens, social media has taken the shared narratives and facts that make society function and put it through an industrial-grade meat shredder.

Newspapers thought they were in the *truth* business but found out they were actually in the *attention* business. It costs money to pay journalists and editors that ultimately generate the attention sold to advertisers.

By allowing technology platforms to take the role of an information environment without journalistic standards, long-form investigation, fact-checking and some notion of care, we suffer the consequences. Exponential hearsay, gossip, “BREAKING” news, and cynical “hot take” commentary generated by the most outrageous voices have become the default information flows that make up how we see reality.

We are the free “gig workers” of the attention economy. Instead of investing in journalists and their protection, Facebook and YouTube turned each of us into unpaid “contractors” who create posts and share links to gain the attention of our friends to look at what we post, and doing it for free by manipulating to our honest desires for belonging and purpose. This has destroyed our way of making sense in the world.

This is not normal, and it is not sustainable. It is the “Flint water supply” of information run by privately-interested tech platforms.

Addiction & Public Health

What we call addiction is when technology manipulates and deceives our dopamine reward systems (“pull to refresh!” like a slot machine), our physiological workings of

habit formation (link habit X with action Y), our reliance on stopping cues (“is there an end to scrolling this feed?”), and manipulation of vanity and desire for attention from others (“Look, I got more followers today than I did last week!”). Even Facebook’s own founding president, Sean Parker, admitted that he, along with the founders of Instagram, Mark Zuckerberg, and others, knew they were designing their products to exploit vulnerabilities in human psychology and “we did it anyway.”²

Most of all, this affects kids and teenagers. We are raising a generation of children who are more distracted, less creative, more narcissistic, and more vulnerable to bullying and teen suicides than in the last few decades. While we glorify U.S. tech companies as the crown jewels of our economy, we are profiting off of the harm to our own children, cannibalizing our national longevity and the well-being of our citizens.

Bragging about the U.S. economic growth from our most harmful tech companies, is like bragging about getting a plastic surgery while suffering from congestive heart failure. The organs that make up our society are failing.

Social Pressure & Deception of Self-Image

Social media is harming teenagers. After nearly two decades in decline, “high depressive” symptoms for 13-18 year old teen girls rose 170% between 2010 - 2017 which researchers such as NYU sociologist Jonathan Haidt link directly to social media³. Tech products using beautification filters like Snapchat have led to “Body Dysmorphic Disorder” – where people’s self-image is distorted by beautification filters, is harming mental health. In a survey of plastic surgeons, 55% said they’d seen patients whose primary motivation was to look better in selfies, up from 13% in 2016⁴. On YouTube, two years ago if a teen girl searched for “dieting” videos, the recommendation systems would recommend “anorexia” videos because they were better at keeping attention.⁵

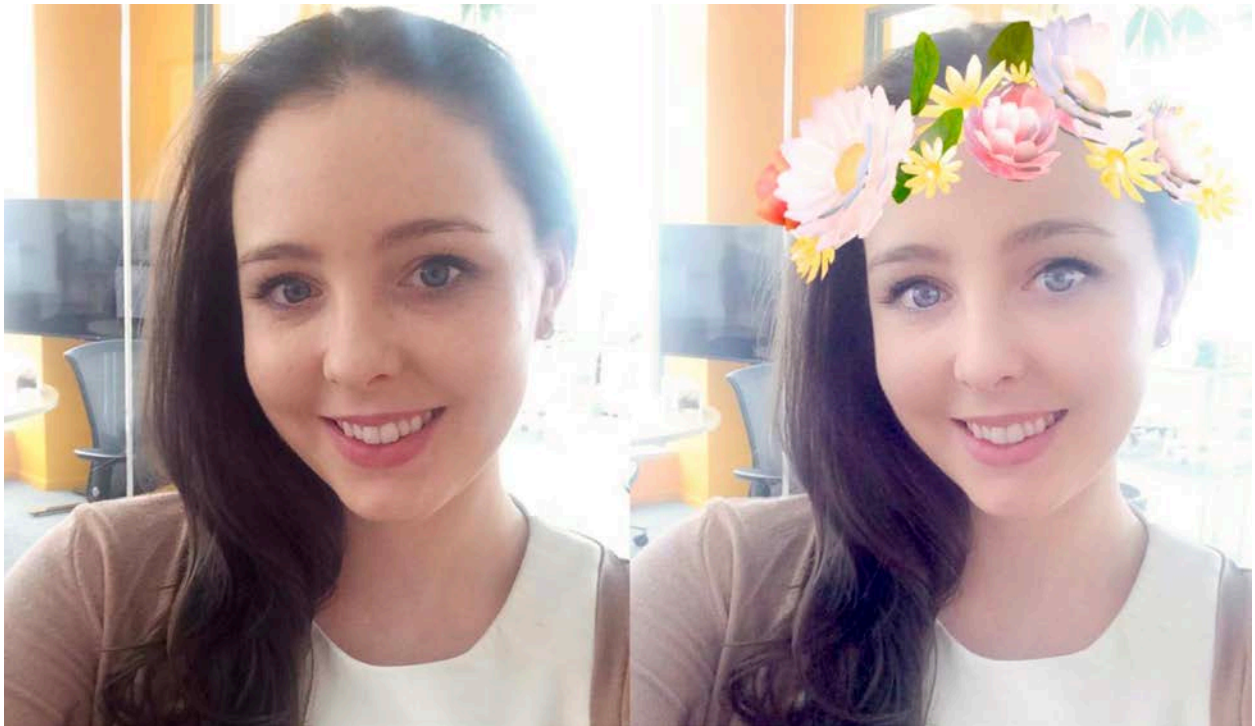
² <https://www.theguardian.com/technology/2017/nov/09/facebook-sean-parker-vulnerability-brain-psychology>

³ <https://journals.sagepub.com/doi/full/10.1177/2167702617723376>

⁴ https://www.aafprs.org/media/stats_polls/m_stats.html

⁵ <https://www.wired.com/story/how-pro-eating-disorder-posts-evade-social-media-filters/>

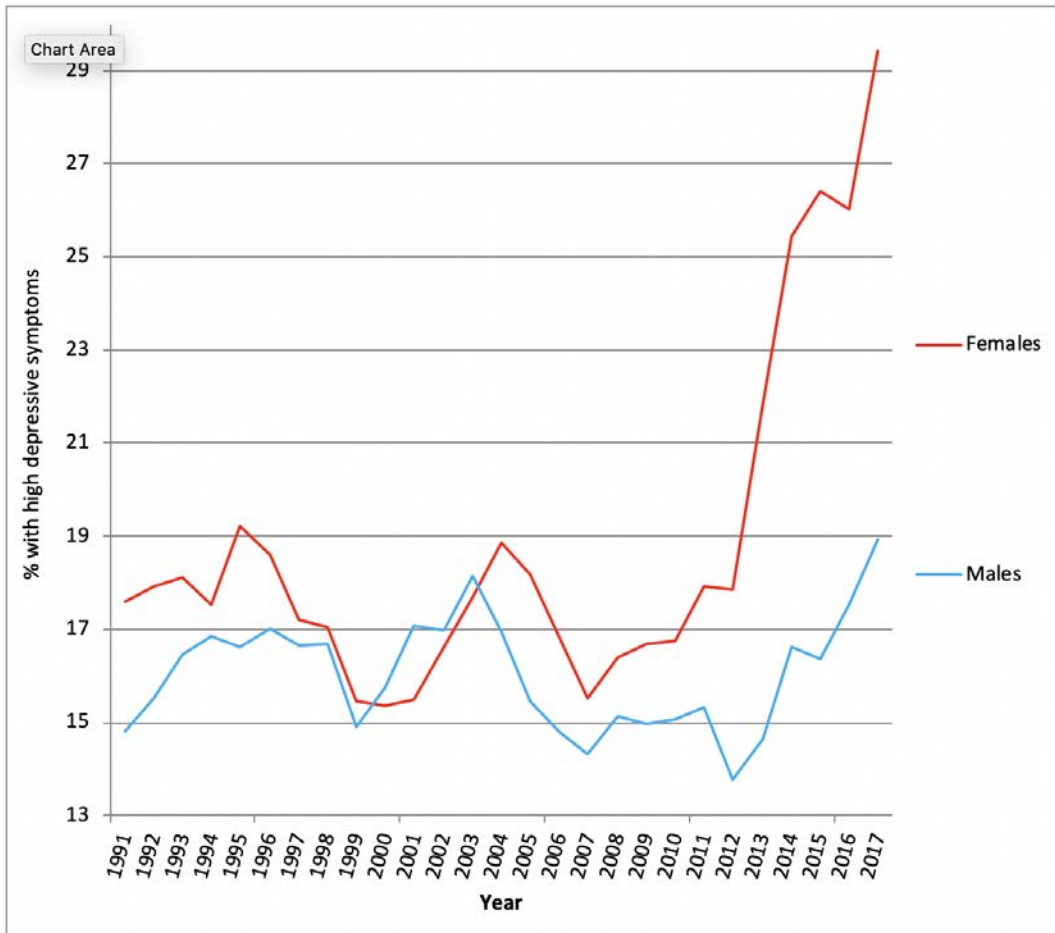
Is it surprising that mental health problems surge when millions of kids negotiating their identity in public with immediate feedback are taught, “people like you... if only you looked different than you actually are.”



An example of Snapchat Beautification filters.

Each time a child is admitted to a hospital, there is a real-life family dealing with a tragedy.

Moreover, parents are trapped in a “game” of social pressure controlled by companies that capture enough children in a community that essentially force all other children in that school or community to be on their service. Parents feel intense pressure to give in and let middle school kids have it only because everyone else has it.



A chart of High-depressive symptoms for teenage girls -- whose sense of personal self-worth is much more likely to be defined in terms of the currency of the attention of their peers -- rose 170% between 2010 and 2017.



Joe Camel ads from the tobacco industry also went directly after children to capture “early” market share.

Conspiracy Theories, Deepfakes and the Basis of Trust

70% of YouTube’s traffic is driven by its recommendation engine. Multiplied by two billion people that use YouTube, this has vast consequences. Because the recommendation system is automated, it does not know what’s valuable, ethical, or credible beyond what got the most clicks or watchtime.

Inadvertently, YouTube’s algorithms have recommended countless conspiracy theories. Conspiracy theories like Flat Earth were recommended by YouTube hundreds of millions of times. Alex Jones InfoWars conspiracies were recommended 15 billion times before being removed.

While it might sound innocuous and funny, the Flat Earth conspiracy is particularly damaging because if taken seriously, it means that *all of science and the entirety of government has been lying to the public*. It means you can’t trust *any of science*. That sentence is worth repeating.

Conspiracies are “trust bombs” because they eliminate all faith in science, reason and institutions. Using bot networks to amplify “the Election is rigged” becomes a common doubt -- people are disenfranchised and no longer vote. Authoritarian regimes are recognizing their power to use these effects deliberately. In the Philippines, there is evidence of populist movements behind authoritarian president Roderigo Duterte promoting the Filipino Flat Earth conspiracies groups to sow distrust in the media and scientific establishment.⁶

Conspiracies can have lasting effects for decades. Famously, a Soviet disinformation campaign in 1983 seeded the idea that the HIV virus raging across the world was a bioweapon released by the United States, based on an [anonymous letter](#)⁷ published in an Indian newspaper, and ended up becoming widely believed among those predisposed to distrust the Reagan administration. From Russian disinformation researcher Renée DiResta, “As late as 2005, [a study showed](#)⁸ that 27 percent of African Americans still believed that HIV was created in a government lab.”⁹

Mass Deception – Trolling Elections, Civil Wars, and Geopolitics

Our minds operate on the principle of social proof: if others believe it and say it’s true, we’re more likely to believe that it’s true. But with social media, it’s never been easier to synthesize fake consensus, as detailed by this Russian troll:

“We did it by dividing into teams of three,” he said. “One of us would be the ‘villain,’ the person who disagrees with the forum and criticizes the authorities, in order to bring a feeling of authenticity to what we’re doing. The other two enter into a debate with him — ‘No, you’re not right; everything here is totally correct.’ One of them should provide some kind of graphic or image that fits in the context, and the other has to post a link to some content that supports his argument. You see? Villain, picture, link.”¹⁰ – interview with Russian troll

⁶ <https://blogs.lse.ac.uk/medialse/2019/08/28/beyond-conspiracy-the-ties-that-bind-filipino-flat-earthers-and-populist-supporters/>

⁷ <https://www.washingtonpost.com/news/made-by-history/wp/2018/03/12/the-russian-fake-news-campaign-that-damaged-the-united-states-in-the-1980s/>

⁸ <https://www.prb.org/conspiracybeliefsmaybehinderinghivpreventionamongafricanamericans/>

⁹ <https://www.washingtonpost.com/opinions/2019/11/15/heres-how-russia-will-attack-election-were-still-not-ready/>

¹⁰ <https://share.america.gov/trolls-everything-you-wanted-to-know/>

Foreign actors have also gone after U.S. veterans communities online to sow distrust of the military and government. In a report by social media research analytics firm Graphic telling the House Veterans Affairs Committee, Russia-linked ads from the 2016 election found **“at least 113 ads directed at veterans, or which used veterans as props in Russia’s mission to divide Americans.** “Foreign actors have been targeting U.S. veterans across social media for at least eight years” Vlad Barash, says Graphicka’s science director.

To this day, even after Twitter and other platforms have banned paid political ads, it’s still incredibly cheap to buy influence as this is still the fundamental business model and it’s impossible for them to fully distinguish paid political speech from any other speech. NATO recently discovered “At a cost of just 300 euros (about \$333), NATO StratCom bought 3,530 comments, 25,750 likes, 20,000 views and 5,100 followers across the four platforms.”¹¹

Moreover, it’s never been easier to impersonate being someone you’re not. In one quarter alone, Facebook shut down 2.2 billion fake accounts. Tech platforms leave the doors open to anyone who would want to create a fake account to impersonate anyone else -- so as to maintain plausible deniability. While we have been obsessed with closing down and protecting our physical borders, we’ve left the digital borders *wide open* for abuse by any actor.

Keeping in mind that Facebook and YouTube’s commanding the daily attention of more than two billion users for hours a day, a psychological footprint greater than the followers of the Christian church, technology has become the *de facto information environment* by our civilization makes sense of the world: what is real, and what is true.

Platforms have disrupted the psychological logistics, by eliminating the capacity for people to have trust in what is true, our capacity to agree, or build consensus and take action instead of feeling hopeless. DARPA calls this “reality jamming” and the RAND Corporation calls this “truth decay.”

The risks of disinformation continue to escalate into serious potential problems. The consequences can range from internal polarization, functionally biased elections, civil wars, escalation of international disputes to nuclear-armed conflict, as a civilization as

¹¹ <https://www.buzzfeednews.com/article/albertonardelli/facebook-twitter-google-manipulation-nato-stratcom>

a whole, all the way up to whether we can agree on whether we are actually facing existential threats at all. A report by the Toda Peace Institute's stated, "we have already seen six instances of social media playing a role in nuclear-prone conflicts occurring between August 2017 and January 2018" in the Asia-Pacific region.¹²

Will China Win? Or Will Democracy Survive?

Today's technology platforms have put our civilization into tremendous danger. If we continue to let the big tech company platforms continue to enable civilization's regression into a "Digital Dark Age", it will also be the case that the government will have failed its basic job to protect the land and the people.

The real problem of humanity is that we have Paleolithic emotions, Medieval institutions, and God-like technology. — Dr. E.O. Wilson

Our human physiology isn't changing any time soon -- it evolves over many millennia. But our technology is growing exponentially more powerful, over a trillion times since the computer was invented in 1946.

Technology can either be used to create a kind of robustness that makes society and democracy work, or it can be used to disable that democracy completely. The culture, incentives, and protections must be shaped so technology's god-like power is always in service to human values -- never the other way around. Any other arrangement is catastrophic to the human race, as god-like powers are expressed outside the control and wise guidance of humanity.

We **can** live in a world of humane technology. One that is built on protecting the vulnerabilities and limits of human nature. It can align with the development of human sovereignty. To do that -- to have any possibility of a bright future -- we must give up the desire to allow it to continue to be used to exploit our natural human weaknesses.

Technology is not going away. We can't put the genie of these god-like powers back in the bottle. Technology can -- and must -- be implemented and used in a manner that is consistent with healthy society, communities, and the world.

¹² https://toda.org/assets/files/resources/policy-briefs/t-pb-66_peter-hayes_social-media-arrives-on-the-nuclear-stage.pdf

Therefore, we must tame the tech, regulate its business model for the common good of the people, as the temptation to misuse it to take “advantage” of someone’s short sighted personal ends, is too great for any one of us to manage by ourselves. We must reign-in such forces into an alignment with the well-being of our communities.

It is natural, therefore, to suggest that the government put regulations in place around any industry and its products, services and procedures, to prevent societal harms and/or to harness the technology in salutary ways – like any other fundamental infrastructure we live by, whether that’s the auto industry, electric/power utilities, roads and transportation, or anything else.

Most people recognize the need and the benefits of government regulating various aspects of industries that operate common infrastructure. The Big Five -- Facebook, Google, Amazon, Microsoft, Apple -- is the new infrastructure of our social fabric. Representative democracies have the right to put the rules around companies that society has determined are necessary. Why should these Big Tech companies be any different?

Why should any private infrastructure company be allowed to collect, store or in any way use or manipulate our personal data? After all, the Post Office can’t do it, FedEx and UPS can’t do it. There are many businesses that are not allowed to use our data – whether personal data or location data – in these sorts of toxic ways. So why not just regulate the social tech infrastructure companies, and their services, the way these other businesses are regulated?

Federal criminal laws are designed to deter and punish trafficking in stalking and harassment by means of computer. If we define "stalking" as following the user everywhere, tracking and collecting photos and notes about everything that they are doing, as if every person in the world was a paparazzi target; then perhaps we should regard that each social infrastructure tech company is *stalking* each and every user on their platform, at industrial scales. If so, then there is a clear and present need for an anti-stalking law, to protect our children, ourselves, and our communities, from digital surveillance capitalism.

Some possible policy directions that can be explored:

- **1) Mandate a “Digital Update”** to each of the regulatory bodies already charged with doing their job on these problems. Instead of creating a brand new Digital Federal agency to regulate all digital matters, we could extend all the existing agencies who already have jurisdiction over the areas with a “digital update” to deal with the public health, public education, election and broadcast issues, etc. The SEC could monitor fraud from tech platforms in the form of fake clicks, fake users and mandate regular reporting from tech companies. HHS and NIH could force quarterly reporting by technology companies on how many users are addicted, depressed, isolated etc for addressing the public health, addiction and teen suicide aspects, with quarter goals set with tech companies to issue product updates to address the problems. A “Digital Update” would also be popular with the American public who are increasingly alarmed about these issues and want to see government act to update our medieval institutions for the 21st century, let alone the 2020 decade.

- **2) Apply the principles of broadcast law to technology platforms** that enable broadcasting of matching scale and reach, without any of the responsibility. There should be restrictions on developing and/or deploying tools for the creation of weaponized disinformation campaigns, or for the creation, dissemination, or distribution of ads targeting children, seniors, mentally disabled or developmentally disadvantaged, or other vulnerable populations. In the same way that you cannot simply just sell automatic weapons to anyone, that you cannot also grant unlimited broadcast license, beyond certain volumes, to just anyone who wants it.

- **3) Require tech platforms that have asymmetrically powerful and sensitive information about what influences users’ or communities’ behavior and beliefs to have Fiduciary responsibilities to that membership.** We can’t have private companies that privately profit for their own self-interest, while dumping harm and excess risk onto the balance sheets of society. Business interest cares about short-term self-interest, not long-term, societal-scale issues. We need government to represent the common long-term interest and well-being.

- **4) Decouple profit from attention** and clean up the attention economy. Explore making attention, social, and voting manipulation markets should be illegal.

- **5) Put sane limits** on the development and/or deploying of tools and technologies designed for the purpose of social capital value mining, extraction, and the aggressive re-purposing of cultural norms, sacred icons, religious morals, etc. This includes the use of deepfakes.
- **6) Set up some forms of real and legal deterrence.** In China, the use of deep-fake technology without labeling it as such, for any reason, is simply illegal -- treated as an information weapon and inherent moral hazard -- and that people violating that law are put into prison. Our analog could be temporary platform bans. Citizens seeing actual enforcement of their own protection has the effect of supporting the building of reliable trust and identity infrastructures in community.

No regulation is perfect. Sometimes you kill some of the lesser notions of “good” while protecting against the more serious and significant harms. These harms accrue into a dystopia we cannot afford: a world without truth, mass social isolation, constant social pressure, and a whole generation of children and teenagers who never knew that life could be different.

Conclusion

I believe in a world where technology industry is remade in a manner that becomes a more empowering tool -- something that serves humanity and life again. Where it is built around servicing our needs and strengthening the fabric of our society, not parasitically extracting value from the most vulnerable organs of society. Where technology strengths our capacity to see multiple perspectives, nuance and complexity – where there are no black and white answers.

We need technology to aid us in these endeavors for our civilization to survive.

While we all have base emotions, we also always have something unique to our species: a capacity for choice. The ability to do other than what would simply be predicted by past behavior, or whatever profit is dangled in front of our brains.

In a way this situation is a test: will we be the chimpanzees with predictable emotions drawn to economic growth, or will we recognize that no one else is going to put their

hand on the steering wheel. You have to do it. You have to make a choice. That choice is now up to you.