

The *Good* Internet Project

by

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Abstract

This paper argues that there are reasons to be deeply concerned about the internet we have today in America and much of the Western world. The internet plays a uniquely effective role destabilizing democracy, eroding truth, damaging interpersonal relationships, and fomenting a mental health crisis. These problems are not new to scholars, policymakers, journalists, technologists, educators, parents, teens, or just about anyone else with a working internet connection. However, the point of this paper is not to merely restate what is wrong with today's internet. This is a proposal about what can be done to address these problems using tools, protocols, and programs available today. This set of solutions, which I call "The Good Internet Project," considers two environments for building and implementing a *good internet*: communities in rural and unconnected parts of Canada's far north, and typical households in the highly connected San Francisco Bay Area. The purpose of the project is to employ a suite of tools sufficiently to change the internet's underlying architecture—its *code*—to uphold not extractive and exploitative commercial values, but rather those values, goals, and intentions of users themselves. The project does this by controlling the internet, intentionally and transparently, via several mechanisms: reducing the internet to both human scale and speed, ensuring outcomes follow users' intentions, and promoting prosocial activity. I conclude with an assessment of what is necessary for successful realization of the project, particularly with the cooperation of aligned organizations and individuals already working to make the internet better for users and communities.

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INTRODUCTION

“The internet is broken.”

-Ev Williams

1. The Harms

When Ev Williams, co-founder of one the most emblematic and influential internet technology firms, Twitter, offered the New York Times that description of the state of internet, he was capturing what much of the public had already concluded (Streitfeld 2017). Over the preceding years, “on the internet,” had gradually become a substitute for misinformation and conspiracy, a reference to unhealthy and destructive behavior, or the punchline to a joke about a terrible idea. The internet’s dismal reputation has come to reflect the reality that, in America and much of the West, the online world is dominated by addiction-inducing social media platforms, “news” services designed to incense and divide, and the ludicrous extremes of the human condition.

If you have the nagging feeling that you read “the internet is broken” somewhere else, you are not mistaken. Across various media, scholars from varying disciplines have joined a chorus of concerned technologists, journalists, educators, parents, and average citizens in arguing that the internet is *broken* in disturbing and powerful ways (Tarnoff 2022; Issacson 2016). I am particularly focused here on ways in which the internet in Western liberal democratic societies is harmful to those societies and individual democratic citizens. I will reference conditions in America most, but because most Western governments have also allowed the internet to remain largely open, unregulated, and market-driven, the analysis of

problems and proposed solutions apply broadly to democratic citizens and societies across the industrialized West.

A. The internet is destabilizing Western liberal democracy.

As Robert B. Putnam presented in *Bowling Alone*, democracies are particularly sensitive to technologies that affect information flows and how people interact with one another. While his original analysis predated much of the development of the modern internet, Putnam's concerns about civic disengagement coinciding the proliferation of television and into the early internet have been amplified in the age of Web 2.0 and the rise of social media.¹ Cass Sunstein, in *#republic*, adapted Putnam's views of democracy for the digital age, describing how Western democratic values have been upended by the internet's own values as the technology has become pervasive (Sunstein 2017, 1-30).

B. The internet is eroding truth and meaning.

Since the advent of broadcast media in early 20th century, communications scholars have observed that citizens' ability to discern the truth is essential for a functioning democracy and free society, leading to U.S. laws and institutions protecting the public's interest over the sole commercial interests of media firms (McChesney 2008, 425-441). As

¹ Web 2.0 typically refers to the period in internet history marked by the proliferation of broadband connectivity, the rise of user-created content, and the birth of social media. Opinions vary, but Web 2.0 can be considered roughly between 2004 and now-ish, the latter date attributed to the dawn of Web 3.0 when the introduction of new technologies like blockchain and especially large language models have begun to change the nature of the internet's promise.

internet platforms prioritize the sensational over the accurate, promote rancor over consensus, and feed users sticky content over the meaningful, this undergirding characteristic of information sharing in our society is shattering.

C. The internet is eroding the quality of human relationships.

Sherry Turkle, a sociologist at MIT, is one of the most prominent researchers demonstrating how the internet and digital communications have led to a world of increasingly impersonal, detached, and superficial relationships. She cites empathy as one victim of this trend, describing in *Reclaiming Conversation* how physical contact and proximity is necessary for people to develop a healthy level of empathy. Without interpersonal social skills like empathy, Turkle fears we are less equipped to handle the ambiguous and messy components that are intrinsically part of real-world relationships (Turkle 2015, 12).

D. The internet is fomenting a mental health crisis.

NYU social psychologist Jonathan Haidt is among those scholars leading the study of how the use of specific internet technologies such as social media leads to poor mental health outcomes (Haidt, Rausch, and Twenge ongoing). As social media use has become a ubiquitous and defining characteristic of modern Western life, a concurrent mental health crisis has emerged. This claim may not surprise heavy social media users; many view their own use as a kind of unhealthy habit, not dissimilar from a drinking problem or cigarette

addiction. However, these internet technologies remain largely unregulated in the ways are similarly harmful products such as tobacco, drugs, and even fast food.

2. The Internet is Only Everything

Communications and media scholar Mashall McLuhan stated famously, “the medium is the message,” arguing that the nature of a communications system is more important the messages that system may convey. In employing McLuhan’s framework for assessing the impact on society of a media like the internet, journalist Nicholas Carr went further, noting that:

A communications medium...is not just a conduit of information. It is an instrument for regulating group behavior and belief. By means of its media, a society promotes values and sets norms, allocates praise and censure, promulgates models of conducts and character...and establishes hierarchies and other structures of power and status. (2025, 9)

Media like the internet thus both reflect values systems and determine values systems. A medium that is built to uphold truth and transparency will be the product of a system that values truth and transparency and will contribute to society upholding truth and transparency. Conversely, a medium that is engineered on purely extractive values may disregard notions of truth and transparency in favor of systems that incense, divide, and manipulate its citizen-users. *That* media will, well, function much like what we have in the U.S. today.

The internet matters therefore because it is not merely a tool for connecting with people or discovering information, but is itself a force for shaping our societal values, norms, and culture. Because the technology is also deeply interactive and relational, it also plays a large

role in how we develop views of each other and ourselves. There is a reason “social media” is called just that: it is built to replicate physical society in a digital space. But unlike in the physical world, where our senses have adapted over tens of thousands of years to make sense of inputs and accurately assess our surroundings—*that is a lion, and it is coming toward me*; or, *this person is smiling and speaking calmly, I may relax*—our brains are ill-equipped to navigate through a deluge of inputs specifically engineered to distract us, inhibit cognitive thinking, and manipulate our emotions (Center for Humane Technology 2020). All communications systems impact how we interact with others and understand ourselves, but with the internet we are grappling with a system far more powerful in its ability to effect these changes and exploit our psychology.

3. Previewing Solutions

As I will cover in the literature review, though the nature of causalities and their specific implications are much discussed and debated, these claims above about the internet’s harms are shared widely and not particularly new. Where I differ from most scholarship is my hypothesis of what will—and definitely *will not*—address problems with the internet.

Among groups who share these concerns, their respective conclusions typically break down something like the following:

- a. Techno-optimists: *There is no extant technological problem that technology itself will not fix.*

- b. Concerned citizens and policy advocates: *Government intervention is necessary, and while we're building the right legal and policy solutions, we must be mindful of our technology use and habits.*
- c. Luddites: *The only complete solution is to find the deepest body of water you can, and throw your phone in it.*

I argue these views are all correct—even the luddites—but they are incomplete. Yes, there is technology that can address the problems of the internet. Yes, we do need enduring solutions from government. And yes, if efforts like that proposed here do not work, perhaps the only genuine solution to the problems of connectivity is disconnecting. To understand how I have developed the proposal I lay forth here, it is important I demonstrate why I believe other paths to a solution are not realistic, viable, or imminent.

A. Big Tech will not solve the problem.

The modern internet has largely been built by a handful of gigantic corporations. Google, Meta, Amazon, Microsoft, and Apple are titans of tech, and they control enough capital and resources to restructure the internet in radically different ways. Though their individual products and technologies are all distinctly different, they are alike in having revenue streams which depend on keeping the internet the way it is. Google demonstrated its resistance to change in 2012 when it effectively led “internet blackout day” in response to legislation that threatened its business model (Mullins and Mullins 2024, 488-527).

Meta (and Facebook before its rebranding) has long studied and been aware of the harmful effects of its products (Glazer 2021; Johnston 2014). Despite the company's understanding of these harms, it not only continues business as usual with platforms like Instagram—cited by many insiders and researchers as particularly harmful and addictive to teens—but has dialed back anti-misinformation efforts (Wong 2021) and sought to operate like a government and nation unto itself (LaFrance 2022; Hagey et al. 2021). So long as these corporations are beholden exclusively to shareholders and not the public interest, there is no reason to believe they will bring about changes to the internet that put public users' interests above their own.

B. The U.S. government will not fix the internet.

Washington's relationship with the internet and Silicon Valley is complicated, but unlike with communications systems before, the government has remained mostly hands-off in its approach to the internet. This trend may have begun for cultural reasons—the web's founders were a quasi-libertarian lot, keen to keep Washington and other governments at distance—but the opaque and seemingly mysterious nature of internet technology also helped keep lawmakers consistently outpaced by innovations. Today, Washington is unwilling to take on internet companies for two key reasons: those firms have caught on to the power of lobbying and now spend hundreds of millions on advocacy efforts and campaign funding (OpenSecrets 2025); and, perhaps more disturbingly, lawmakers

themselves are enamored with internet-based technology as a tool for gaining political power and maintaining their positions in Congress (Grilley and Gillespie 2018).

C. What about European efforts and interest groups?

Unlike the U.S., the European Union has passed sweeping legislation intended to curb the power of large internet corporations and return control to individual users.

Unfortunately, efforts like the 2018 enactment of the General Data Protection Regulation (GDPR), while achieving the EU's desired technical goals, have not forced behavioral or product changes among internet companies (Burgess 2022). The EU, Canada, and Australia all continue to build and implement measures to try to force that type of change, but while it remains to be seen whether such legislation can ever achieve the kind of shift to a healthier internet that such governments intend, I believe the most impactful aspect of these efforts is cultural. Particularly when in combination with the work of so many interest groups, nonprofits, and concerned technology firms—though none powerful enough to spark the kind of change as would the U.S. government or a firm like Google—these alliances are changing the conversation about the health of the internet and about online technologies' effects on Western society and citizens.

4. The Good Internet Project (TGIP)

While I assess the tech industry and U.S. government are not going to bring about a better internet in the foreseeable future, I do not believe nothing can be done. On the contrary,

because the internet is not a passive media like broadcast TV or radio, where citizens simply receive information sent on the airwaves, users can harness the internet's malleability to create a different medium. There are tools, protocols, and programs available today that, with minimal cost and moderate effort, individual users and communities can employ in concert to produce a very different internet experience.

This changing the internet involves altering its *code*. This is the term adopted by Lawrence Lessig in his eponymous book for the internet's underlying architecture—the network's protocols, rules, and systems. The code not only dictates how the network behaves but—fundamental to this analysis and proposal—reflects the values of the internet's designers, owners, and users (Lessig 2006). It is not surprising then that so long as the internet's underlying code rests on values that maximize user attention for profit, the results are the exploitative, harmful internet we have today (Center for Human Technology 2020).

This proposal, The Good Internet Project (TGIP), hypothesizes that by changing this code from extractive, narrow, and exclusively commercial values to those values of liberal democratic citizens and societies, we can better achieve outcomes such as social cohesion, stable government, meaningful interpersonal relationships, and individual mental well-being. Some examples of the tools TGIP uses to change the internet's code are familiar to many users and their function is straightforward: time-management apps, content filters, and bandwidth management services. Other tools like captive portals, AI plug-ins, and interactive games may have been designed for other purposes, but TGIP proposes using them in distinct ways to achieve a healthier internet experience.

Curiously, some of the researchers upon whose analysis this paper rests acknowledge these other options either as a whole or in various parts, but typically still conclude that we are simply stuck with the internet we have. This is akin to recognizing the need to be healthy, but then resigning to just eat at McDonald's every day because fast food is more popular and addictive than healthy food. No! If you want to be healthy, *you eat healthy food*. Just like there are plenty of blueberries and kale out there to build a salad around, there are tools readily available for a healthy internet.

Stretching this metaphor just a little further, I assert that much like a healthy lifestyle consists of a mixture of mental and physical exercise, a balanced diet, and social engagement, the TGIP posits that a good internet is constructed by these different tools *acting in concert*. While individual tools may produce overlapping outcomes—for example, both time management apps and certain AI-plugs can help achieve mental health goals—TGIP hypothesizes that each tool relies on one or more of four mechanisms in creating a different internet. These mechanisms ensure the good internet a) operates at human scale, b) flows at human speed, c) is purposeful by allowing actions to follow user intent, and d) is prosocial.

To offer a better idea of what a “good internet” might look like in practice, I consider two environments for real-world implementation. The first is for a remote community in an isolated part of the world that may be receiving broadband internet for the first time, and this decision was inspired by my own experience with such communities. I worked for a San Francisco-based startup that was building a new type of satellite meant to provide broadband coverage to the most rural, remote, and underserved communities around the globe. During

my first trip to Canada's far north, I heard indigenous community leaders describe their concerns with the "darker side" of the internet that accompanies the economic, health, education, and social benefits of internet connectivity. These community leaders are highly aware of how the internet has altered much of Western society, and expressed worries about what this technology, plugged in without regulation, control, or care, could do to their communities, already fragile from high rates of depression and suicide, and the erosion of language, tradition, and culture (Hudson 2020; Ali-Hassan, Eloulabi, and Keethakumar 2020).

The second model of a typical U.S. household was inspired by conversations with friends and colleagues around the San Francisco area. As I would tell them my plans to build a new kind of internet for communities like that in northern Canada, their responses were typically, "I need that internet too." I admit having the same thought, wanting a better internet both to provide a healthier online environment for my two young children, but also to help nudge me toward behavior more consistent with my values. It occurred to me that there was nothing about this values-based approach that I was taking with an unconnected rural community that was not applicable and useful for a family like ours, and began including a model with tools and applications relevant to a typical concerned U.S. household.

5. Scope and Limitations

Despite my original dreams for this thesis, rigorous testing and meaningful implementation of the TGIP in the real world is beyond the scope of my project. I instead use the remaining space here after describing the TGIP models to outline my hypothesis about why this internet

structure could lead to a better online environment. I then consider some of the most common or compelling counterarguments to any type of controlled or regulated internet. These include, for example, the concept of openness as necessary for delivering opportunity on the internet, and the prevalence of authoritarian regimes using internet control as a means of social and political repression. I also wrestle with the most serious challenge of how to put a certain technology back in the genie's bottle, before offering my assessment of the viability of efforts like this to meaningfully change the wider internet.

At its core, TGIP is structured as a project to change the internet for you or for me; i.e., an internet based on the values of its users in a desire to have a healthier online experience. Unlike policy solutions, TGIP is not a prescription for imposing an internet on someone else. However, integral to the proposal is the idea that through its implementation at scale, shared liberal democratic values can also proliferate and replace narrow and extractive commercial values. I conclude with my observation that the internet is a place where little changes have the chance of becoming sweeping movements and, more crucially, if we cannot undergird the internet with a set of democratic values, strengthening commercial forces in the age of AI are poised to divorce the internet even more from a system that is healthy for democratic societies and citizens.

BACKGROUND

“The Internet is the most important single development in the history of human communication since the invention of call waiting.”

-Dave Barry

1. Origins of “the internet”²

The internet is a network of connected computers. It is all the servers, wires, switches, routers, and protocols that carry a WhatsApp message from your phone to your friend’s device, or enable your computer’s web browser to display a GIF of a monkey washing a cat. In a history that may be vaguely familiar to most modern users, the first internet, ARPANET, was a U.S. government project built to connect computers between government agencies and academic institutions. These researchers recognized the power of machines to convey information (starting with basic data and code, then files and programs) across distances and traditional barriers, and gradually expanded the network’s reach and function (Leiner et al. 2009).

The introduction of email in the 1970s greatly changed the value of the network for those researchers with access to it (Metz 2012). The really revolutionary chapter of the internet’s history came in the early 1990s when Tim Berners-Lee, then a researcher at CERN outside Geneva, thought it would be nifty to use this network to transmit information in *page* format—

² I refer to “the internet” in the generic sense of connected computers. In not treating it as a proper noun, I do not capitalize the “I”. Early writing on the subject did standardize capitalization, influenced by the history and enduring perception of “the Internet” as that specific technology which succeeded ARPANET. Much like “the telephone” is a linguistic successor to Bell’s patented invention, the internet is sufficiently ubiquitous to no longer require capitalization. Wikipedia mostly agrees with me. (https://en.wikipedia.org/wiki/Capitalization_of_Internet)

text and images, the kind of information familiar to everyone as newspapers, books, and magazines (CERN 2025). Berners-Lee's idea became the World Wide Web (WWW), and with it, the internet went from being a mere means of transmitting data to a truly new media. This ability of the internet, to make an infinite corpus of information immediately and readily available for anyone with a digital device and connection, has altered the course of history.

2. Valley Culture

Though the internet was born in the world of U.S. national security and defense, the modern web's developers and apostles typically shared a concern about government regulation of the network's structure and systems (Greenberg 2016). These early and persistent worries about government oversight of the internet, exemplified most loudly in manifestos like John Perry Barlow's "Declaration of Independence of Cyberspace", are part pragmatic and part cultural. The internet's pioneers knew they were on to something powerful and different, and with each successive innovation—from the original WWW to social media and on to artificial intelligence today—developers have worried that government attempts to regulate or control technology will stifle innovation and transfer power from programmers to bureaucrats (Greenberg 2016).

Culturally, too, the developers of the internet were more likely to be skeptical rather than embracing of government (Froomkin 2011). As Perry Barlow demanded, "Governments of the Industrial World ... leave us alone. You are not welcome among us. You have no sovereignty where we gather." (Greenberg 2016) This kind of pragmatic libertarianism and *hands-off-my-*

keyboard ethos is not simple, consistent, or uniformly adopted among Silicon Valley leaders, but it remains a distinct part of tech culture, across otherwise diverse industries, geographies, and chapters in the internet development.

3. “A series of tubes”: The View from Washington

By the time the internet began penetrating American homes in the 1990s, first via dial-up modem and through programs like AOL and Netscape, the conversation about regulating the net had not developed in pace with the technology itself. The rapid delivery of limitless information was predictably impacting industry, government, and most aspects of society, and all the while the internet itself was constantly evolving. To most lawmakers and the public, the internet appeared magical, mysterious, and opaque. In 2006, Senator Ted Stevens of Alaska, who chaired the Senate’s Commerce Committee and was responsible for regulation of the internet, famously described the network as “a series of tubes.” (Dashevsky 2014)

Stevens’ comments were laughable—especially to internet programmers, who can be unforgiving with those who misunderstand their technology³—but also generally representative of how lawmakers responsible for regulating the internet lack an understanding of it. When Facebook CEO Mark Zuckerberg was questioned by Congress in 2018 about how his company could possibly make money if it did not charge users fees, he sent the blogosphere into

³ A Slashdot forum conversation at the time of Stevens’ gaffe is illustrative of the tone internet insiders often take with tech illiterates, particularly when the latter are in positions of power (<https://tech.slashdot.org/story/06/07/03/0643238/how-the-internet-works---with-tubes>). This theme has become part of mainstay culture, and TV shows like *The IT Crowd* have capitalized on the humor of the incongruity between all-knowing techies and their IT-ignorant overloads.

hysterics again by responding flatly, “Senator, we run ads.” (Burch 2018) What may be obvious to technophiles—or to average internet users—often seems a mystery to lawmakers, but even for technologically proficient lawmakers and scholars, the nature of internet technology has left open a debate about whether the internet should be treated as kind of public utility, similar to the phone lines, or as media, like broadcast TV, or something else entirely.

This type of halting start by Washington in regulating an emerging technology is not unprecedented. When the telegraph, radio, and television emerged in America, it took lawmakers time to respond with regulation and institutions to oversee and manage the new media. However—and whether or not the uniquely perplexing nature of internet technology is really a cause of this—unlike with those earlier media, Washington has yet to impose a comprehensive regulatory response. A salient feature of legislation regarding broadcast technologies like radio and television was that broadcasters’ activities and content must be subservient to the “public interest standard.” These firms’ pursuit of profits or market share could not come at the expense of larger, if ambiguously defined, public values and goals (Brotman 2017).

America’s hands-off approach to the internet was articulated most clearly in the 1996 Telecommunications Act. In addition to deregulating parts of the communications industry, the act stipulated that companies which deliver information over the internet will not be held liable for the content of that information. This part of the legislation, known as Section 230, is the legal foundation of the U.S.’s open and “neutral” internet today. I will explore in the Justification section of this paper more about Washington’s relationship with internet

companies today, but a central point of my arguments here is that unlike with broadcast technology before the internet, the U.S. government has chosen not to develop and enforce a values-based regulatory regime for the internet. This void of public values has come to be filled by tech companies and their corporate values, leading to the harms present with the internet today.

LITERATURE REVIEW

“The straight line is regarded as the shortest distance between two people,
as if they were points.”

-Theodor Adorno

1. Preface: Asking the Right Questions About the Internet

While I worked at a satellite startup in San Francisco trying to bring affordable broadband to the most unconnected parts of the planet, our marketing department put together a video for social media asking, “Is the internet a good thing?” On camera, my then-colleagues earnestly discussed the kind of educational, economic, and social opportunity the internet affords, particularly when viewed as a *tool*, as most of them did.⁴ While they acknowledged the potential downsides of anyone using the internet badly, most of my colleagues resoundingly agreed that yes, “actually”, the internet is a good thing.

Their discussion, like many about the merits of the internet, asks the wrong question. They framed it as whether it is better to have the internet or no internet. (Or, to put it more accurately, whether it is better to have *the ability to have internet access* than to have no such option. Many westerners today who talk about taking digital breaks or going offline correctly describe their decision as a luxury.) The meaningful question of whether our internet is good should be held against the alternative not of no internet, but of having a different kind of internet. Our internet might be better than having no internet at all, but it is not *good* in ways it can or should be. To borrow an analogy from the company video, this is not a debate over

⁴ The video is available on the company’s YouTube page: <https://www.youtube.com/@astranisspace/videos>

whether a thirsty man deserves water. It is a debate about whether it is good for him to receive a Coke when there is plenty of water available. (And putting it more accurately in the internet context, the thirsty man may end up with a Coke not because he is parched, but because the person giving it to him works for The Coca-Cola Company.)

To support my proposal about how The Good Internet Project could provide a comprehensive solution to the problems of today's internet, in this section I discuss research, studies, and literature regarding the four claims I made earlier about the most harmful aspects of the internet to societies and individuals. Some internet technologies are so widespread and impactful as to not fit so nicely into any single category. For example, the spread of misinformation common to social media platforms both challenges democratic norms and has implications for the deteriorating value of truth. I try to analyze the issues separately when I can, but otherwise categorize the relevant literature under the claim it is most associated with.

2. The internet is destabilizing Western democracy.

Before I look at how the internet has visibly impacted institutions of Western democracy like elections and voting through its treatment of *the truth*, I want to examine the underlying relationship between a free society and its media technology. While written as the modern web was just developing, in *Bowling Alone*, Putnam prophesized where changes in media were leading us, particularly in his assessment of the necessary role social capital plays in underpinning democracy. Defining social capital as the “features of social organization such as networks, norms, and social trust that facilitate coordination and cooperation for mutual

benefit” (Putnam 2001, 19), he observed that television and emerging electronic communications were altering how social capital is produced and maintained. Putnam notes:

...the rise of electronic communications and entertainment is one of the most powerful social trends of the twentieth century...this revolution has lightened our souls and enlightened our minds, but it has also rendered our leisure more private and passive. More and more of our time and money are spent on goods and services consumed individually, rather than those consumed collectively. Americans’ leisure time can increasingly be measured...in terms of “eyeballs,” since watching things (especially electronic screens) occupies more and more of our time, while doing things (especially with other people) occupies less and less. (2020, 249)

This rise in time spent on individually consumed media corresponds with an increase in the rate of Americans dropping out of civic and social life. Those who “spent less time with friends, were less involved in community organizations, and were less likely to participate in public affairs,” which Putnam notes leads to an overall reduction in social capital (2020, 251).

The absence of social capital does not itself eliminate political activity, but rather the absence promulgates a certain type of politics. Putnam explains that because American democracy evolved in an environment “unusually rich in social capital”, its diminishment will have a profound impact on American political society (2020, 353). He speculates that in such impersonal political discourse:

Many opinions would be heard, but only as a muddle of disembodied voices, neither engaging with one another nor offering much guidance to decision makers...Citizenship is not a spectator sport. Politics without social capital is politics at a distance...Without such face-to-face interaction, without immediate feedback, without being forced to examine our opinions under the light of other citizens’

scrutiny, we find it easier to hawk quick fixes and to demonize anyone who disagrees. Anonymity is fundamentally anathema to deliberation. (2020, 353-354)

Putnam accurately describes the state of contemporary political discussions that take place on social media. He also notes a curious trend in how the decline in social capital “tends to remove the mainstream from the political process, leaving the most extreme voices in the room” (2020, 351), something social commentators often lament marks political discourse today.

Geraci et al. built on Putnam’s research and examined links between broadband access and social capital in the UK. Their analysis showed that broadband “significantly” crowded out the type of “bridging” social capital described by Putnam (2023). Noting the fragility of social capital as societies expand broadband access, the authors conclude the trend “is disturbing as it suggests that progress in ICT can undermine an essential factor of the economic activity and the well-functioning of democratic institutions.” (Geraci et al. 2023)

In *#republic*, Sunstein assesses how the nature of discourse and information exchange over the internet is altering the American political system. He is particularly concerned with the way many internet-based platforms feed users only content those users most want to see, and notes these kinds of echo chambers are antithetical to discourse in a democracy. Democracy depends on its citizens’ exposure to differences to prevent “fragmentation, polarization, and extremism, which are predictable outcomes of any situation in which like-minded people speak only with themselves.” (Sunstein 2017, 6)

Sunstein also comments on how widely shared experiences, not individual algorithmically customized ones, are fundamental to democracy. If each citizen lives in their own digital

universe, or “daily me”, and common experiences are few, he argues that society is collectively missing a public sphere, which is democracy’s natural venue for discussion, disagreement, and consensus-building (Sunstein 2017, 139-144).

Psychologist Jean Twenge, whose research into the effects of the internet on teens I will discuss in a later part of this section, hypothesized that one other potential detrimental outcome to democracy from the proliferation of the internet is how it has fed pessimism and even nihilism among young Americans in their views of the U.S. political system (Twenge 2023c).

Percent of U.S. Adults Who Agree With Negative Statements About the Country

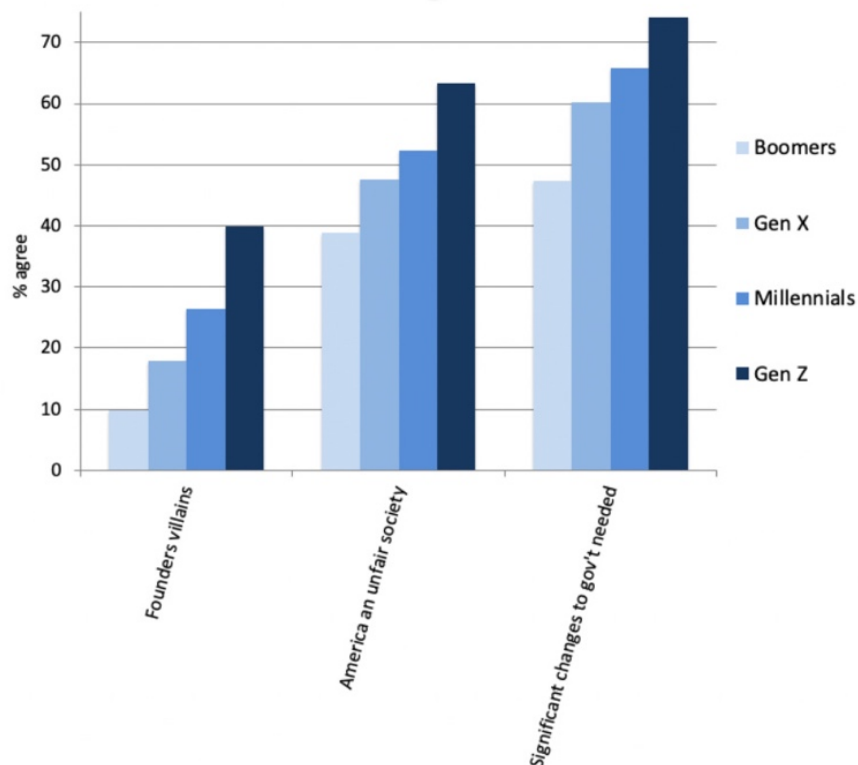


Figure 1. (Twenge 2023c)

Twenge discussed a similar trend among young people in their declining views of capitalism generally (2023c), something echoed on the editorial page of the *Wall Street Journal* as a possible explanation for the summer 2025 rise of New York mayoral candidate Zohran Mamdani. Though the *WSJ* commentary is not intended as an empirical observation of political conditions, the paper's coverage of the "socialist" candidate's victory in the democratic primary offers a possible contemporary window into the results of opposing political camps creating their own information universes. In criticizing younger New Yorkers who support Mamdani, the authors point to how Generation Z spends "four-plus hours" on their phones, and gets its news from TikTok and Facebook, "whose algorithms lead them to material that reinforces their preconceptions rather than challenges them." (Penn and Stein 2025) Left-leaning media similarly blame the internet and digital technology for how their ideological foes consume only information meant to reinforce or strengthen existing views (Bump 2025), with both sides acting out what Sunstein warned were the inevitable consequences of a democracy lacking a public sphere comprising shared information and experiences.

In the democratic institutions of elections and voting, the internet's programming for information proliferation over authenticity plays out in profound ways. A comprehensive study in the wake of the 2016 election looked in detail at how various internet technologies like social media, search engine optimization (SEO), and digital advertising operate in elections, and reached conclusions about the systemic threats they pose to democracy. The researchers highlighted the "core challenge of disentangling the alignment of interests between the commercial pursuits of digital platform companies and the success of disinformation-based

political advertisers.” (Ghosh and Scott 2018, 29) They noted that ad tech tools—the behavioral data collection, audience segmentation, and AI-driven targeting—which were originally developed and honed for commercial use, have been readily applied by malicious actors in political persuasion campaigns. As the researchers conclude, these internet technologies “can progressively weaken the integrity of our democracy by separating citizens from facts and polarizing our political culture.” (Ghosh and Scott 2018, 29)

3. The internet is destroying truth and meaning.

Early in the 20th century, John Dewey and Andrew Lippman engaged in a spirited “debate” regarding the nature of information, truth, and communications in democratic society. Their exchange wrestled with whether citizens could ever be adequately informed enough to guide democracy, or whether another force such as elites and experts were required to interpret truth and reality for the public. Scholars studying elections in the internet age have picked up this debate, pointing out that with the emergence of *truthiness*, “truth is essential to deliberative democracy and ... we need to recover it.” (Porpora and Sekalala 2019) The internet is of course awash with information. Anyone with a smartphone needs no explanation of the internet’s power to retrieve any bit of information limitlessly and near instantaneously. But just as information does not confer knowledge, nor does it equal truth. In the 1960s, in another period of turbulent political times in America, social commentators pointed out how the more tightly differing opinions were held, the more an underlying truth was essential. “Freedom of opinion is a farce unless factual information is guaranteed.” (Arendt 1967)

The internet, however, has created a world in which strong opinions are specifically reinforced without regard for establishing any kind of shared acceptance of facts and truth. Internet platforms do this because they are designed and optimized not to maximize truth, but rather to maximize user attention for profit (Center for Human Technology 2020). And, unfortunately, people have a natural propensity to share sensational, fake, and extreme information more widely and quickly than authentic information. In one study of such “information cascades,” the top 1% of false news cascades diffused to between 1000 and 100,000 people, whereas the truth rarely diffused to more than 1000 people (Vosoughi, Roy, and Aral 2018). Worryingly, prior exposure to outrageous or sensational information leaves people primed to accept the information as true when encountering it in the future, thus as a story cascades, it gains in perceived accuracy (Pennycock, Cannon, and Rand 2018).

Journalist and writer Nicholas Carr—who famously asked back in a 2008 *Atlantic* article, “Is Google making us stupid?”—worryes about the future of the truth in the age of AI and unchecked internet monopolies:

To have a flighty oligarch, or any individual, control a large language model connected to a major social media platform—the X feed offers an unparalleled dataset of human conversations for AI training—raises unsettling questions about the future of the public square and of democracy itself. (Carr 2025, 205)

Considering social media platforms’ abilities to proscribe certain topics and views, manufacture speech, and incite users to mob action, Carr harkens back to the Orwellian Big Brother’s Ministry of Truth, wondering caustically “how much more efficiently they would have performed their work had they been supplied with the right software.” (2025, 205)

4. The internet is eroding the quality of human relationships.

Turkle has been researching the effects of technology on interpersonal relationships for decades. In her 2015 book, *Reclaiming Conversation*, Turkle argues that digital technologies—particularly smartphones and social media—are eroding our capacity for empathy and meaningful connection by displacing real, face-to-face dialogue with fragmented and controlled asynchronous communication. Turkle is particularly concerned with what she observes is a decline in people’s capacity for empathy. She posits that solitude and time for reflection are the foundation for developing empathy, and that solitude has become scarcer in a state of perpetual connection (Turkle 2015, 61). Assessing Turkle’s research, Carr notes:

Although we're quick to assume a direct correlation between communication and empathy—the more information we exchange, the more empathy we'll feel—empathy depends far more on the quality of our communication than its volume. It's another thing we sacrifice when we talk too much. (Carr 2025, 111)

Turkle worries particularly about the generation we have reared with smartphones in their hands, who are always online, always connected, asking whether we are “depriving them of skills that are crucial to friendship, creativity, love, and work?” (2015, 31)

Turkle and others have also noted how even when people are physically together, the mere presence of a phone reduces the depth of their interaction. “The presence of always-on and always-on-you technology...changes the conversations we have when we talk in person. [P]eople with phones make themselves less vulnerable to each other and feel less connected to each other than those who talk without the presence of a phone on the landscape.” (Turkle

2015, 26) Several studies have confirmed these observations—that people are less likely to develop interpersonal closeness and trust, or exhibit understanding and empathy toward an interlocutor when a phone is present—in a phenomenon researchers have dubbed the “iPhone effect.” (Przybylski and Weinstein 2013; Gazzaley and Rosen 2016, 256) This inability to be present, mindful, and connected with people in our physical proximity is a result of the way our phones and internet platforms have trained our brains to expect and depend on the dopamine hits we get each time someone connects with us in our digital universe—via message chime, posting like, status update, etc. (Center for Human Technology 2018)

Another interesting examination of how internet technologies may affect our capacity for relationship building is Joinson et al.’s study of “digital crowding.” (2011) These researchers observed that the social media norm of hyper-sharing can lead to stress and diminished interpersonal well-being. Crowding isn’t about physical proximity, but rather the psychological experience of “too much social contact”—which can drive people to withdraw, manage boundaries more rigidly, or feel territorial, anxious, even resentful. For example, multiple overlapping social spheres (e.g., friends, family, colleagues) collapsing into one context creates boundary ambiguity, making nuanced sharing—and healthy intimacy—hard to sustain (Joinson et al. 2011).

5. The internet is fomenting a mental health crisis.

Haidt, Twenge, and other researchers across several fields have been examining how internet technologies affect users' mental health. Haidt's 2024 book, *The Anxious Generation*, summarized his conclusion of the irony of social media: "the more you immerse yourself in it, the more depressed you become." (2024, 149-179) Haidt stresses that while online societies are structured around the exchange of information as a means to establish social relationships, for humans it is, "experience, not information, [which] is the key to emotional development." (Haidt 2024, 149-179)

Psychotherapist Esther Perel similarly asserts that the process of working through dynamic, messy IRL relationships is how we develop mentally. With the internet's engineering toward efficiency and optimization even in relationship-building, users are deprived of opportunities for such development, growth, and reflection. Dating, for example, "once a social experience shaped by mutual discovery, has become an exercise in efficiency...an endless optimization game that often reduces us to commodities, swiped and sorted by algorithms." (Perel and Miller 2025)

In defending his research from challenges about the causal relationship between social media use and poor mental health, Haidt and an allied camp have grown more confident of internet technologies' role in fomenting a mental health crisis. Acknowledging there are outlying studies, "The great majority of studies find a positive correlation between time on social media and mental health problems, especially mood disorders (depression and anxiety)." (Haidt and Twenge 2023) Moreover, even if one is still doubtful of social media's role

contributing to poor mental health, researchers Kannan and Veazie point out that in-personal social contact “is essential for health and longevity, while isolation exacts a heavy toll on individuals and society. ... While a few studies have found benefits to online interaction, there remain aspects of in-person interpersonal interaction (e.g., touch, simultaneous expressions, mutually experienced environment) that cannot be replicated online.” (Kannan and Veazie 2023)

Twenge reports exhaustively in *Generations* that across disparate countries and cultures where social media and smartphone use are prevalent, the use of these digital media exhibits the clearest and strongest associations with a surge in psychological problems (Twenge 2023a, 609-640). Data from across English-speaking countries consistently demonstrates a correlation between increased unhappiness and depression with increased “digital media” use (Twenge 2023a, 624-633).

“How dissatisfied are you with...?”

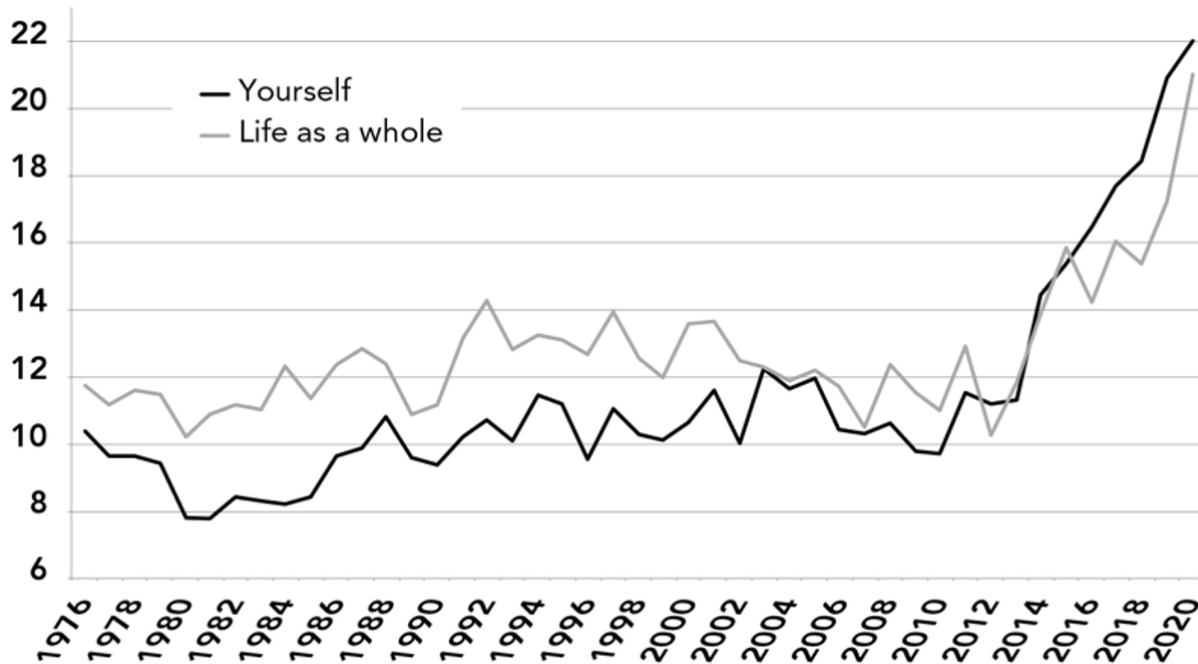


Figure 2. (Twenge 2023a)

Percent of U.S. 12th graders not satisfied with themselves and not satisfied with their lives as a whole, 1976-2020

Notes: 2020 data were collected in February and early March, before schools shut down during the COVID-19 pandemic. The question: "The next questions ask how satisfied or dissatisfied you are with several aspects of your life.... How satisfied are you with...

Yourself? Your life as a whole these days?" Responses were on a 1-7 scale, from completely dissatisfied (1) to neutral (4) to completely satisfied (7); the figure shows the percent choosing 1-3.

Source: *Monitoring the Future*

When Twenge expanded the data to include the non-English-speaking West and select countries in Eastern Europe, Latin America, and Asia, "...the rise in loneliness across all of the countries tracked closely with the rise in teens' smartphone access and internet time—but not with unemployment, income inequality, gross national product, or family size." (Twenge 2023a, 633) In other words, "Only smartphones and social media can explain why teen depression and loneliness increased internationally after 2010." (Twenge 2023b)

Facebook itself understands its products, such as Instagram, contribute to a teen mental health crisis. The *WSJ* reported about a Facebook message board where employees shared details from a study commissioned by the company to look at how Instagram may be linked to mental health problems among teens. Employees shared statistics including, “13% of British users and 6% of American users trace the desire to kill themselves to Instagram,” and “21% of US teens and 18% of British teens said that that feeling started on Instagram.” The postings included a slide quoting a U.S. female teen, "I've had to stop myself looking at Instagram in the morning because it has so much power to shape how I feel, so I try to give myself the time to set my own day." The report goes on extensively reporting how teens say that constant comparison on Instagram is contributing to higher levels of anxiety and depression. As the *WSJ* notes, Facebook’s “researchers don't dispute this.” (Wall Street Journal 2021)

For a reminder of why these trends of increased loneliness and social isolation are harmful—and mortally so—Holt-Lunstad et al. report that “substantial evidence now indicates that individuals lacking social connections...are at risk for premature mortality.” (2015, 235) They highlight that the mortality risk of “social isolation and loneliness is comparable with well-established risk factors for mortality,” such as lack of exercise, obesity, substance abuse, injury and violence, poor environmental quality, and lack of access to health care (Holt-Lunstad et al. 2015, 235). It is hyperbole to assert “the internet kills,” but it is noteworthy that certain examples of online activity and behavior are not yet treated as risk factors for early mortality like those statistically similar harmful activities referenced in the study.

RESEARCH METHODOLOGY

The analysis above and proposal below are the result of observational study and analogical reasoning. To understand how I carried this out as I have, I must first confess my bias. Several years ago, I began believing that internet technology was increasingly out of sync with democratic values and even basic human rights. Two observational questions kept rattling in my head, feeding this belief: 1) *why does the internet destabilize democracies more than it does authoritarian regimes?*⁵, and 2) *why does doomscrolling leave one feeling empty in precisely the way that meditating leaves one feeling whole?* These seemingly unrelated questions drove me to understand better what underlying aspects of internet technology may be the common force behind what I was observing.

I began research with the canon: Putnam on U.S. civil society; Sunstein on the relationship between technology and democracy; Lessig on the socio-political implications of a network's architecture; Turkle on technology's effects on relationships, and Haidt and Twenge on mental health in connected societies. From there, I explored prominent research which built on this canon, while also combing through notable articles cited by groups trying to bring about a healthier internet, such as the Center for Humane Technology and the Prosocial Design

⁵ I am comparing, particularly, nations like China and Russia with the United States and Western Europe. During the last decade, while the former countries have used the internet to effectively obliterate opposition and movements that threaten political leadership, democracies have seen elections increasingly challenged by misinformation, the erosion of social and political trust, and the rise of fringe platforms and parties. I recognize how certain internet technologies have helped enable some democratic movements, beginning notably with the Arab Spring in 2011. However, it may be more telling that in the last several years, autocratic and authoritarian governments from Turkey to Iran have become increasingly sophisticated in using internet technologies to better monitor and stamp out such movements.

Network. I also sought out sources renowned for arguing the internet as a net benefit to society, such as Boyd, Shirkey, and tech industry insiders like Dixon. I eschewed interviews and direct surveys only because of time limitations. To do that meaningfully would take many more weeks than I have had available, and it made sense to incorporate this critical research element into the proposed project itself.

Regarding analogical methods, I was driven to understand better what other technological and social phenomena provide useful parallels with the state of the internet today. Understanding the histories of other media such as radio and television has been critical, but the analogies only carried me so far, particularly because the internet is interactive and able to shape its users in ways previous media could not. The U.S. government's decision to forgo upholding a public interest standard in its approach to regulating the internet, instead allowing market forces to reign unchallenged, also compelled me to continually look beyond media networks and to comparisons with other inherently harmful industries such as processed and fast food. I studied other addictive technologies, like video gambling and online betting, and am drawn to parallels with the tobacco and prescription drug industries. No other industry or phenomenon provides a perfect comparison of course. This *otherness* is what makes the internet so special, and also what allows it to change society so uniquely. Interestingly though, I observed that the more broadly I searched for analogies to help understand the internet, the narrower my conclusion became. Whatever the specific internet technology, trend, or context in question, where the internet does harm, it does so because commercial goals have been allowed to trump social ones, corporate rights have overridden human ones. In this way, the

internet industry is not unique in emerging as a force of universal opportunity and promise for society widely, only to be captured and corrupted by narrow and powerful market forces.

Where the internet is unique, however, is that unlike other markets where the prospect of outside actors forcing change on the industry is slim and hard-won, the very architecture of the internet allows users to change it themselves with relative ease.

PROPOSAL

“If you’re not embarrassed by the first version of your product, you’ve launched too late.”

-Reid Hoffman

1. Overview

Encouragingly, the internet’s reputation as simply a kind of benign and neutral tool⁶, rather than as a new kind of media which also shapes society for good or ill, has evolved.

Discouragingly, despite a greater recognition of the internet’s negatives, public cynicism has set in about what can be done to mitigate harms or overcome the damage the internet causes individuals, communities, and society at large.

I am not cynical about our relationship with the internet, and propose that something can be done, and it can be done today, by average users and communities, and it can create a different internet. In its totality, I call this endeavor The Good Internet Project (TGIP). The title is a little vague, and not a little presumptuous. I claim it is *good* because its aims are broadly accepted and shared values in Western democratic societies: social cohesion, functioning government and institutions, individual health, opportunity, wellbeing. Critically, the project rests on the idea that its total potential is greater than the sum of its parts. As I will show, other researchers have explored how many of these tools may have some effectiveness reducing certain internet

⁶ I confess a great fondness for the work of sociologist Bruno Latour, prominent for his articulation of actor-network theory. Latour argues there is no such thing as “neutral” technology, as all such technology, even a simple door hinge, through its design and intended use imparts a set of values and goals upon its user. *Technology is Society Made Durable* (1990) has had a particular impact on my thinking.

harms. I hypothesize that employed together, they may act as a different set of values—a different *code*, as Lessig would say—that can produce a truly good internet.

TGIP is therefore a values-based, customized and holistic approach to using a suite of available network protocols, internet-based programs, and other tools to change the internet experience sufficiently to achieve a set of outcomes less harmful to individual users and society than our internet today.

I outline below the intended outcomes of this proposal, describe the mechanisms of change, and detail the sets of tools a user may employ to achieve that change. I also discuss two proposed environments for implementation, which I mentioned above were inspired by my experience working in the private sector to expand access to the internet, and a roadmap for launching the project in the field.

2. Intended Outcomes

TGIP rests on a set of assumptions about what a better internet affords its users. The system's values are intended to represent the values of users in an open, democratic society, and purposely provide an alternative to the values of the internet's network architects (maximize network capacity, flow, and efficiency), the corporations that effectively run the modern internet (maximize user attention for profit), and the governments that are ambivalent about the internet's harms or incapable of addressing them (maximizing commercial opportunity for private firms). TGIP presupposes that limiting or reducing those maximizing efforts above is good, so much as the limitations help achieve collective goals such as:

- stable government;
- functioning institutions;
- social cohesion;
- respect of norms, culture, and tradition; and individual goals of
- access to information and opportunity;
- meaningful interpersonal relationships;
- individual well-being.

Put another way, TGIP values are based on the belief the internet *should* be held to a broad public interest standard, and the values of the internet's underlying architecture and overlaying platforms should be subordinate to this standard.

3. Mechanisms for a Good Internet

This proposal centers on four mechanisms by which a set of network and user tools (outlined in section five below) can produce a better internet: operating at human scale, operating at human speed, enabling purposeful action, and being prosocial. I analyze each individually, but acknowledge that there is much overlap between the mechanisms, as indicated by the schematic below which highlights their relationality. Indeed, this inability to cleanly deconstruct the different mechanisms is central to my hypothesis that to build a good internet requires a coordinated, holistic approach to using protocols, tools, and platforms. Like the contributing factors to a healthy life do not always separate neatly into prescriptive ratios between exercise and diet, social engagement and meaningful vocation, that a balance between

the factors leads to good health is the approach shared by TGIP's effort to build a balance between these four mechanisms.

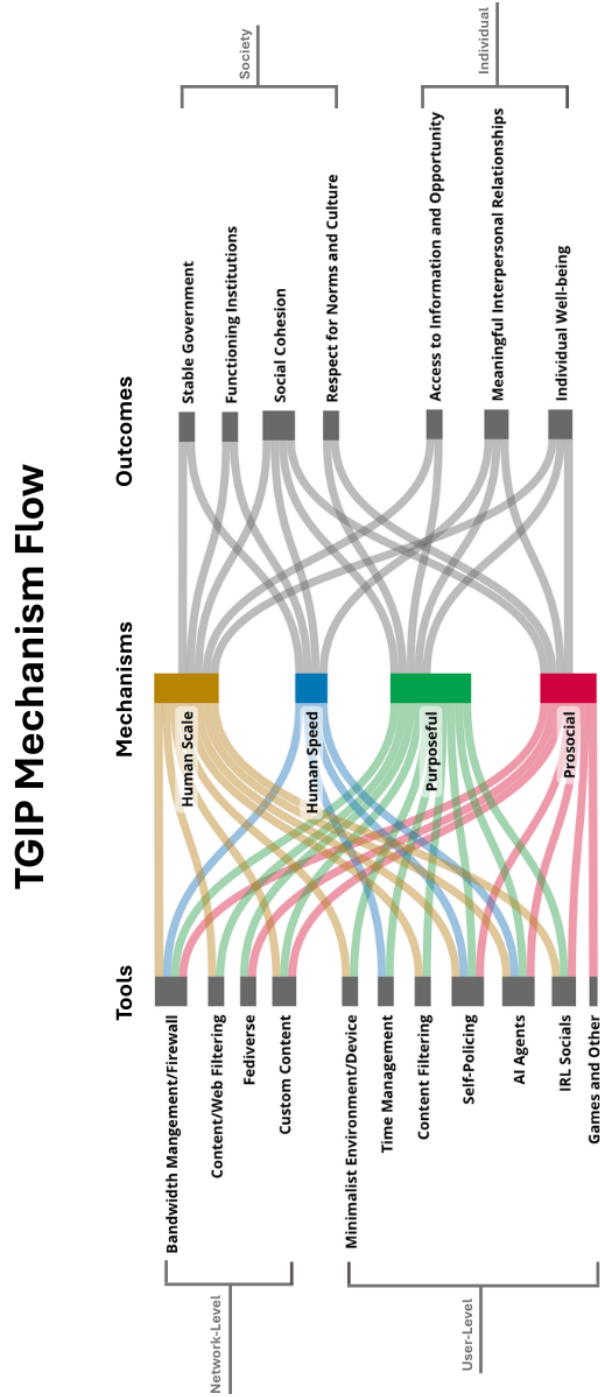


Figure 3, TGIP Mechanisms in Action

a. Human Scale

This proposal incorporates tools which can help reduce the internet to a human scale. Similar to the stress described above by social media users feeling an inextinguishable obligation to manage their profiles across platforms—liking and tagging others’ posts, generating new content to maintain momentum—even off social media, Internet users suffer from information overload (Ophir, Nass, and Wagner 2009; Bawden and Robinson 2008). The voluminous email, the algorithms pushing us a bottomless well of new TV and movies to watch, and even the infinity scroll itself are constant reminders that there is no end, conditions which signal to our biological systems to keep going, keep searching past the point of fatigue (Ward et al. 2017).

Other than when perhaps specifically trying to query a large data set—say, trying to find all instances of greater than magnitude 5.0 earthquake in South America—much of our online behavior is seeking qualitative satisfaction, not the quantitative maximization inherent to internet platforms. We want to find *a good book*, not be served up dozens of books from a publisher that just happened to pay the search engine the most to put their products on top. Even when we are not specifically being manipulated by internet platforms away from our intentions and towards their material goals, simply having too much choice often leads to poor satisfaction (Iyengar and Lepper 2000).

TGIP proposes using tools that deliberately reduce the infinite nature of the internet, reducing it to a scale more manageable by the human brain. This can be achieved in both operating systems and within specific programs. Some of these tools include minimized

operating system environments like the *Before Launcher* and *OLauncher* apps for Android, *Dumb Phone* for iOS, or by using iOS's Focus mode more aggressively. Employing a News Feed Extractor will remove feeds from Facebook, LinkedIn and other socials, replacing them with quoted text. Similarly, apps like Unhook YouTube narrow the YouTube platform to a recommendation- and comment-free environment. For some communities or artists and entrepreneurs that rely on social media for a certain amount of exposure, TGIP may propose harnessing the Fediverse, a decentralized form of social media which rely on the *ActivityPub* protocol to enable users to post content to various platforms without being subject to any algorithmically driven feeds.

A more extreme minimalist approach is *The Light Phone*, which is a physical phone and operating system containing a few essential tools, built as an “an alternative to the tech monopolies that are fighting aggressively for our time & attention.” (The Light Phone, Inc. 2025) A complimentary robust approach on the network level is doing what many companies do for their intranets: employing IP-level filtering and blocking tools to limit or eliminate access to certain websites. The great difference here is that in the TGIP proposal, the users themselves are choosing to block such access to reduce the likelihood of being distracted or manipulated by it, rather than having that control imposed by an external force like a web administrator.

b. Human Speed

TGIP also proposes employing tools that reduce the internet to a speed more conducive to human cognition and deliberation. An interesting tale from WWI reminds us of the relationship between information speed and ensuing human behavior. In June of 1914, when Austrian Archduke Franz Ferdinand was assassinated in Sarajevo, hundreds of urgent diplomatic messages raced between European capitals through recently strung telegraph and telephone wires. “The rapid-fire dispatches quickly devolved into ultimatums and threats. Rather than calming the crisis, they inflamed it.” (Carr 2025, 23) Diplomacy, a communicative art that traditionally moved at a slow, deliberate, and careful pace, could not cope with the volume and speed of the new electronic medium. “Even as they impeded negotiations, the new telecommunication systems enabled armies and navies to mobilize much faster than had been possible when military orders traveled by courier.” (Carr 2025, 23) By August, WWI was under way.

The speed of the internet is also a key feature of how it distorts human thinking and behavior. Interventions to slow the internet down are often called “friction design”, and several tools have been evaluated by researchers for their effectiveness. The concept of friction design rests upon the idea that the internet is engineered to be such a frictionless environment—so maximized for speed and efficiency of transmission—that it has become difficult for humans when interfacing the internet to use any kind of “System 2” thinking, to borrow Daniel Kahneman’s term for contemplative, logical, or reasoned thought (Kahneman 2011). Without time to really think or deliberate, users are in a constant state

of automated action, impulsively, emotionally, and instinctively clicking here and there, precisely as internet platforms intend.

Interestingly, some platforms themselves have experimented with adding friction to allow users better time to think. Twitter demonstrated some effectiveness with tools that compelled users to actually read content before retweeting it or reconsider sending abusive and insulting replies (Green 2022). To varying degrees of success, other platforms have toyed with warnings on particularly malicious content, attempting to slow users down to think about the consequences of impulsive actions. When used collectively, such friction can provide users “healthier conversation” and more “informed discussion”, and collectively can reduce the spread of fake information (Kan 2020; Fazio 2020).

While I cover most user-level tools for adding friction in the next section, it is worth mentioning the more aggressive approach a user or community can take at the network level by throttling bandwidth to certain platforms or along other specific parameters like time of day or time spent online. Again, private entities do this with their own internal networks using managed routers and firewalls, and home users can now achieve similar results using basic and inexpensive software and hardware. Models suggested below employ Mikrotik routers and their proprietary RouterOS platform because this is what I have experimented most with, but even more nuanced and robust options for TGIP solutions could employ pfSense or OPNsense, both of which allow granular control over network speed and traffic. Such customization options only increase with one’s technical literacy, though my intention here is to stick to tools average users may be able to wield.

c. Purposeful (aka, Actions Follow Intentions)

The reasons for slowing down the internet preview this mechanism, but a critical feature of the proposed good internet is employing tools that allow user action and activity to follow intentions. So much of the underlying and insidious harm of the internet stems from how technologies disassociate users from their intentions, reasons, and goals. “Doom scrolling” is such an apt expression for the kind of mindless action that the platforms prompt, as their goals are to keep user eyeballs on the screen, and that is only possible by muting the human brain’s sense of time and space and recognition of how its action is incongruous with original intentions or motivations (Shabahang et al. 2024).

There are whole movements of technology available today that allow users time for reflection or try to nudge us toward intended and better outcomes. The exact right recipe for how to employ these tools will depend on individual user behavior or the character of a particular community, but groups like Prosocial Design Network have documented the efficacy of many available today. Many of the tools are means of imposing self-control or try to self-police behavior. Apps like *Opal* and *Freedom* are intended to make us primarily more aware of how we spend our time online.

Drawing on Thaler and Sunstein’s legendary research in *Nudge*, I think a more effective approach to self-control may come from using our stated intentions and goals back at ourselves. For example, TGIP may employ network-level captive portal technology to engage users to state intentions when accessing particular platforms, and could impose limits on activity that goes past one’s intentions. As described earlier, a similar tactic can

be taken at the device level using iOS Shortcuts or the third-party app Tasker on Android. To different degrees, both allow a user the opportunity to use prompts and self-created dialogue to transition oneself out of System 1 automated behavior back to System 2 deliberative action. The key to efficacy with these efforts is careful design architecture. The tool must avoid becoming overly repetitive so as not to encourage the user to simply ignore it, but must not also be overly complex so as to discourage the user to set it up properly to begin with. “In all forms of design or architecture, including the choice variety, every detail can matter. ... seemingly small interventions can have big effects.” (Thaler and Sunstein 2021, 198) The integration of AI tools in this design promises much, as AI could help vary dialogue in prompts, ensure some randomness in the process, and even better translate a user’s goals and values into an effective dialogue interface. In fact, getting this design architecture right is a large focus of my work with TGIP going forward, though I still maintain that the ultimate effectiveness of TGIP in a real-world environment may not depend on any one particular tool so much as it rests on a balance between the various tools.

d. Prosocial

Somewhat more independent from the highly interrelated three mechanisms above, the fourth involves using internet technologies to promote prosocial activity both on- and offline. There exist today “social media” platforms specifically designed to promote IRL interactions and relationships, such as *Mozi* and *Pie*. Slightly more novel but perhaps less

niche, some games like Pokémon Go! are specifically built to connect players in the real world, and stories abound of people meeting and forming friendships through the hugely popular game (Kharis et al. 2022).

A more fundamental way TGIP aims to be prosocial is by offering users tools to limit or eliminate traditional social media accounts, freeing up greater space in their lives for real and meaningful relationships in the physical world. Whether by app-level prompts to promote reflection upon accessing social media apps, or at network level by blocking or limiting access, nudging oneself away from social media can have pronounced effects on how users replace such online activity with other forms of social engagement (Odell 2019). TGIP proposes to use self-created dialogue-based prompts as one form of nudging, and the exact character of that prompting will be most effective when consistently but not repetitively tied to a user's goals and values.

Another TGIP prescription may also offer the simple but powerful tactic of cancelling memberships such as Amazon Prime and Netflix. *Canceling Amazon Prime as a prosocial act?!* Though they are designed to appeal to users' desire for convenience and many options, such subscriptions are inherently antisocial, as they deprive subscribers of meaningful opportunities to engage in real relationships in the physical world (Cushing 2021) while also replacing deliberative time with company-fed "recommendations." Amazon exploits its size and market share to keep customers out of neighborhood shops where they might otherwise build cooperative and mutually beneficial ties with local businesses. There are widely observed detrimental effects of this trend to small

communities particularly (Chen et al. 2020; LaVecchia and Mitchell 2016). Perhaps more insidiously, platforms like Netflix are designed to keep users largely alone and in front of a screen, inherently at the expense of more social activity in the real world (Cushing 2021).

4. Two Environments

To see what TGIP might look like today in practice, I considered two environments for TGIP implementation: a) individual households in the highly connected San Francisco Bay Area, and b) remote and largely unconnected indigenous communities in the far north of Canada. As mentioned in the Introduction, these two target environments are inspired by my own experience, and are not meant to imply locations where TGIP may work best. While I hypothesize that the project's design makes it applicable to any group in a liberal Western democratic country, until actual testing and implementation, I reserve judgement about the most suitable environment or related limitations.

5. Project Details

a. Project Surveys and Evaluation Methods

I will assess the project's impact both qualitatively and empirically. For qualitative measuring, the project will employ sets of surveys asking participants about 1) the nature and quality of their internet activities, 2) the nature and quality of interpersonal relationships, 3) the nature and quality of civic and social activities, and about their 4) mental health and 5) views of government, public institutions, and democracy. For both control and participant

groups, the latter four survey sets will be employed before TGIP implementation and at one-, four- and 12-month stages during the project. The survey regarding the nature and quality of internet activity will take place weekly, including at random intervals corresponding with internet use, so as to measure a participant's assessment at the time of activity.

Empirical measurements will include weekly logs of how participants spend time—conducting various activities on the internet, with friends and family in real life, engaged in civic or political activity, deliberately alone, etc. The aim of these surveys and time logs is to determine whether changes to TGIP participants' internet architecture indeed produce changes to their relationships with friends and society, their views on political systems, and their own mental health. The logs have the added benefit of allowing space for public pronouncements and social commitments.

b. Project Size

The project will provide the TGIP suite of tools to no fewer than five communities in unconnected or sparsely connected regions of Canada. I will employ the same survey and monitoring of a control group of no fewer than five communities in the same region which maintain some form of access to the internet as it exists today; IE, with no intervention from TGIP.

For evaluating implementation among U.S. households, I will provide a similar TGIP suite of tools to no fewer than five households, and survey a control group of no fewer than five households.

c. Project Limitations

The internet needs of communities in rural Canada and households in the San Francisco area are doubtlessly very different, and this implementation choice is deliberate. Besides extreme differences in connectivity infrastructure and online activity, two different societies may represent opposite ends of the individualism vs. collectivism spectrum in the liberal democratic West. My anecdotal observation is not meant as an ethnographically grounded hypothesis, but I do believe the significant differences between the two environments are key to understanding and assessing what mechanism of internet connectivity may be universally beneficial and harmful across the West. My hypothesis rests on the idea that TGIP's proposed mechanisms are sufficiently universal to be applicable across liberal democratic societies, despite cultural, socio-economic, infrastructure, and other differences. In other words, the point of TGIP is to test exactly what code is fundamentally *good* to internet in the West, and I thus propose implementing it in very different Western societies.

d. The Challenge of Opportunity

There are innumerable ways the inherent differences between the two testing groups could produce confounding information. However, the choice of employing one model across two very different groups is deliberate, and can be mitigated. I am specifically interested in testing TGIP in an area with nascent or emerging connectivity because of the prevailing argument that the internet must be free and open to maximize economic, educational, and social

opportunities for its users, and these benefits are particularly profound for communities first coming online. When I first mentioned this project to a Silicon Valley insider, he responded with enthusiasm about using the notion of “controlling” the internet to make it better, but immediately caveated that enthusiasm by saying that the system would still have to make exceptions for particularly gifted or high-performing individuals who would, in his estimation, deserve the full internet to maximize their potential. I reject his notion of selectively opening up the wider internet for some privileged group—those sufficiently motivated and interested to explore the internet beyond TGIP’s parameters certainly can and will do so—but he echoes a sound argument about the internet’s value in providing opportunity. I expect the rural and isolated communities like those TGIP proposes to test will derive disproportional benefit from being connected to greater educational and health resources, geographically distant family and friends, than do already well-connected households of the Bay Area. My intent therefore is to test and assess whether a controlled internet can still afford these universally beneficial opportunities, while also effectively and broadly minimizing harms.

e. Suite of Tools

The table below features the currently available tools which I have considered for possible implementation in a TGIP project and which are referenced throughout this text.

Tools			Mechanism			
Level	Category	Examples	Human Scale	Human Speed	Purposeful	Prosocial
Network	Bandwidth Management/Firewall	Mikrotik Router OS; pfSense; OPNsense	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Content/Web Filtering	Squid; OpenDNS; Pi-hole	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Fediverse	ActivityPub	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Custom Content	SolarSPELL; ilimbox	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
User	Minimalist Environment	Before Launcher	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Minimalist Device	Dumb Phone	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Time Management	One Sec; Freedom; Focus	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Content Filtering	Facebook Newsfeed Extractor; Unblock Origin	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	Self-Policing	Opal; iOS Shortcuts; Screen Time Genie	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	AI-Agents	ChatGPT + self-policing app; Jomo; Unhook; Faceless; Rewind	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	IRL Socials	Mozi; Pie; Marco Polo	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Games and Other	Pokemon Go!; Tribute; Montage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Table 1, TGIP Suite of Tools

f. Tool Selection

Specific tool selection for the participant households and communities will be informed by surveys of current connectivity, habits, device usage, tech fluency, etc. that will be conducted at the start of the project. However, while there may be some variation in the specific tool sets, I envision the project employing a few important common features.

Network-Level Tools:

A key feature of this proposal is altering the network's code to operate at a scale and speed more aligned to human cognitive thinking. In other words, TGIP provides an internet with less noise and distraction and a slower stream of information and inputs. To achieve this, the project will use bandwidth management programs and firewalls to slow, filter, and potentially promote content. The details of how this friction is implemented will be fully transparent to users on the platform. The point of course is not to deceive users with "control"; the point is to minimize certain sites and platforms on the internet in their ability to deceive, manipulate, or overwhelm users with speed, tricks, and a deluge of content.

Another component of network-level intervention involves the use of captive portals and similar notifications. This user engagement serves a few important purposes. Messages will interrupt sessions to "check in" with users regarding their intentions and whether current activity is in line with those goals or they have been pulled in an unwanted direction. Notifications will also remind users of potential harms and pitfalls associated with certain sites, activities, and behaviors. These captive portal and other notifications thus engage users about the purpose of the interventions themselves, ensuring

transparency while articulating the overall project's values and goals. Finally, interventions may steer community-project users toward specific custom content. The work of SolarSPELL and others in providing suites of content tailored to specific rural and indigenous communities, with the goal of promoting and protecting local language, customs, and norms, may have applicability in TGIP.

User-Level Tools:

The user-level tool suite will similarly need to be customized following participants' initial surveys, but some categories of tools are fundamentally important to the project design. Time-based interventions will also feature at the user level. Apps like One-Sec and Freedom have been demonstrated to have some ability to slow users down, and I expect to incorporate at least these kinds of interventions on participants' mobile devices.

More robust self-policing can be achieved through programs like Opal, apps like iOS Shortcuts and Tasker, or via similar desktop-based automation scripts. The user experience is not unlike what can be accomplished with captive portals and other notifications at the network level, as you are essentially training and programming your phone or other device to check in with you when performing certain tasks like accessing social media, spending a prolonged amount of time on a particular platform, or something else defined in advanced as potentially harmful.

Finally, similar interventions may be employed to nudge users toward prosocial activities or content, particularly for users that identify themselves as feeling lonely or socially isolated. Games like Pokémon Go! and platforms like Mozi are just two basic

examples of tools aiming to take users from behind their screens and out into the physical world.

AI on the Horizon:

Let's face it, there are some obvious inherent limitations and shortcomings of the tools described above. As anyone who has ever stayed in a hotel can probably guess, it is hard to control when captive portals intervene, and that timing is important to the efficacy of the friction. If the tone of messages is off, notifications and engagement are simply annoyances. Mobile OS-level interventions can be tailored more specifically, but it is laborious to set those systems up correctly and suitably for each user, and the notifications themselves lack dynamism; a static message is easily swept away.

All of these limitations can be overcome with AI. AI-enabled friction can be highly customized and tailored to a group's values, can employ sophisticated messaging and timing to land effectively, and can back its interventions with usage data while enabling a two-way interactive conversation.

Large language model-based tools like ChatGPT, Claude, Gemini and others are capable of this today, but Apple OS, Windows, and mobile OS environments are not yet open enough to allow the AI sufficient access to be as effective as possible. For the safety of all of us, it is good these systems are growing capabilities only slowly and iteratively. Moreover, there is some functionality today using ChatGPT and other plug-ins that enhance, for example, iOS Shortcuts, captive portals, and other interventions, without having to surrender a worrying level of control. As TGIP grows from idea to implementation, these AI capabilities are

bound to increase, and a necessary part of measuring the viability of this project is including and testing AI-enhancements' ability to help users ensure their internet activity reflects their values, goals, and intentions.

g. User Experience (UX)

Let us walk through what a TGIP internet session might look like to its user, imagining for example that you are a twenty-year-old college student in a U.S. household accessing the network through an iPad.

You open the iPad and go straight to the Chrome browser to search for information on plate tectonics for a geology paper you're working on. For 20 minutes, you visit some academic and government web sites, checking other peer-reviewed papers and combing through public data before clicking on a YouTube link to a video about the 1964 Great Alaska Earthquake. Unhook blocks recommendations and auto-play on the platform, and as the video finishes, Opal checks in with you, asking about what you're looking for, how well it's going, and how long you intend to spend there. Your response is noted, and iOS Shortcuts starts a timer based on your response to that question.

You stay on YouTube after searching for a comparison of reverse fault and slip-strike fault earthquakes, watching two more short videos. As the timer is going off, your earlier statement about intentions comes back on the screen, and you're asked whether you'd like to continue your research there or perhaps check related information on Wikipedia or your university library's page (as both sites were set by you as preferred research portals).

You do move to Wikipedia, and after 15 minutes or so, you grow curious about whether any friends posted pics from the weekend's camping trip to Point Reyes. Notifications are disabled on the device, but you open Instagram directly. Pi-hole recognizes the DNS request for Instagram, which triggers a custom MikroTik script to redirect your browser to a gentle notification page with a reminder about how social media may be harmful. You observe these notifications are varied in content and format, and you haven't seen this particular caution before. The message also explains that unless you'd like to access the platform again via a separate device, the network will begin reducing Instagram's performance after five minutes. You acknowledge this and the MikroTik captive portal redirects you to Instagram.

You browse through a few friends' postings, finding some photos from the trip. As you begin to comment on one photo, OneSec pops up with a message you typed to yourself last time you commented on pics there. You read it, but proceed with the one comment. After five minutes, MikroTik's traffic shaping rules automatically throttle Instagram's bandwidth to 64kbps, making the site laggy. You trudge on for two more minutes before closing the app. When you do, iOS Shortcuts (triggered by app closure) opens and asks you whether there is anything from this experience you'd like to say to yourself next time you open Instagram. "Not really worth it. One more semester. Keep studying", you type, and the message is saved to Notes app for OneSec to access later.

You spend about 20 more minutes toggling between your library's website and those of a couple seismological research institutions before closing the iPad and heading out to dinner. Your activity is logged in RescueTime and iOS Screen Time for you to review at the end of the

week, with network-level usage data also captured by MikroTik's traffic analyzer which you and the network administrator can access through a dashboard (which will be helpful for the weekly surveys you're filling out as part of the project).

h. Choice Architecture

It is probably obvious by now that this proposal makes many assumptions about what kind of behavior may result from the implementation of particular technical tools and protocols. It is true that getting the system's choice architecture right will be critical to TGIP's effectiveness, and while I do not have space here to get into the level of detail one could on the topic of technology design in affecting user behavior, it is prudent to examine the fundamental choice architecture that underpins the TGIP proposal. The system presupposes that people need help making choices to lead to desired outcomes, and there are several ways internet technology can be structured to facilitate these choices.

Default Options:

Thaler and Sunstein argue in *Nudge* how defaults are powerful determinants of behavior. Much of their research highlights how defaults affect economic choices, dissecting for example the profound impact of default investment options on users' portfolio selection. As the pair note, "Because people tend to stick with the default option, whatever it may be, setting default options is one of the most powerful tools for changing behavior." (2021, 8)

Considering this, TGIP attempts to make mindful and intentional internet use the "default path." For example, users must actively choose to continue scrolling rather than passively consuming some content. Defaults also employ friction to steer users away from potentially harmful behaviors (e.g. through things like bandwidth throttling and OneSec delays) and attempt to remove friction from productive activities (such as seamless access to preferred sites). This is consistent with a central theme of *Nudge*: preserving freedom of choice while gently steering toward better outcomes. In TGIP, users can always override the system's suggestions, but the architecture makes healthier choices easier and more salient.

Future vs. Present Goals:

Another notable aspect of TGIP design is trying to mitigate what behavioral economists call "temporal discounting". This is the notion that we discount what greater good may come later in favor of some smaller pleasure now. The system's reflection prompts seek to address the tendency to overvalue immediate pleasures (in case of the hypothetical UX above, social media dopamine) versus long-term goals (academic success). TGIP's employment of "future self" messaging tries to help users connect their present actions with future consequences.

Maximizing Salience and Intentionality:

A similar attempt at increasing user intentionality is contained in the varied notification content. I am cognizant of research which highlights how stale content may feed habituation, and TGIP tries to prevent this through rotating messages and formats. The

hope is to maintain the salience of the interventions, lest a user find it easy to ignore them and continue System One automatic behavior rather than stop, contemplate, and take deliberative action.

The check-ins themselves and reflection prompts try to build greater cognitive awareness—i.e., thinking about thinking. The goal with these interventions is also to increase awareness of automatic behaviors thereby potentially reducing their power. These are the same intentions behind asking users whether they should continue (which may reduce some cognitive burden), and breaking habit loops to create space for conscious decision-making.

Since social media platforms specifically aim to engender user habits, the project tries to counter persuasive design patterns (infinite scroll, variable rewards, etc.) by restoring greater user agency and conscious choice.

Self-Determination and Minimizing Prohibition:

The TGIP system aims to help users in instances where their ability to help themselves may be compromised by technology. Rather than imposing external controls, TGIP supports user autonomy by letting people set their own messages and time limits. This autonomy support is critical to the system's efficacy, as users should feel positive about their TGIP experience if we want their behavior to change meaningfully. But moreover, increasing user autonomy is the whole point of this endeavor. TGIP is about wresting control and agency away from internet companies and giving it back to users.

For similar moral reasons and for practical purposes, TGIP tries to minimize outright prohibition. Prohibiting behavior covertly or duplicitously would be contrary to the values of TGIP, and besides, as Cialdini reminds us in *Influence*—and as any parent of a teenager knows—making something off-limits typically engenders a desire to do the prohibited thing!

Commitments and Social Proof:

TGIP proposes several instances where users write personal messages to themselves. The idea is that the messages function as soft commitment devices. They are promises to one's future self that help create consistent pressure without any external enforcement. Additionally, the proposal considers use of tools like a household dashboard to incorporate social proof elements by showing how family members are achieving their digital technology goals, leveraging human's powerful tendency to conform to group norms.

i. Implementation Roadmap

The specific circumstances and needs of project participants will dictate the exact project timeline, but the following table illustrates a plan for the project flow and approximate timelines. The steps and survey scope are merely summaries of actual questions and implementation plans meant to give a rough overview of activity at each stage.

Steps	Timing	Household	Community
Baseline Project Survey	0		
		What is the nature and quality of internet activities?	What is the nature and quality of internet activities?
		What is the nature and quality of interpersonal relationships?	What is the nature and quality of interpersonal relationships?
		What is the nature and quality of civic and social activities?	What is the nature and quality of civic and social activities?
		What is the status of users mental health?	What is the status of users mental health?
		What are users' views of government, public institutions, and democracy?	What are users' views of government, public institutions, and democracy?
Values Survey	0		
		What is family/household's core values?	What are community's core values?
		How is tech supporting or not supporting those values?	How is technology a part of that value system?
			How are community decisions made and disputes resolved?
Current Use and Setup	3-5 days		
		Who uses what devices and for what?	What is current state of internet access?
		How is internet received?	What kind of devices are used?
		What level of tech fluency?	What level of tech fluency?
			What resources are available for IT support?
Design Solution	1 week		
		Suggest tools for network management.	Suggest tools for network management.
		Build plan for individual users and devices	Build network training plan, if required.
		Determine any hardware needs.	Develop roadmap for household-specific implementation.
		Estimate specific costs and timelines.	Determine specific hardware needs.
			Estimate specific costs and timeline.
Implementation	2 weeks		
		Set up complete network.	Set up complete network.
		Install tools for specific devices.	Install tools at households sequentially.
		Train users.	Train users.
Reassess and Adjust	1 week		
		Troubleshoot issues or unanticipated complications.	Troubleshoot issues or unanticipated complications.
			Identify any inconsistencies with decision-making norms.
One-Month Project Survey	1 month		
		Conduct user survey on five core topics.	Conduct user survey on five core topics.
Reassess and Adjust	3 months		
		Troubleshoot issues or unanticipated complications.	Troubleshoot issues or unanticipated complications.
			Identify any inconsistencies with decision-making norms.
Four-Month Project Survey	4 months		
		Conduct user survey on five core topics.	Conduct user survey on five core topics.
One-Year Project Survey	1 year		
		Conduct user survey on five core topics.	Conduct user survey on five core topics.

Table 2, TGIP Implementation Roadmap

j. Project Cost Estimates

The following tables offer a sample of the possible costs as proposed above.

Rural Community TGIP Cost Estimate			
MikroTik + Starlink Solution for 20-25 Users			
Category	Item	Cost Range	Notes
CORE INFRASTRUCTURE			
Internet Service			
	Starlink Business Hardware	\$2,500	One-time cost
	Starlink Business Service (1 Year)	\$6,000	\$500/month × 12 months
Primary Networking Hardware			
	MikroTik CCR2004-1G-12S+2XS	\$800 - \$900	Enterprise-grade router
	MikroTik CRS328-24P-4S+	\$300	24-port PoE switch
	MikroTik wAP AC (5 units)	\$400	\$80 × 5 access points
	Ethernet Cabling & Installation	\$500 - \$800	Materials and labor
Software & Licensing			
	RouterOS License	\$0	Included with hardware
	Ongoing Software Subscriptions	\$0	No subscription fees
CAPTIVE PORTAL & MANAGEMENT SYSTEM			
Server Hardware			
	Mini PC/Server (Intel NUC)	\$600 - \$800	For portal and applications
	External Storage	\$150	For logging and data
	UPS Backup Power	\$300 - \$500	Power protection
Software Platform			
	Web Server Software	\$0	Open source (Apache/Nginx)
	Database	\$0	Open source (PostgreSQL/MySQL)
	Custom Development	\$3,000 - \$8,000	Portal, notifications, dashboards
	SSL Certificates	\$100	Annual cost
ADDITIONAL INFRASTRUCTURE			
Network Security & Monitoring			
	Firewall Software	\$0	Built into RouterOS
	Network Monitoring Tools	\$0	Open source options
Physical Infrastructure			
	Network Rack/Enclosure	\$300 - \$500	Equipment housing
	Installation Support	\$1,000 - \$2,000	Setup and configuration
	Site Preparation	\$500 - \$1,500	If needed
ANNUAL OPERATING COSTS (AFTER YEAR 1)			
	Starlink Business Service	\$6,000	Annual service cost
	SSL Certificates	\$100	Annual renewal
	Maintenance & Support	\$1,000 - \$2,000	Technical support
	Power Consumption	\$300 - \$500	Electricity costs
Total Cost Summary			
Cost Category		Low Estimate	High Estimate
Hardware & Infrastructure		\$4,000	\$6,000
Starlink (hardware + 1 year service)		\$8,500	\$8,500
Custom Software Development		\$3,000	\$8,000
Installation & Setup		\$1,500	\$3,500
SSL & Miscellaneous		\$200	\$200
Total Year 1		\$17,200	\$26,200
Annual Operating Costs (Year 2+)		\$7,400	\$8,600
	Year 1 Cost Per User		Ongoing Cost Per User (Annual)
	\$688 - \$1,048		\$296-\$344

Table 3, TGIP Rural Community Costs

Household TGIP Cost Estimate			
Existing Internet + MikroTik Router + Device Apps Solution for 4-5 Users			
Category	Item	Cost Range	Notes
NETWORK HARDWARE			
	Mikrotik L009UiGS	\$150	Wireless route with RouterOS
	Basic Setup & Configuration	\$0 - \$200	Cabling and installation needs
DEVICE-LEVEL APPS AND SOFTWARE			
iOS/macOS Apps (per device)			
	Opal - Screen Time & Focus	\$1.99/month	Premium features, per user
	One Sec - Social Media Delay	\$3.99	One-time purchase per device
	Freedom - Cross-Platform Blocker	\$8.99/month	Family plan covers all devices
	iOS Shortcuts (built-in)	\$0	Native iOS automation
Android Apps (per device)			
	Digital Wellbeing (built-in)	\$0	Native Android features
	Freedom (Android version)	Included	Covered by family plan
	Tasker - Advanced Automation	\$3.49	One-time purchase
Desktop Software			
	Cold Turkey - Windows/Mac Blocker	\$39/year	Pro version, family license
	RescueTime - Time Tracking	\$12/month	Premium features, family plan
NETWORK-LEVEL TOOLS			
Network Security & Monitoring			
	Pi-hole (DNS filtering)	\$0 - \$35	Software free, Raspberry Pi optional
	OpenDNS Home	\$19.95/year	DNS-based content filtering
ENHANCEMENTS			
	ChatGPT One-Plus Account	\$20/month	Simplest but unified account
	Home Assistant	\$0 - \$150	Automation hub (Pi + setup)
	UniFi Protect (for monitoring)	\$30/month	Optional usage monitoring
	Custom Dashboard Development	\$500 - \$2,000	Family usage dashboard
ANNUAL SUBSCRIPTION COSTS			
	ChatGPT One-Plus Account	\$20/month	Simplest but unified account
	Opal (4 users)	\$95.52	\$1.99 × 4 × 12 months
	Freedom Family Plan	\$107.88	\$8.99 × 12 months
	Cold Turkey Pro	\$39	Annual license
	RescueTime Premium	\$144	\$12 × 12 months
	OpenDNS Home	\$19.95	Annual subscription
	Circle Home Plus (optional)	\$119.88	\$9.99 × 12 months
Total Cost Summary			
Component	Initial Cost		Annual Cost
MikroTik RB5009UiGS+IN	\$239		\$0
All device apps (One Sec, Tasker)	\$30		\$0
Freedom Family Plan	\$0		\$108
Opal (4 users)	\$0		\$96
RescueTime Premium	\$0		\$144
Cold Turkey Pro	\$0		\$39
Pi-hole + Home Assistant	\$150		\$0
Misc setup	\$200		\$0
Total	\$619		\$387/year
	Year 1 Cost Per User (5)		Ongoing Cost Per User (Annual)
	\$124		\$77

Table 4, TGIP Household Costs

JUSTIFICATION

“The fire has been called off. No one is coming to help you.”

-Tony in *Die Hard*

I found it useful when preparing this section to turn an important question against myself:

why is this proposal the best use of my time and resources in trying to bring about a better internet?

1. Big tech will not solve the internet’s problems.

At least not anytime soon, and not without being compelled to do so. The handful of U.S. firms that dominate the internet today—Meta, Alphabet, Amazon, Apple, X, Netflix—and the hundreds of other tech firms with complementary technology, platforms, influence, and power, all owe their financial livelihood to maintaining the “attention economy” that they have created. Many of these firms know the harms of their products and technology, as evidenced by the testimonies of Facebook whistleblowers Frances Haugen and Sophie Zhang, and reported extensively in the WSJ’s Facebooks files (Hagey et al. 2021; Wong 2021). Amazon exploits its market dominance and platform algorithms to smother smaller rivals (Mitchell 2020; Cushing 2021), while Twitter founders admit they did not really have time to consider the danger of what they were building, so eager were they to just grow the platform (Twitter: Breaking the Bird 2025). Google, when it sensed a threat to its business model from arguably misguided legislation in 2012, turned to a new source of power which it uniquely possessed—its millions of users—and led an “internet blackout day.” (Mullins and Mullins 2024)

These corporations are not evil. But they are firmly beholden to shareholder interests and are susceptible to how financial pressure can corrupt even idealistic entrepreneurial pursuits. As Ev Williams described Twitter's early days, "There's not really time in the day to contemplate the much larger implications of what we're building. I wouldn't say we spent *no* time on it, but..." (Twitter: Breaking the Bird 2025; emphasis mine.) When their consciences catch up to them and they move on from their lucrative and powerful positions, tech leaders often speak freely about what they knew was wrong all along. As Carr quotes one in *Superbloom*:

"I think we have created tools that are ripping apart the social fabric," said Chamath Palihapitiya, the Facebook executive who had been in charge of "user growth" after the News Feed launch. Facebook's founding goal, confessed the company's first president, Sean Parker, was "to consume as much of your time and conscious attention as possible." He and his colleagues knew all along that they were "exploiting a vulnerability in human psychology," he went on. "And we did it anyway." (Carr 2025, 147)

Silicon Valley's reliance on venture capital and the insatiable need for growth-at-all-costs compels many well-intended companies to behave this way, creating and promoting tools of exploitation and attention-capture (Streitfeld 2017). Asking, "Why isn't Twitter doing more to get bots off their platform? Why isn't Uber taking better care of its drivers? What if...they can't?", advocates for changes to the internet rightly recognize that without a different financial model backing internet companies, this will not change soon (Your Undivided Attention 2024). As Thaler and Sunstein remind us in *Nudge*, "for all their virtues, markets often give companies a strong incentive to cater to (and profit from) our frailties, rather than to try to eradicate them or minimize their effects." (2020, 92)

2. The U.S. government is not coming to the rescue.

Given that most major internet firms are headquartered in America, the U.S. government has the power to impose change upon these companies and bring about a different kind of internet. But it is not likely to do so. The primary reason for this reticence is not particularly novel: tech companies spend hundreds of millions of dollars annually to keep Washington compliant to their wishes (OpenSecrets 2025).

In the mid-1990s, Microsoft was largely dismissive of Capitol Hill's growing interest in what lawmakers perceived to be Microsoft's monopolistic practices with how it bundled its software and operating system. Not only Microsoft, but the entire tech industry would learn from the company's mistake. When the federal government went after Microsoft for violating anti-trust laws, rather than steer away from monopolistic practices, tech firms learned to pay attention to Washington politics and began launching massive and costly lobbying efforts. One insider at the time put it bluntly: "You can fight city hall, or you can co-opt city hall. It's a hell of a lot easier to co-opt city hall." (Mullins and Mullins 2024)

While there are occasionally some modest efforts to rein in those tech firms which have fallen under the ire of Capitol Hill, the prevailing wind in Washington is blowing support Silicon Valley's way. The recent furor over TikTok as a threat to the American public centered almost exclusively on concerns over TikTok's Chinese ownership. Only in some state capitals did the company come under fire for its overall business practices of attention capture, user manipulation, and the detrimental health effects of social media addiction. Despite employing

such similar technology, platforms like Google’s YouTube and Meta’s Instagram were mostly, and very conspicuously, left out of the conversation (Costagin 2024).

It is possible that national security concerns could still serve as the basis for Washington to reconsider its support for U.S. internet companies⁷, but the situation today is more complicated than even a few years ago. There is research and plenty of anecdotal evidence indicating how lawmakers themselves are transactional beneficiaries of social media and other internet technologies, so adept are political campaigns now at using these tools to get lawmakers elected and keep them there (Frimer et al. 2022). As lawmakers increasingly realize their phones are a powerful and direct means of rallying their supporters, attacking opponents, and creating the kind of divisive political landscape that keeps them securely in office, they are incentivized like few others to maintain the status quo (Papathanassopoulos and Giannouli 2025).

3. European governments and allies are making progress, but it is slow and only marginally effective.

The EU and some European governments have maintained steady pressure on U.S. and other tech firms to minimize the harms of the internet, while purportedly trying not to stifle technological innovation or economic opportunity. U.S. critics complain that the Europeans cannot have it both ways, arguing that with regulation comes inherent pressure on innovation. Even if that is true, there seems to be a kind of equilibrium reached, whereby U.S. firms

⁷ After more than twenty years in national security, from the White House and the diplomatic corps to defense and space industries, I am certain developments with internet technologies represent the greatest threat to U.S. democracy and society—certainly more so than any particular foreign weapons program or conflict—but that is a discussion for another time and place.

continue to innovate without constraints from the American government, while Europe benefits from what innovative technology it finds aligns with European values, and tries to regulate what it finds harmful (Bradford 2024). The results of this approach are an odd mixture of highly visible if not terribly effective legislation—such as GDPR, to which users can correctly direct their scorn over those endless pop-ups about cookie selection each time a new website is visited—and a genuine shift in the public conversation about responsible technology.

Until Brussels implements tech laws with real bite (and the upcoming EU AI Act may indeed be such legislation), I believe this latter component is where Europe has had the most impact in shaping the internet for good. The EU has helped change the conversation about the internet. More than the U.S. government, the EU particularly has treated internet technology and the medium of the internet as developments to be lauded and welcomed, but regulated. This is in part because European governments hold very different views about the nature of free speech (Berkowitz 2021), but also because they approached the internet legislatively like they did other media before, holding communications firms to a set of norms and standards with public interest at the center (Bradford 2024).

Whatever the cultural reasons for the divide between U.S. and European approaches to regulating the internet, the deeply global nature of the technology means U.S. internet firms cannot ignore the market. More to my point, as EU and European governments enact internet regulations that resonate with a U.S. and global audience (Vogels 2021; AI Policy Institute 2023), Brussels and other European capitals are helping drive a cultural shift about what internet business practices are acceptable. Advocacy groups like the Center for Humane Technology

(CHT) are right to take advantage of this momentum, particularly in pushing for the U.S. to take regulatory action in line with public sentiments. These trends are very positive and necessary for change, but take considerable time.

4. TGIP solutions can be implemented now.

No one knows what the future internet will look like. While cultural trends like those above offer reasons to be optimistic, other developments are cause for more worry—social media echo-chambers in the hands of AI; fewer companies able to compete with the titans; Silicon Valley's further drift from social aims and responsibilities. TGIP's greatest value is that it can be implemented now. Changing the internet for one family or even one community may not change the bigger internet. But for those who do use the TGIP to have a different kind of internet, the difference could be profound.

5. Single technologies can have outsized impact.

At first glance, this appears to contradict my point about the idea that TGIP could be effective because it takes a multi-tool approach to changing the internet's code, instead of trying to make incremental or iterative changes, but hear me out. I grant though that with technological changes, one component or modification can have an outsized role in the overall impact of the technology.

Examining the shift from radio to television in their respective prominence shaping American society, I have considered how, as a broadcast medium, radio and television were not

radically different. Radio affords the mass distribution of information through sound. Television affords the mass distribution of information through sound *and images*. That seemingly single technical difference ushered in the world of screens and changed media forever. The underlying architecture and infrastructure of radio and TV broadcast networks were not wildly dissimilar, but because one medium uniquely exploited, in this case, humans' innate psychological bias toward information collected visually, television became a media revolution (Menand 2003; Scheurich et al. 2021).

While the point of TGIP is to harness the power of change these tools can engender when deliberately used *in combination*, I may be surprised that one tool is singularly more impactful than the rest and shapes the project in ways I cannot yet predict.

6. People need help realizing their goals; they cannot do it alone.

If the public was proclaiming, “the internet is great!”, and newspapers were writing articles about, “internet brings truth to parents and happiness to teens!”, there would be no need for efforts like TGIP, and I could return to my other passion of trying to perfect the telemark ski turn. But many people—and especially the young who understand it best—lament change the internet has wrought (Boyd 2025). They know it is harmful, and despite a keen awareness of how tech companies exploit them, they also know their own behavior exacerbates the harm. In other words, internet users need help, and TGIP may be able to provide users the tools to help themselves. So my skis remain unwaxed and gathering dust while TGIP remains needed.

7. On the internet, momentum can arise in an instant.

Who could have predicted the popularity of planking, “everything is cake”, or Beanie Babies? Trends on the internet are fickle, unpredictable, and highly enigmatic. While it would be ridiculous or self-aggrandizing to *plan* for any kind of virality, it is also irresponsible to not consider how one particular little project launched out into the ether could evolve and operate if somehow placed on a much larger stage. Precisely the opposite of how many tech companies never imagined the changes their technology could level on society widely, TGIP is conceived of, and will evolve with, scale in mind. The tools are chosen to provide a good internet experience for those who use them; but the underlying vision is that by their individual use, those TGIP users will also spread the positive effects of the project—deeper interpersonal relationships, social cohesion, respect for values and norms—to those around them.

LIMITATIONS

This analysis and proposal are not meant to serve as the basis for some later-day PhD dissertation. They are the foundation for real-world project testing and implementation. I mention this because there are trade-offs I have made to achieve these pragmatic project goals, sacrificing a more rigid research framework which could help arrive at narrower but more empirically demonstrable conclusions. The proposal could benefit from, for example, testing the use of captive portals exclusively as a tool for nudging behavior, removing or sequentially implementing other tools such as content filtering. I traded these research goals for building a suite of tools that offer greater applicability to real users facing real concerns in real environments. I do not make this tradeoff lightly, but I do so because I have other aims. Firstly, I am less interested in trying to prove that any particular tool has a measurable ability to achieve some discrete impact on a user's internet experience. I will leave that work to professional scholars; I am interested in the whole of the experience, and the ability to alter that holistically. And secondly, because real society-wide change will come only with regulatory reform and a corporate departure from its current extractive model, I believe it is important to demonstrate for the public that there are genuine alternatives. Hopefully such demonstrations can contribute to larger demands upon lawmakers and Silicon Valley executives that democratic citizens deserve better.

COUNTERARGUMENTS

1. The internet must remain open and neutral.

The internet is neither open nor neutral today. We have not the utopian internet envisioned by its founders; rather we have the profiteers' internet built by its largest corporations.

Sunstein points out that “the Internet was originally celebrated as a forum for a wide range of voices and a rich diversity of views,” but we have awoken from the dream to a much starker reality. While the internet could be anything we design it to be, the commercial-driven internet we have is “the product of choices made by private actors and market forces.” (Sunstein 2017, 8)

Regarding neutrality, it is true that internet service providers cannot arbitrarily throttle or restrict access to certain platforms and sites for commercial ends—the original “net neutrality” concerns—but powerful companies achieve advantage and dominance in other ways. Opaque algorithms, walled-off software environments, and the monetization of users' data all contribute to a system that prioritizes commercial interests over those of consumers and the public largely. Its founders dreamt that a *neutral* internet would promote openness and fairness, but myth of neutrality was busted a long time ago.

Even notions of neutral and open access to information, much like the public library, do not correctly describe the internet environment today. Rather than a library, where books are simply sitting passively on shelves and you are freely moving around thumbing through this book or that, deciding to read what interests you, the internet is more like a visit to the grocery

store. No, not your neighborhood store, but a special grocery store. In the internet's grocery store, there are no FDA-mandated health labels, no requirements to clean the seafood department, the cabinet holding the liquor is always left open, and everything, literally everything is for sale. Sugary soda is labeled "health juice", moldy cheese masks as fresh, and that beef is probably laced with anthrax. And it is not even beef.

Of course, not all corners of the internet look like the Grocery Store of Doom. There are some libraries out there. It is intriguing to consider why some platforms, such as Wikipedia, Discourse, and even Reddit seem like islands of civility in a toxic swamp. In Wikipedia's case, it is hard not to conclude that the platform's lack of commercial interests has allowed it to remain the closest thing to the internet's library. And because, like Reddit demonstrates and very unlike social media executives like to claim, people themselves are not the problem. Elon Musk may tweet that X's problems are not a "platform problem" but a "humanity" one, but in truth users behave quite civilly in self-policed environments, absent a narrow material incentive compelling some users to take advantage of others. In other words, those platforms are able to operate as common goods. When the architecture of the platform rests on shared values and goals, user behavior will seek to advance those goals.

2. Internet control is for authoritarians.

Control is absolutely a part of repressive regimes, but control is also a component of responsible governance. While internet idealists and modern liberalaltarians decry any form of

restriction or control on the medium, their panic is irrational and illogical. Lessig said it best in *Code*:

Liberty is a product of the design of a system. We can build, or architect, or code cyberspace to protect values that we believe are fundamental—or we can build, or architect, or code cyberspace to allow those values to disappear. There is no middle ground. ... To say we must choose between liberty and regulation is to assume a false choice. We regulate to protect liberty. (Lessig 2006, 6)

Putting aside the legal argument, TGIP does not propose one group externally place its regime on another, it suggests tools of *self-control*. A critical practice in the models is the transparent survey, assessment, and implementation of a self-articulated values system on which the tools will rest. In other words, what Rob decides is good for his family is not the basis of what another user should decide for theirs. The same is true on the community level. TGIP systems do all yield to a core set of values described earlier, necessary to create a *good* internet. The specific inclusion of the value of protecting traditions, norms, and culture is in consideration of my own work helping indigenous communities gain internet access while minimizing the detrimental effects on their increasingly fragile way of life, language, and customs. I am aware that “cultural preservation” is sometimes a foil for repressive regimes to subjugate or stamp out minority populations. But again, TGIP does not provide any tools for one community to use on another; these proposals are for self-implementation and use.

3. An open internet empowers the underprivileged and otherwise marginalized.

If we had a truly open internet, that would be even more true. While the internet democratizes information and serves as a platform for those voices which may otherwise never

be heard, 1) the architecture of TGIP does not limit expressions or opportunities unless such limits are self-imposed, and 2) the internet is otherwise already highly skewed toward exploitative commercial interests of external parties. When the internet ends up giving voice to an overlooked or marginalized entity, it is often accidentally or the unintended consequence of a platform pursuing financial interests, and not because of baked-in values of trying to lift up disadvantaged souls. For example, in 2011 when Twitter started playing a prominent role in helping people gather at rallies in what would grow into the Arab Spring, company execs were “stunned” their novel little messaging platform could be used to help take down a government (Twitter: Breaking the Bird 2025).

The lesson here should be that those designing a communications medium were unwilling or unable to realize how it could be a force for political and social change. In considering how TGIP seeks to alter the internet, it is certainly possible that a family and community may choose to use TGIP tools to limit or restrict access to a platform that another member of the group deems important. In such cases, the project yields first to the norms of decision-making in the household or community and how they typically resolve disagreements. If those local processes fail to produce a solution, then TGIP will prioritize the values which underpin this endeavor—reducing the harms of exploitative or addictive technology, promoting technology which is purposeful and prosocial—at the expense of any parochial or individual desire to access certain information or specific platform.

4. The genie cannot go back in the bottle.

I confess, this is the phenomenon that concerns me the most. Some scholars, interest groups, and skeptics argue that once these technologies have been released, there is no doing away with them. This is the most common argument against friction design: once people know smooth and fast, they will never accept rough and slow. As Carr put it, once people get used to “efficiencies”, you cannot take them away (2025; 227).

The existence of seatbelts and the TSA may be counterpoints to that conclusion, but two more substantive observations leave me with hope. The first is that in cases of technological developments so existential and profound, mankind has shown an ability to retreat. There is no greater example than nuclear weapons. Yes, the technology itself is not going away, but anti-proliferation and denuclearization efforts have advanced beyond what even the most hopeful experts in the 1960s and 70s could have imagined. The genie may not go back in the bottle, but he may nap in the bottle’s shade long enough for humanity to invent a better solution.

My second point of hope is that other technology may replace these harmful ones in ways we cannot yet predict. AI of course demonstrates the most promise in this area. As I have discussed above, AI could enhance the effectiveness and seamlessness of tools that shield users from the internet’s harms while maintaining access to its benefits. But that same technology also brings an even greater set of potential harms, particularly if not developed on top of a solid foundation of widely shared values and morals. This likelihood of this kind of AI-enabled doomsday is all the more reason that now is the moment for democratic societies to prove able to develop and implement values-based technology, before the stakes rise even further.

CONCLUSION

ChatGPT spit out an interesting description of the internet recently:

There are two kinds of internet in the world. Firstly, there is the Miasma, the swamp. This is the internet of and for the masses. It is a chaotic, unfiltered internet full of conspiracy theories, misinformation, and "entertainment that's not labeled as such." In this world, truth and fiction are perfectly blurred. People become trapped in algorithmically reinforced echo chambers where even the most outlandish conspiracy theories seem plausible because they are constantly reinforced and repromulgated.

Then, there is the other internet, Realitie. For those wealthy or privileged enough to afford it, this is the internet behind a careful and sophisticated layer of control and curation. This internet employs tools and services that filter content, fact-check information, and maintain connections to verifiable reality. Users pay heavily for information and services that help them navigate the truth.

No, I did not prompt the chatbot to produce a disillusioned conclusion of the state of today's internet for a master's thesis. This is the bot's summary of the internet in sci-fi writer Neal Stephenson's 2019 thriller, *Fall; or Dodge in Hell*. Stephenson's description of a world in which the internet is fundamentally different to people of different means is perhaps even more prophetic than it appeared six years ago. Change is coming, but the pressing questions are whether users will continue to settle for *Miasma*, whether *Realtie* represents a solution, or whether we should demand something better.

Change is in fact, already here. There is a rapid and growing trend away from Google search and its ad-driven results to ChatGPT and similar LLM-based chatbots with their purportedly *neutral* responses (Stern 2025). Setting aside concerns about the hallucinations and sycophancy these chatbots can produce, we are still in a period where *the content* they serve up is not captured by commercial forces. Take a moment, soak it in. It will not last. Google is under tremendous pressure now from paying customers to get eyeballs directing back to advertisers' sites. The company is exploring how to use Gemini to provide the AI-produced narratives users are clamoring for, while also placating those advertisers (Stern 2025).

It is still unclear how this change will play out, but when dominant market forces like Google do, we will go from a moderately useful search-based system clouded by annoying but at least visible commercial manipulation, to a deeply sophisticated and opaque AI-based system hyper-driven by commercial forces. In such circumstances, we may wish for the internet of Stephenson's world. If AI ends up broadly replacing search, with all the same market players and forces dictating the internet's underlying code, even the wealthiest users may have no alternative *Realitie* to purchase.

There are several billion reasons Microsoft, Meta, Apple, and Amazon have leapt into the market to partner with AI upstarts or develop their own in-house resources. None of them will relinquish their markets lightly, but fortunately, even the direst predictions for the internet will take time to materialize. We can and must use this time to develop, build, test, and implement values-based alternatives. As discussed above, despite the proliferation of commercial forces across most of the web, the medium itself remains highly malleable and dynamic. The notion

that it is too late to fix the internet, that users must simply accept it as it is, is precisely the argument of those committed to controlling the internet to manipulate and extract value from users. This is the same argument employed by polluters, drug pushers, and profiteers in other segments of the economy to keep reforms away from their industries. They insist on acceptance of the status quo not because change is impossible; rather they know change threatens their narrow interests. But unlike with industries such as energy or healthcare, internet users do not have to depend on government action and regulation to one day come and change the system. With the internet, as projects like TGIP can demonstrate, the public itself—from small communities to even individual users—already have the power and means to change the product.

A few decades ago, a bunch of scrappy innovators scattered across labs and garages in suburban California built the most remarkable system for exchanging information and connecting people. But blinded by oversimplified ideology about democracies (messy) and humanity (messier still), they failed to ground that system in values, and the system became hijacked by the values of a narrow market. They let the code of the internet be determined by those seeking wealth and power, not by those determined to uphold democracy, strengthen society, and improve individual wellbeing, and this broke the internet.

Or did it? Underneath it all, the code of that original internet remains, and it remains precisely as its builders intended. This changeability is the enduring magic of the medium, and the real legacy of the internet's founders. The internet is not predestined to be what it is today. To paraphrase Lessig: *the internet is anything the code tells it to be.*

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