### University of Richmond Law Review

Volume 56 | Issue 2

Article 10

1-1-2022

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#### **Recommended Citation**

Grant W. Shea, *Applying Products Liability Law To Facebook's Platform and Algorithms: Addiction, Radicalization, and Real-World Harm*, 56 U. Rich. L. Rev. 767 (2022). Available at: https://scholarship.richmond.edu/lawreview/vol56/iss2/10

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#### APPLYING PRODUCTS LIABILITY LAW TO FACEBOOK'S PLATFORM AND ALGORITHMS: ADDICTION, RADICALIZATION, AND REAL-WORLD HARM

#### INTRODUCTION

Facebook has become central to the lives of millions of Americans. As of 2021, 69% of U.S. adults use Facebook.<sup>1</sup> Among those U.S. adults who use Facebook, roughly 70% visit Facebook at least once a day.<sup>2</sup> Moreover, as of 2020, 36% of U.S. adults receive their news through Facebook.<sup>3</sup> That means roughly 60 million U.S. adults receive their news through Facebook each day.<sup>4</sup> Facebook's impact on American society cannot be overstated when viewed through such a lens. Thus, it is important to ensure Facebook responsibly designs its products: its platform and its algorithms.

To provide some context, Facebook allows users from across the globe to instantaneously communicate and share content with one another.<sup>5</sup> It has been lauded for closing the geographic distance between friends and family, eliminating barriers for those who suffer from social anxiety, and accomplishing all this while remaining extremely convenient and free to use.<sup>6</sup> It may have seemed reasonable to believe that Facebook would democratize content, diffuse a spirit of liberality, and improve the well-being of its users when it

<sup>1.</sup> John Gramlich, *10 Facts About Americans and Facebook*, PEW RSCH. CTR. (June 1, 2021), https://www.pewresearch.org/fact-tank/2019/05/16/facts-about-americans-and-face book/ [https://perma.cc/BH6Q-KE48].

<sup>2.</sup> Brooke Auxier & Monica Anderson, *Social Media Use in 2021*, PEW RSCH. CTR. (Apr. 7, 2021), https://www.pewresearch.org/internet/2021/04/07/social-media-use-in-2021/ [https://perma.cc/ME89-CNNB].

<sup>3.</sup> Elisa Shearer & Amy Mitchell, *News Use Across Social Media Platforms in 2020*, PEW RSCH. CTR. (Jan. 12, 2021), https://www.pewresearch.org/journalism/2021/01/12/news-use-across-social-media-platforms-in-2020/ [https://perma.cc/H72D-BZKX].

<sup>4.</sup> See supra notes 1–3; U.S. and World Population Clock, U.S. CENSUS BUREAU (Sept. 11, 2021), https://www.census.gov/popclock/ [https://perma.cc/7CQR-WXNL].

<sup>5.</sup> See Sarah Morse, *How Facebook Helps Us Communicate*, CHRON (Mar. 21, 2021), https://smallbusiness.chron.com/facebook-helps-communicate-66432.html [https://perma.cc /XDJ2-TMPX].

 $<sup>6. \</sup>quad Id.$ 

was first created. As time has passed, however, it has become apparent that having such a belief would have been naively optimistic.

It can be argued that over the last few years, Facebook has sacrificed its users' well-beings to expand its reach and services, generate revenue, and maintain expediency by analyzing its massive supply of user-generated data to implement addictive algorithms.<sup>7</sup> Facebook optimizes the efficiency of its targeted advertising by using its addictive algorithms to make a user's "facebooking' specifically tailored to them."<sup>8</sup> Though Facebook's platform and algorithms enable one of the most sophisticated and efficient communication and advertisement technologies in history, they also enable one of the most sophisticated and efficient radicalizing and destructive technologies in history.

The potentially radicalizing and destructive nature of Facebook was realized in the insurrection that took place at the U.S. Capitol last year. On January 6, 2021, Americans watched in horror as thousands of insurrectionists stormed the U.S. Capitol Building and attempted to subvert the peaceful transition of power.<sup>9</sup> Though the results of the 2020 Presidential Election were not fraudulent,<sup>10</sup>

8. Packin & Lev-Aretz, *supra* note 7, at 1235–36. Facebook users can view the different metrics Facebook has used to categorize them for advertising by accessing their "ad preferences." *Ad Preferences*, FACEBOOK, https://www.facebook.com/adpreferences/ad\_settings [https://perma.cc/TV8G-XWNF] (follow "Categories used to reach you" hyperlink under "Manage data used to show you ads").

9. See Melissa Mahtani, Americans Watched the Capitol Riot in 'Horror' and 'Disgust.' Here's What They Told Us, CNN (Jan. 8, 2021), https://www.cnn.com/2021/01/08/politics/ capitol-riot-viewer-reaction/index.html [https://perma.cc/S7ZK-TM4T].

<sup>7.</sup> See The Dark Side of AI: Social Media and the Optimization of Addiction, DATA SCI. AT HOME (Dec. 3, 2019), https://datascienceathome.com/the-dark-side-of-ai-social-mediaand-the-optimization-of-addiction/ [https://perma.cc/4M4T-B7QR]; Henry Farrell, It's No Accident That Facebook Is So Addictive, WASH. POST (Aug. 6, 2018), https://www. washingtonpost.com/news/monkey-cage/wp/2018/08/06/its-no-accident-that-facebook-is-soaddictive/ [https://perma.cc/Q7KN-WP7S]; Hilary Anderson, Social Media Apps Are 'Deliberately' Addictive to Users, BBC NEWS (July 4, 2018), https://www.bbc.com/news/ technology-44640959 [https://perma.cc/D7SP-VBYM]; Nizan Geslevich Packin & Yafit Lev-Aretz, Big Data and Social Netbanks: Are You Ready to Replace Your Bank?, 53 HOUS. L. REV. 1211, 1235–36, (2016); see also Facebook, Inc., Annual Report 7 (Form 10-K) (Dec. 31, 2020) [hereinafter Facebook Form 10-K].

<sup>10.</sup> See, e.g., Alison Durkee, 'No Evidence' of Election Fraud in Battleground States, Statistical Analysis Finds as Trump Continues False Claims, FORBES (Feb. 19, 2021), https://www.forbes.com/sites/alisondurkee/2021/02/19/no-evidence-of-election-fraud-in-bat tleground-states-statistical-analysis-finds-as-trump-continues-false-claims/?sh=40b02f673 315 [https://perma.cc/449M-QWTD]; It's Official: The Election Was Secure, BRENNAN CTR. FOR JUST. (Dec. 11, 2020), https://www.brennancenter.org/our-work/research-reports/its-off icial-election-was-secure [https://perma.cc/S7GG-ZDDW].

the insurrectionists had been manipulated by various political actors and conspiracy theorists into thinking the results were illegitimate.<sup>11</sup> According to preliminary studies of the insurrectionists, Facebook played an enormous role in fueling their doubts and radicalization.<sup>12</sup> In addition, some of the insurrectionists posted content onto Facebook during the insurrection<sup>13</sup> and used Facebook to plot with fellow insurrectionists about how to attack specific members of Congress.<sup>14</sup>

Besides fueling violent insurrections, Facebook-induced radicalization also operates on a micro level. Many people have witnessed their families become fractured through Facebook-induced radicalization.<sup>15</sup> In the case of Tammi Riedl and her boyfriend, Facebookinduced radicalization caused them to share a common belief in the "chemtrails" conspiracy.<sup>16</sup> Ms. Riedl had never heard of chemtrails in 2012.<sup>17</sup> Three years later, "a post about a Facebook group called

<sup>11.</sup> See, e.g., CIA v. CIA, No. 20-cv-10769, 2020 U.S. Dist. LEXIS 226566 (C.D. Cal. Dec. 2, 2020); Sam Levine & Spenser Mestel, 'Just Like Propaganda': The Three Men Enabling Trump's Voter Fraud Lies, THE GUARDIAN (Oct. 26, 2020), https://www.theguardian.com/us-news/2020/oct/26/us-election-voter-fraud-mail-in-ballots [https://perma.cc/TLJ7-UYEM]; Li Cohen, 6 Conspiracy Theories About the 2020 Election—Debunked, CBS NEWS (Jan. 15, 2021), https://www.cbsnews.com/news/presidential-election-2020-conspiracy-theories-debunked/ [https://perma.cc/HS89-7U2Q].

<sup>12.</sup> See, e.g., GEO. WASH. UNIV. PROGRAM ON EXTREMISM, "THIS IS OUR HOUSE!": A PRELIMINARY ASSESSMENT OF THE CAPITOL HILL SIEGE PARTICIPANTS 49 (Mar. 2021) [hereinafter GW PRELIMINARY ASSESSMENT], https://extremism.gwu.edu/sites/g/files/zaxdzs2191 /f/This-Is-Our-House.pdf [https://perma.cc/N4VM-LVCA]; Thomas Brewster, Sheryl Sandberg Downplayed Facebook's Role in the Capitol Hill Siege—Justice Department Files Tell a Very Different Story, FORBES (Feb. 7, 2021, 10:54 AM), https://www.forbes.com/sites/thomas brewster/2021/02/07/sheryl-sandberg-downplayed-facebooks-role-in-the-capitol-hill-siege-j ustice-department-files-tell-a-very-different-story/?sh=222bdf5b10b3 [https://perma.cc/9C BJ-SLH4]; Capitol Hill Siege, GEO. WASH. UNIV. PROGRAM ON EXTREMISM, https://extrem ism.gwu.edu/Capitol-Hill-Cases [https://perma.cc/GK38-5835].

<sup>13.</sup> GW PRELIMINARY ASSESSMENT, *supra* note 12, at 42.

<sup>14.</sup> See id. at 24, 42.

<sup>15.</sup> See, e.g., Alex Hern, Facebook, QAnon and the World's Slackening Grip on Reality, THE GUARDIAN (Nov. 11, 2020), https://www.theguardian.com/technology/2020/nov/11/how-2020-transformed-big-tech-the-story-of-facebook-qanon-and-the-worlds-slackening-grip-on-re ality [https://perma.cc/TZR6-YFGV]; Travis M. Andrews, QAnon Is Tearing Families Apart, WASH. POST (Oct. 12, 2020, 6:00 AM), https://www.washingtonpost.com/technology/2020/09 /14/qanon-families-support-group/ [https://perma.cc/AHQ3-J8RC]; Julie Jargon, How a Facebook Political Spat Ruptured a Family, WALL ST. J. (Dec. 10, 2019, 5:30 AM), https: //www.wsj.com/articles/how-a-facebook-political-spat-ruptured-a-family-11575973801 [http s://perma.cc/KP3R-ZQ9Q].

<sup>16.</sup> Carey Dunne, *My Month with Chemtrails Conspiracy Theorists*, THE GUARDIAN (May 22, 2017), https://www.theguardian.com/environment/2017/may/22/california-conspiracy-theorist-farmers-chemtrails [https://perma.cc/M2V6-2RHX].

<sup>17.</sup> Id.

Sierra Nevada Geoengineering Awareness popped up in her newsfeed. Thinking it was related to agriculture, she joined the group."<sup>18</sup> The group's members constantly posted about chemtrails, and as Ms. Riedl began to view this content, she became "obsessed" with the conspiracy.<sup>19</sup> Soon thereafter, her boyfriend became an adherent of the "chemtrails" conspiracy as well.<sup>20</sup> What is particularly illuminating about Ms. Riedl's story is her explanation of why she is open to believing the "chemtrails" conspiracy:

How does someone like me know what's true and what's not? . . . I'm 54 years old. I don't watch the news. I don't listen to the news on the radio. Then when I'm on [Facebook], and I see something where I'm like . . . "really?," I'm led down this path of believing it. I don't have the knowledge that a journalist has about how verifiable is the source. When you're just a standard person, you can really be led to believe anything. Because of the internet, anybody can put news out there. How do I know if it's the truth or not?<sup>21</sup>

It is this sentiment, shared by so many others,<sup>22</sup> that should impress upon the American government the importance of addressing Facebook's platform and algorithms through some sort of legal accountability.

Currently, under § 230 of the Communications Decency Act ("CDA"), Facebook, along with any other interactive computer service, cannot be "treated as the publisher or speaker of any" content provided by a third party.<sup>23</sup> Thus, Facebook cannot currently be held liable for content published on its platform by its users.<sup>24</sup> While the merits and demerits of this statute will be discussed later in this Comment,<sup>25</sup> it is important to note that there may be other ways to apply some form of legal accountability to Facebook without violating § 230 of the CDA.

One of the most effective ways to do so could be to apply products liability law. Although applying products liability law to Face-

<sup>18.</sup> Id.

<sup>19.</sup> Id.

<sup>20.</sup> Id.

<sup>21.</sup> Id.

<sup>22.</sup> See, e.g., James Leggate, Facebook Users Believe More Than Half of Fake News Is True, Study Finds, FOX BUS. (Nov. 8, 2019), https://www.foxbusiness.com/technology/face book-users-believe-fake-news-study [https://perma.cc/9R68-JPRC].

<sup>23.</sup> See 47 U.S.C. § 230(c)(1); Klayman v. Zuckerberg, 753 F.3d 1354 (D.C. Cir. 2014).

<sup>24.</sup> Klayman, 753 F.3d at 1355-57, 1359.

<sup>25.</sup> See infra Part I.

book's platform and algorithms might require redefining what constitutes a "product,"<sup>26</sup> applying products liability law may be America's best chance to ensure Facebook designs its platform and algorithms responsibly without invoking § 230 of the CDA and issues related to free speech. Moreover, products liability law was largely adopted by courts to address changes in society resulting from the Industrial Revolution.<sup>27</sup> Economists and sociologists have described the current era we are living in as the "Digital Revolution,"<sup>28</sup> and the flexibility of products liability law that was used to address the societal problems brought about in the Industrial Revolution may prove useful in addressing the societal problems brought about by the Digital Revolution.

To truly understand products liability law and how it could be useful in ensuring Facebook designs its platform and algorithms responsibly, it is helpful to explore product liability's history and origins. Prior to the Industrial Revolution, the common law privity requirement barred injured users of products from recovering damages unless they were in contractual privity with the defendant,<sup>29</sup> and when the "Industrial Revolution was in full swing . . . courts were loath to slow its progress."<sup>30</sup> Gradually, however, "the Industrial Revolution gave way to social and cultural transitions" that improved the "rights and welfare of individual citizens."<sup>31</sup> "Just as laborers toiling in the factory won better working conditions and rights to organize, persons injured by the factories' products won greater rights to recover from manufacturers and sellers."<sup>32</sup> This led to certain exceptions to the pre-Industrial Revolution common law privity requirement.<sup>33</sup>

<sup>26.</sup> See infra Part II.

<sup>27.</sup> See infra notes 30-36.

<sup>28.</sup> See, e.g., Martin Mühleisen, *The Long and Short of the Digital Revolution*, 55 FIN. & DEV. 4, 6 (2018) ("Digital platforms are recasting the relationships between customers, workers, and employers as the silicon chip's reach permeates almost everything we do—from buying groceries online to finding a partner on a dating website. As computing power improves dramatically and more and more people around the world participate in the digital economy, we should think carefully about how to devise policies that will allow us to fully exploit the digital revolution's benefits while minimizing job dislocation.").

<sup>29.</sup> See Robert E. Draim, *History of Products Liability Law in the United States and Virginia, in* 12 VIRGINIA PRACTICE SERIES § 1:2 (2020); see also Winterbottom v. Wright, 152 Eng. Rep. 402 (1842).

<sup>30.</sup> Draim, supra note 29, § 1:2.

<sup>31.</sup> Id. § 1:3.

<sup>32.</sup> Id.

<sup>33.</sup> See id.; Thomas v. Winchester, 6 N.Y. 397 (1852).

Then, in 1916, the New York Court of Appeals effectively abolished the common law privity requirement in negligence actions for injuries sustained by defective products.<sup>34</sup> The court explained the negligence theory of recovery in products liability as follows:

If the nature of a thing is such that it is reasonably certain to place life and limb in peril when negligently made, it is then a thing of danger. Its nature gives warning of the consequences to be expected. If to the element of danger there is added knowledge that the thing will be used by persons other than the purchaser, and used without new tests then, irrespective of contract, the manufacturer of this thing of danger is under a duty to make it carefully. There must be knowledge of a danger, not merely possible, but probable.... There must also be knowledge that in the usual course of events the danger will be shared by others than the buyer.... The proximity or remoteness of the relation is a factor to be considered.... [If a manufacturer of a finished product], who puts it on the market to be used without inspection by his customers ... is negligent, where danger is to be foreseen, liability will follow.<sup>35</sup>

As jurisprudence in the area of products liability law developed, many courts adopted an additional theory of recovery known as strict liability.<sup>36</sup> In 1963, the California Supreme Court in *Green*man v. Yuba Power Products, Inc. held that "[a] manufacturer is strictly liable in tort when an article he places on the market, knowing that it is to be used without inspection for defects, proves to have a defect that causes injury to a human being."<sup>37</sup>

The two major theories of recovery in products liability law that will be discussed in this Comment—negligence and strict liability—are similar and dissimilar from one another.<sup>38</sup> The application of each theory of recovery to Facebook's potential product liability will be explored more in-depth,<sup>39</sup> but it should be noted at the outset that each presents certain opportunities and challenges. While

<sup>34.</sup> See MacPherson v. Buick Motor Co., 111 N.E. 1050, 1051-52 (1916).

<sup>35.</sup> Id. at 1053.

<sup>36.</sup> See Draim, supra note 29, § 1:3–1:6.

<sup>37. 377</sup> P.2d 897, 900.

<sup>38.</sup> See discussion infra sections III.A–B.

<sup>39.</sup> See discussion infra sections III.A, B.1–2.

negligence requires a higher burden of proof, it is likely to introduce fewer public policy concerns,<sup>40</sup> and while strict liability requires a lower burden of proof, it is likely to introduce greater public policy concerns.<sup>41</sup>

However, before either of these theories of recovery can be applied to Facebook, it must first be shown that Facebook's products-its platform and its algorithms-are defective. Product defects generally "fall into one of three categories: (1) manufacturing defects; (2) design defects[;] and (3) warning defects."<sup>42</sup> A product contains a manufacturing defect if "the product departs from its intended design even though all possible care was exercised in the preparation and marketing of the product."43 A product contains a design defect if "the foreseeable risks of harm posed by the product could have been reduced or avoided by the adoption of a reasonable alternative design by the seller or other distributor ... and the omission of the alternative design renders the product not reasonably safe."44 A product contains a warning defect if "the foreseeable risks of harm posed by the product could have been reduced or avoided by the provision of reasonable instructions or warnings by the seller or other distributor . . . and the omission of the instructions or warnings renders the product not reasonably safe."45 Although the concept of a manufacturing defect will largely be inapplicable to Facebook's platform and algorithms given the active and uniform software code that applies to them, there is a strong argument to be made that Facebook's platform and algorithms contain design defects, thus rendering them unsafe for purposes of products liability.<sup>46</sup> The application of warning defects to Facebook's platform and algorithms will not be explored in this Comment.

Part I of this Comment will address Facebook's current shield from liability under § 230 of the CDA. Part II will explore how to define Facebook's "product" and whether the tort definition of

<sup>40.</sup> See infra section III.A.

<sup>41.</sup> See infra section III.B.

<sup>42.</sup> Peter N. Swisher, Products Liability Tort Reform: Why Virginia Should Adopt the Henderson-Twerski Proposed Revision of Section 402A, Restatement (Second) of Torts, 27 UNIV. RICH. L. REV. 857, 881 (1993).

<sup>43.</sup> RESTATEMENT (THIRD) OF TORTS: PRODS. LIAB. § 2(a) (AM. L. INST. 1998).

<sup>44.</sup> Id. § 2(b).

<sup>45.</sup> Id. § 2(c).

<sup>46.</sup> See infra Part III.

"product" should be expanded in light of current technological developments. Part III will discuss how Facebook's platform and algorithms may contain design defects that could render the company liable under negligence and strict liability. Part IV will conclude the Comment and argue that Facebook's platform and algorithms contain design defects that render the company liable for injuries caused by those defects under products liability law.

#### I. FACEBOOK'S CURRENT SHIELD FROM LIABILITY

Under § 230(c) of the CDA, Facebook cannot be held liable for content posted onto its platform by its users.<sup>47</sup> This is because § 230(c)(1) of the CDA stipulates that "[n]o provider or user of an interactive computer service shall be treated as the publisher or speaker of any information provided by another information content provider."48 The statute defines "interactive computer service" as "any information service, system, or access software provider that provides or enables computer access by multiple users to a computer server, including specifically a service or system that provides access to the Internet .....<sup>349</sup> The statute defines "information content provider" as "any person or entity that is responsible, in whole or in part, for the creation or development of information provided through the Internet or any other interactive computer service."<sup>50</sup> Therefore, Facebook qualifies as an "interactive computer service," and its users gualify as "information content providers" for purposes of § 230(c)(1).<sup>51</sup>

Section 230(c) also grants interactive computer services great discretion in which content they can remove from their platforms. Section 230(c)(2)(A) stipulates:

No provider or user of an interactive computer service shall be held liable on account of—any action voluntarily taken in good faith to restrict access to or availability of material that the provider or user considers to be obscene, lewd, lascivious, filthy, excessively violent, harassing, or otherwise objectionable, whether or not such material is constitutionally protected .....<sup>52</sup>

<sup>47.</sup> See 47 U.S.C. § 230(c)(1); Klayman v. Zuckerberg, 753 F.3d 1354, 1357 (D.C. Cir. 2014).

<sup>48. § 230(</sup>c)(1).

<sup>49.</sup> Id. § 230(f)(2).

<sup>50.</sup> Id. § 230(f)(3).

<sup>51.</sup> See Klayman, 753 F.3d at 1357-58.

<sup>52. § 230(</sup>c)(2)(A).

Therefore, not only are interactive computer services such as Facebook shielded from liability for content posted onto their platforms by their users, but they also have the discretion to remove any content they deem objectionable, so long as they do so in "good faith."<sup>53</sup>

Although politicians emphasize § 230(c) of the CDA,<sup>54</sup> §§ 230(a) and (b) also warrant attention. Section 230(a) describes Congress's "findings" in the late 1990s that supported its decision to enact the protections set forth in § 230(c).<sup>55</sup> Congress found that "the rapidly developing array of Internet and other interactive computer services available to individual Americans . . . offers users a great degree of control over the information that they receive, as well as the potential for even greater control in the future as technology develops."56 Congress also found that "interactive computer services offer a forum for a true diversity of political discourse,"57 and that "interactive computer services have flourished, to the benefit of all Americans, with a minimum of government regulation."<sup>58</sup> In accordance with these findings, Congress declared in § 230(b) that it is the policy of the United States "to preserve the vibrant and competitive free market that presently exists for the Internet and other interactive computer services,"59 "encourage the development of technologies which maximize user control over what information is received by individuals,"60 and "ensure vigorous enforcement of Federal criminal laws to deter and punish trafficking in obscenity, stalking, and harassment by means of computer."<sup>61</sup>

Congress's findings may have seemed reasonable in the 1990s, but it is difficult to argue they are as reasonable today. Moreover, while § 230(b)'s stated federal policies may still be desirable and achievable, they conflict with the current iteration of interactive computer services like Facebook. Congress's finding that users have much control over the information they receive is specious when applied to interactive computer services such as Facebook.

<sup>53.</sup> See id.

<sup>54.</sup> See infra note 65 and accompanying text.

<sup>55.</sup> See § 230(a).

<sup>56.</sup> Id. § 230(a)(1)-(2).

<sup>57.</sup> Id. § 230(a)(3).

<sup>58.</sup> Id. § 230(a)(4).

<sup>59.</sup> Id. § 230(b)(2).

<sup>60.</sup> Id. § 230(b)(3).

<sup>61.</sup> Id. § 230(b)(5).

Facebook analyzes its users' data to implement addictive algorithms that make a user's "facebooking' specifically tailored to them."62 By using addictive algorithms to tailor a user's experience on Facebook, Facebook restricts the user's degree of control over the information the user receives in substance, while continuing to allow the user to exercise control over the information they receive in form. The same concept applies to Congress's finding that interactive computer services offer a forum for a diversity of political discourse.<sup>63</sup> By using addictive algorithms to tailor a user's experience on Facebook, Facebook restricts the diversity of political discourse a user receives in substance, while continuing to allow the user to explore a diversity of political discourse in form.<sup>64</sup> Moreover, Facebook's tailoring of a user's "facebooking" experience through addictive algorithms seems antithetical to the stated federal policy of "encouraging] the development of technologies which maximize user control over what information is received by individuals."65 In addition, an argument could be made that the centrality and omnipresence of Facebook in American society seems to violate the stated federal policy of "preserv[ing] the vibrant and competitive free market for ... interactive computer services."66 Furthermore, the high levels of harassment, stalking, and obscenity that transpires on Facebook<sup>67</sup> seems to violate the stated federal policy of "ensur[ing] vigorous enforcement of Federal criminal laws to deter and punish trafficking in obscenity, stalking, and harassment by means of computer."68

Many politicians have begun to suggest amending or repealing § 230 of the CDA because of the problems associated with how the statute applies to current interactive computer services such as Facebook.<sup>69</sup> In fact, there is already bipartisan consensus that § 230 of the CDA needs to be modified, albeit for different reasons.<sup>70</sup> Republicans have focused their attention on amending the

70. Id.

<sup>62.</sup> Packin & Lev-Aretz, supra note 7, at 1235-36.

<sup>63.</sup> See § 230(a)(3).

<sup>64.</sup> See, e.g., Joshua Bleiberg & Darrell M. West, *Political Polarization on Facebook*, BROOKINGS (May 13, 2015), https://www.brookings.edu/blog/techtank/2015/05/13/political-polarization-on-facebook/ [https://perma.cc/X3MK-UJFL].

<sup>65. § 230(</sup>b)(3); Packin & Lev-Aretz, supra note 7, at 1236.

<sup>66. § 230(</sup>b)(2); see supra notes 1–4 and accompanying text.

<sup>67.</sup> See infra notes 150–56 and accompanying text.

<sup>68. § 230(</sup>b)(5).

<sup>69.</sup> See, e.g., Marguerite Reardon, Democrats and Republicans Agree That Section 230 Is Flawed, CNET (June 21, 2020, 5:00 AM), https://www.cnet.com/news/democrats-and-republicans-agree-that-section-230-is-flawed/ [https://perma.cc/32ZR-VBTA].

part of § 230 that grants interactive computer services the discretion to, in good faith, remove any content they deem objectionable.<sup>71</sup> Democrats have focused their attention on amending the part of § 230 that shields interactive computer services from liability for content posted onto their platforms by third parties.<sup>72</sup> Thus, Congress will likely amend or repeal § 230 within the next several years. Until that happens, however, products liability law might be the best way to ensure Facebook designs its platform and algorithms responsibly. To apply products liability law to Facebook's platform and algorithms, the term "product" may have to be redefined.

#### II. DEFINING FACEBOOK'S "PRODUCT"

As of December 31, 2020, Facebook had 2.8 billion monthly active users,<sup>73</sup> making it the world's third-most visited website.<sup>74</sup> In 2020, approximately 98% of Facebook's profits were derived from advertisements.<sup>75</sup> Facebook has explained that "[w]e generate substantially all of our revenue from selling advertising placements to marketers. Our ads enable marketers to reach people based on a variety of factors including age, gender, location, interests, and behaviors."<sup>76</sup> Facebook also accumulates data and information on its members' "marital and parental status, . . . job, pages they like, education, political stances, pets, . . . hobbies, and even the time a user's cursor hovers over a certain part of a page."<sup>77</sup> The data Facebook collects is "analyzed and used for an unending range of purposes—from keeping the network's members engaged by making their 'facebooking' specifically tailored to them, to product development and targeted advertising."<sup>78</sup>

In applying products liability law to Facebook's platform and algorithms, they must first qualify as "products" within the meaning

<sup>71.</sup> *Id*.

<sup>72.</sup> Id.

<sup>73.</sup> Facebook Form 10-K, supra note 7, at 55.

<sup>74.</sup> See Dorothy Neufeld, *The 50 Most Visited Websites in the World*, VISUAL CAPITALIST (Jan. 27, 2021), https://www.visualcapitalist.com/the-50-most-visited-websites-in-the-world [https://perma.cc/J44H-89JR].

<sup>75.</sup> Facebook Form 10-K, supra note 7, at 72.

<sup>76.</sup> Id. at 7.

<sup>77.</sup> Packin & Lev-Aretz, supra note 7, at 1235-36.

<sup>78.</sup> Id. at 1236; see also Ad Preferences, supra note 8 (describing how profile information, interests, and other categories are used for targeted advertising).

of products liability law. The Restatement (Third) of Torts: Products Liability defines "product" as "tangible personal property distributed commercially for use or consumption."<sup>79</sup> The Restatement goes on to explain that "[o]ther items, such as real property and electricity, are products when the context of their distribution and use is sufficiently analogous to the distribution and use of tangible personal property that it is appropriate to apply the rules . . . ."<sup>80</sup> In addition, the Restatement stipulates that "[s]ervices, even when provided commercially, are not products."<sup>81</sup> This presents two difficulties in applying products liability law to Facebook's platform and algorithms. First, Facebook's platform and algorithms are not "tangible." Second, one could argue that Facebook's platform and algorithms merely act as an "internet service" to facilitate content creation, communication, and targeted advertising.

With regard to the tangibility requirement, the Restatement goes on to provide that "[f]or purposes of this Restatement, most but not necessarily all products are tangible personal property. In certain situations, ... intangible personal property ... may be products."<sup>82</sup> The Restatement explains that one type of intangible personal property that may qualify as a product "consists of information in media such as books, maps, and navigational charts."83 In litigation involving such a situation, the plaintiffs generally "allege that the information delivered was false and misleading, causing harm when actors relied on it. They seek to recover against publishers in strict liability in tort based on product defect rather than on negligence . . . . "<sup>84</sup> The Restatement describes how "[m]ost courts, expressing concern that imposing strict liability for the dissemination of false and defective information would significantly impinge on free speech have, appropriately, refused to impose strict products liability in these cases."85 This concern is warranted and shows the potential dangers of applying products liability law to Facebook's platform and algorithms simply as a cudgel to remove content that is declared false or misleading. Instead, prod-

<sup>79.</sup> RESTATEMENT (THIRD) OF TORTS: PRODS. LIAB. § 19(a) (AM. L. INST. 1998).

<sup>80.</sup> Id.

<sup>81.</sup> Id. § 19(b).

<sup>82.</sup> Id. § 19 cmt. b.

<sup>83.</sup> Id. § 19 cmt. d.

<sup>84.</sup> *Id*.

<sup>85.</sup> Id.

ucts liability law should be applied to Facebook's platform and algorithms to limit their addictiveness and how that addictiveness fuels radicalization.

The Restatement coincidentally provides that "[o]ne area in which some courts have imposed strict products liability involves false information contained in maps and navigational charts. In that context the falsity of the actual information is unambiguous and more akin to a classic product defect."86 Furthermore, "[i]n these cases, the courts emphasized that navigational charts are used for their physical characteristics rather than for the ideas contained in them."87 The unambiguous nature of information contained in maps and navigational charts, and the fact that some courts have determined that they are used primarily for their "physical characteristics"<sup>88</sup> rather than the ideas contained therein, is somewhat analogous to the unambiguous nature of Facebook's addictive algorithms and the "physical" characteristics of its platform. Facebook's algorithms direct which content users receive on Facebook's platform, and the "physical" characteristics of Facebook's platform are what enable users to view content and communicate with others. This "exception" to the tangibility requirement may provide the avenue through which to apply products liability law and ensure Facebook designs its platform and algorithms responsibly without impinging on free speech.

With regard to the service exclusion, the Restatement of Products Liability states that "[s]ervices, even when provided commercially, are not products . . . .<sup>"89</sup> It goes on to stipulate that "commercial firms engaged in advertising products are outside the rules of this Restatement . . . .<sup>"90</sup> As a result, if one could make the argument that Facebook is nothing more than a service engaged in advertising products, it is likely products liability law would be found inapplicable to Facebook's platform and algorithms. However, as one begins to explore the nature of a "service," it becomes increasingly difficult to claim that Facebook is nothing more than a service. Furthermore, because of the increasingly inextricable nature of products and services ushered in by the Digital Revolution, it

<sup>86.</sup> Id.

<sup>87.</sup> Id. § 19 reporters' note to cmt. d.

<sup>88.</sup> Id.

<sup>89.</sup> Id. § 19 cmt. f.

<sup>90.</sup> Id. § 20 cmt. g.

could be argued that the definition of what constitutes a "product" for purposes of products liability law should be expanded.

Some typical characteristics of services include intangibility, heterogeneity, inseparability of production and consumption, perishability, customer participation, and labor intensity.<sup>91</sup>

"Intangibility" in the services context means "non-physical" or "incapable of being perceived by the senses."<sup>92</sup> Facebook's algorithms are intangible in the sense that they "cannot be dropped on your feet,"<sup>93</sup> but the platform can be viewed visually and interacted with physically.

"Heterogeneity" in the services context refers to the "relative difficulty/inability to standardize service outcomes or processes."<sup>94</sup> Facebook's platform and algorithms are heterogenous in form in the sense that users have the ability to interact with the site freely and create unique outcomes, but Facebook's platform and algorithms are homogenous in substance because they provide a uniform social media platform and direct which content is initially received by users, which then shapes and standardizes user behavior.<sup>95</sup>

"Inseparability" in the services context refers to the notion that "[s]ervices are produced and consumed simultaneously"<sup>96</sup> and "[s]ignificant parts of the service delivery process cannot begin until after consumer inputs have been presented by the customer."<sup>97</sup> Facebook's platform and algorithms are not produced and consumed simultaneously because the platform and algorithms are stored on the system's servers.<sup>98</sup> Although significant parts of Facebook's platform and algorithms cannot begin without user inputs, significant parts of Facebook's platform and algorithms can begin without user inputs once the user has logged in to the platform: Facebook's algorithms prepopulate the platform's news feed,

<sup>91.</sup> See, e.g., Mikko Heiskala, What Is a Service?, SOFTWARE BUS. & ENG'G INST., AALTO UNIV. (Mar. 12, 2007), http://www.soberit.hut.fi/T-86/T-86.5300/2007/T-86\_5300\_What\_is\_a\_service\_heiskala\_12032007-Part\_I.pdf [https://perma.cc/M88Z-M4EQ].

<sup>92.</sup> Id.

<sup>93.</sup> Id.

<sup>94.</sup> Id.

<sup>95.</sup> See Packin & Lev-Aretz, supra note 7, at 1235–36.

<sup>96.</sup> Heiskala, *supra* note 91.

<sup>97.</sup> Id.

<sup>98.</sup> See, e.g., Krish Bandaru & Kestutis Patiejunas, Under the Hood: Facebook's Cold Storage System, FACEBOOK ENG'G (May 4, 2015), https://engineering.fb.com/2015/05/04/ core-data/under-the-hood-facebook-s-cold-storage-system/ [https://perma.cc/3A5X-UE27].

which is visible upon log-in, without any direct user input.<sup>99</sup> An argument could be made that the algorithm prepopulates the news feed of the platform with prior user inputs from previous log-in sessions, but that requires admitting that Facebook's platform and algorithms can be stored and thus are not produced and consumed simultaneously.<sup>100</sup>

"Perishability" in the services context refers to how a "provider's capacity to deliver a service is time-perishable."<sup>101</sup> Common examples of perishability playing out in the services context include consultant time and event seating because the value of the service "cannot be resold and is wasted if not utilized."<sup>102</sup> Facebook's platform and algorithms are clearly not perishable because they can be used at any time and at any place. Furthermore, the platform is perennial, and the user-generated data used to construct the algorithms that are implemented on the platform is theoretically available until the user specifically requests their data to be deleted.<sup>103</sup>

"Customer participation" in the services context refers to how "[c]ustomers are often active participants in the service process."<sup>104</sup> Users of Facebook communicate with other users, publish content, and interact with other content. Their actions are also recorded and inform the development of data-driven algorithms implemented on the platform.<sup>105</sup> Thus, Facebook users are active participants in the service process in one sense, but they are not active participants in the sense that they do not "co-produce" Facebook's platform and algorithms.<sup>106</sup>

<sup>99.</sup> See, e.g., Facebook News Feed: An Introduction for Content Creators, FACEBOOK FOR BUS., https://www.facebook.com/business/learn/lessons/facebook-news-feed-creators [https://perma.cc/4TVK-W82T].

<sup>100.</sup> See Paige Cooper, How the Facebook Algorithm Works in 2021 and How to Make It Work for You, HOOTSUITE, (Feb. 10, 2021), https://blog.hootsuite.com/facebook-algorithm/[https://perma.cc/4UFQ-VXGS].

<sup>101.</sup> Heiskala, supra note 91.

<sup>102.</sup> Id.

<sup>103.</sup> See, e.g., Jason Cipriani, Deactivating Facebook Isn't Enough. Here's How to Permanently Delete Your Account, CNET (Sept. 8, 2021, 4:00 AM), https://www.cnet.com/tech/services-and-software/deactivating-facebook-isnt-enough-heres-how-to-permanently-delete-y our-account/ [https://perma.cc/R8VF-9T7K].

<sup>104.</sup> Heiskala, *supra* note 91.

<sup>105.</sup> See supra notes 7–8 and accompanying text.

<sup>106.</sup> See supra notes 7–8 and accompanying text.

"Labor intensity" in the services context refers to how "[s]ervices usually involve considerable human activity, rather than a precisely determined process."<sup>107</sup> Facebook's platforms and algorithms facilitate considerable human activity, but Facebook's platform and algorithms owe their existence to precisely determined software codes.<sup>108</sup>

When analyzed in a more nuanced manner, it becomes apparent that defining Facebook's platform and algorithms as nothing more than a service is near-sighted. Consequently, Facebook's platform and algorithms may be more similar to products than services, especially considering Facebook, Inc. itself defines Facebook's platform and algorithms as "products."<sup>109</sup> However, even if Facebook's platform and algorithms are a completely new form of commercial instrument that do not fit squarely into the definitions for "product" or "service," it may be time to expand the definition of "product" to include Facebook's platform and algorithms so that products liability law can apply and offer some form of legal accountability.

The world is currently going through what some scholars have described as the "Digital Revolution."<sup>110</sup> Similar to the Industrial Revolution at the turn of the twentieth century, the Digital Revolution is transforming the way people live and work.<sup>111</sup> Also similar to the Industrial Revolution, the Digital Revolution is transforming the way consumers engage with the commercial world.

The Industrial Revolution brought about mass production and factories.<sup>112</sup> As consumers were able (and ultimately expected) to engage with increasing amounts of products built in these facto-

<sup>107.</sup> Heiskala, supra note 91.

<sup>108.</sup> See, e.g., Exploring the Software Behind Facebook, the World's Largest Social Media Site, SOLARWINDS PINGDOM (Feb. 19, 2019), https://www.pingdom.com/blog/the-software-behind-facebook/#:~:text=Facebook%20uses%20Linux%2C%20but%20has,%E2%80%9%20 D%%2020of%20the%20Memcached%20layer) [https://perma.cc/KKQ2-D3YR].

<sup>109.</sup> *See* Facebook Form 10-K, *supra* note 7, at 7 (now doing business as Meta Platforms, Inc.).

<sup>110.</sup> See, e.g., Mühleisen, supra note 28, at 6.

<sup>111.</sup> *Compare* Mühleisen, *supra* note 28, at 6–7 (describing the impact modern technological development will have on the workplace), *with Industrial Revolution*, HIST. (Sept. 9, 2019), https://www.history.com/topics/industrial-revolution/industrial-revolution [https:// perma.cc/M7AV-87T4] (describing the impact past industrial development had on the workplace).

<sup>112.</sup> See, e.g., Industrial Revolution, supra note 111.

ries, "[c]ontract [d]istancing—the growing distance between consumers, contract terms, and the contract formation process,"113 complicated the analysis of consumer assent to contract terms.<sup>114</sup> As a result, courts abolished the common law privity requirement in negligence actions for injuries sustained by defective products, thus allowing consumers to recover from manufacturers in tort.<sup>115</sup> The Digital Revolution has brought about data-driven algorithms and interactive computer services.<sup>116</sup> As consumers become able, and ultimately expected, to engage with increasing amounts of interactive computer services that implement data-driven algorithms, contract distancing is once again complicating the analysis of consumer assent to contract terms.<sup>117</sup> As a result, courts should abolish the tangibility requirement and services exclusion in products liability actions for injuries sustained by defectively designed interactive computer services, thus allowing consumers to recover from interactive computer service providers in tort.

Perhaps unsurprisingly, litigation involving the potential product liability of an interactive computer service has already begun. In *Herrick v. Grindr LLC*, the Second Circuit heard a case involving Grindr, "a web-based 'hook-up' application ('app') that matches users based on their interests and location."<sup>118</sup> In that case, "Herrick was the victim of a campaign of harassment by his ex-boyfriend, who created Grindr profiles to impersonate Herrick and communicate with other users in his name, directing the other users to Herrick's home and workplace."<sup>119</sup> Herrick alleged that Grindr was defectively designed because it lacked "safety features to prevent impersonating profiles and other dangerous conduct."<sup>120</sup> The Second Circuit collapsed the products liability claim into a speech claim and held that Grindr was protected under § 230 of the CDA because Herrick's "ex-boyfriend's online speech [was] pre-

<sup>113.</sup> Stacy-Ann Elvy, *Contracting in the Age of the Internet of Things: Article 2 of the UCC and Beyond*, 44 HOFSTRA L. REV. 839, 878 (2016).

<sup>114.</sup> See id.; supra notes 29–37 and accompanying text.

<sup>115.</sup> See supra notes 34–37 and accompanying text.

<sup>116.</sup> See, e.g., Tom Wheeler, *Placing a Visible Hand on the Digital Revolution*, BROOKINGS (Jan. 13, 2020), https://www.brookings.edu/policy2020/bigideas/placing-a-visible-hand-on-the-digital-revolution/ [https://perma.cc/VM82-K3RU].

<sup>117.</sup> See, e.g., Elvy supra note 113, at 874–83; Michal S. Gal & Niva Elkin-Koren, Algorithmic Consumers, 30 HARV. J.L. & TECH. 309, 318, 322–25 (2017).

<sup>118.</sup> Herrick v. Grindr LLC, 765 Fed. App'x 586, 588 (2d Cir. 2019).

<sup>119.</sup> Id.

<sup>120.</sup> Id.

cisely the basis of his claims that Grindr [was] defective and dangerous."<sup>121</sup> Notably, the Second Circuit held that to the extent Herrick's claims

are premised on Grindr's matching and geolocation features, they are likewise barred, because under § 230 an ICS "will not be held responsible unless it assisted in the development of what made the content unlawful" and cannot be held liable for providing "neutral assistance" in the form of tools and functionality available equally to bad actors and the app's intended users.<sup>122</sup>

Thus, courts appear to view the distinction between providing "neutral assistance" and providing "assist[ance] in the development of what made the content unlawful" as particularly important in applying products liability to interactive computer services.<sup>123</sup> In the case of Facebook, a strong argument can be made that the platform and its algorithms do not simply provide "neutral assistance" but rather "assist in the development" of unlawful content by deliberately giving radicalizing and hyper-partisan content more influence and spread than other content.<sup>124</sup>

#### III. FACEBOOK'S POTENTIAL LIABILITY FOR DEFECTIVELY DESIGNED PLATFORM AND ALGORITHMS

According to the Restatement (Third) of Torts: Products Liability, "[a] product is defective when, at the time of sale or distribution, it . . . is defective in design . . . ."<sup>125</sup> The Restatement goes on to provide:

[A product] is defective in design when the foreseeable risks of harm posed by the product could have been reduced or avoided by the adoption of a reasonable alternative design by the seller or other distributor, or a predecessor in the commercial chain of distribution, and the omission of the alternative design renders the product not reasonably safe.<sup>126</sup>

Most jurisdictions allow claims for injuries sustained as a result of a product's design defects under negligence or strict liability.<sup>127</sup>

<sup>121.</sup> Id. at 590.

<sup>122.</sup> Id. at 591.

<sup>123.</sup> See id.

<sup>124.</sup> See infra notes 148–55.

<sup>125.</sup> RESTATEMENT (THIRD) OF TORTS: PRODS. LIAB. § 2 (AM. L. INST. 1998).

<sup>126.</sup> Id. § 2(b).

<sup>127.</sup> Kenneth Ross & Ted Dorenkamp, *Product Liability and Safety in the United States: Overview*, THOMSON REUTERS (Sept. 1, 2020), https://uk.practicallaw.thomsonreuters.com

Though the elements that the plaintiff has to prove differ depending on the theory of recovery alleged, all claims for design defects require the plaintiff to show how or why the product was defective when it left the defendant's hands.<sup>128</sup>

#### A. Negligence

Negligence generally requires the plaintiff to prove that the defendant owed a duty to the plaintiff, that the defendant breached its duty to the plaintiff, and that the defendant's breach of duty proximately caused the plaintiff to suffer harm.

Under negligence, a duty to design a product with reasonable care is generally owed by a manufacturer to a customer when there "is a sufficient juxtaposition of the parties in time and space to place the plaintiff in danger from the defendant's acts . . . [T]his 'juxtaposition of time and space' does not require actual interaction between the parties, but sufficient relation to place plaintiff within reach of defendant's conduct."129 However, jurisdictions differ with regard to what constitutes reasonable care when designing a product. On one end of the spectrum, the Supreme Court of Virginia has held that "the manufacturer of a product is only under a duty 'to exercise ordinary care to design a product that is reasonably safe for the purpose for which it is intended."<sup>130</sup> On the other end of the spectrum, the Supreme Court of Michigan has held that "[a] manufacturer has a duty to use reasonable care in designing his product and guard it against a foreseeable and unreasonable risk of injury [that] may even include misuse which might reasonably be anticipated."131 It has been emphasized, however, that "foreseeability [of harm] is not to be equated with duty."132 Thus, "common knowledge of a danger from the foreseeable misuse of a product

 $<sup>\</sup>label{eq:contextData} $$ w-012-8129$ transitionType=Default&contextData=(sc.Default)&firstPage=true [https://perma.cc/KY2A-9M2T].$ 

<sup>128.</sup> Id.

<sup>129.</sup> Quisenberry v. Huntington Ingalls, Inc., 296 Va. 233, 244, 818 S.E.2d 805, 811 (2018) (emphasis omitted); see Gregory v. Cincinnati Inc., 539 N.W.2d 325, 349 (Mich. 1995).

<sup>130.</sup> Holiday Motor Corp. v. Walters, 292 Va. 461, 477, 790 S.E.2d 447, 455 (2016) (quoting Turner v. Manning, Maxwell & Moore, Inc., 216 Va. 245, 251, 217 S.E.2d 863, 868 (1975)).

<sup>131.</sup> Prentis v. Yale Mfg. Co., 365 N.W.2d 176, 187 (Mich. 1984).

<sup>132.</sup> Dreisonstok v. Volkswagenwerk, A.G., 489 F.2d 1066, 1070 (4th Cir. 1974); Quisenberry, 296 Va. at 245, 818 S.E.2d at 811.

does not alone give rise to a duty to safe guard against the danger of that misuse." $^{133}$ 

It follows that if Facebook's platform and algorithms are to be considered "products" for purposes of products liability law, Facebook owes a duty of reasonable care to those "within reach of [its] conduct."<sup>134</sup> This would likely include all of its users and could potentially include those "sharing living quarters" with its users.<sup>135</sup> Because Facebook has over 2.8 billion monthly active users,<sup>136</sup> it could be found to owe a duty of reasonable care to more people than any manufacturer that has come before it. This may seem daunting and unmanageable, but the spirit of the law is fairly clear, and it will be up to jurisdictions to determine whether or not they have the resolve to apply and enforce such a holding.

Defining what constitutes reasonable care in the context of Facebook's platform and algorithms is difficult. On the one hand, Facebook may only be required to exercise ordinary care to design its platform and algorithms so they are reasonably safe for their intended purposes.<sup>137</sup> On the other hand, Facebook may be required to use reasonable care in designing its platform and algorithms to guard against unreasonable risks of injury, which may even include misuses that might reasonably be anticipated.<sup>138</sup> However, it is likely that Facebook need not design its platform and algorithms so they are "injury-proof."<sup>139</sup> As a result, it is important to define the intended purposes of Facebook's platform and algorithms and how they must be designed in order to be reasonably safe for those intended purposes. It is also important to determine which foreseeable misuses of Facebook's platform and algorithms can be reasonably anticipated and guarded against to prevent unreasonable risks of injury.

Negligence actions impose a higher burden of proof on the plaintiff than strict liability actions because a negligence action requires

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<sup>133.</sup> Holiday Motor Corp., 292 Va. at 478, 790 S.E.2d at 455 (quoting Jeld-Wen, Inc. v. Gamble, 256 Va. 144, 149, 501 S.E.2d 393, 397 (1998)).

<sup>134.</sup> See Quisenberry, 296 Va. at 244, 818 S.E.2d at 811.

<sup>135.</sup> See id. at 245, 818 S.E.2d at 811 (holding asbestos injuries sustained by daughter of shipyard worker were actionable).

<sup>136.</sup> See Facebook Form 10-K, supra note 7, at 55.

<sup>137.</sup> See Holiday Motor Corp., 292 Va. at 477, 790 S.E.2d at 455.

<sup>138.</sup> See Prentis v. Yale Mfg. Co., 365 N.W.2d 176, 187 (Mich. 1984).

<sup>139.</sup> See, e.g., Norris v. Excel Indus., Inc., 139 F. Supp. 3d 742, 754 (W.D. Va. 2015); Featherall v. Firestone Tire & Rubber Co., 219 Va. 949, 962–63, 252 S.E.2d 358, 367 (1979).

the plaintiff to prove that the defendant's conduct was unreasonable rather than merely that the product was designed defectively.<sup>140</sup> Consequently, under a negligence theory of recovery, it is important to determine what Facebook considers the intended purposes of its platform and algorithms to be, the steps Facebook has taken to ensure its platform and algorithms are reasonably safe for those intended purposes, and, possibly, the steps Facebook has taken to guard its platform and algorithms against misuses it has reasonably anticipated so as to prevent unreasonable risks of injury.

Facebook's stated mission is "to give people the power to build community and bring the world closer together."<sup>141</sup> In accordance with that mission, Facebook's terms of service list the intended purposes of its platform and algorithms. These include: providing a personalized experience for the user; connecting users with people and organizations they care about; empowering users to express themselves and communicate about what matters to them; helping users discover content, products, and services that may interest them; combating harmful conduct to protect and support the Facebook community; using and developing advanced technologies to provide safe and functional services for everyone; researching ways to make its services better; providing consistent and seamless experiences, and enabling global access to its services.<sup>142</sup>

To ensure that Facebook's platform and algorithms are reasonably safe for these intended purposes, Facebook's terms of service include "community commitments" that Facebook users are expected to follow.<sup>143</sup> These commitments stipulate that users must use the same name they use in everyday life, provide accurate information about themselves, and create only one account.<sup>144</sup> Facebook's terms of service also provide that users cannot use Facebook if they are a convicted sex offender, under thirteen years old, or have had their account disabled for previous violations of the terms

<sup>140.</sup> *See, e.g.*, Quisenberry v. Huntington Ingalls, Inc., 296 Va. 233, 244, 818 S.E.2d 805, 811; Beshada v. Johns-Manville Prods. Corp., 447 A.2d 539, 544 (N.J. 1982); Swisher, *supra* note 42, at 881–82.

<sup>141.</sup> Facebook Form 10-K, supra note 7, at 7.

<sup>142.</sup> Terms of Service, FACEBOOK, https://www.facebook.com/terms.php [https://perma. cc/W362-F6FD] (Oct. 22, 2020).

<sup>143.</sup> Id.

<sup>144.</sup> Id.

of service.<sup>145</sup> Moreover, Facebook's terms of service stipulate that users may not use the platform to do or share anything that violates its "community standards" or is "unlawful, misleading, discriminatory or fraudulent."<sup>146</sup> Violations of Facebook's "community standards" include using its platform to: incite violence, create a page that proclaims a violent mission, coordinate harm, publicize crime, encourage suicide, promote sexual exploitation and nudity, bully and harass other users, engage in hate speech, or share manipulated media.<sup>147</sup>

Although Facebook has adopted these "community commitments" to ensure that its platform and algorithms are reasonably safe for their intended purposes, an argument could be made that Facebook has failed to exercise reasonable care in designing its platform and algorithms to ensure these community commitments are followed. An even easier argument could be made that Facebook has failed to design its platform and algorithms to guard against unreasonable risks of injury from reasonably anticipated misuses.

Facebook "disable[s] certain user accounts, make[s] product changes, or take[s] other actions" to reduce the number of "false" and "duplicate" accounts that violate its terms of service.<sup>148</sup> However, as of 2020, Facebook estimates that duplicate accounts represent approximately 11% of its worldwide monthly active users, and that false accounts represent approximately 5% of its worldwide monthly active users.<sup>149</sup> In the fourth quarter of 2020 alone, Facebook took down 1.3 billion fake accounts,<sup>150</sup> and acted on 8.6 million pieces of content classified as terrorism, 6.4 million pieces of content classified as organized hate,<sup>151</sup> 6.3 million pieces of content classified as bullying and harassment,<sup>152</sup> and 26.9 million

<sup>145.</sup> Id.

<sup>146.</sup> Id.

<sup>147.</sup> Facebook Community Standards, FACEBOOK, https://www.facebook.com/commun itystandards/ [https://perma.cc/79K6-5HK8].

<sup>148.</sup> Facebook Form 10-K, supra note 7, at 4-5.

<sup>149.</sup> Id. at 27.

<sup>150.</sup> Fake Accounts, FACEBOOK, https://transparency.fb.com/data/community-standards -enforcement/fake-accounts/facebook/ [https://perma.cc/R4BN-REA6].

<sup>151.</sup> Dangerous Organizations: Terrorism and Organized Hate, FACEBOOK, https://trans parency.fb.com/data/community-standards-enforcement/dangerous-organizations/facebook [https://perma.cc/85JF-D3HB].

<sup>152.</sup> *Bullying and Harassment*, FACEBOOK, https://transparency.fb.com/data/commun ity-standards-enforcement/bullying-and-harassment/facebook/ [https://perma.cc/46UE-SL4 W].

pieces of content classified as hate speech.<sup>153</sup> In the third quarter of 2019, an estimated 23–25 of every 10,000 content views contained violent and graphic content.<sup>154</sup> In the fourth quarter of 2019, Facebook acted on 5.1 million pieces of content related to suicide and self-injury.<sup>155</sup> In the first quarter of 2019, of every 10,000 content views, an estimated 12–14 contained adult nudity and sexual activity.<sup>156</sup>

Despite all these violations of Facebook's terms of service, which are specifically designed to ensure that its platform and algorithms are reasonably safe for their intended purposes, Facebook has not substantially changed the design of its platform or algorithms.<sup>157</sup> One can still freely and easily set up a Facebook account without any rigorous identity verification. Despite Facebook's community commitments, one can easily create a fictitious account and use it to violate Facebook's terms of service until it is removed, which may not happen for days, weeks, months, or even years.<sup>158</sup> Moreover, these violations of Facebook's terms of service show no signs of abating despite Facebook's increased enforcement efforts.<sup>159</sup> Since Facebook is fully aware of these statistics and the unabating violations of its terms of service, Facebook's increased enforcement measures might be nothing more than a palliative remedy for a negligently designed product. In other words, the "online game of

<sup>153.</sup> Hate Speech, FACEBOOK, https://transparency.fb.com/data/community-standardsenforcement/hate-speech/facebook/ [https://perma.cc/LZV3-GYE6].

<sup>154.</sup> Violent and Graphic Content, FACEBOOK, https://transparency.fb.com/data/commu nity-standards-enforcement/graphic-violence/facebook/ [https://perma.cc/8U8L-DSUZ].

<sup>155.</sup> Suicide and Self-Injury, FACEBOOK, https://transparency.fb.com/data/communitystandards-enforcement/suicide-and-self-injury/facebook/ [https://perma.cc/GP2Q-B3KF].

<sup>156.</sup> Adult Nudity and Sexual Activity, FACEBOOK, https://transparency.fb.com/data/ community-standards-enforcement/adult-nudity-and-sexual-activity/facebook/#appealed-c ontent [https://perma.cc/8Z58-JJKE].

<sup>157.</sup> See infra notes 165–77 and accompanying text; Andrew Marantz, Why Facebook Can't Fix Itself, NEW YORKER (Oct. 12, 2020), https://www.newyorker.com/magazine/2020 /10/19/why-facebook-cant-fix-itself [https://perma.cc/9RX8-89QY].

<sup>158.</sup> See Jack Nicas, Does Facebook Really Know How Many Fake Accounts It Has?, N.Y. TIMES (Jan. 30, 2019), https://www.nytimes.com/2019/01/30/technology/facebook-fake-accounts.html [https://perma.cc/B3P6-K5E9]; Jamey Tucker, What the Tech? Facebook Fake Account Problem, WFMZ-TV (Mar. 25, 2021), https://www.wfmz.com/features/what-the-tech/what-the-tech-facebook-fake-account-problem/article\_daca9086-8d5f-11eb-bf61-0785b 77cba32.html [https://perma.cc/94A2-7TGE].

<sup>159.</sup> See supra notes 150–57. The general trends of Facebook's Community Standards Enforcement Report seemingly indicate that violations of Facebook's terms of service are not decreasing.

catch and delete, which Facebook says is central to its counter-extremism strategy," will hardly be enough to address violations of its terms of service, including radicalization.<sup>160</sup>

Moreover, when one views these violations of Facebook's terms of service outside the digital vacuum, it becomes apparent that they often result in real-world harm, particularly in the form of radicalization and violence. The Azov movement, a far-right Ukrainian white supremacist organization engaged in acts of violence, has stated that "Facebook is the main channel" for its recruitment.<sup>161</sup> A 2011 hearing before the Congressional Subcommittee on Counterterrorism and Intelligence noted that "former al-Qaeda in the Arabian Peninsula leader, Anwar al-Awlaki, was known to some as the bin Laden of the internet. The late al-Awlaki used various social media such as Facebook . . . to try and recruit and develop a cadre of terrorists in the United States."<sup>162</sup> In a 2015 hearing before the Congressional Subcommittee on National Security, it was noted that "ISIL and its online supporters, continue to use . . . Facebook . . . and other social networking services to broadcast their terrorist messages to a global audience in real time and significantly extend their recruitment, mobilization, and financing efforts . . . . "<sup>163</sup> Of the 223 charging documents referring to individuals involved in the Capitol Hill insurrection investigation, seventy-three reference Facebook.<sup>164</sup> Thus, despite Facebook's attempts to deal with radicalization on its platform, "its attempts to crack down have been far from fully effective."<sup>165</sup>

It should also be noted that Facebook has been aware of how its platform and algorithms have been used to fuel radicalization and real-world harm. In fact, in 2018, a Facebook, Inc. team gave an

<sup>160.</sup> Simon Shuster & Billy Perrigo, *Like, Share, Recruit: How a White-Supremacist Militia Uses Facebook to Radicalize and Train New Members*, TIME (Jan. 7, 2021, 6:20 PM), https://time.com/5926750/azov-far-right-movement-facebook/ [https://perma.cc/DCQ3-9SXD].

<sup>161.</sup> Id.

<sup>162.</sup> Jihadist Use of Social Media—How to Prevent Terrorism and Preserve Innovation: Hearing Before the Subcomm. on Counterterrorism and Intelligence of the H. Comm. on Homeland Sec., 112th Cong. 5 (2011) (statement of Del. Jackie Speier, Member H. Subcomm. on Counterterrorism and Intelligence).

<sup>163.</sup> Radicalization: Social Media and the Rise of Terrorism: Hearing Before the Subcomm. on Nat'l Sec. of the H. Comm. on Oversight and Gov't Reform, 114th Cong. 5 (2015) (statement of Del. Stephen F. Lynch, Member H. Subcomm. on Nat'l Sec.).

<sup>164.</sup> Brewster, *supra* note 12.

<sup>165.</sup> Shuster & Perrigo, supra note 160.

internal presentation to senior executives informing them that Facebook's "algorithms exploit the human brain's attraction to divisiveness."<sup>166</sup> The team warned that, "[i]f left unchecked'... Facebook would feed users 'more and more divisive content in an effort to gain user attention [and] increase time on the platform."<sup>167</sup> In 2016, an internal Facebook presentation authored by researcher and sociologist Monica Lee stated that "64% of all extremist group joins are due to our recommendation tools."<sup>168</sup> Most of that activity "came from the platform's 'Groups You Should Join' and 'Discover' algorithms."<sup>169</sup> This led Ms. Lee to conclude that Facebook's "recommendation systems grow the [radicalization] problem."<sup>170</sup>

Despite Facebook's knowledge that its platform and algorithms "grow the [radicalization] problem,"171 Facebook has chosen not to redesign its platform and algorithms to guard against it. "Facebook has designed its algorithms to reward 'super sharers,' giving much more influence and spread to people who 'like,' share, or otherwise engage more content,"172 and "the most prolifically active users promote hyper-partisan content."<sup>173</sup> To address the radicalization problem, a few "Facebook executives tried to start something called 'Sparing Sharing,' a program which would stop giving these super sharers such outsized impact on what other people see. Facebook's own data scientists reportedly believed this would also help cut down spam and make the platform harder to manipulate to push misinformation."<sup>174</sup> However, other executives disapproved of the idea and eventually "gutted the program."<sup>175</sup> "Other programs met similar fates—if they weren't killed outright, they were cut back to the point of uselessness."<sup>176</sup> This is likely because there is not much

<sup>166.</sup> Jeff Horwitz & Deepa Seetharaman, *Facebook Executives Shut Down Efforts to Make the Site Less Divisive*, WALL ST. J. (May 26, 2020), https://www.wsj.com/articles/face book-knows-it-encourages-division-top-executives-nixed-solutions-11590507499 [https://pe rma.cc/4JGY-GR8P].

<sup>167.</sup> Id.

<sup>168.</sup> Id.

<sup>169.</sup> Id.

<sup>170.</sup> Id.

<sup>171.</sup> Id.

<sup>172.</sup> Luke Darby, Facebook Knows It's Engineered to "Exploit the Human Brain's Attraction to Divisiveness," GQ (May 27, 2020), https://www.gq.com/story/facebook-spare-theshare [https://perma.cc/9N9Q-FZKN]; see also Horwitz & Seetharaman, supra note 166.

<sup>173.</sup> Darby, supra note 172.

<sup>174.</sup> *Id*.

<sup>175.</sup> *Id*.

<sup>176.</sup> Id.

incentive for Facebook to redesign its algorithms "since the algorithms are designed to keep users online."<sup>177</sup>

As a result, if products liability law were applied to Facebook's platform and algorithms, a negligence action alleging defective design could be successful. One could make the argument that Facebook owes a duty to "those within the reach of its conduct," in this case, the users of its platform. Consequently, at a minimum, Facebook has a duty to design its platform and algorithms so that they are reasonably safe for their intended purposes, and, at a maximum, to protect against unreasonable risks of injury resulting from anticipated misuse. Despite the fact that Facebook knows its platform and algorithms are not reasonably safe for their intended purposes, Facebook consciously chooses not to redesign them.<sup>178</sup> This results in real-world harm, which renders Facebook liable under a negligence action alleging defective product design. Although Facebook could argue that its platform and algorithms, being virtual in nature, do not proximately cause real-world harm, its own internal presentations belie that argument.<sup>179</sup> Furthermore, although Facebook could argue that its disclaimer of the implied warranties of merchantability and fitness protect it against liability,<sup>180</sup> a court would likely find that, given the extremely uneven bargaining power between Facebook and its users, Facebook's "attempted disclaimer of an implied warranty of merchantability and of the obligations arising therefrom is so inimical to the public good as to compel an adjudication of its invalidity."181

<sup>177.</sup> Id.; see also The Dark Side of AI, supra note 7.

<sup>178.</sup> See supra notes 150-57, 165-76 and accompanying text.

<sup>179.</sup> See supra notes 166–77 and accompanying text; see also White Consol. Indus., Inc. v. Swiney, 237 Va. 23, 28, 376 S.E.2d 283, 286 (1989) (quoting Bly v. Southern Ry. Co., 183 Va. 162, 176, 31 S.E.2d 564, 570 (1944)) ("It is not necessary that the circumstances establish negligence as the proximate cause with such certainty as to exclude every other possible conclusion. It is not necessary to negative every possibility that the accident occurred in some extraordinary manner which would relieve the defendant. Often this would be impossible. All that is required is that a jury be satisfied with proof which leads to a conclusion with probable certainty where absolute logical certainty is impossible.").

<sup>180.</sup> See Terms of Service, supra note 142 ("To the extent permitted by law, we also DISCLAIM ALL WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, TITLE, AND NON-INFRINGEMENT.").

<sup>181.</sup> Henningsen v. Bloomfield Motors, Inc., 161 A.2d 69, 95 (N.J. 1960).

#### B. Strict Liability

Under traditional strict liability, "[a] manufacturer is strictly liable in tort when an article he places on the market, knowing that it is to be used without inspection for defects, proves to have a defect that causes injury to a human being."<sup>182</sup> Thus, "[g]enerally speaking, a plaintiff has the burden of proving that (1) the product was defective; (2) the defect existed when the product left the hands of the defendant; and (3) the defect caused injury to a reasonably foreseeable user."<sup>183</sup> Moreover, the Third Circuit has held that "the theory of strict liability in tort may be applied to a mere bystander, as distinguished from a user."<sup>184</sup> Consequently, users and bystanders injured by defectively designed products are generally entitled to recovery under strict liability if the injury occurred while the product was being used in an intended or reasonably foreseeable manner.

"Strict liability differs from negligence in that it eliminates the necessity for the injured party to prove that the manufacturer of the product which caused the injury was negligent."<sup>185</sup> In other words, strict liability "focusses [sic] not on the conduct of the manufacturer but on the product itself, and holds the manufacturer liable if the product was defective."<sup>186</sup> Because strict liability focuses on the defectiveness of the product itself and not the conduct of the manufacturer, strict liability invokes substantial public policy concerns.<sup>187</sup> Thus, courts have adopted two major tests to determine whether a product is defectively designed for purposes of strict liability: (1) the risk-utility test, and (2) the consumer expectations test.

<sup>182.</sup> Greenman v. Yuba Power Prods., 377 P.2d 897, 900 (Cal. 1963).

<sup>183.</sup> O'Brien v. Muskin Corp., 463 A.2d 298, 303 (N.J. 1983).

<sup>184.</sup> Berrier v. Simplicity Mfg., Inc., 563 F.3d 38, 54 (3d Cir. 2009) (emphasis omitted).

<sup>185.</sup> Brown v. Superior Court, 751 P.2d 470, 474 (Cal. 1988).

<sup>186.</sup> Id.

<sup>187.</sup> See, e.g., Phillips v. Kimwood Mach. Co., 525 P.2d 1033, 1039–40 (Or. 1974) ("In an action for negligence it is normally the function of the jury to determine whether the defendant was negligent, subject, of course, to the authority of the judge to direct a verdict for the defendant, if he finds that the jury could not reasonably find for the plaintiff. On the other hand, in an action based on strict liability of the Rylands (*Ryland v. Fletcher*) type, for an abnormally dangerous activity, the determination as to whether strict liability will be imposed for the activity is held to be one for the judge, not the jury—for the reason that the decision involves issues of general social policy.").

In assessing whether a product is defective under the risk-utility test, courts look to a variety of factors:

(1) The usefulness and desirability of the product—its utility to the user and to the public as a whole. (2) The safety aspects of the product—the likelihood that it will cause injury, and the probable seriousness of the injury. (3) The availability of a substitute product which would meet the same need and not be as unsafe. (4) The manufacturer's ability to eliminate the unsafe character of the product without impairing its usefulness or making it too expensive to maintain its utility. (5) The user's ability to avoid danger by the exercise of care in the use of the product. (6) The user's anticipated awareness of the dangers inherent in the product and their avoidability, because of general public knowledge of the obvious condition of the product, or of the existence of suitable warnings or instructions. (7) The feasibility, on the part of the manufacturer, of spreading the loss by setting the price of the product or carrying liability insurance.<sup>188</sup>

In assessing whether a product is defective under the consumer expectations test, courts look to whether the product failed to perform as safely for an intended or reasonably foreseeable use as the ordinary consumer would have reasonably expected.<sup>189</sup> Evidence that could be useful in a consumer expectations analysis includes "actual industry practices, [consumer] knowledge at the time of other injuries, [consumer] knowledge of dangers, the existence of published literature, and . . . direct evidence of what reasonable purchasers considered defective at the time."<sup>190</sup>

Facebook places its platform and algorithms on the market knowing they will be used without the opportunity for consumer inspection of defects. This is because users do not have the opportunity to fully inspect or modify the data and software code powering Facebook's platform and algorithms before using them.<sup>191</sup> Thus, it could be argued that if Facebook's platform and algorithms are defective, they "left the hands of Facebook" in a defective state. Furthermore, it is likely that Facebook users, and bystanders of Facebook users, can only recover for injuries sustained by Facebook's platform and algorithms under strict liability if it can be proven that Facebook's platform and algorithms were designed de-

<sup>188.</sup> O'Brien, 463 A.2d at 304-05.

<sup>189.</sup> See, e.g., Barker v. Lull Eng'g Co., 573 P.2d 443, 446 (Cal. 1978); Brown, 751 P.2d at 477.

<sup>190.</sup> Norris v. Excel Indus. Inc., 139 F. Supp. 3d 742, 751 (W.D. Va. 2015).

<sup>191.</sup> See supra note 108.

fectively, and that the user or bystander was injured while Facebook's platform and algorithms were being used in an intended or reasonably foreseeable manner.

## 1. Risk-Utility Test Applied to Facebook's Platform and Algorithms

Under the risk-utility test, it is debatable whether Facebook's platform and algorithms are defectively designed. With regard to the "usefulness and desirability of the product," Facebook's platform and algorithms are used by over 2.8 billion users to communicate and share content with another.<sup>192</sup> With regard to the "safety aspects of the product," Facebook's platform and algorithms often cause addiction and radicalization that can result in severe violence and real-world harm.<sup>193</sup> With regard to the "availability of a substitute product that would meet the same need and not be as unsafe," there are several other social media platforms that could act as a substitute for Facebook's platform and algorithms, including Twitter, Snapchat, and TikTok.<sup>194</sup> However, these potential substitutes have far fewer users than Facebook and present many of the same dangers.<sup>195</sup>

With regard to the "ability to eliminate the unsafe character of the product without impairing its usefulness or making it too expensive to maintain its utility," Facebook could easily reprogram its algorithms to be less addictive, to stop rewarding "super sharers," and to stop directing users to divisive and hyper-partisan content.<sup>196</sup> Facebook could make the requirements for creating an account and publishing content more stringent, such as requiring new users to be invited by existing users, requiring new users to

<sup>192.</sup> See supra notes 1-6, 73-74 and accompanying text.

<sup>193.</sup> See supra notes 9, 12, 150-56, 160-65 and accompanying text.

<sup>194.</sup> See, e.g., How TikTok Recommends Videos #ForYou, TIKTOK (June 18, 2020), https://newsroom.tiktok.com/en-us/how-tiktok-recommends-videos-for-you/ [https://perma.cc/426Y-WTY5]; Katie Sehl, How the Twitter Algorithm Works in 2020 and How to Make It Work for You, HOOT SUITE (May 20, 2020), https://blog.hootsuite.com/twitter-algorithm/ [https://perma.cc/C2XB-R5F2]; Anna Hubbel, New Snapchat Algorithm Prioritizes Most Relevant Content, ADVERTISEMINT (Dec. 12, 2017), http://www.advertisem int.com/snapchats-new-algorithm-prioritizes-the-most-relevant-content-for-each-user/#:~:t ext=According%20to%20TechCrunch%2C%20your%20new,them)%20now%20appear%20in %20Discover [https://perma.cc/FM8A-BVD3].

<sup>195.</sup> See Global Social Media Stats, DATA PORTAL, https://datareportal.com/social-media-users [https://perma.cc/L76W-S4HP].

<sup>196.</sup> O'Brien v. Muskin Corp., 463 A.2d 298, 304 (N.J. 1983); see, e.g., supra notes 166–76 and accompanying text.

be verified through live video, requiring new users to identify themselves by their IP address, requiring new users to pay a fee to create an account, requiring all users to verify they are not a robot before each post, and requiring users to review Facebook's community standards before each post. However, because Facebook's profitability and sustainability are largely attributable to the fact that it is free, easy to use, and receives substantially all its revenue from targeted advertising facilitated by data-driven algorithms,<sup>197</sup> many of these proposed changes would likely cause Facebook's platform and algorithms to lose much of their utility.

With regard to "[t]he user's ability to avoid danger by the exercise of care in the use of the product," Facebook users are limited in the type of data they can prevent from being analyzed by the platform and algorithms.<sup>198</sup> Moreover, while users technically have the ability to report content that violates its community standards,<sup>199</sup> the sheer amount of content received by users as a result of Facebook's algorithms, and the fact that this content is specifically designed to be addictive in order to keep the user on the platform,<sup>200</sup> renders the user's ability to avoid danger by the exercise of care an ability that exists only in form, not in substance. With regard to "[t]he user's anticipated awareness of the dangers inherent in the product and their avoidability, because of general public knowledge of the obvious condition of the product, or of the existence of suitable warnings or instructions," around 53% of adult American Facebook users as of 2018 "do not understand why certain posts are included in their news feed" while others are not,<sup>201</sup> and 74% of adult American Facebook users are "not aware that the site collects ... information about them."202 With regard to "the feasibility, on the part of the manufacturer, of spreading the loss by setting the price of the product or carrying liability insurance."

<sup>197.</sup> See Packin & Lev-Aretz, supra note 7; Facebook Form 10-K, supra note 7.

<sup>198.</sup> O'Brien, 463 A.2d at 304; see David Nield, All the Ways Facebook Tracks You—and How to Limit It, WIRED (Jan. 12, 2020), https://www.wired.com/story/ways-facebook-tracks-you-limit-it/ [https://perma.cc/DY2L-ZPW2]; see also Data Policy, FACEBOOK (Jan. 11, 2021), https://www.facebook.com/policy.php [https://perma.cc/ZC7W-GKCQ].

<sup>199.</sup> See Policies and Reporting, FACEBOOK, https://www.facebook.com/help/175371958 4844061/?helpref=hc\_fnav [https://perma.cc/QD2Y-MK9E].

<sup>200.</sup> See Farrell, supra note 7.

<sup>201.</sup> O'Brien, 463 A.2d at 304; Aaron Smith, Many Facebook Users Don't Understand How the Site's News Feed Works, PEW RSCH. CTR. (Sept. 5, 2018), https://www.pewrese arch.org/fact-tank/2018/09/05/many-facebook-users-dont-understand-how-the-sites-news-f eed-works/ [https://perma.cc/9369-TMKV].

<sup>202.</sup> Gramlich, supra note 1.

Facebook could unilaterally decide to require users to pay a fee to use its platform.<sup>203</sup> Facebook could also require advertisers to pay greater fees to advertise on its platform.

While many factors in the risk-utility analysis seem to tip in Facebook's favor, certain factors do not. Facebook's platform and algorithms are some of the most revolutionary and useful communication technologies that have ever been designed, but they are also some of the most radicalizing and potentially dangerous technologies that have ever been designed. Although there are only a few possible substitutes for Facebook's platform and algorithms, and most of them are not necessarily safer, Facebook could easily and unilaterally redesign its platform and algorithms to eliminate some of their most unsafe characteristics.<sup>204</sup> However, to do so, Facebook would have to sacrifice much of the utility and profitability of its platform and algorithms. The ability of Facebook users to avoid dangers by exercising care in the use of the platform and its algorithms exists in form, but not in substance, and Facebook users are generally unaware of most of the dangers posed by the platform and algorithms.

In a hypothetical action brought by a plaintiff against Facebook alleging Facebook is strictly liable for injuries resulting from design defects in its platform and algorithms, courts would have to decide whether the risk-utility test tips in favor of Facebook or the plaintiff. However, one thing can be certain: if Facebook-induced mass radicalization resulting in an attempted overthrow of America's democratically elected government is not enough of a risk to tip the risk-utility balancing test in favor of the plaintiff, there is no telling what will. While a judge would likely be reluctant to find that the risks associated with Facebook's platform and algorithms outweigh the utility due to substantial public policy concerns, a jury may be more likely to find that they do.

2. Consumer Expectations Test Applied to Facebook's Platform and Algorithms

The one aspect of the consumer expectations test that seems to tip in Facebook's favor is that "actual industry practices" seem to

<sup>203.</sup> See O'Brien, 463 A.2d at 304.

<sup>204.</sup> See, e.g., supra notes 166-76.

be fairly similar across the social media landscape, with many social media companies adopting platforms and algorithms similar to Facebook's.<sup>205</sup> Despite this, it is far more likely that Facebook's platform and algorithms are defectively designed under the consumer expectations test than the risk-utility test.

Facebook users generally lack a clear understanding of the dangers posed by Facebook's platform and algorithms. Fifty-three percent of adult American Facebook users as of 2018 do not understand why certain posts are included in their news feed and others are not, including twenty-percent who say they do not understand this at all.<sup>206</sup> Twenty-eight percent of adult American Facebook users as of 2018 believe users have no control over the content that appears in their news feed.<sup>207</sup> Seventy-four percent of adult American Facebook users as of 2018 are "not aware that the site collects ... information about them ...."208 Once these users were informed of the type of information that Facebook collects on them, 51% "said they were not comfortable with Facebook maintaining this kind of list . . . . "209 Furthermore, 27% of adult American Facebook users said that the content they receive from Facebook's algorithms is not an accurate reflection of their real-life inter $ests.^{210}$ 

This information seems to indicate that Facebook's platform and algorithms conflict with the reasonable expectations of an ordinary Facebook user. The ordinary Facebook user seemingly does not know that Facebook's platform collects their data to implement addictive algorithms used to facilitate targeted advertising. Moreover, as illustrated by Ms. Riedl's story at the beginning of this Comment, Facebook users who "don't have the knowledge that a journalist has about how verifiable" a source is "can really be led to believe anything."<sup>211</sup> Consequently, it seems fair to assume that if a majority of Facebook users do not even know the platform collects its data, let alone that the platform uses that data to implement addictive algorithms designed to facilitate targeted advertising and determine which content users receive, then a majority of Facebook users do not know Facebook's terms of service and whether the content they receive violates those terms. As a result, a strong

<sup>205.</sup> See Hubbel, supra note 194.

<sup>206.</sup> Smith, supra note 201.

<sup>207.</sup> Id.

<sup>208.</sup> Gramlich, supra note 1.

<sup>209.</sup> Id.

<sup>210.</sup> Id.

<sup>211.</sup> Dunne, *supra* note 16.

argument could be made that Facebook's platform and algorithms fall below the reasonable expectations of an ordinary social media user, and, therefore, Facebook's platform and algorithms are defectively designed for purposes of strict liability.

#### CONCLUSION

Facebook's impact on American society cannot be overstated. It is, therefore, important to ensure Facebook's platform and algorithms are designed responsibly. Currently, under § 230 of the CDA, Facebook cannot be held liable for content published on its platform by third parties, including its users. Though § 230 of the CDA is largely antiquated and should be amended to reflect the current iteration of interactive computer services, products liability law may be a way to ensure Facebook designs its platform and algorithms responsibly without violating § 230 or impinging on free speech. Though Facebook's platform and algorithms could be construed to fall within the current definition of "product" under products liability law, it may be time to eliminate the tangibility requirement and service exclusion of the definition of "product" to address the sociocultural changes being ushered in by the Digital Revolution. Strong arguments could be made that Facebook's platform and algorithms are defectively designed and entitle injured plaintiffs to recovery under negligence and strict liability.

A negligence action alleging injuries as a result of design defects in Facebook's platform and algorithms would require a plaintiff to meet a higher burden of proof than a strict liability action. Despite this higher burden of proof, a plaintiff could likely demonstrate that Facebook's conduct in designing its platform and algorithms was negligent. A strict liability action alleging injuries as a result of design defects in Facebook's platform and algorithms would require a plaintiff to meet a lower burden of proof than a negligence action. However, because strict liability invokes substantial public policy concerns, courts generally use a risk-utility test and a consumer expectations test to determine whether a product is defective for purposes of strict liability. Under the risk-utility test, Facebook's platform and algorithms are debatably defective in design because certain factors tip in the favor of Facebook, while other factors tip in the favor of the hypothetical plaintiff. Under the consumer expectations test, Facebook's platform and algorithms are more likely defective in design because they fall below the reasonable expectations of the ordinary Facebook user. Legislators could enact laws that apply certain negligence and strict liability principles to interactive computer services, such as Facebook, which

might be preferable to courts applying vague and conflicting interpretations of caselaw. However, due to the current hyper-partisan nature of politics, applying negligence and strict liability principles to interactive computer services might only be accomplished through the judiciary.

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