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Moving Fast & Breaking Things: An Analysis of Social Media's Revolutionary Effects on Culture and Its Impending Regulation

Larissa Sapone

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Moving Fast & Breaking Things: An Analysis of Social Media's Revolutionary Effects on Culture and Its Impending Regulation

Larissa Sapone*

INTRO	DUCTIO	N	363
I.	THE STRATEGIC DEVELOPMENT OF HABIT-		
	FORMING TECHNOLOGY		364
	<i>A</i> .	Step One: The Trigger	367
	В.	Step Two: The Action	368
	С.	Step Three: The Reward	369
	<i>D</i> .	Step Four: The Investment	370
II.	THE IMPACT OF HABIT-FORMING TECHNOLOGY,		
	SPECIFICALLY SOCIAL MEDIA, ON SOCIETY		
	А.	The Detrimental Effects Seen in Society	371
		1. How Social Media Perpetuates the	
		Spread of False Information: Deep	
		Fakes	374
	В.	Is "Big Tech" as Addictive as Everyone Says	
		It Is?	376
III.	SOCIAL MEDIA OR BIG TOBACCO: IS SOCIAL MEDIA		
	FOLLOWING THE SAME PATH OF REGULATION		
	SEEN IN THE CIGARETTE INDUSTRY?		377
IV.	THE SMART ACT		380
	<i>A</i> .	Aims and Goals of the SMART Act	380
	В.	The Drawbacks	381
	С.	The Grassroots Movement	384
CONCLUSION			385

^{*} Larissa Sapone is a 2021 J.D. Candidate at Duquesne University School of Law. She graduated from the University of Pittsburgh, summa cum laude, in 2017 with a B.S. in Psychology and Administration of Justice. The author would like to thank former Duquesne Professor Agnieszka McPeak for her topic suggestion as well as family and friends for their constant support. In loving memory, this article is dedicated to Michael L. Racciato, a dear friend who unexpectedly passed away during production.

INTRODUCTION

If asked how many times a day you check your phone, you would probably answer ten, twenty, at the very greatest thirty times a day. Wrong. In fact, the reality is probably closer to the number of times you think you touch your phone subtracted from one hundred. A study by Asurion found, on average, Americans are checking their phones once every twelve minutes, roughly eighty times a day.¹ Another study found that millennials especially check their phones more than one hundred times a day, totaling five hours.² Supposing that individuals utilize their phones for legitimate reasons, such as work and contacting their children, is there really any explanation for spending 144 minutes a day on any given social media platform?³ Assuming the average user starts at age ten and has a seventy-two year life span, they will spend a whopping six years and eight months on social media in their lifetime.⁴

Whether we like it or not, we now live in a digital era which has very real consequences regarding social media. Sparked by the recently proposed Social Media Addiction Reduction Technology Act (SMART Act), this article outlines the progression of social media and its (hopeful) path toward regulation.

Part I focuses on specific techniques and developments that Big Tech uses when designing their apps. Centered around the neurotransmitter—dopamine—the technology industry prides themselves on their ability to create habit-forming technology, through the use of a tried and tested three-step process.⁵ This process is so successful due to its inherent capacity to exploit the psychology of the human brain.⁶

Part II details the societal impacts social media has had on the public at large. There are significant amounts of research and data available which outline the detrimental impact social media has on its user. Ironically, many executives and powerhouses that first opened the floodgates to these platforms refuse to let their children

^{1.} SWNS, Americans Check Their Phones 80 Times a Day, N.Y. POST (Nov. 8, 2017, 4:08 PM), https://nypost.com/2017/11/08/americans-check-their-phones-80-times-a-day-study/.

^{2.} Kari Paul, When They're Not Eating Avocado Toast, Millennials Spend Five Hours a Day Doing This, MKT. WATCH (May 23, 2017, 10:07 AM), https://www.marketwatch.com/story/when-theyre-not-eating-avocado-toast-millennials-spend-five-hours-a-day-doing-this-2017-05-18.

^{3.} Average Time Spent Daily on Social Media (Latest 2020 Data), BROADBAND SEARCH, https://www.broadbandsearch.net/blog/average-daily-time-on-social-media (last visited Oct. 20, 2020).

^{4.} *Id*.

^{5.} Smart & Grundig, *infra* note 26.

^{6.} Allen, infra note 10.

use them.⁷ We further dive into the manipulative way social media applications spread false information, a prevalent problem in today's political climate. This position is countered by those who believe that an addiction to technology is somewhat of a figment and instead re-direct their energy and time to more "constructive" means.

Part III highlights the regulatory debate and develops the comparison of social media to the tobacco industry. Many think social media is seemingly harmless and claim the comparison to tobacco consumption feels extreme; however, a deeper dive into their targeted cyclic mechanisms, their potential detrimental health effects, and the eerily similar trajectories they both present suggest otherwise.⁸ This article concludes that, while perhaps distant, regulation in social media is as imminent as it once was in the tobacco industry.

Lastly, Part IV parses through a recently proposed legislation: the SMART Act.⁹ There is a great deal of blame shifting between users and the social media platforms that have them hooked, and there is no "right answer" on how to approach the looming presence of social media in daily living. This section elaborates on the SMART Act's goals, as well as their potential downfalls; however, all hope is not lost as some developers and designers are becoming more cognizant of the products they design and are coming together to take a proactive approach.

I. THE STRATEGIC DEVELOPMENT OF HABIT-FORMING TECHNOLOGY

"How do we consume as much of your time and conscious attention as possible?": the "Kim Kardashian of molecules"—dopamine.¹⁰ Dopamine is responsible for the feelings of pleasure, reinforcement, and activities that "promote our survival," such as eating, drinking, and sexual intercourse.¹¹

^{7.} See discussion infra Part II, Section A.

^{8.} See MacBride, infra note 137; McNamee, infra note 148; Ou, infra note 135.

^{9.} S. 2314, 116th Cong. (2019).

^{10.} Simon Parkin, Has Dopamine Got Us Hooked on Tech?, THE GUARDIAN (Mar. 4, 2018), https://www.theguardian.com/technology/2018/mar/04/has-dopamine-got-us-hookedon-tech-facebook-apps-addiction; see Mike Allen, Sean Parker Unloads on Facebook: "God Only Knows What It's Doing to Our Children's Brains," AXIOS (Nov. 9, 2017), https://www.axios.com/sean-parker-unloads-on-facebook-god-only-knows-what-its-doing-to-our-childrensbrains-1513306792-f855e7b4-4e99-4d60-8d51-2775559c2671.html.

^{11.} Speaking of Psychology: The Molecule of More: Dopamine, AM. PSYCH. ASS'N (Mar. 2019), https://www.apa.org/research/action/speaking-of-psychology/dopamine.

To the scientific community, dopamine lies at the core of all addiction.¹² Any potentially addictive behavior triggers a release of dopamine within that circuit, thereby strengthening the desire pathway,¹³ known as the dopaminergic system.¹⁴ This system is located in the mesolimbic dopamine pathway in the brain.¹⁵ Thus, any substance or behavior that causes this reaction becomes addictive,¹⁶ as people find themselves constantly searching for specific ways to obtain that boost of dopamine. Another neurotransmitterserotonin-then elicits a sense of happiness and satiates us, which inhibits our need for dopamine.¹⁷ More dopamine equals more happiness, and happiness equals serotonin.¹⁸ However, eventually the body inevitably needs more dopamine to attain more serotonin and create that feeling of happiness.¹⁹ This is the cycle seen in problems of substance abuse, which is also the same cycle Big Tech exploits to attract internet users.²⁰ Similar to those who struggle with addiction, internet users are compelled to return, perpetually seeking out dopamine to successfully reach the serotonin levels that "tells us we are feeling good."21

Dopamine Labs, which has since rebranded as Boundless Mind,²² is a technology consulting agency previously known for its involvement in creating such "persuasive technology."²³ Particularly, Dopamine Labs boasts its ability to use dopamine to boost the

15. The mesolimbic pathway connects the ventral tegmental area of the brain, the principal dopamine producer, with the nucleus accumbens, an area of the brain strongly correlated with motivation and reward. *Know Your Brain: Reward System, supra* note 13.

^{12.} Id.; Rosen, infra note 14.

^{13.} Speaking of Psychology, supra note 11; Know Your Brain: Reward System, NEUROSCIENTIFICALLY CHALLENGED (Jan. 16, 2015), https://www.neuroscientificallychal-lenged.com/blog/know-your-brain-reward-system.

^{14.} Larry D. Rosen, *Obsessive/Addictive "Tiny Red Dots*," PSYCH. TODAY (Mar. 11, 2018), https://www.psychologytoday.com/us/blog/rewired-the-psychology-technology/201803/obsessiveaddictive-tiny-red-dots. *See generally Know Your Brain: Reward System, supra* note 13.

^{16.} Speaking of Psychology, supra note 11.

^{17.} Rosen, *supra* note 14.

^{18.} *Id*.

^{19.} Id.

^{20.} Jonathan Shieber, *Meet the Tech Company That Wants to Make You Even More Addicted to Your Phone*, TECHCRUNCH (Sept. 8, 2017 2:33 PM), https://techcrunch.com/ 2017/09/08/meet-the-tech-company-that-wants-to-make-you-even-more-addicted-to-yourphone/.

^{21.} Rosen, supra note 14.

^{22.} Boundless Mind, WELCOME AI, https://www.welcome.ai/boundless-mind (last visited Sept. 11, 2020).

^{23.} Kyle Langvardt, *Regulating Habit-Forming Technology*, 88 FORDHAM L. REV. 129, 133 (2019) (citing B.J. FOGG, PERSUASIVE TECHNOLOGY: USING COMPUTERS TO CHANGE WHAT WE THINK AND DO 1 (2003)). Persuasive technology is defined as an "interactive computing system designed to change people's attitudes or behaviors." B.J. FOGG, PERSUASIVE TECHNOLOGY: USING COMPUTERS TO CHANGE WHAT WE THINK AND DO 1 (2003).

addictiveness of any given app.²⁴ The advertisement brags, "Dopamine makes your app addictive. Lift your engagement and revenue up to 167% by giving your users our perfect [hits] of dopamine"²⁵ The heart of Dopamine Labs' scheme is rooted in the premise of controlling users by giving them small bursts of dopamine,²⁶ thereby triggering the desire pathway. Sean Parker, the founding president of Facebook, explained that the use of these persuasive technologies creates a "social-validation feedback loop" by specifically exploiting this vulnerability in human psychology.²⁷

The brain does not necessarily crave one specific "feel-good" signal as much as a rhythmic pattern.²⁸ That is why social media platforms like Instagram and Facebook tailor the timing of their notifications in order to expressly dispense dopamine at times determined by an algorithm, which is what keeps the user coming back for more.²⁹ Users pick up their phones out of a compulsivity that drives them to check any given app simply because they have not checked it in a while.³⁰ The possibility that there may be a "tiny red dot[]"³¹ that they are unaware of generates cortisol and heightens stress and anxiety.³² Consequently, the user will succumb to their phone simply to displace that anxiety and seek relief from the rising cortisol levels.³³

The question then becomes, how do Big Tech companies take advantage of social media users? The answer lies in the principles and value systems prioritized by these companies, which means doing everything within their power to track and understand human psychology, in an effort to exploit it and maximize engagement in their products.³⁴ It is obvious that money is the driving force behind

^{24.} Shieber, supra note 20.

^{25.} Langvardt, supra note 23, at 131 (alteration in original).

^{26.} See Allen, supra note 10; Alex Hern, 'Never Get High on Your Own Supply'-Why Social Media Bosses Don't Use Social Media, THE GUARDIAN (Jan. 23, 2018), https://www.theguardian.com/media/2018/jan/23/never-get-high-on-your-own-supply-whysocial-media-bosses-dont-use-social-media; Virginia Smart & Tyana Grundig, 'We're Designing Minds': Industry Insider Reveals Secrets of Addictive App Trade, CBC (Nov. 3, 2017, 5:00 AM), https://www.cbc.ca/news/technology/marketplace-phones-1.4384876.

^{27.} Allen, *supra* note 10. Parker is now publicly sounding his alarm with the platform, asserting he does not believe he fully grasped the consequences of what the platform was doing when it first got off the ground. *Id.*

^{28.} Jon Brooks, *Tech Insiders Call Out Facebook for Literally Manipulating Your Brain*, KQED (May 25, 2017), https://www.kqed.org/futureofyou/379828/tech-insiders-call-out-facebook-for-literally-manipulating-your-brain.

^{29.} Id.

^{30.} Id.

^{31.} Rosen, supra note 14.

^{32.} Brooks, *supra* note 28.

^{33.} Id.

^{34.} Hern, supra note 26.

Big Tech's motive.³⁵ Companies do not profit unless people are using the app, which is why everyone is in a "technological arms race" to keep users on their app and for the longest period of time.³⁶ The way to do this is by utilizing one of the most popular techniques called variable rewards, which is comprised of three steps: a trigger, an action, and a reward.³⁷

The classic variable reward method can be best understood if taken one step further and broken down into four steps instead of three.³⁸ The process begins with the ultimate goal of habit forming technology: "[T]o solve the user's pain by creating an association so that the user identifies the company's product or service as the source of relief."³⁹ Entrepreneur and lecturer at Stanford Graduate School of Business and Design, Nir Eyal,⁴⁰ calls the experience of engineering desire through the use of sequential experiences "Hooks," and the more often users participate in this habit-creating cycle, the more likely they will self-trigger.⁴¹

A. Step One: The Trigger

Step number one is to trigger the user; this comes in two forms external and internal.⁴² An external trigger is, for example, a notification on our phone that prompts us to respond.⁴³ It will alert its users with an email, an app on a phone's homepage, a notification something that "triggers" the user and begins forming these socalled "Hooks."⁴⁴ By falling victim to these Hooks time after time after time, the user will actualize associations with these internal triggers, which are, in turn, attached to pre-existing behaviors and

44. Id.

^{35.} Smart & Grundig, supra note 26.

^{36.} Id.

^{37.} Id.

^{38.} See Nir Eyal, Hooked Resources & Top Articles on User Behavior, NIR & FAR, https://www.nirandfar.com/hooked-user-behavior-resources/ (last visited Oct. 28, 2019); see also Langvardt, supra note 23, at 142. Compare discussion infra Part I, Sections A–D, with supra note 38 and accompanying text.

^{39.} Langvardt, *supra* note 23, at 142 (citing NIR EYAL WITH RYAN HOOVER, HOOKED: HOW TO BUILD HABIT-FORMING PRODUCTS 52 (2014)).

^{40.} Eyal is a graduate of the Stanford School of Business and Emory University. *About Nir Eyal & NirAndFar.com*, NIR & FAR, https://www.nirandfar.com/about-nir-eyal/ (last visited Oct. 29, 2019). He is a self-proclaimed expert in behavioral design, what he calls an intersection of psychology, technology, and business surrounding topics such as user experience and behavioral economics with some neuroscience mixed in. *Id.* An active investor in the booming technology industry, he vows to only invest in habit-forming products that improve lives. *Id.*

^{41.} Eyal, *supra* note 38.

^{42.} Id.

^{43.} Id.

emotions.⁴⁵ In very little time, the internal triggers will become part of one's everyday routine, and the habit is formed.⁴⁶ The triggers will drive the user to check their phone compulsively, without any intervention.⁴⁷ Rewards of dopamine that are released following a like or a retweet are not predictable, nor do they adhere to any particular pattern, which is what drives the obsession.⁴⁸

Every time a user has the thought, "I haven't checked my phone in a while," then reaches and picks it up, this reward system is activated. Individuals have become trained to use their phones as a "quick cure for boredom."⁴⁹ Apps such as Snapchat are built on this premise—the internal trigger tells the user to check their phone because there is a possibility that someone "snapped" them. Snapchat keeps track of the user's activity and tallies the number of consecutive snaps, flaunting the "[s]napstreak" between friends.⁵⁰ The streak, a technique known as loss aversion,⁵¹ feeds into a well-established psychological human need to bank progress.⁵² Therefore, users feel an obligation to check in daily, at the very minimum, to keep the streak.

B. Step Two: The Action

The second step is the intended action.⁵³ This is the tangible action the user takes by downloading, opening, and using the application.⁵⁴ It is maximized by technology companies' careful utilization of two characteristics of human behavior: motivation and ability.⁵⁵ Eyal explains that designers strive to maximize the likelihood that users take the intended action, which is done by both heightening motivation and simultaneously making it as easily accessible for the user.⁵⁶ The ideal user "should be able to act without stopping

56. Id.

^{45.} Id.

^{46.} *Id*.

^{47.} Langvardt, supra note 23, at 142–43.

 $^{48. \}hspace{0.1in} \text{Smart \& Grundig}, supra \text{ note } 26.$

^{49.} Langvardt, supra note 23, at 143.

^{50.} David Brooks, *How Evil Is Tech?*, N.Y. TIMES (Nov. 20, 2017), https://www.ny-times.com/2017/11/20/opinion/how-evil-is-tech.html?searchResultPosition=1; Langvardt, *su-pra* note 23, at 143; Smart & Grundig, *supra* note 26.

^{51.} Smart & Grundig, supra note 26.

^{52.} Haley Sweetland Edwards, You're Addicted to Your Smartphone. This Company Thinks It Can Change That, TIME (Apr. 13, 2018, 10:28 AM), https://time.com/5237434/youre-addicted-to-your-smartphone-this-company-thinks-it-can-change-that/.

^{53.} Eyal, supra note 38.

^{54.} Langvardt, supra note 23, at 143.

^{55.} Eyal, supra note 38.

to think before doing so." 57 If a developer is successful in the design, the user-to-action barrier should be as low as possible. 58

As a result of this process, newsfeeds have now coined the term "bottomless bowls."⁵⁹ In a Cornell study, those participants served a "bottomless" bowl of soup neither believed they had consumed more, nor felt that they were satiated.⁶⁰ Likewise, this same mechanism corresponds to what occurs as users open their apps—without ever presenting a need to physically click a button, new information will load continuously as the user scrolls,⁶¹ making the user exert the least amount of effort. If there is an infinite bowl of content, users will never think they have seen enough.

C. Step Three: The Reward

Step three is the point at which the user is finally rewarded. The distinctive characteristic of Hooks is that they are based off of a series of unpredictable variable rewards, making it the technology companies' biggest weapon.⁶² Simply a reward that varies on a random basis, it is the core behind addictions, such as gambling, gaming, and social media; classic examples are slot machines and the "pull [down] to refresh" feature.⁶³ The reason this cycle sets itself apart from other loops is the built in unpredictability.⁶⁴ The best of app developers will even go so far as using artificial intelligence to predict the best time to reward users based on collected data.⁶⁵ It would not be nearly as fun or exciting to open an app, pull down to refresh, and know exactly what you were going to see. As Eyal explains, no one likes boring, and predictability does not create desire.⁶⁶

66. Eyal, supra note 38.

^{57.} Langvardt, supra note 23, at 143.

^{58.} Id.

^{59.} Id.

^{60.} Four participants were instructed to taste-test a new tomato soup recipe. Brian Wansink et al., *Bottomless Bowls: Why Visual Cues of Portion Size May Influence Intake*, 13 OBESITY RSCH. 93, 95 (2005). Two participants received a normal bowl of tomato soup and two participants received a self-refilling bowl of soup. *Id*. The self-refilling bowl consisted of a regular restaurant style bowl connected to a corresponding tube underneath the table linking it to the pot of soup. *Id*. at 95–96. Using a gravity mechanism, as each bite was taken the bowl would refill, unapparent to the diner's eye. *Id*. at 96.

^{61.} Langvardt, supra note 23, at 143; Brooks, supra note 28.

^{62.} Eyal, supra note 38.

^{63.} Langvardt, supra note 23, at 144.

^{64.} Eyal, *supra* note 38.

^{65.} Smart & Grundig, supra note 26.

D. Step Four: The Investment

Last, step four is the investment phase, where the user becomes "internally triggered."⁶⁷ This is the phase that requires the user to put in some work after obtaining a variable reward.⁶⁸ In this phase, Eyal describes two goals the designers are focused on: (1) increasing the odds the user will continue the cycle when presented with the next trigger;⁶⁹ and (2) asking the user to contribute something to this cycle when they are the most vulnerable, after receiving heavy doses of dopamine.⁷⁰

The investment phase is what fuels the fire and restarts the cycle.⁷¹ For example, the user will post a picture to Facebook, Instagram, or Snapchat and constantly check and re-check their post multiple times. This act is driven by the compulsive need to see if there is a like—if so, how many—or a comment—if so, what does it say.⁷² Examining further, one user's investment can be used as a weapon to entice other users into the cycle.⁷³ For example, Megan posts a group picture from "Girls Night Out" of herself with Sarah, Jenna, and Allison. Sarah, Jenna, and Allison all get notifications via the "tiny red dot∏,"⁷⁴ the external trigger, that a picture of them has been posted. Now they will all feel the same compulsion Megan feels that internally triggers them to check that post too.75 The investment into this process can be viewed as a tool that will improve the users' experience the next time they use the app, like adding new friends or tailoring a profile's features.⁷⁶ By strategically designing and implementing these four steps into apps, the developers have created a system to keep users engaged.

The average user most likely does not even realize the aforementioned process is happening. If true, it reinforces the power Big Tech has over its users. The speed at which social media platforms have become such a dominant part of every-day life is alarming. At the very minimum, being cognizant of the process through which it occurs allows the user to regain some of the power that these platforms have over them.

- 74. Rosen, supra note 14.
- 75. See Langvardt, supra note 23, at 145.
- 76. Eyal, supra note 38.

^{67.} Langvardt, supra note 23, at 145.

^{68.} *Id.*

^{69.} Eyal, supra note 38.

^{70.} Id.

^{71.} Langvardt, *supra* note 23, at 145.

^{72.} Id.

^{73.} *Id*.

II. THE IMPACT OF HABIT-FORMING TECHNOLOGY, SPECIFICALLY SOCIAL MEDIA, ON SOCIETY

A. The Detrimental Effects Seen in Society

App developers have accomplished their jobs and continue to thrive. Certain instances have shown that society's increasing use of persuasive technology, specifically social media, is not always negative.⁷⁷ A 2018 PEW Research Center study surveyed teens between ages thirteen to seventeen and found 81% felt more connected to their friends, 69% felt social media aided in more diverse social interaction, and 68% felt as though they have people who will support them through tough times.⁷⁸

Since the development of various social media platforms are relatively new, the impact it has on its users is still largely unconfirmed, yet some social media developers are starting to acknowledge the harms social media causes and refuse to use their own carefully crafted technology.⁷⁹ Neither Mark Zuckerberg, notorious Facebook creator, nor any of the company's key executives maintain a typical social media presence, if they even maintain one at all.⁸⁰ Even as the founding president of Facebook, Sean Parker remains "something of a conscientious objector" to social media.⁸¹ These moguls have recognized that by creating these platforms they were exploiting a vulnerability in humans and deliberately chose to do it anyway;⁸² some have even gone as far saying "[they] have created tools that are ripping apart the social fabric of how society works^{"83}

These platforms are largely found to affect mental health most severely.⁸⁴ The overwhelming majority of research has generally

^{77.} For example, a number of studies have found positive associations with the use of social media as a way to bridge gaps in communication—allowing them to feel more connected to those in their lives, providing a support system in times of difficulty, and giving them a comprehensive outlet to reach out to large and diverse populations. See generally Deborah Richards et al., Impact of Social Media on the Health of Children and Young People, 51 J. OF PEDIATRICS & CHILD HEALTH 1152, 1154 (2015); Monica Anderson & JingJing Jiang, Teens' Social Media Habits and Experiences, PEW RSCH. CTR. (Nov. 28, 2018), https://www.pewresearch.org/internet/2018/11/28/teens-social-media-habits-and-experiences/.

^{78.} Anderson & Jiang, supra note 77.

^{79.} See Hern, supra note 26.

^{80.} Id.

^{81.} Id.

^{82.} Id.

^{83.} James Vincent, Former Facebook Exec Says Social Media Is Ripping Apart Society, THE VERGE (Dec. 11, 2017, 6:07 AM), https://www.theverge.com/2017/12/11/16761016/former-facebook-exec-ripping-apart-society.

^{84.} Holly B. Shakya & Nicholas A. Christakis, A New, More Rigorous Study Confirms: The More You Use Facebook, the Worse You Feel, HARV. BUS. REV. (Apr. 10, 2017),

concluded that "daily overuse of various forms of media and technology has a negative effect on the health of all children, preteens and teenagers, which in turn, makes them more prone to psychological disorders like anxiety, depression, and others."⁸⁵

Research studying the relationship between liking content/reacting to posts and well-being showed the two were consistently related to a compromised well-being,⁸⁶ ultimately associating overall well-being positively with real-world social networks, and negatively with the networking used in Facebook.⁸⁷ This likely stems from a common misconception that social interaction on social media is a replacement for real world interaction, which is certainly not the case.⁸⁸

The dangers associated with social media are not only limited to an adolescent's mental health but also affects other aspects of their lives, such as their academic performances and interpersonal relationships.⁸⁹ In addition to a new phenomenon known as "Facebook depression,"⁹⁰ these major risks are seen most prominently in cyberbullying,⁹¹ sexting,⁹² and improper use of technology.⁹³

86. Holly B. Shakya & Nicholas A. Christakis, Association of Facebook Use with Compromised Well-Being: A Longitudinal Study, 185 AM. J. EPIDEMIOLOGY 203, 210 (2017).

87. Shakya & Christakis, *supra* note 84. The team included real-world network measures, adjusted for baseline Facebook use and accounted for the participants' level of initial well-being, initial real-world networks, and initial level of Facebook use, ultimately reaching the same conclusion. *Id.*

88. Id.

89. Kalika Gupta, What Is Social Media? How Is It Affecting Adolescent's Mental Health?, 2 EUR. J. BIOMEDICAL & PHARM. SCI. 410, 410 (2015).

91. Cyberbullying is defined as "deliberately using digital media to communicate false, embarrassing or hostile information about another person. It is the most common online risk for all young people and is a peer-to-peer risk." Richards et al., *supra* note 77, at 1153.

92. Sexting is defined as "sending, receiving, or forwarding sexually explicit messages, photographs, or images via cell phone, computer, or other digital devices." Schurgin O'Keeffe et al., *supra* note 90, at 802. The rapid distribution of this information can be seen as a form of cyberbullying. *Id.*

https://hbr.org/2017/04/a-new-more-rigorous-study-confirms-the-more-you-use-facebook-the-worse-you-feel.

^{85.} Richards et al., *supra* note 77, at 1153; *see also* Catriona Morrison & Helen Gore, *The Relationship Between Excessive Internet Use and Depression: A Questionnaire-Based Study of* 1,319 Young People and Adults, 43 J. PSYCHOPATHOLOGY 121, 121 (2010) (linking excessive Internet use to high levels of depressive symptoms); Maarten H.W. Selfhout et al., *Different Types of Internet Use, Depression and Social Anxiety: The Role of Perceived Friendship Quality*, 32 J. ADOLESCENCE 819, 830 (2009) (finding non-communication based Internet use has detrimental effects on adolescents' depression and anxiety).

^{90.} Facebook depression is defined as "depression that develops when preteens and teens spend a great deal of time on social media sites, such as Facebook, and then begin to exhibit classic symptoms of depression." Gwenn Schurgin O'Keeffe et al., *The Impact of Social Media on Children, Adolescents, and Families*, 127 AM. ACAD. PEDIATRICS 800, 802 (2011) (citing Gupta, *supra* note 89, at 410).

^{93.} Gupta, supra note 89, at 411.

In fact, privacy can pose one of the greatest threats to adolescents on social media.⁹⁴ Young teenagers on social media sites often do not comprehend the repercussions behind what they post online, putting everyone's privacy at risk with complete disregard that "what goes online stays online."⁹⁵ These actions, and every action adolescents take on social media sites leave behind a "digital footprint"—an ongoing record of one's web activity.⁹⁶ One inappropriate post could jeopardize a user's entire future or career; usually adolescent users are too immature to realize that everything they place on the internet can haunt them.

There have also been severe societal repercussions, such as a new strain on social norms and the degradation of public discourse.⁹⁷ The average user's compulsivity to constantly check their phones and their subsequent social media apps has contorted the views of what are now commonly accepted social norms.⁹⁸ For example, it is now a commonality for people to eat entire meals together behind their phones, stopping mid-conversation to reply to messages and such.⁹⁹ As a result, studies are showing declines in productivity rates, empathy, and intelligence in general when people are around this technology.¹⁰⁰

Of the societal harms, the effect on the public sphere, is arguably the most severe of all.¹⁰¹ Today's social media platforms have developed a way to strategically survey the users to constantly adapt the content to the users' emotional needs.¹⁰² Through the use of these algorithms, social media sites are tailoring what information is shown to the user based on their previous history.¹⁰³ In essence, the user does not need to find the content they desire—content will find them.¹⁰⁴ This process creates the illusion that the user is molding their own feed; however, in reality, this algorithm uses "revealed preferences" and carves out the interests, values, and opinions of the user.¹⁰⁵ So while you think you are choosing the articles you see on Facebook and the YouTube videos you click on, they are actually already chosen for you.

- 94. Id.
- 95. Id.
- 96. Id.

- 98. Id. at 147.
- 99. Id.
- 100. *Id.* at 148.
- 101. *Id.*
- 102. *Id.* at 149. 103. *Id.* at 150.
- 104. *Id.*
- 101. Id. 105. Id.

^{97.} Langvardt, supra note 23, at 146.

Facebook's manipulative platform use is not a new trend, and, in fact, they have been highly scrutinized in the past for a covert study conducted for one week in January 11–18, 2012, in which they either positively or negatively altered the feed of their (unknowing) users and examined how it affected the users emotions, ultimately finding a phenomena called "emotional contagion."¹⁰⁶ Facebook was immensely criticized after it was revealed that they did not receive informed consent from any of the users who participated in the study.¹⁰⁷ In fact, many spoke up arguing that their dirty little experiment had real potential to harm participants.¹⁰⁸ Most importantly, it was highlighted that simply agreeing to Facebook's privacy terms does not give them the type of authorization that translates to informed consent.¹⁰⁹

1. How Social Media Perpetuates the Spread of False Information: Deep Fakes

Algorithms are now the driving force behind a common political weapon that is utilized by social media users: Deep Fakes. Deep Fakes are a form of digital impersonation that use "machine-learning algorithms to insert faces and voices into video and audio recordings of actual people and enables the creation of realistic impersonations," resulting in videos, audio clips, or pictures making it seem as if that depicted person actually said or did the thing portrayed.¹¹⁰ In fact, their realistic nature can make it extremely difficult to differentiate fake from reality.¹¹¹

^{106.} Charles Arthur, Facebook Emotion Study Breached Ethical Guidelines, Researchers Say, THE GUARDIAN (June 30, 2014), https://www.theguardian.com/technology/2014/jun/30/facebook-emotion-study-breached-ethical-guidelines-researchers-say; see Kashmir Hill, Facebook Manipulated 689,003 Users' Emotions for Science, FORBES (June 28, 2014, 2:00 PM), https://www.forbes.com/sites/kashmirhill/2014/06/28/facebook-manipulated-689003-us ers-emotions-for-science/#7d8145ca197c. Users' emotions were measured according to the content of their posts during the time their feed was being altered. Hill, supra note 106. Results found that, on average, when positive content was displayed less frequently, people were less likely to post positive statuses. Id. Reduced negative content resulted in fewer negative posts. Id. Further, a decrease in all emotional content on a user's feed ultimately led to a "less expressive" user who posted less often. Id.

^{107.} Arthur, supra note 106.

^{108.} Id.

^{109.} Id. It is an agreed upon tenet within the realm of research that before any research begins, informed consent must be obtained; this was not the case here. Id. It is the researcher's ethical obligation to guarantee that informed, voluntary consent has been given from every participant. Id. According to others, this standard was largely deviated from by Facebook. Id. Agreeing to the website's terms of use does not constitute consent in the same ethical way as would the users' knowing consent to participate in the study. Id.

^{110.} Robert Chesney & Danielle Keats Citron, *Deep Fakes: A Looming Challenge for Privacy, Democracy, and National Security*, 107 CALIF. L. REV. 1753, 1758 (2019).

^{111.} Id. at 1759.

Social media platforms play a huge role in contributing to "the content of today's angry tribal politics," ultimately cultivating and spreading Deep Fakes.¹¹² Such a politically charged, fast-acting environment is kindling for a wildfire like a Deep Fake. As explained by the authors of *Deep Fakes*, "the networked environment blends the few-to-many and many-to-many models of content distribution, democratizing access to communication to an unprecedented degree."¹¹³

The way social media platforms exacerbate the effect of Deep Fakes on the internet is best understood as a snowball effect. It begins with "information cascade' dynamic[s]," which result when users stop paying attention to their own information and rely on others as a credible source of information.¹¹⁴ Furthermore, users have a natural urge to perpetuate negative information since that is what tends to catch the eye.¹¹⁵ This culminates into what users often create and are known as "filter bubbles" which are bubbles of information that confirm preexisting beliefs.¹¹⁶ Because people share the information they agree with, whether true or not, these bubbles further accelerate the spread of false information.¹¹⁷

For example, consider that a user shares a politically fueled Deep Fake. This results in a filter bubble that is continuously shared because not only does the user not check its legitimacy, but they also want to post something that corresponds to their political views. After enough clicks, likes, and shares of similar information, this leads to a personally and emotionally tailored newsfeed. In the presence of the aforementioned algorithms, the only content that the user will see corresponds with their respective political view and emotions behind it. These skillfully crafted mechanisms seamlessly go hand in hand.

^{112.} See Langvardt, supra note 23, at 149; see also Chesney & Citron, supra note 110, at 1766.

^{113.} Chesney & Citron, supra note 110, at 1764.

^{114.} Id. at 1765.

^{115.} See id. at 1766.

^{116.} Id. at 1768.

^{117.} Id.

B. Is "Big Tech" as Addictive as Everyone Says It Is?

For most people, the answer is "yes;"¹¹⁸ however, a small sample, mainly Nir Eyal,¹¹⁹ believes it is "ridiculous"¹²⁰ that people buy into the theory of social media addiction and instead promotes the foundation of his new book *Indistractable: How to Control Your Attention and Choose Your Life*.¹²¹ Eyal believes "the answer to digital distraction lies in individuals learning to exercise forethought and discipline, not demonizing companies that make products people love."¹²²

Accordingly, the best way to approach addictive technology is to confront and understand the psychology of distraction and how to overcome it.¹²³ The premise behind *Indistractable* is based on the equal and opposing pillars of traction and distraction.¹²⁴ As explained earlier, users' actions are prompted by internal and external triggers.¹²⁵ Every action either moves us closer toward our goals (traction) or further away from our goals (distraction).¹²⁶ A majority of users act out of a desire to escape real life but by using specific techniques, such as consciously stopping themselves from reaching for their phones, and careful planning—this impulsive behavior is avoidable and will allow people to "retrain and regain [their] brains."¹²⁷ For example, Eyal has his daily schedule planned and allocated into fifteen to thirty-minute increments.¹²⁸ His schedule includes everything from checking certain social media accounts to having dinner with his wife.¹²⁹

- 128. Id.
- 129. Id.

^{118.} True addiction is applicable to only a relatively small percentage of "problem users" that develop such a serious habit. Langvardt, *supra* note 23, at 146. Those in the Big Tech industry claim they should not be held responsible for those users that struggle with impulse control and are therefore more prone to behavioral addictions. *Id.* However, as discussed above, those in the industry have also made it very clear that those developing persuasive technology do so in a highly exploitative way with a strong incentive to do so. *Id.* at 146–47.

^{119.} See supra note 40 and accompanying text.

^{120.} Ezra Klein, *Is Big Tech Addictive? A Debate with Nir Eyal.*, Vox (Aug. 7, 2019, 11:00 AM), https://www.vox.com/podcasts/2019/8/7/20750214/nir-eyal-tech-addiction-ezra-klein-smartphones-hooked-indistractable.

^{121.} NIR EYAL WITH JULIE LI, INDISTRACTABLE: HOW TO CONTROL YOUR ATTENTION AND CHOOSE YOUR LIFE (2019).

^{122.} Klein, supra note 120.

^{123.} Barnaby Lashbrooke, Nir Eyal: Instead of Complaining Your Phone Is Addictive, Become 'Indistractable,' FORBES (Sept. 17, 2019 10:01 AM), https://www.forbes.com/sites/barnabylashbrooke/2019/09/17/nir-eyal-tech-addiction-isnt-real-you-just-need-to-be-indistractable/#617896bb1079.

^{124.} Id.

^{125.} Id.

^{126.} Id.

^{127.} Id.

The goal is to give users the tools to learn how to become "indistractable" and benefit from the ever-present technology.¹³⁰ The main theme begins with the distinction between addiction and overuse. Addiction is pathology, overuse is not.¹³¹ Removal of any one of the essential elements required for diagnosis¹³² is no longer an addiction; it is simply overuse and referring to it as an addiction is giving Big Tech more credit than is justified.¹³³

In a user's mission to becoming "indistractable," these five techniques serve to help "regain control over our attention, our time, and our life": (1) plan your day—not with a to-do list but with a timed schedule devoted to each task; (2) use social media and email at set times; (3) surf the urge—be conscious and notice the sensations you are experiencing, allowing them to peak and feeling the uncomfortableness of the trigger, and then subsequently pass; (4) be aware of liminal moments (i.e., those times transitioning from one task to another); and (5) you are not powerless—do not buy into the "there's nothing we can do" hoax.¹³⁴

III. SOCIAL MEDIA OR BIG TOBACCO: IS SOCIAL MEDIA FOLLOWING THE SAME PATH OF REGULATION SEEN IN THE CIGARETTE INDUSTRY?

If tobacco companies are required to make product disclosures and open their facilities to inspection,¹³⁵ then it only seems fitting that Facebook, Twitter, and Instagram must go public with their code. These two creations, social media and tobacco, are not too far removed from each other when considering their potential lasting effects.

A look into the past reveals that in the 1950s and 1960s, nearly fifty percent of all United States adults were habitual smokers.¹³⁶ This sharply contrasts the number seen today, less than half that,

^{130.} See Klein, supra note 120.

^{131.} Id.

^{132.} Eyal describes these essential elements as: (1) a predilection for addiction; (2) the product; and (3) a pain that cannot be healthily dealt with otherwise. *Id.*

^{133.} *Id*.

^{134.} Nir Eyal, 5 Ways to Distraction-Train Your Mind, NIR & FAR, https://www.nirand-far.com/distraction-proof/ (last visited Sept. 13, 2020); see also Klein, supra note 120.

^{135.} Elaine Ou, *Time to Treat Facebook Like Big Tobacco*, JAPAN TIMES (May 20, 2019), https://www.japantimes.co.jp/opinion/2019/05/20/commentary/world-commentary/time-treat-facebook-like-big-tobacco/#.XYbmSZNKiRt.

^{136.} See generally U.S. DEP'T OF HEALTH & HUM. SERVS., THE HEALTH CONSEQUENCES OF SMOKING—50 YEARS OF PROGRESS: A REPORT OF THE SURGEON GENERAL, FIFTY YEARS OF CHANGE 1964–2014 (2014), https://www.ncbi.nlm.nih.gov/books/NBK294310/.

at merely 17.8%.¹³⁷ Throughout the early decades of the 1900s, warnings about tobacco and the increased risk of cancer and lung disease were surfacing;¹³⁸ however, as these concerns increased, so did the tobacco industry's carefully devised strategies to counter the scientific evidence that was a threat to their empire.¹³⁹ This resulted in a decade-long battle in which the tobacco industry tire-lessly followed strategies to discredit those threats by "denying the harms of its products, discrediting the scientific evidence that showed these harms, funding research that was intended to divert attention from cigarettes, and marketing new products with implied lower risks than existing products"¹⁴⁰ Any attempts at regulation were concerned mainly with protecting consumers from misleading advertising and as long as this facet was satisfied, the medical community chose not to engage.¹⁴¹

While not entirely unprecedented, the laissez-faire approach to the tobacco industry came to a halt upon the publication of the 1964 Surgeon General's report.¹⁴² The main finding emphasized the causal relationship between smoking and lung cancer for both men and women; the effects of cigarette smoking significantly outweighing all other potential factors.¹⁴³ Similarly, it was also determined that cigarette smoking played a substantial role in mortality as it related to specific diseases and overall death rate.¹⁴⁴ In sum, the general consensus from the report concluded, "[c]igarette smoking is a health hazard of sufficient importance in the United States to warrant appropriate remedial action"¹⁴⁵ Therefore, after decades of a combination of researched evidence, regulation, and numerous lawsuits against the tobacco industry, the smoking rate finally began to wane.¹⁴⁶

^{137.} Elizabeth MacBride, Is Social Media the Tobacco Industry of the 21st Century?, FORBES (Dec. 31, 2017, 3:56 PM), https://www.forbes.com/sites/elizabethmacbride/2017 /12/31/is-social-media-the-tobacco-industry-of-the-21st-century/#3acd82357011.

^{138.} U.S. DEP'T OF HEALTH & HUM. SERVS., supra note 136.

^{139.} *Id*.

^{140.} Id. (citation omitted).

^{141.} Id.

^{142.} See *id*. Reports indicate that around thirty million smokers quit following the release of the 1964 Surgeon General's report. *Id*.

^{143.} Id.

^{144.} *Id.* This report established a precedential approach not only for the Surgeon General report, but reviews of reports in other fields as well. *Id.* The in-depth analysis and methodology were conducted by carefully selected professionals best considered to be free of any bias. *Id.* The committee evaluated five criteria in distinguishing causation from association: consistency, strength, specificity, temporal relationship, and coherence. *Id.*

^{145.} Id. (citation omitted).

^{146.} MacBride, supra note 137.

Today, social media is considered "more addictive than cigarettes and alcohol . . . [i]t is no longer possible to ignore it when talking about young people's mental health issues."¹⁴⁷ Placing regulations on social media, just as the tobacco industry has implemented, has become an increasing topic of debate.¹⁴⁸ Cigarettes and social media networks have many parallels; they are both products, they both contain substantial harms,¹⁴⁹ and ultimately, they are both industries comprised of "corporations that make billions of dollars peddling a destructive addiction."¹⁵⁰

Therefore, it seems appropriate to regulate social media in the same way that cigarettes are regulated.¹⁵¹ An active executive in the technology industry, Marc Benioff, believes regulation in this industry is unavoidable¹⁵²—comparing the technology industry to others, it is no different from the financial services or food industry,¹⁵³ which means utilizing the combination of education and regulation.¹⁵⁴ Yet, just as the tobacco industry was able to rely on its extremely influential lobby to keep it successful in times of desperation,¹⁵⁵ it is not unimaginable that the technology industry, all wrapped up in the Silicon Valley, would not also have similar clout.

A pivotal difference and a key obstacle between regulation of cigarettes and social media lies in the market and its competition.¹⁵⁶ When the tobacco industry was heavily thwarted in the United States, it was able to consolidate, create new technology, and develop growth in other countries that lacked structures able to compete with the tobacco industry.¹⁵⁷ Social media platforms are not as fortunate. In these expansive global markets, social media is countered with "stiff competition and incredibly fluid markets."¹⁵⁸ Consequently, where social media faces regulation in the United States, there will always be another market in which it can thrive that it does not have to face such inconveniences. As a result, these

^{147.} Id.

^{148.} See generally Roger McNamee, Why Not Regulate Social Media like Tobacco or Alcohol?, THE GUARDIAN (Jan. 29, 2018), https://www.theguardian.com/media/2018/jan/29/socialmedia-tobacco-facebook-google; MacBride, *supra* note 137; Ou, *supra* note 135.

^{149.} Alex Hern, Facebook Should Be 'Regulated like the Cigarette Industry,' Says Tech CEO, THE GUARDIAN (Jan. 24, 2018), https://www.theguardian.com/technology/2018/jan/24/facebook-regulated-cigarette-industry-salesforce-marc-benioff-social-media.

^{150.} Brooks, *supra* note 50.

^{151.} Hern, *supra* note 149.

^{152.} *Id.*

^{153.} *Id.*

^{154.} McNamee, *supra* note 148.

^{155.} MacBride, *supra* note 137.

^{156.} *Id.*

^{157.} *Id.*

^{158.} Id.

industries will migrate, and technology will develop faster in markets where it does not have to adhere to rigid regulation.¹⁵⁹

Even those who have braved the challenge of regulation have shown the inadequacies in its capabilities.¹⁶⁰ Some argue that the only solution to this monopolized industry is not creating better competitors but, instead, reducing our dependency on the competitors.¹⁶¹ It took decades of attempted regulations and public health movements until the government took action against the tobacco industry,¹⁶² making it difficult to predict if, and when, social media will meet a similar fate.

IV. THE SMART ACT

A. Aims and Goals of the SMART Act

Missouri Republican Senator Josh Hawley¹⁶³ recently proposed a counter to the "parasite on productive investment"¹⁶⁴ that is social media, the Social Media Addiction Reduction Technology Act (SMART Act). The goal of Hawley's master plan: "[t]o prohibit social media companies from using practices that exploit human psychology or brain physiology to substantially impede freedom of choice, to require social media companies to take measures to mitigate the risks of internet addiction and psychological exploitation, and for other purposes."¹⁶⁵ The Findings section of the SMART Act specifies that (1) internet companies, particularly social media, concern themselves only with capturing as much of their users' attention as possible; (2) they accomplish this by designing their platforms in ways that exploit human psychology and physiology; and (3) as a result of this exploitation, this impedes users' free choice.¹⁶⁶

Among others, the main tenets of the SMART Act (1) disallow social media companies from implementing design techniques such as infinite scroll, auto play, badges or awards; (2) require platforms to limit available content after a certain amount of time adding

^{159.} Id.

^{160.} For example, the European Union, which has implemented the necessary regulations into their political framework, recently issued a judgment against Google for 2.7 billion dollars for "anti-competitive [behavior]," barely leaving a sting to Google. McNamee, *supra* note 148.

^{161.} Ou, supra note 135.

 $^{162. \}quad Id.$

^{163.} See infra notes 168–170 and accompanying text.

^{164.} Emily Stewart, Josh Hawley's Bill to Limit Your Twitter Time to 30 Minutes a Day, Explained, VOX (July 31, 2019, 4:20 PM), https://www.vox.com/recode/2019/7/31/2074 8732/josh-hawley-smart-act-social-media-addiction.

^{165.} S. 2314, 116th Cong. (2019).

^{166.} S. 2314 § 1.

"natural stopping points;" (3) create a neutral process surrounding consent terms to make the accept and deny boxes both identical and easily accessed; and (4) ultimately keep track of time spent on platforms, limiting it to thirty minutes a day.¹⁶⁷

Hawley can best be described as a self-proclaimed "anti-tech' crusader."¹⁶⁸ The Senator takes an aggressive standpoint when it comes to social media.¹⁶⁹ In fact, this is not Hawley's first strike at taking down Big Tech.¹⁷⁰ In addition to the SMART Act, he has also proposed legislation attempting to regulate and limit data tracking as well.¹⁷¹

B. The Drawbacks

Hawley is eager, but he continues to be met with much disapproval and a heavy pushback. Many are critical that the bill lacks nearly enough statistical data to bridge such a large gap in its attempt at regulation.¹⁷² While this article has elaborately detailed the horrors of social media, it is most important to take everything said lightly; no one should just accept information before gathering their own facts, conducting an analysis, and drawing individual conclusions. Barely thirteen years old, it is important to remember that smartphones, and consequently social media, are an invention of the new age.¹⁷³ If and when regulation does occur, it will realistically take much longer than thirteen years for Congress to

^{167.} S. 2314 § 3. Do not worry about this requirement. Users can change this in their settings; however, at the beginning of every month it automatically resets back to the thirtyminute limit. Larry D. Rosen, *The SMART Act*, PSYCH. TODAY (Aug. 8, 2019), https://www.psychologytoday.com/us/blog/rewired-the-psychology-technology/201908/thesmart-act; Stewart, *supra* note 164.

^{168.} Visioneer Digital Marketing Agency, *How Hawley's SMART Act May Impact Social Media Companies*, VISIONEERIT (Sept. 6, 2019, 8:54 PM), https://www.visioneerit.com/haw-ley-smart-act/.

^{169.} See Josh Hawley, We Might Be Better Off if Facebook, Instagram and Twitter Vanished: Sen. Josh Hawley, USA TODAY (May 23, 2019, 10:52 AM), https://www.usatoday .com/story/opinion/2019/05/22/facebook-instagram-twitter-do-more-harm-than-good-col-

umn/3751735002/. Senator Hawley has made various statements illustrating his stance such as, "social media is best understood as a parasite on productive investment" *Id.* "We are . . . more impoverished, lonely, and despairing." *Id.* "Maybe we'd be better off if Facebook disappeared." *Id.*

^{170.} See generally The DASHBOARD Act, S. 1951, 116th Cong. (2019); Do Not Track Act, S. 1578, 116th Cong. (2019). Both legislations are unlikely to pass. See also Lauren Feiner, Two Senators Want Social Media Firms to Tell Users How Much Their Data Is Worth, CNBC (June 24, 2019, 1:16 PM), https://www.cnbc.com/2019/06/24/sens-hawley-and-warner-take-aim-at-big-tech-with-the-dashboard-act.html.

^{171.} See generally S. 1951; S. 1578.

^{172.} Rosen, *supra* note 167; Stewart, *supra* note 164; Adam Thierer & Andrea O'Sullivan, *The Not-So-SMART Act*, THE BRIDGE (July 31, 2019), https://www.mercatus.org/bridge/commentary/not-so-smart-act.

^{173.} Rosen, supra note 167.

approve. The data on this relationship rapidly continues to grow; however, there is a substantial difference between causational data and correlational data that cannot be undermined, the former of which Hawley failed to include in his proposal.¹⁷⁴

Another group of skeptics side with Eyal and take the stance that approaching this as a way to regulate an "addiction" seems perhaps a bit extreme.¹⁷⁵ In fact, some say the "issue may be overblown."¹⁷⁶ The reality of a social media addiction is still largely discussed in the scientific community, and many have different stances.¹⁷⁷ To some academics, the fact that it has not been recognized by the Diagnostic and Statistical Manual of Mental Disorders V (DSM V) is enough to discount it as an applicable theory.¹⁷⁸ Some of the most prominent indicators of addiction include building of tolerance, neglect of other basic aspects of one's life, and dishonesty; however, the research is more suggestive that our reactions to social media stem from anxiety instead.¹⁷⁹ Therefore, FOMO—Fear of Missing Out—makes us check our phones, not an addiction.¹⁸⁰

Perhaps the most disfavored aspect of the SMART Act is what makes it so different from typically proposed legislation: the impositions of the regulations themselves.¹⁸¹ The SMART Act aims to force limits on the users themselves, that is, by limiting their time on social media to thirty minutes and reducing their browsing.¹⁸² This is vastly different from other, potentially more successful legislation, which aims at placing limits on the social media platforms and those designers.¹⁸³ The opposition to user regulation compared to developer regulation implicates the First Amendment argument that these platforms and content forms are all protected.¹⁸⁴ Therefore, rejections will far exceed any successful attempts at regulation aiming to control the user's choice.

176. Thierer & O'Sullivan, supra note 172.

180. Id.

^{174.} Id.

^{175.} Id.; Stewart, supra note 164; Thierer & O'Sullivan, supra note 172.

^{177.} Stewart, supra note 164.

^{178.} *Id.* University of Oxford psychologist, Anthony Przybylski, is one such skeptic and believes the only way we would ever obtain conclusive results regarding social media addiction, would be upon social media companies' participation in "transparent studies with independent scientists...." *Id.*

^{179.} Rosen, supra note 167.

^{181.} Visioneer Digital Marketing Agency, supra note 168.

^{182.} *Id.* However, these are not extremely alarming to the average user since they have the ability and control to eliminate these features in their settings. *See supra* note 168 and accompanying text.

^{183.} Visioneer Digital Marketing Agency, supra note 168.

^{184.} Thierer & O'Sullivan, supra note 172.

Social media companies have met this proposal with just as much, if not more, pushback than users.¹⁸⁵ If passed, the SMART Act would become a logistical nightmare. In just three short months after its enactment, social media companies would predictably enter into a frenzy of regulatory prep, putting serious work into significantly changing their platforms in ways that comply with regulations.¹⁸⁶ They would also need to continue to be presumably as enticing and aesthetically pleasing to the user. Not only is there risk that this could be financially taxing, but it also would be damaging to their status as a whole, upsetting users for eliminating these coveted features.¹⁸⁷ Eventually, in the quick turnaround time of six months post-enactment, platforms are expected to fully comply with all the listed requirements.¹⁸⁸ Failure to make themselves SMART Act-friendly could leave them answering to the commission, as well as the Attorney General's office.¹⁸⁹

There are some proponents of social media who claim its risks are not detrimental. There is a reality of people who are not so obsessively and compulsively "addicted" to their social media. So why punish all for the mistakes of one? For example, Duolingo offers the same type of badges the SMART Act is trying to ban;¹⁹⁰ however, Duolingo is a learning platform that teaches and encourages people to learn a particular language.¹⁹¹ This is most likely not the "parasite on productive investment"¹⁹² Senator Hawley was referring to. Or what about parents letting their children watch kid-friendly shows on auto play on the iPad so that Mom and Dad can actually accomplish some work from the office or chores around the house?¹⁹³ Surely, this cannot be what Senator Hawley had in mind when he set out on his anti-tech crusade.¹⁹⁴

It is clear there are many issues to work through regarding Hawley's logic. And as with every other widely debated issue, everyone holds different stances regarding what is "best." To a degree, some are right. Why does Senator Hawley get to decide what is "socially beneficial" and what is not?¹⁹⁵ With only a twenty-one percent

^{185.} Visioneer Digital Marketing Agency, supra note 168.

^{186.} *Id*.

^{187.} *Id.*

^{188.} *Id.* 189. *Id.*

^{109. 10}

^{190.} Thierer & O'Sullivan, supra note 172.

^{191.} *Id*.

^{192.} Hawley, supra note 169.

^{193.} Thierer & O'Sullivan, supra note 172.

^{194.} Visioneer Digital Marketing Agency, supra note 168.

^{195.} Thierer & O'Sullivan, supra note 172.

chance of even passing through the first committee hearing,¹⁹⁶ the SMART Act is not the path to regulation for the reasons detailed above. However, it is equally unlikely that social media will remain regulation free forever. Looking at regulation from a different perspective is perhaps a better way to implement change.

C. The Grassroots Movement

It is hard to place all blame on social media companies for the way that they have crafted their product. After all, why would they not want to design a product in the most efficient way. Yet, responsibility needs to be taken to assure that companies are mindful of the evils that the social media industry has tapped into and abused.

Successful attempts at regulation will spearhead through the use of a grassroots movement;¹⁹⁷ those that start at the bottom and work up; those individuals who work to create a sense of mindfulness and responsibility, first and foremost in the app designers. The proposals will be aimed at the creators of Facebook, Instagram, and Twitter, rather than the users of these apps.

In fact, a growing nonprofit now gaining traction is "Time Well Spent," which urges technology companies to put the users' best interests first and their skillfully crafted platforms second.¹⁹⁸ Time Well Spent is fundamentally rooted in the hopeful theory of changing software design.¹⁹⁹ Their mission is clear: "to drive a comprehensive shift toward humane technology that supports our well-being, democracy, and shared information environment."²⁰⁰

^{196. 116} Legislative Outlook S. 2314, LEXIS ADVANCE RES., https://advance.lexis.com/document/documentlink/?pdmfid=1000516&crid=e27b8c86-965b-4bf7-9971-91392180c558&pdd ocfullpath=%2Fshared%2Fdocument%2Fstatutes-legislation%2Furn%3AcontentItem%3A5 WPM-WB21-F5T5-M2TC-00000-00&pdcontentcomponentid=133053&pddoctitle=Legislativ e+Outlook+in+detail&pdpurchaseitemtype=loreport&pdiskwicview=false&ecomp=1s39k& prid=9f090d1a-c7a1-48c8-85f4-bebbfd34b7de (last visited Jan. 30, 2020).

^{197.} A grassroots movement is one that mobilizes others to take action and influence an outcome, often politically motivated. Daniel E. Bergan, *Grassroots*, ENCYC. BRITANNICA, https://www.britannica.com/topic/grassroots (last visited Feb. 1, 2020). These efforts can occur in one of two ways: (1) efforts that revolve around voting or (2) efforts to influence policy-makers to take a particular stance or take action. *Id*.

^{198.} Catherine Cusick, *Can Apple End Smartphone Addiction?*, LONGREADS (Aug. 16, 2017), https://longreads.com/2017/08/16/can-apple-end-internet-addiction/.

^{199.} Bianca Bosker, *The Binge Breaker*, THE ATLANTIC, https://www.theatlantic.com /magazine/archive/2016/11/the-binge-breaker/501122/?src=longreads (last visited Sept. 15, 2020).

^{200.} Who We Are, CTR. FOR HUMANE TECH., https://www.humanetech.com/who-weare#story (last visited Jan. 1, 2021). This has since been updated from their previous mission statement which was "to reverse human downgrading by inspiring a new race to the top and realigning technology with our humanity." Rachel Lerman, *Putting Humanity First in Tech—That's the Goal of Former Google Executive*, WRAL TECH WIRE (Aug. 11, 2019),

Just as physicians, Time Well Spent is now urging developers to adopt a Hippocratic Oath, but for software.²⁰¹ The point is to create accountability in the developers about the psychological influence their designs have on the user.²⁰² Among others, the main tenets of the Oath serve to remind developers that users are not a "goal" but are people that must be respected.²⁰³ Developers' main purpose is not simply to build platforms, applications and websites, but build connections between human beings.²⁰⁴ Developers should strive to respect a user's mental health and encourage a healthy relationship with technology.²⁰⁵ If at any point these values conflict, one should advocate for the benefit of the user and not the product created.²⁰⁶ Individuals behind the screens are presently showing initiative to implement the aforementioned principles.²⁰⁷

The conjunctive efforts of designers' shift in core values to encourage—not demand—users to spend time, wisely, and a sense of conscientiousness to promote responsible platform use will begin to lay down the foundation upon which regulation may stem.

CONCLUSION

Realistically, it is unlikely that there will be a unanimous decision that will benefit everyone equally. Most people are struggling with the idea of regulation. Although Senator Hawley displays regulation as being very definitive, it is not so clear-cut. While there is variance in the way others view social media, nevertheless, society has become a digital era with around seventy-two percent of Americans, of all generations, using some type of social media.²⁰⁸

For some, social media use has become a real problem that must be addressed as the Big Tech Companies dig deeper into their box

https://www.wraltechwire.com/2019/08/11/putting-humanity-first-in-tech-thats-goal-of-former-google-executive/.

^{201.} Bosker, *supra* note 199.

^{202.} Mariesa Dale, *The Technologist's Hippocratic Oath*, BUILT TO ADAPT (Mar. 9, 2018), https://builttoadapt.io/technologists-hippocratic-oath-94b88d3fe480.

^{203.} Id.

^{204.} Id.

^{205.} Id.

^{206.} Id.

^{207.} See, e.g., Mary Meisenzahl, Here's What Your Instagram Posts Will Look Like Without "Likes," BUS. INSIDER (Nov. 11, 2019, 10:03 AM), https://www.businessinsider.com/instagram-removing-likes-what-it-will-look-like-2019-11. Instagram CEO announced a new update of Instagram that will hide likes on posts, claiming "[w]e will make decisions that hurt the business if they help people's well-being and health...." Id. Do not worry; it is only for certain users, not the average joes. Id.

^{208.} Social Media Fact Sheet, PEW RSCH. CTR. (June 12, 2019), https://www.pewresearch.org/internet/fact-sheet/social-media/. Compared to 2005, where just five percent of Americans used one of these platforms. *Id*.

of tools. Most significantly, it is not necessarily the existence of social media that is the issue, it is the fine line where existence becomes overuse and where Big Tech exercises too much power over their users' decision-making process. Any success must come from an effort of collaboration. No "one thing" will work in tackling this problem.