VIRTUAL ASSAULT

Nicole J. Ligon[*]

The vast majority of gifs, memes, and other internet content constitute speech protected by the First Amendment. As a general rule, aesthetic decisions concerning that speech—such as the usage of certain colors, background graphics, or font size—are expressive elements that warrant full constitutional protection. But a recent cyberattack against Twitter followers of the Epilepsy Foundation blurred that line. In November 2019, internet hackers sent a series of videos and flashing images to thousands of individuals affiliated with the Epilepsy Foundation. The transmission of that content was intended to trigger seizures in those with epilepsy. This begs the question: did the hackers' messages containing strobe gifs constitute free speech protected under the First Amendment? Arguments have been waged on both sides, though no court has yet to address the question. This Article answers with an emphatic no. Messages calibrated to inflict physical harm on the recipient are "virtual assaults" and are not entitled to First Amendment protection. This Article defines a new cause of action for virtual assault and, in arguing that such an action would be constitutionally permissible, concludes that senders engaged in such conduct should not be permitted to skirt tort and criminal liability by hiding behind the right of free speech.

TABLE OF CONTENTS

[*] Supervising Attorney and Clinical Professor of Law with the First Amendment Clinic at Duke University School of Law. The author would like to thank Duke Law student Shira Levine '22 and Duke Law graduates Luke Morgan '19, Kyle Nodes '19, Ryan Rizzuto '19 for their research assistance. The author is grateful to Professors Stuart Benjamin, Joseph Blocher, Darrell Miller, Jeff Powell, and the Duke Law Jr. Scholars Workshop for their helpful comments and feedback.

I. INTRODUCTION

In November 2019, thousands of Epilepsy Foundation Twitter followers woke up to find that their Twitter newsfeeds had been infiltrated with flashing images.[1] The Epilepsy Foundation's Twitter account was hacked thirty times in the first week of November alone,[2] with cyberattackers posting strobe gifs on the organization's page—a page that is followed largely by people with epilepsy. While it is unclear exactly how many followers actually saw the posts, the transmission of flashing images online has been used to attack people with epilepsy on the internet and induce seizures for the past several years.[3] Indeed, this particular attack came shortly after Kurt Eichenwald, a well-known journalist with epilepsy, suffered a seizure following an attack on his own Twitter account.[4] Eichenwald had been sent a flashing gif directly to his personal inbox. Overlaid on the gif was the text: "YOU DESERVE A SEIZURE FOR YOUR POSTS."[5]

Both Eichenwald and the Epilepsy Foundation brought criminal complaints against their attackers.[6] With virtual communications on the rise, these cases mark the beginning of actions seeking to combat online conduct this Article calls "virtual assaults." In light of plea agreements, however, courts have yet to actually rule on whether First Amendment defenses in these matters have merit.[7] In the Eichenwald case, for instance, the defendant claimed that the criminal assault statute he was charged under[8] was unconstitutional both as applied to him and on its face under the First Amendment.[9] Specifically, the defendant alleged that he could not be criminally charged for his

1. Manny Fernandez, *Epilepsy Foundation Was Targeted in Mass Strobe Cyberattack*, N.Y. TIMES (Dec. 16, 2019), https://www.nytimes.com/2019/12/16/us/strobe-attack-epilepsy.html [https://perma.cc/M42N-KSC2].

2. *Id.*

3. Hayley Miller, *Epilepsy Foundation Says Hackers Posted Seizure-Causing GIFs to Twitter Account*, HUFFPOST (Dec. 17, 2019), https://www.huffpost.com/entry/epilepsy-foundation-twitter-cyberattack_n_5df8ddaae4b0ae01a1e7a192 [https://perma.cc/H7WX-XBZ4]. *See* 7 No. 7 Quinlan, *Computer Crime and Technology in Law Enforcement art. 9*, NEWS WEB (July 2011) ("For example, the Epilepsy Foundation recently had its Web site vandalized with flashing images that showed up on the homepage."). A similar attack occurred in 2008. *See* Max Ehrenfreund & Antonio Olivo, *Seizure-Inducing Tweet Leads to a New Kind of Prosecution*, WASH. POST (Mar. 19, 2017), https://www.washingtonpost.com/national/seizure-inducing-tweet-leads-to-a-new-kind-of-prosecution-for-a-new-kind-of-crime/2017/03/18/c5915468-0c10-11e7-b77c-0047d15a24e0_story.html [https://perma.cc/S4EH-PPDP].

4. Reis Thebault, *A Tweet Gave a Journalist a Seizure. His Case Brings New Meaning to the Idea of 'Online Assault.'* WASH. POST (Dec. 16, 2019, 7:21 PM), https://www.washingtonpost.com/health/2019/12/16/eichenwald-strobe-gif-seizure-case/ [https://perma.cc/W5BV-5TS6].

5. Eichenwald v. Rivello, 318 F. Supp. 3d 766, 769 (D. Md. 2018).

6. *See, e.g.*, *id.* at 768.

7. Thebault, *supra* note 4.

8. TEX. PENAL CODE ANN. §22.04 (West 2003).

9. Application for Writ of Habeas Corpus, Ex Parte John Rivello, Cause No. F-17-00215-QL, Habeas Cause No. WX19-00076-L, at 1, 5–6 (5th Crim. Dist. Ct., Dallas Co. Apr. 9, 2019) (The defendant's brief specifically argues: "The indictment alleges that Applicant caused bodily injury by 'inducing a seizure with an animated strobe image.' This describes the content of the speech alleged. It is apparent from the face of the pleadings that the State is prosecuting Applicant for his speech, based on the content of that speech. Generally speech may not be restricted or punished based on its content. The exception is if the speech falls into a recognized category of historically unprotected speech. The speech in this case falls into none of those recognized categories.").

conduct because "[a] 'tweet' is 'a post made on the Twitter online message service.' A GIF is 'an image or video stored in this format.' [And] [b]oth tweets and GIFs are forms of speech."[10] Holding the defendant liable would, pursuant to this logic, be discriminating against him "based on the content of [his] speech."[11] But following amicus arguments to the contrary[12] and a plea negotiation, the defendant is expected to drop his position and plead guilty, likely for a lesser sentence than the maximum permitted by law.[13]

This Article considers the novel question of whether First Amendment defenses have merit in cases where the alleged speech at issue is intended to cause imminent physical harm. Part I explores the concept of "imminent physical harm" as it relates to these types of transmissions, and it uses this understanding to provide a cohesive definition for a new cause of criminal and tort action called "virtual assault." Part II examines the extent to which conduct that qualifies as a virtual assault constitutes speech within the meaning of the First Amendment, and it concludes that such conduct is outside the scope of First Amendment protection. Even if such conduct could be considered speech, Part II discusses how existing categorical exclusions to First Amendment protections suggest that a sender of such messages in this context should not be permitted to skirt liability on First Amendment grounds, and it recommends the adoption of a new categorical exception.

As technology continues to advance, the need to address sophisticated exploitations of technology increases as well. Part III considers the far-reaching impact and need for regulating virtual attacks in light of technological advancements in a variety of business sectors, ranging from software-equipped cars to wireless pacemakers. In so doing, this Article examines the ways in which courts and legislatures have addressed harmful internet-age conduct and concludes that recognizing a new cause of tort and criminal action for virtual assault is consistent with recent efforts to make the internet a sufficiently safe and accessible landscape. Such a step is both constitutionally permissible and necessary to ensure the productive growth and use of technology in coming decades.

Finally, this Article explains why virtual torts and crimes ought to be treated differently than traditional acts. Focusing on the ways in which virtual conduct can be made anonymously, replicated without much expense, and widely impactful, this Article situates the discussion of virtual torts within the

10. *Id.*

11. *Id.*

12. The author supervised and jointly authored the submission of an amicus brief in the Eichenwald case arguing against the applicability of First Amendment defenses in this context. *See* Brief for First Amendment Clinic at Duke Law as Amicus Curiae Supporting Plaintiff, State of Texas v. Rivello, No. F17-00215, Dallas Co., Texas (Feb. 26, 2018) [hereinafter Amicus Brief]. This brief has been referenced by news outlets in discussing the posture of the underlying case. *See* Thebault, *supra* note 4; Charles Star, *Yes, Sending Kurt Eichenwald a GIF Can Be a Crime*, THE OUTLINE (Dec. 17, 2019 12:00 PM), https://theoutline.com/post/8439/jail-assault-gif-kurt-eichenwald-seizure?zd=1&zi=hqktqplf [https://perma.cc/H9NA-NFYD] ("[T]he First Amendment Clinic at Duke Law School filed an amicus brief in *support of the indictment* . . ., sparing the prosecution the work of responding at all . . . .").

13. *See* Thebault, *supra* note 4.

existing literature and concludes that signaling out virtual conduct through new causes of action is necessary to advance policy objectives relating to public health and safety.

II. DEFINING "VIRTUAL ASSAULT": IMMINENT PHYSICAL HARMS RESULTING FROM VIRTUAL TRANSMISSIONS

As conceived here, virtual assault encompasses the sending of a message or transmission by virtual means that is intended to cause imminent physical harm. This raises two critical issues which this Part explores: (1) When is it possible to hold someone liable for sending a "message" without violating the First Amendment? and (2) How is "physical imminent harm" defined in this context?

On the first point, it is important to note that the First Amendment creates barriers to recovering for harms that are purely emotional in nature.[14] In other words, sending a message that merely offends the recipient cannot serve as the basis for tort or criminal liability without violating the First Amendment.[15] But no such bar applies when the recipient is physically harmed by a message.[16] Defining a physical injury as it relates to alleged speech—or the sending of a virtual "message"—can be tricky. Indeed, medical professionals have discussed at length the physical impacts of long-term verbal abuse.[17] These impacts can reportedly include a greater propensity toward chronic diseases and even premature death.[18] On this basis, some scholars have argued that certain types of distasteful speech have deleterious physical impacts and should be regulated under the law.[19] This Article does not take that broad a position. While there is no denying that speech—including verbal abuse, racist remarks, and bullying more generally—can, long-term, have damaging effects on the emotional and even physical well-being of individuals, permitting these effects to serve as the basis for a virtual assault claim would be casting too wide a net and would be inconsistent with Supreme Court precedent.[20] Rather, a virtual message can serve as the basis for tort or criminal liability consistent

14. *See* Snyder v. Phelps, 562 U.S. 443, 460 (2011) (barring plaintiff-father from recovering for his emotional distress caused by church members' picketing during his solider son's funeral with signs concerning homosexuality in the military and other broad political issues); *cf.* Hustler Magazine, Inc. v. Falwell, 485 U.S. 46, 56 (1988) (requiring public figures and public officials to show the difficult standard of actual malice in order recover for intentional infliction of emotional distress by reason of publication).

15. Matal v. Tam, 137 S. Ct. 1744, 1765 (2017).

16. *See* Eichenwald v. Rivello, 318 F. Supp. 3d 766, 769 (D. Md. 2018).

17. *See* Martin H. Teicher et al., *Hurtful Words: Association of Exposure to Peer Verbal Abuse with Elevated Psychiatric Symptom Scores and Corpus Callosum Abnormalities*, 167 AM. J. PSYCHIATRY 1464, 1464 (2010).

18. Gregory E. Miller & Edith Chen, *Harsh Family Climate in Early Life Presages the Emergence of a Proinflammatory Phenotype in Adolescence*, 21 PSYCH. SCI. 848, 848 (2010).

19. *See* Lisa Feldman Barrett, *When Is Speech Violence?*, N.Y. TIMES (July 14, 2017), https://www.nytimes.com/2017/07/14/opinion/sunday/when-is-speech-violence.html [https://perma.cc/3TNY-QDQ4].

20. *See* Matal v. Tam, 137 S. Ct. 1744, 1765 (2017).

with the First Amendment where it threatens to cause, or actually causes, *imminent* physical harm (as opposed to physical harm that might develop or occur over a long period of time).

It is tempting to gloss over defining "imminent physical harm" by adopting Justice Stewart's "I know it when I see it" rationale from another notable First Amendment case.[21] But in an effort to aid courts in handling future cases concerning virtual assault, this Part will attempt to specify which imminent physical harms could form the basis of a viable virtual assault claim. Criminal liability—and, in the First Amendment context, even civil liability—should not be premised on a vague or impressionistic standard.

As an initial point, the term "imminent" has been interpreted in a variety of ways in different contexts. For example, a Connecticut statute requiring the seizure of firearms from persons "posing risk of *imminent* personal injury to self or others"[22] has been read as requiring seizure where such harm is expected to occur within "*hours to a few days* in time."[23] A New Jersey statute enables employees to leave their job without becoming ineligible for benefits when they know that their discharge is "*imminent*"—which it defines as "within *60 days*."[24] Hawaii's Child Protective Act defines "*imminent* harm" as meaning "within the next *ninety days*" and requires intervention if there is reasonable cause to believe that harm to a child will occur within that timeframe.[25] And scholars have interpreted "imminent lawless action" in First Amendment incitement cases as meaning lawless action occurring within a mere "matter of *hours*, or stretching, *a few days*."[26] This begs the question: how should imminence be interpreted in virtual assault cases?

Because of their plausible entwinement with First Amendment rights, virtual assault cases have the potential to chill protected speech. Consequently, it is important to ensure that the definition of imminence in these cases is narrowly tailored to prevent overburdening speakers. To define imminence in a way that would encompass the distasteful speech referenced above—such as racist remarks or generally offensive commentary—would be far too expansive under established First Amendment principles.[27] The reported physical harms attributed to these messages take years to develop and become cognizable.[28] Creating a blanket criminal cause of action, for example, for verbal teasing or mean-spirited jeers that may or may not result in cognizable harms years later would be anathema to the First Amendment and result in the chilling of protected speech. But where a line can be drawn around messages that cause cognizable

21. Jacobellis v. State of Ohio, 378 U.S. 184, 197 (1964) (Stewart, J., concurring).

22. CONN. GEN. STAT. ANN. § 29-38c (West 2013) (emphasis added).

23. *In re* James Nardelli-Firearm Safety Hearing, 918 A.2d 1081, 1084 n.3 (Conn. Super. Ct. 2007) (emphasis added).

24. N.J. STAT. ANN. 43:21-5(a) (West 2020).

25. HAW. REV. STAT. ANN. § 587A-4 (West 2020) (emphasis added).

26. *See, e.g.*, L. A. Powe, *Brandenburg Then and Now*, 44 TEX. TECH. L. REV. 69, 77–78 (2011) (citing Brandenburg v. Ohio, 395 U.S. 444, 447 (1969) (per curiam)).

27. *See, e.g.*, Snyder v. Phelps, 562 U.S. 443, 460 (2011).

28. Teicher, *supra* note 17, at 1464.

physical harm to recipients within several days of receipt, the risk of violating speakers' constitutional rights seriously diminishes.

To avoid running afoul of the First Amendment and detrimentally undermining the marketplace of ideas, viable virtual assault claims must require a cognizable physical harm within several days of receiving a virtual transmission.[29] This helps to prevent unnecessarily encompassing protected speech rendered without a malicious intent. But what constitutes a cognizable physical harm sufficient to support a claim for virtual assault?

While not all instances of sufficient physical harms may be immediately obvious at present,[30] a particular qualifying harm comes to mind and is illustrative. For example, intentionally induced photosensitive seizures brought on by virtual transmissions targeting individuals known to have epilepsy can form the basis of a virtual assault claim. Epilepsy is a neurological disorder characterized by spontaneous, recurring seizures.[31] It affects about 1% of the human population, and the cause is frequently unknown.[32] About 3% of those with epilepsy, mostly children and adolescents, "suffer from a photosensitive version of the disorder, which can cause them to have seizures if exposed to certain flashing lights or visual patterns."[33] Virtual animations are able to trigger photosensitive seizures, and have done so with some frequency in recent years.[34]

In 2018, for instance, a virtual reality gamer made headlines when he suffered a tonic-clonic seizure brought on by photosensitivity to a flashing background in a virtual game room.[35] Tonic-clonic seizures involve a loss of consciousness and violent muscle contractions.[36] As the virtual background triggered a series of abnormal and excessive electrical activities in the gamer's brain, his avatar began flailing[37] and fellow players in the game heard the real-life gamer struggling to breathe.[38] For individuals with photosensitive epilepsy, frequencies of about five to thirty flashes per second are able to induce seizures

29. As discussed below, virtual transmissions can physically impact individuals even several days after being received. *See infra* note 30 and accompanying text.

30. With rapid changes in technology, it is impossible to predict the numerous types of harms that might eventually stem from virtual transmissions. The concept of "virtual assault" and the qualifying physical harms it requires should be viewed flexibly, and account for technological advancements and developments as they come.

31. *Epilepsy*, MAYO CLINIC, https://www.mayoclinic.org/diseases-conditions/epilepsy/symptoms-causes/syc-20350093 (last visited May 23, 2021) [https://perma.cc/R6DE-DRRY].

32. Mylan Pharm. Inc. v. Rsch Corp. Techs., Inc., 914 F.3d 1366, 1368 (Fed. Cir. 2019); *Epilepsy Fast Facts*, CDC, https://www.cdc.gov/epilepsy/about/fast-facts.htm (last visited May 23, 2021) [https://perma.cc/8AGD-5JH3].

33. Miller, *supra* note 3.

34. *See* Megan Farokhmanesh, *User Succumbs to a Seizure in Virtual Reality While Other Players Can Only Watch*, THE VERGE (Jan. 19, 2018), https://www.theverge.com/2018/1/19/16911408/vr-chat-virtual-reality-seizure [https://perma.cc/P377-L9B2].

35. *Id.*

36. MAYO CLINIC, *supra* note 31.

37. The player was wearing full body tracking tech, enabling his avatar's motions to emulate his real-life movements. *See* Emanuel Maiberg, *Virtual Reality Users Watch Helplessly as Another User Has In-Game Seizure*, VICE (Jan. 19, 2018, 7:43 AM), https://www.vice.com/en_us/article/ne4myg/vrchat-seizure [https://perma.cc/TG2X-K3SU].

38. *Id.*

almost instantaneously.[39] Put differently, when an individual with photosensitive epilepsy encounters a qualifying flashing transmission, they will have a sudden seizure usually only minutes, if not seconds, later. And they may experience recurring seizures or related side effects for the next several days.[40]

The physical nature of a photosensitive seizure is indisputable. The resultant brain activity can cause violent muscle contractions and difficulty breathing—such as with the virtual reality gamer—or otherwise render an individual completely unconscious—as was the case with Eichenwald.[41] More specifically, the physical reactionary process can be broken down as follows:

> Light comes in rays, or waves, comprised in part by photons. These waves sometimes reflect off objects and "strike a person's cornea," which "focuses the light wave." The eye focuses the wave onto its retina, which through a process of "visual phototransduction," converts the light wave into electrical impulses. That is, photons hit the retina and are converted into electrical signals. These electrical signals are then transmitted by the optic nerve to the visual cortex. Such electrical signals from strobing images "can trigger seizures in certain individuals with epilepsy."[42]

So, for instance, by sending a flashing gif directly to Eichenwald on December 15, 2016, the sender intentionally caused photons to hit his retina, leading him to suffer a seizure.[43] And that seizure, which a federal criminal complaint alleged lasted for eight minutes, rendered Eichenwald unconscious within seconds of viewing the virtual transmission.[44] But the physical harms that Eichenwald suffered did not stop there. As a result of the physical impact that the flashing gif had on his brain, the journalist suffered an additional seizure in his sleep later that night, which left one of his arms temporarily paralyzed and caused his speech to be temporarily slurred.[45] In fact, the impact and stimulation on Eichenwald's brain was so severe that he needed to take high doses of medication to sedate himself in the subsequent several days to avoid subsequent recurrent seizures.[46]

There is no question that, as a general rule, by intentionally sending flashing images to someone known to have epilepsy, the goal—or an obvious and foreseeable effect—of that transmission is to trigger a harmful physical reaction in the recipient. In the Eichenwald example, the case could not be clearer; the text overlaying the flashing image said: "YOU DESERVE A SEIZURE FOR

39. Greg Bullock, *Photosensitive Epilepsy: How Light Can Trigger Seizures*, THERASPECS (Jan. 31, 2017), https://www.theraspecs.com/blog/photosensitive-epilepsy-how-different-types-of-light-can-trigger-seizures/ [https://perma.cc/QC6S-3NS2].

40. Complaint, Eichenwald v. Rivello, No. 1:17-cv-01124 (D. Md.), at ¶¶ 66–73.

41. *See* Maiberg, *supra* note 37; Ehrenfreund & Olivo, *supra* note 3.

42. Eichenwald v. Rivello, 318 F. Supp. 3d 766, 770 (D. Md. 2018) (citations omitted).

43. *Id.* at 770.

44. Tom Steele, *Man Faces Hate-Crime Charge in Dallas County over Tweet that Gave Kurt Eichenwald a Seizure*, DALL. MORNING NEWS (Mar. 21, 2017), https://www.dallasnews.com/news/crime/2017/03/21/man-faces-hate-crime-charge-in-dallas-county-over-tweet-that-gave-kurt-eichenwald-a-seizure/ [https://perma.cc/D7JL-U94P].

45. Complaint, Eichenwald v. Rivello, No. 1:17-cv-01124 (D. Md.), at ¶¶ 66–73.

46. *Eichenwald*, 318 F. Supp. 3d at 770.

YOUR POSTS."[47] And purportedly after news traveled that Eichenwald did, in fact, suffer a seizure, the journalist was sent additional strobe gifs from over forty different Twitter accounts.[48]

Intentionally inducing a photosensitive seizure via a virtual message can form the basis of a virtual assault claim, whether that message is sent over social media, a virtual game room, or through other virtual means. No different than knowingly walking into a room with an epileptic while holding a flashing strobe light, sending a flashing message to someone with photosensitive epilepsy can cause an acute physical reaction within minutes, if not seconds, of the recipient receiving the transmission, and those harms can last for days following receipt.

Facilitating liability for this harmful conduct by creating a new cause of action is consistent with the purposes of tort and criminal law.[49] Regardless of whether assault occurs via a virtual message sent online or with a closed fist punch, conduct resulting in intentional physical injury can serve as the basis for liability without implicating the First Amendment. As discussed below, this narrowly proscribed cause of action for virtual assault is both constitutionally permissible and warranted in light of technological developments and recent events.

III. ENTWINEMENT WITH THE FIRST AMENDMENT

For a virtual assault to be tortious or criminally actionable, the definition of the term cannot encompass a broad swath of protected speech. If protected speech can serve as the basis for a viable virtual assault claim, there is a serious risk that the charge will be unconstitutional.[50] Consequently, it is important to understand the ways in which an actionable virtual assault offense can coexist with First Amendment protections for free expression. This Part discusses the entwinement of First Amendment considerations with a tortious or criminal cause of action for virtual assault.

47. *Id.* at 769.

48. *See* Kurt Eichenwald (@kurteichenwald), TWITTER (Mar. 17, 2017, 10:10 AM), https://twitter.com/kurteichenwald/status/842754912249434112 [https://perma.cc/79JC-CBXE].

49. *See* Macmillan v. Redman Homes, 818 S.W.2d 87, 95 (Tex. App. 1991) ("One objective of tort litigation is to modify the defendant's behavior—and the behavior of others who want to engage in the same conduct—by deterring conduct considered after the fact to be unreasonable . . . ."); People v. Meyers, 28 Cal. Rptr. 753, 755 (Ct. App. 1963) ("[O]ne of the purposes of criminal law is to protect society from those who intend to injure it . . . ."); *cf.* Scott P. Hilsen, *Enforcing Criminal Money Judgments in Bankruptcy: Is the Government Out of Line?*, 8 GA. ST. U. L. REV. 259, 281 (1992) (noting the purpose of protecting society by preventing certain conduct in the context of enforcing criminal money judgments against a bankrupt debtor). This Article proposes that the conduct at issue can be both a crime and a tort. While criminal law acts to protect citizens from wrongdoing, it is generally concerned with the broader impacts on society and not necessarily the individual victim. Tort law, on the other hand, provide a means for compensating the individual victims of wrongful acts.

50. *See, e.g.*, Snyder v. Phelps, 562 U.S. 443, 460 (2011).

A. Parsing Speech and Conduct

The First Amendment embodies a "profound national commitment to the free exchange of ideas."[51] To ensure that this exchange of ideas remains "uninhibited, robust, and wide-open,"[52] the First Amendment frequently protects conduct that does not involve "spoken or written words."[53] The U.S. Supreme Court has, inter alia,[54] found the following conduct to fall under the First Amendment's purview: wearing black armbands while attending public school to protest the Vietnam War,[55] affixing a peace symbol onto a U.S. flag as a means of political expression,[56] flag burning as a means of political expression,[57] marching in parades as a means of political expression,[58] and silent sit-ins as a means of protest.[59] Courts have also extended protections to erotic nude dancing,[60] recording police activities,[61] and artistic endeavors like painting and music.[62] Critical in all of these examples is the potentially communicative or expressive nature of the conduct at issue.[63]

The U.S. Supreme Court has looked to the "communicative"[64] or "expressive"[65] nature of the conduct in question in determining whether it falls under the First Amendment's scope of protection. Reflecting the understanding that constitutional protections extend to expressive communications whether occurring in speech or in conduct, the Court has developed a robust "expressive conduct" doctrine.[66] Pursuant to the test laid out in *Spence v. Washington*—a case concerning whether a state could criminally convict a citizen for affixing a peace sign to an American flag using tape[67]—conduct is treated as speech under the

51. Ashcroft v. American Civil Liberties Union, 535 U.S. 564, 573 (2002) (quoting Harte-Hanks Commc'ns, Inc. v. Connaughton, 491 U.S. 657, 686 (1989)).

52. N.Y. Times Co. v. Sullivan, 376 U.S. 254, 270 (1964).

53. *See* Texas v. Johnson, 491 U.S. 397, 404 (1989) (protecting flag burning under the First Amendment).

54. The Supreme Court has also extended protection to distribution of handbills, acts of door-to-door solicitation, the operation of sound amplification equipment, and the placement of newspaper racks, among others. *See* Lovell v. City of Griffin, 303 U.S. 444, 452 (1938); Watchtower Bible & Tract Soc'y of N.Y., Inc. v. Vill. of Stratton, 536 U.S. 150, 168–69 (2002); City of Lakewood v. Plain Dealer Publishing Co., 486 U.S. 750, 771–72 (1988); City of Cincinnati v. Discovery Network, Inc., 507 U.S. 410, 430–31 (1993).

55. *See* Tinker v. Des Moines Indep. Cmty. Sch. Dist., 393 U.S. 503, 513–14 (1969).

56. *See* Spence v. Washington, 418 U.S. 405, 405–06 (1974).

57. *See Johnson*, 491 U.S at 420.

58. Shuttlesworth v. City of Birmingham, 394 U.S. 147, 148 (1969).

59. *See* Brown v. Louisiana, 383 U.S. 131, 140–42 (1966).

60. City of Erie v. Pap's A.M., 529 U.S. 277, 289 (2000).

61. Fields v. City of Philadelphia, 862 F.3d 353, 358 (3d Cir. 2017).

62. State v. Chepilko, 965 A.2d 190, 197 (N.J. Super. Ct. App. Div. 2009) (citing Nat'l Endowment for the Arts v. Finley, 524 U.S. 569, 602–03 (1998)).

63. *See* Texas v. Johnson, 491 U.S. 397, 406 (1989) (quoting Spence v. Washington 418 U.S. 405, 409 (1974)); Hurley v. Irish-Am. Gay, Lesbian & Bisexual Grp. of Bos., Inc., 515 U.S. 557, 563 (1995).

64. *Johnson*, 491 U.S. at 406.

65. Rumsfeld v. F. for Acad. & Institutional Rts., Inc., 547 U.S. 47, 65 (2006); *Hurley*, 515 U.S. at 568 ("Parades are . . . a form of expression, not just motion, and the inherent expressiveness of marching to make a point explains our cases involving protest marches.").

66. SarahAnne L. Cutler & Leslie L. Lipps, *Expressive Conduct*, 1 GEO. J. GENDER & L. 285, 285–86, 287–88 (2000).

67. The Court held that the conviction could not stand and the relevant state statute criminalizing this symbolic speech violated the First Amendment. *Spence*, 418 U.S. at 414.

First Amendment where two elements are met. First, the conduct must be made with "[a]n intent to convey a particularized message . . . ."[68] The presence of "a particularized message" is important in evaluating "whether particular conduct possesses 'sufficient communicative elements' to implicate First Amendment protections."[69] In *Spence*, for instance, the citizen acted in an effort "to associate the American flag with peace instead of war and violence" while the country was fighting in the Vietnam War.[70]

Second, the conduct must carry a likelihood that, given the surrounding context and circumstances, "the message would be understood by those who viewed it."[71] Indeed, despite the Supreme Court's expansive view of what constitutes protected speech, it has strongly "rejected the view that 'conduct can be labeled "speech" whenever the person engaging in the conduct intends thereby to express an idea.'"[72] To maintain the line between conduct that is protected speech and conduct that is not, the Court has made clear that the second prong of the *Spence* test is critical: if the conduct in question requires explanation by additional oral or written speech to ensure its message is understood, it is almost certainly not protected expression, as "[t]he fact that such explanatory speech is necessary is strong evidence that the conduct . . . is not so inherently expressive that it warrants protection."[73] In the *Spence* case, for instance, given the ongoing war and political tensions and protests regarding the United States' involvement in Vietnam at the time of the conduct in question, the citizen's message there clearly met this element.[74] The same has been said for flag burning during wartime[75] and anti-segregation sit-ins during the civil rights movement.[76] However, that would not hold true, for example, for an individual who just stops paying their taxes. Rather, in that instance, such conduct would not be understood as a protest of the Internal Revenue Service without an accompanying explanation, and thus would not be treated as speech under the First Amendment.[77] Drawing such a distinction among types of conduct for purposes of constitutional protection is necessary because without it, "a regulated party could always transform conduct into 'speech' simply by talking about it."[78]

Much like failing to pay taxes, a virtual attack—such as the sending of an animated strobe gif to a person with epilepsy—is nonexpressive conduct, not speech, pursuant to the *Spence* test.[79] It can thus form the basis for criminal or

68. *Id.* at 410–11.

69. Littlefield v. Forney Indep. Sch. Dist., 268 F.3d 275, 283 (5th Cir. 2001) (quoting *Spence*, 418 U.S. at 410–11).

70. *Spence*, 418 U.S. at 408.

71. *Id.* at 410–11.

72. Rumsfeld v. F. for Acad. & Institutional Rts., Inc., 547 U.S. 47, 65–66 (2006) (quoting United States v. O'Brien, 391 U.S. 367, 376 (1968)).

73. *Id.* at 66.

74. *Spence*, 418 U.S. at 408.

75. Texas v. Johnson, 491 U.S. 397, 406 (1989).

76. Brown v. Louisiana, 383 U.S. 131, 142 (1966).

77. *See Rumsfeld*, 547 U.S. at 66.

78. *Id.*

79. *See* Eichenwald v. Rivello, 318 F. Supp. 3d 766, 769–70 (D. Md. 2018); *Spence*, 418 U.S. at 410–11.

tort liability without implicating the First Amendment. In the Eichenwald case, while the message communicated by the text overlaying the gif ("YOU DESERVE A SEIZURE FOR YOUR POSTS") may independently constitute a protected opinion,[80] the conduct to which liability would attach in the matter (i.e. the sending of a gif calibrated to trigger an epileptic seizure in the recipient) is merely a form of assault wholly separate from any accompanying message. Of course, not every flashing gif sent via Twitter lacks expression worthy of protection. And there are certainly situations where sending a flashing gif could be constitutionally protected.[81] But where the intent of a message is to cause a seizure or other physical harm, such constitutional protections should not apply.

To qualify as expressive conduct here, the sending of a strobe gif would need to embody an actual intended message that would likely be understood by those who viewed it in light of the surrounding circumstances.[82] Alone, the flashing nature of the gif conveyed no idea, subject matter, or content—it was merely calculated violence. Sending a flashing image, empty of deeper significance, to an epileptic does not convey a message—it provokes a seizure.

Nor would these flashing lights convey any intended message in a manner that carries a reasonable likelihood of being understood by those who viewed them. Adding text to the strobe gif sent to Eichenwald, for instance, does not solve the problem that the sending of that strobe gif to a known epileptic does not constitute speech. Rather, the inclusion of the message: "YOU DESERVE A SEIZURE FOR YOUR POSTS," layered on top of the gif strongly evidences that sending that particular flashing gif to an epileptic is not "so inherently expressive that it warrants protection."[83] Attributing the expressive nature of any accompanying speech to harmful conduct in a mechanical fashion and thus invoking constitutional protection for that conduct runs contrary to the foundational principles of the First Amendment.[84] In other words, "[p]ermitting criminals and tortfeasors to shield themselves from liability for their actions by layering on supplemental speech and claiming that, through their speech and conduct, they *intended* to express an idea, would undermine proper government regulation unrelated to the values underlying expressive conduct doctrine."[85] Put differently, holding someone liable for virtual assault would not chill or otherwise impair expression—the creation of a cause of action for virtual assault is not a restriction on speech in the same way as enacting a sign ordinance[86] or a pamphleteering ordinance would be.[87]

80. *Eichenwald*, 318 F. Supp. 3d at 769–70. Section III.B discusses other possible interpretations of this text as well, including its potential classification into unprotected categories of speech when considering contextual circumstances specific to the sending of this particular gif.

81. For example, a gif of flickering lights in a kitchen could indicate a pending power outage in a home.

82. *Spence*, 418 U.S. at 410–11.

83. *Rumsfeld*, 547 U.S. at 66.

84. Amicus Brief, *supra* note 12, at 6; *see also Rumsfeld*, 547 U.S. at 65–66.

85. Amicus Brief, *supra* note 12.

86. *See, e.g.*, Reed v. Town of Gilbert, 576 U.S. 155, 164–65, 172 (2015).

87. *See, e.g.*, McIntyre v. Ohio Elections Comm'n, 514 U.S. 334, 336 (1995).

On the contrary, sending an animated strobe gif to an epileptic is nonexpressive conduct that does not fall within the First Amendment's purview. A deliberate attempt to cause physical injury is simply not what the First Amendment was designed to protect; it neither furthers a "national commitment to the free exchange of ideas"[88] nor ensures that this exchange of ideas remains "uninhibited, robust, and wide-open."[89] These actions instead provoke unthinking physiological reactions that preclude meaningful debate by rendering the recipient unconscious or otherwise physically harmed. So, while the sending of these virtual messages by posting them on the Epilepsy Foundation Twitter or direct messaging someone with epilepsy is *not* akin to pamphleteering or signage, the resultant physical reactions *are* akin to injuries stemming from traditional criminal and tortious conduct.[90] And, in light of this, liability for such conduct can be policed by the same criminal and tort liability that attach to assault and battery without violating the First Amendment.

B. Categorical Exclusions to First Amendment Protections

As explained in Section III.A., creating a cause of action for virtual assault would not implicate the First Amendment because the conduct at the heart of the liability is nonexpressive. But even if the conduct at issue *could* be deemed expressive, the First Amendment should still not offer protection for such conduct because analogous historical categories of exclusion indicate that virtual assault should be categorically excluded from First Amendment protections.

While it is generally true that the "government has no power to restrict expression because of its message, its ideas, its subject matter, or its content,"[91] the U.S. Supreme Court has placed limitations on certain categories of speech.[92] These categories of speech excluded from the First Amendment's protection include, inter alia, obscenity, libel, child pornography, true threats, speech integral to illegal conduct, and speech that incites imminent lawless action (also called "fighting words").[93] And, while the Court has been reluctant to expand on the categories of unprotected speech by limiting itself to historically recognized examples,[94] this hesitancy can be neutralized by the fact that a category for virtual assault simply could not have existed prior to recent advancements and developments in technology.

88. Ashcroft v. ACLU, 535 U.S. 564, 573 (2002) (quoting Harte-Hanks Commc'ns, Inc. v. Connaughton 491 U.S. 657, 686 (1989)).

89. N.Y. Times Co. v. Sullivan, 376 U.S. 254, 270 (1964).

90. *See* Eichenwald v. Rivello, 318 F. Supp. 3d 766, 770 (D. Md. 2018); *see also Reed*, 576 U.S. at 164; *McIntyre*, 514 U.S. at 336.

91. McCullen v. Coakley, 573 U.S. 464, 477 (2014) (quoting Police Dept. of Chi. v. Mosley, 408 U.S. 92, 95 (1972)).

92. United States v. Alvarez, 567 U.S. 709, 717–18 (2012).

93. *See* Chaplinsky v. New Hampshire, 315 U.S. 568, 571–73 (1942); Gregory P. Magarian, *The Marrow of Tradition: The Roberts Court and Categorical First Amendment Speech Exclusions*, 56 WM. & MARY L. REV. 1339, 1341 (2015).

94. *Alvarez*, 567 U.S. at 717 ("[C]ontent-based restrictions on speech have been permitted, as a general matter, only when confined to the few 'historic and traditional categories [of expression] long familiar to the bar.'").

Historically, these types of speech have been thought of as falling entirely outside the scope of the First Amendment. The U.S. Supreme Court has consistently upheld categorical exclusions when the speech at issue is deemed to play "no essential part of any exposition of ideas"[95] or introduces the fear and possibility of violence against other persons.[96] For example, in April 2019, the Court declined to hear a challenge to the true threats doctrine being brought by rapper Jamal Knox.[97] By denying certiorari, the Court left in place a Pennsylvania Supreme Court ruling that found that Knox's song lyrics—wherein Knox threatened violence against two named police officers while also mentioning that he knew where those officers lived and what time their shifts ended—constituted a true threat and could form the basis for criminal liability without violating the First Amendment.[98]

While these exclusions are firmly based in constitutional tradition,[99] they stem from a historic understanding that certain limited types of speech "are 'of such slight social value as a step to truth that any benefit that may be derived from them is clearly outweighed by the social interest in order and morality.'"[100] And though the Court has seemed generally disinclined to treat any form of speech as being blanketly without First Amendment protection,[101] there is no indication that the Court's exceptions stand on shaky ground.

Two categories of exclusion—true threats and fighting words—are essentially cousins to virtual assault, suggesting that a new, narrowly-defined category of exclusion would be appropriate in this context.[102] These existing constitutional exclusions certainly also support an argument that the virtual conduct at issue here could serve as the basis for criminal and tort liability without violating the First Amendment.[103] Indeed, it logically follows that if true threats and fighting words (as they have been traditionally conceived) are categorically excluded due to their perceived injuriousness, then a speech act that causes a clear injury would also not be protected.

95. *Chaplinsky*, 315 U.S. at 572.

96. R.A.V. v. City of St. Paul, 505 U.S. 377, 388 (1992).

97. Knox v. Pennsylvania, 139 S. Ct. 1547, 1547 (2019).

98. Commonwealth v. Knox, 190 A.3d 1146, 1159 (Pa. 2018).

99. *See Alvarez*, 567 U.S. at 717.

100. *R.A.V.*, 505 U.S. at 383 (quoting *Chaplinsky*, 315 U.S. at 572).

101. In United States v. Alvarez, for instance, the Court walked back from earlier declarations that false speech cannot be protected. The case concerned whether an individual who falsely claimed to have received a military Congressional Medal of Honor could be charged under a federal statute that made it a crime to falsely claim receipt of military awards. The speaker successfully challenged the statute as being unconstitutional under the First Amendment, with the Court finding that such statements were entitled to at least some level of constitutional protections even if they were deliberate falsehoods. *See Alvarez,* 567 U.S. at 722; DANIEL A. FARBER, THE FIRST AMENDMENT 16 (5th ed. 2020).

102. *Knox*, 647 Pa. at 612; *Chaplinsky*, 315 U.S., at 573.

103. *Knox*, 647 Pa. at 612; *Chaplinsky*, 315 U.S., at 573.

1. True Threats

Writing for a five-Justice majority in *Virginia v. Black*, Justice O'Connor defined "true threats" as "those statements where the speaker means to communicate a serious expression of an intent to commit an act of unlawful violence to a particular individual or group of individuals" and noted that "[t]he speaker need not actually intend to carry out the threat."[104] Justice O'Connor further explained that "[i]ntimidation in the constitutionally proscribable sense of the word is a type of true threat, where a speaker directs a threat to a person or group of persons with the intent of placing the victim in fear of bodily harm or death."[105]

The Supreme Court's decision in *Virginia v. Black* "was based on three separate criminal prosecutions. Each defendant was charged with, and later convicted of, violating Virginia's cross-burning law."[106] The relevant statute prohibited the burning of a cross "with the intent of intimidating any person or group of persons . . . ."[107] The statute expressly noted that the "burning of a cross shall be prima facie evidence of an intent to intimidate."[108] The named defendant in the case, "Barry Black, was convicted . . . for burning a cross at a Ku Klux Klan rally that he had led."[109] Though "[t]he cross was burned on private property with the owner's permission," it "could be seen from a public highway nearby."[110] "The two other defendants, Richard Elliott and Jonathan O'Mara, were convicted for attempting to burn a cross in the yard of an" African American neighbor.[111] All three defendants appealed to the Supreme Court of Virginia arguing that the cross-burning statute violated the First and Fourteenth Amendments. The cases were consolidated and considered together for purposes of the appeal.[112]

The Supreme Court of Virginia held that the statute was facially unconstitutional under the First Amendment as well as overbroad.[113] In turn, the state of Virginia petitioned the U.S. Supreme Court, which granted certiorari for the consolidated appeal. In overturning the lower court's ruling, the U.S. Supreme Court agreed that the conduct at issue—cross burning—was expressive, but noted that "[t]he protections afforded by the First Amendment . . . are not absolute, and we have long recognized that the government may regulate certain categories of expression consistent with the Constitution."[114] The Court held that one of those categories—"true threats"—occurs "where a speaker directs a threat to a person

104. Virginia v. Black, 538 U.S. 343, 344 (2003); *see also* Paul T. Crane, *"True Threats" and the Issue of Intent*, 92 VA. L. REV. 1225, 1226 (2006).

105. *Black*, 538 U.S. at 344.

106. Crane, *supra* note 104, at 1253.

107. 538 U.S. at 348.

108. *Id.*

109. Crane, *supra* note 104, at 1253.

110. *Id.*

111. *Id.*; *see also* Maria Glod, *Convictions Stand in Cross Burning*, WASH. POST (Mar. 6, 2004), https://www.washingtonpost.com/archive/local/2004/03/06/convictions-stand-in-cross-burning/ba468e55-ed21-4da5-b13a-b44ad0aee9a6/ [https://perma.cc/VL59-N4LX].

112. *Crane*, *supra* note 104, at 1253.

113. Black v. Virginia, 553 S.E.2d 738, 742 (Va. 2001).

114. Virginia v. Black, 538 U.S. 343, 358 (2003).

or group of persons with the intent of placing the victim in fear of bodily harm or death."[115] That exception to the First Amendment's protections remains good law.

This makes sense. Indeed, the rationale for the exception, as explained in *Virginia v. Black*, is two-fold. On the one hand, this exception recognizes that people should be able to live without "the disruption that fear engenders."[116] Separately, the exception also helps to protect people "from the possibility that the threatened violence will occur."[117] So long as an objectively reasonable person would view a transmitted message as a threat of bodily harm, and the threat is "intentionally or knowingly communicated to either the object of the threat or a third person," the speech receives no First Amendment protection.[118]

Here, sending Eichenwald a flashing gif with overlaid text that states a desire for him to have a seizure is extremely similar to a true threat, and declining protection would be consistent with advancing the exception's two-fold purpose. The text overlaying the Eichenwald gif—"YOU DESERVE A SEIZURE FOR YOUR POSTS."[119]—makes this case particularly clear cut. The words alone, sent by a menacing critic to an epileptic target, may be enough to cause the recipient to fear bodily harm.[120] But certainly the gif, which coupled the text and flashing imagery together, taken as a whole can be deemed a threat that—upon receipt—could actually cause bodily harm. Even without the text itself, however, the purpose of categorical exclusions is achieved when it encompasses messages like the one sent to Eichenwald.[121]

This is why a new exclusionary category is needed. As the categorical exception for true threat currently stands, it would be odd to conclude that something like the sending of the Eichenwald gif without the accompanying text (*i.e.*, where a message is sent with an intent to harm, but no express threat accompanying it) would be protected as fighting words. For example, if Eichenwald's assailant sent the flashing gif with a message stating, "Isn't this pretty?" then perhaps that conduct would not actually constitute a true threat as currently defined. But it would still make sense to categorically exclude such a message from First Amendment protection.[122]

So analogous are virtual assaults to true threats that if a malicious gif did *not* cause a seizure, an epileptic recipient could easily understand a malfunctioning strobe gif as a warning of harm to come. To be clear, someone with epilepsy would logically understand a received message suggesting that they "deserve a seizure" and will be sent a strobe gif as a serious expression of an

115. *Id.* at 359–60.

116. *Id*. at 344.

117. *Id.*

118. Porter v. Ascension Par. Sch. Bd., 393 F.3d 608, 616 (5th Cir. 2004) (citing *Black*, 538 U.S. at 359).

119. Eichenwald v. Rivello, 318 F. Supp. 3d 766, 769 (D. Md. 2018).

120. The mere statement that someone deserves a seizure is likely an opinion in and of itself, but contextual factors (such as sending this text to someone known to have photosensitive epilepsy) might lead to a different conclusion.

121. *See generally Eichenwald*, 318 F. Supp. 3d at 772–73.

122. *Cf. id.*

intent to inflict injury—a true threat. This threat imposes a reasonable fear of bodily harm or death, and thus falls outside the bounds of First Amendment protection.[123] With this in mind, it would be illogical to conclude that actually *sending* that same strobe gif without attaching an express menacing message would enable the sender to skirt liability on First Amendment grounds. As explained in *Virginia v. Black*, the two-fold purpose of the true threats exception is both to protect individuals from the fear of violence and the disruption that fear engenders as well as to *actually protect* them from that violence.[124] To the extent that the sending of a strobe gif to an epileptic does not neatly qualify as a true threat, the Court's purpose in excluding valueless expression would be advanced by creating an unprotected category for virtual assault.

Without direct and explicit threats attached to the gif, categorical exclusions would likely not apply here unless a category for virtual assault was created. Certainly, the absence of any express verbal speech in the hacking of and posting of flashing gifs on the Epilepsy Foundation's Twitter page renders true threats less likely to be applicable there; many followers simply awoke to find that their newsfeed had been infiltrated with flashing gifs but had no express warning.[125] The fear element that typically accompanies a true threat is therefore potentially missing in such a circumstance. But the protective aims that the Court tries to advance by recognizing an exclusionary category for true threats is also advanced by creating an exclusionary category for virtual assault, and it follows that the Court should seriously consider creating this new category.

2. Fighting Words

Similar to "true threats," the U.S. Supreme Court has recognized "fighting words" as a categorical exception to the First Amendment's protection. The Supreme Court has defined fighting words as "those [words] which by their very utterance . . . tend to incite an immediate breach of the peace."[126] Fighting words were first flagged as a categorical exception in 1940 in *Cantwell v. Connecticut*.[127] In *Cantwell*, the Supreme Court overturned a lower court's decision convicting a Jehovah's Witness of breaching the peace for proselytizing on the streets of New Haven.[128] In dicta, the Court opined that "[r]esort[ing] to epithets or personal abuse is not in any proper sense communication of information or opinion safeguarded by the Constitution, and its punishment as a criminal act would raise no question under that instrument."[129]

This discussion in *Cantwell* laid the groundwork for the Supreme Court's ruling in *Chaplinsky v. New Hampshire* just two years later. In *Chaplinsky*, the

123. *See Black*, 538 U.S. at 360.
124. *Id.*
125. *See* Miller, *supra* note 3.
126. Chaplinsky v. New Hampshire, 315 U.S. 568, 572 (1942).
127. *See* Cantwell v. Connecticut, 310 U.S. 296, 311 (1940).
128. *Id.* at 307–11.
129. *Id.* at 309–10.

Court—for the first and only time in its history—sustained a "fighting words" conviction.[130] The case concerned a Jehovah's Witness named Walter Chaplinsky who visited Rochester, New Hampshire to proselytize on a public sidewalk during a particularly busy Saturday afternoon.[131] While there, Chaplinsky harangued an unfriendly crowd by "denouncing all religion as a 'racket.'"[132] and, subsequently, referring to a city marshal who was responding to the riot as "'a God damned racketeer' and 'a damned Fascist.'"[133] With commotion astir, Chaplinsky also proclaimed that "'the whole government of Rochester are Fascists or agents of Fascists.'"[134]

Chaplinsky was charged under a New Hampshire criminal statute that prohibited the use of insulting words that were "likely to cause violence . . . ."[135] In a unanimous opinion, the Court upheld his conviction under the statute and found that Chaplinsky's insults were unprotected "fighting words" since they could be construed to advocate an immediate breach of the peace. In other words, the Court found that the statute—which has been construed to cover only language "plainly tending to excite the addressee to a breach of the peace"—was constitutional under the First Amendment and that Chaplinsky's remarks were actionable under it.[136] This holding was consistent with the lower court's opinion, which said: "[t]he English language has a number of words and expressions which by general consent are 'fighting words' when said without a disarming smile. . . . Such words, as ordinary men know, are likely to cause a fight."[137] In its own analysis, the Court explained that fighting words—"those which by their very utterance inflict injury or tend to incite an immediate breach of the peace"—are "no essential part of any exposition of ideas, and are of such slight social value as a step to truth that any benefit that may be derived from them is clearly outweighed by the social interest in order and morality."[138] Chaplinsky's speech, in the Court's view, crossed into this outrageous territory, rendering it simply unworthy of constitutional protection.

Subsequent rulings by the Court gave additional guidance to the boundaries of fighting words.[139] Expounding on *Chaplinsky*, the Court in 1971 explained that "personally abusive epithets which, when addressed to the ordinary citizen, are, as a matter of common knowledge, inherently likely to provoke violent reaction" and thus fall outside of the First Amendment's ambit.[140] The Court has further explained that in making a determination of whether speech constitutes

130. Linda Friedlieb, *The Epitome of an Insult: A Constitutional Approach to Designated Fighting Words*, 72 U. CHI. L. REV. 385, 388 (2005).

131. *Chaplinsky*, 315 U.S. at 569–70.

132. *Id.* at 570.

133. *Id.* at 569.

134. *Id.*

135. *Id.* at 573.

136. *Id.*

137. State v. Chaplinsky, 18 A.2d 754, 762 (N.H. 1941), *aff'd sub nom.* Chaplinsky v. New Hampshire, 315 U.S. 568 (1942).

138. *Chaplinsky*, 315 U.S. at 572.

139. Cohen v. California, 403 U.S. 15, 20 (1971) (citing *Chaplinsky*, 315 U.S. at 588).

140. *Id.*

fighting words, it is important to assess whether the speech was "directed to the person of the hearer,"[141] and therefore likely to be reasonably regarded "as a direct personal insult"[142] or "an invitation to exchange fisticuffs."[143] And in 1992, the Court—in discussing fighting words as a categorical exception—acknowledged that:

> [T]he unprotected features of the words are, despite their verbal character, essentially a "non-speech" element of communication. Fighting words are thus analogous to a noisy sound truck: Each is . . . a "mode of speech," . . . [and] both can be used to convey an idea; but neither has, in and of itself, a claim upon the First Amendment.[144]

For all these reasons, fighting words do not come within the scope of the First Amendment's protection.[145]

Applying this category to the hacking of the Epilepsy Foundation's Twitter account would be difficult due to the absence of any verbal accompaniments. To the extent that express speech accompanies virtual conduct—like in the Eichenwald example—it is possible that the fighting words exception could render moot any argument that the First Amendment protects the transmission.[146] But a clearer way to advance the purpose of the fighting words doctrine when it comes to virtual expression would be to recognize a new category of virtual assault and proscribe such conduct therein.

While the court has only found fighting words to apply to "face-to-face words," such as in *Chaplinsky*,[147] technological advancements and developments make creating a new but related exclusionary category a logical next step. In 1942, when *Chaplinsky* was decided, the concept of violently attacking someone by any means other than by in-person contact was simply incomprehensible. But as the examples discussed above demonstrate, it *is* now possible to cause physical injuries using virtual means. It is now also possible to attack someone's property—such as with a computer virus—by virtual means as well.

If a reasonable person with epilepsy might be driven to take virtual action against the sender of a message like the one sent to Eichenwald, that could be enough for the message to fall into a category akin to fighting words. Put differently, whether speech qualifies categorically as virtual assaults in this context might require a determination of whether an average person with epilepsy would feel threatened and in danger by the gif such that they would immediately respond with violence against the speaker if possible (*i.e.*, if the recipient was able to respond and did not just immediately start seizing). If a recipient similarly situated to Eichenwald was able to "beat the sender to the punch," so to speak, would they?

141. *Cohen*, 403 U.S. at 20 (quoting Cantwell v. Connecticut, 310 U.S. 296, 309 (1940)).

142. *Id.*

143. Texas v. Johnson, 491 U.S. 397, 409 (1989).

144. R.A.V. v. St. Paul, 505 U.S. 377, 386 (1992) (quoting Niemotko v. Maryland, 340 U.S. 268, 282 (1951)).

145. *Id.*

146. *See* Eichenwald v. Rivello, 318 F. Supp. 3d 766, 772 (D. Md. 2018).

147. *Cf.* Chaplinsky v. New Hampshire, 315 U.S. 568, 573 (1942).

What makes application of the traditional fighting words doctrine tricky in this context is that it would rest on a number of difficult assumptions. Because even if the answer to the posed question is yes, for a listener to be able to immediately react and "throw the first punch," the listener would likely need to know the speaker's location, have the means to transport themselves to that location, and still be provoked to respond violently upon arrival.[148] But while provoking a physical person-to-person reaction might not be as possible in the virtual world, this new scenario begs the question of whether property damage could justify an analogous exception. Indeed, some courts have hinted that the fighting words doctrine might apply where the listener had been provoked to cause damage not only to the speaker but also to the speaker's *property* in determining whether the fighting words doctrine applies.[149] Creating a virtual assault categorical exception would provide clearer guidance and help to advance the goal of categorical exceptions more generally by considering compulsions to commit property damage. It would, after all, seem reasonable to send a computer virus or bug to someone's computer—essentially harming that property—in an effort to avoid being sent a message that could cause a seizure or other physical harm. Creating a new virtual assault categorical exception would therefore be a logical next step in promoting the underlying aims of categorical exceptions like fighting words. And more broadly, it certainly seems sensible that if traditional fighting words are categorically excluded, then a speech act intended to and which does cause an injury would also be excluded from protection.

IV. SHIFTING TO A VIRTUAL WORLD

As society's reliance on technology increases, the need to recognize a cause of action for virtual assault increases as well. Technological advancements in the way in which individuals interact and engage online have already necessitated changes to legal doctrines in numerous fields. For instance, a number of courts have found that websites are places of public accommodation under the Americans with Disabilities Act (ADA) and have required websites to remove barriers to access and use for people who are deaf and/or blind.[150] Indeed, in many jurisdictions, website content "must be coded so that screen-reading software can

148. Ashley Barton, *Oh Snap!: Whether Snapchat Images Qualify as "Fighting Words" Under* Chaplinsky v. New Hampshire *and How to Address Americans' Evolving Means of Communication*, 52 WAKE FOREST L. REV. 1287, 1308 (2017).

149. *See, e.g.*, People v. Prisinzano, 648 N.Y.S.2d 267, 273–74 (N.Y. Crim. Ct. 1996) ("In determining the likely response of an average addressee under the circumstances of this particular case, a consideration of the ordinary citizen's familiarity with the well-publicized history of unlawful activities within the Fulton Fish Market, including acts of violence, intimidation, [and] *property damage* . . . is appropriate for the trial court to consider."); *cf.* A.R. v. L.C., 108 N.E.3d 490, 493 (Mass. App. Ct. 2018); Van Liew v. Stansfield, 47 N.E.3d 411, 417 (Mass. 2016) (when analyzing a state statute proscribing harassment, holding that to be statutorily actionable, "fighting words or true threats must have been made with an intention to cause, and must actually cause, abuse, fear, intimidation, or *damage to property*").

150. *See* Nat'l Fed'n of the Blind v. Target Corp., 452 F. Supp. 2d 946, 953 (N.D. Cal. 2006); Nat'l Ass'n of the Deaf v. Netflix, 869 F. Supp. 2d 196, 200–01 (D. Mass. 2012); Nat'l Fed'n of the Blind v. Scribd Inc., 97 F. Supp. 3d 565, 576 (D. Vt. 2015); Andrews v. Blick Art Materials, LLC, 268 F. Supp. 3d 381, 393 (E.D.N.Y. 2017).

convert the words to an audio translation. Video that appears on a website must include descriptions for the deaf. "[And] all interactive functions must be operable through keyboard commands for people who can't use a mouse."[151] A failure to so act subjects the websites to hefty civil fines for ADA violations.[152] If a website can be held civilly liable for unintentionally failing to accommodate internet users with disabilities, it would logically follow that, at the very least, a civil cause of action in tort law should exist where someone intentionally tries to cause harm to internet users with a neurological disorder.

Another recent development in light of technological advances is the enactment of criminal statutes outlawing the distribution of revenge pornography in a majority of states.[153] Enacted for the purpose of protecting vulnerable people—primarily young women—from exploitation,[154] these statutes hold distributors of nonconsensual pornography criminally liable for their conduct.[155] Much like with virtual assaults, it is indisputable that an attempt to take revenge on an ex-partner by nonconsensually circulating intimate, pornographic images is highly morally culpable.[156] The purpose is to harm someone, which is a purpose shared by those who perpetrate virtual assaults as well. Lawmakers have already passed over forty statutes criminalizing revenge pornography.[157] To better protect vulnerable individuals from harm brought about online, similar action is also needed in this space.

As technology continues to develop, more channels for perpetrating virtual assault will also develop. At present, known methods and outlets that can be exploited to cause imminent injury via virtual means are limited. They include sending flashing images via the internet (social media, e-mail, websites), setting flashing backgrounds in virtual or augmented reality game rooms, putting flashing images on television, phone, or film projector screens, and hacking into and manipulating other technologies.[158] But new methods for virtual attack targeting new types of vulnerable individuals are likely to develop in the future, making it even more necessary to put in place protections against virtual assault now.

151. Hugo Martín, *Lawsuits Targeting Business Websites Over ADA Violations Are on the Rise*, L.A. TIMES (Nov. 11, 2008, 4:00 AM), https://www.latimes.com/business/la-fi-hotels-ada-compliance-20181111-story.html [https://perma.cc/ACU2-MEMB]; *see also Target Corp*., 452 F. Supp. 2d at 956; *Netflix*, 869 F. Supp. 2d at 201–02; *Scribd*, 97 F. Supp. 3d at 574; *Blick Art Materials*, 268 F. Supp. 3d at 398.

152. Don Torrez, *The Real Reason Local Governments are Facing More ADA Non-Compliance Fines*, GOVERNING (Mar. 15, 2019), https://www.governing.com/topics/mgmt/The-Real-Reason-Local-Governments-are-Facing-More-ADA-Non-Compliance-Fines.html [https://perma.cc/DE3F-DUN7] ("Entities may be fined up to $75,000 for an initial ADA violation and $150,000 for subsequent violations.").

153. *46 States + DC + One Territory Now Have Revenge Porn Laws*, CYBER C.R. INITIATIVE, https://www.cybercivilrights.org/revenge-porn-laws/ (last visited My 24, 2021) [https://perma.cc/E7X2-Y4ZT].

154. Bulletin, National Bulletin on Domestic Violence Prevention NL 5, 24 No. 5 Quinlan (May 2018).

155. *See, e.g.*, Brandon Whiting, *New Law Updates NY'ers Privacy Rights, Protects Against "Revenge Porn,"* LEGIS. GAZETTE (Dec. 10, 2020), https://legislativegazette.com/new-law-updates-nyers-privacy-rights-adds-new-protections-against-revenge-porn/ [https://perma.cc/6MFZ-S85J].

156. *Id.*

157. CYBER C.R. INITIATIVE, *supra* note 153.

158. *See, e.g*., David M. Ewalt, *The Pokemon Seizure Episode*, FORBES (July 16, 2011, 10:49 AM), https://www.forbes.com/sites/davidewalt/2011/06/16/the-pokemon-seizure-episode/#619f0dd204ed [https://perma.cc/6V9R-3U3C] (discussing how an episode of Pokemon inadvertently caused "hundreds of Japanese children to go into epilepsy-like seizures" due to flashing images used on screen).

For example, the transmission of soundwaves through advanced technological devices has purportedly caused Havana Syndrome in U.S. embassies in Cuba and China.[159] Havana Syndrome leads targets of these soundwaves transmissions to experience symptoms similar to those following concussion or minor traumatic brain injury.[160] American diplomats were evacuated from China in 2018, for instance, when, following recurrent "disturbing sensations of sounds and vibrations" in the embassy, diplomats and their family members began experiencing high levels of headaches, sleeplessness and nausea.[161] Similarly, Americans in the embassy in Havana, Cuba in 2016 suffered a number of health problems that resemble those that result from mild brain trauma such as a concussion, including sharp ear pain, dull headaches, tinnitus, vertigo, disorientation, nausea and extreme fatigue.[162] Those Havana personnel all explained that prior to the onset of these symptoms, they felt like they were "being bombarded by waves of pressure in their heads."[163] Some also described hearing "loud sounds, similar to cicadas, which seemed to follow them from one room to another. But when they opened an outside door the sounds abruptly stopped."[164]

To the extent that the physical ailments the diplomats in these embassies experienced were caused by virtual sound transmissions,[165] they can form the basis for a virtual assault claim. Indeed, residents of these buildings complained of physical symptoms within days of allegedly hearing the purported sound transmissions, and the physical injuries endured were apparent and diagnosable.[166] In other words, sending these alleged transmissions falls squarely within the proposed definition of virtual assault (assuming, of course, that the transmissions were sent virtually).

Another example of potential virtual assault is the hacking of cars through the careful writing of code.[167] Researchers have shown that "common, internet-

159. Steven Lee Myers & Jane Perlez, *U.S. Diplomats Evacuated in China as Medical Mystery Grows*, N.Y. TIMES (June 6, 2018), https://www.nytimes.com/2018/06/06/world/asia/china-guangzhou-consulate-sonic-attack.html [https://perma.cc/D5YL-A7MQ].

160. *Id.*

161. *Id.*

162. Gardiner Harris, *Pompeo Says Mysterious Sickness Among Diplomats in Cuba Has Spread to China*, N.Y. TIMES (May 23, 2018), https://www.nytimes.com/2018/05/23/world/asia/pompeo-diplomats-china-cuba.html [https://perma.cc/RZH8-EJ6E].

163. Adam Entous & Jon Lee Anderson, *The Mystery of the Havana Syndrome*, NEW YORKER (Nov. 9, 2018), https://www.newyorker.com/magazine/2018/11/19/the-mystery-of-the-havana-syndrome [https://perma.cc/RQM9-6WK5].

164. *Id.*

165. *See* Elizabeth Payne, *New Paper Adds to Havana Syndrome Mystery, Suggests Cause Was Stress, Not High-Tech Attacks*, OTTAWA CITIZEN (Nov. 5, 2019), https://ottawacitizen.com/news/local-news/new-paper-adds-to-havana-syndrome-mystery-suggests-cause-was-stress-not-high-tech-attacks/ [https://perma.cc/VR34-2RYK]; Aaron Reich, *Ben-Gurion University Study Says 'Havana Syndrome' Caused by Pesticides*, JERUSALEM POST (Sept. 20, 2019, 5:31 AM), https://www.jpost.com/health-science/ben-gurion-university-study-says-havana-syndrome-caused-by-pesticides-602335 [https://perma.cc/6F8X-VTKC]. *But see* Josh Lederman & Michael Weissenstein*, Dangerous Sound? What Americans Heard in Cuba Attacks*, ASSOC. PRESS (Oct. 13, 2017), https://apnews.com/88bb914f8b284088bce48e54f6736d84 [https://perma.cc/8B3J-U6GF].

166. Entous & Anderson, *supra* note 163.

167. *See* Andrea M. Matwyshyn, *Hacking Speech: Informational Speech and the First Amendment*, 107 NW. U.L. REV. 795, 799 (2013); Alexander M. Pechette, *Do Patents Abridge the First Amendment Guarantee of*

connected insurance dongles plugged into vehicles dashboards" could enable hackers to remotely take control of cars,[168] which could result in the shutting off of a car's brakes,[169] disabling the driver's steering and "digitally turn the wheel themselves at any speed,"[170] accelerating the speed at which the vehicle is traveling,[171] or otherwise manipulate vehicles in ways that are unsafe to the occupants.[172] In 2015, Chrysler recalled 1.4 million cars after hacker-researchers revealed ways in which they were able to break into Chrysler's software networks.[173] Using carefully executed written code, the researchers were able to mechanically possess a number of vehicles.[174] Though no one was ultimately hurt by the study, the researchers warned at a 2016 security conference that the company and their customers were lucky.[175] If actual malicious auto hackers were the first to notice and exploit the vehicles' security flaws, "You wouldn't be [talking] with us," they said, "You'd be dead."[176] And, indeed, the researchers

Free Speech?, 27 FED. CIR. BAR J. 417, 424 n.48 (2017); Jorge R. Roig, *Decoding First Amendment Coverage of Computer Source Code in the Age of YouTube, Facebook, and the Arab Spring*, 68 N.Y.U. ANN. SURV. AM. L. 319, 327 (2012); Mark C. Bennett, Note, *Was I Speaking to You?: Purely Functional Source Code as Noncovered Speech*, 92 N.Y.U. L. REV. 1494, 1500–01 (2017); Lee Tien, *Publishing Software as a Speech Act*, 15 BERKELEY TECH. L.J. 629, 629, 633 (2000); Robert Post, *Encryption Source Code and the First Amendment*, 15 BERKELEY TECH. L.J. 713, 719 (2000); *see also* Brief of the ACLU as Amicus Curiae in Support of Respondents at 7, *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347 (2014) (No. 13-298), 2014 WL 828030 ("[Petitioner's] reliance on computer implementation to save its claims is also troubling because *programming code itself deserves First Amendment protections.* [Petitioner's] patents stop others from developing programming code that addresses settlement risk through a third party, and that in turn threatens to chill expressive communication among programmers.") (emphasis added); Bernstein v. U.S. Dep't of Justice, 176 F.3d 1132, 1142 (9th Cir. 1999), *reh'g granted*, *opinion withdrawn*, 192 F.3d 1308 (9th Cir. 1999) (finding that source code is expressive speech protected by the First Amendment and holding government regulation restricting code publication to be unconstitutional); Apple Inc.'s Motion to Vacate Order Compelling Apple Inc. to Assist Agents in Search and Opposition to Government's Motion to Compel Assistance at 32, *In the Matter of the Search of an Apple iPhone Seized During the Execution of a Search Warrant on a Black Lexus IS300, California License Plate 35KGD203*, No. CM 16-10 (C.D. Cal. Feb. 25, 2016), https://epic.org/amicus/crypto/apple/In-re-Apple-Motion-to-Vacate.pdf (last visited May 24, 2021) [https://perma.cc/KE2U-MGFY].. Here, when code is merely written to virtually enter and exploit a car's mechanical system or a medical device, I do not believe the writing of that code would warrant First Amendment protections for the same reason that the *Spence* test prevents First Amendment protection in the Eichenwald example. *See* discussion *supra* Section III.A.; Spence v. Washington, 418 U.S. 405, 410–11 (1974). Such conduct is non-expressive pursuant to the test laid out by the U.S. Supreme Court in *Spence*. *Id.*

168. Andy Greenberg, *The Jeep Hackers Are Back to Prove Car Hacking Can Get Much Worse*, WIRED (Aug. 1, 2016, 3:30 PM), https://www.wired.com/2016/08/jeep-hackers-return-high-speed-steering-acceleration-hacks/ [https://perma.cc/32M4-M6RD].

169. Andy Greenberg, *Hackers Cut a Corvette's Brakes Via a Common Car Gadget*, WIRED (Aug. 11, 2015, 7:00 AM), https://www.wired.com/2015/08/hackers-cut-corvettes-brakes-via-common-car-gadget/ [https://perma.cc/DLD7-5G46].

170. Greenberg, *supra* 168.

171. *Id.*

172. *E.g.*, *id.*

173. Andy Greenberg, *After Jeep Hack, Chrysler Recalls 1.4M Vehicles for Bug Fix*, WIRED (July 24, 2015, 12:30 PM), https://www.wired.com/2015/07/jeep-hack-chrysler-recalls-1-4m-vehicles-bug-fix/ [https://perma.cc/675P-ASJS].

174. *Id.*

175. Greenberg, *supra* note 168.

176. *Id.*

warned that although they were able to help Chrysler fix the bugs that they found, "there will be another wireless car attack method found sooner or later."[177]

Fears about technology hacking have also extended into the medical space. During a security conference in 2018, researchers definitively showed how they could use written code to hack pacemakers and insulin pumps in ways that "could potentially prove lethal."[178] Preceding this conference, rumblings about potential medical device hackers and susceptible firmware led the FDA to recall 465,000 pacemakers due to security vulnerabilities.[179] Indeed, concerns about potential terroristic medical hackers even led doctors to disable the wireless functionality of former Vice President Dick Cheney's heart implant in what was reportedly "a pretty valid fear."[180] And while no known cases on medical device hacking have yet resulted in patient harm, hospitals and healthcare facilities remain possible targets for deeply disturbing ransomware attacks.[181]

Recognizing a new cause of action for virtual assault now would better protect potential future victims of these types of attacks. It is not always possible to predict the next technological advancement or possible methods for exploiting that device. Criminalizing intentionally physically injurious conduct that broadly occurs over virtual means is a way in which the law can keep up with an ever-changing and developing field.[182] And recognizing such an action under tort law would enable victims of future virtual assaults to recover for harm suffered from a qualifying virtual attack regardless of whether the medium or method for that attack is currently obvious.

177. *Id.*

178. Ms. Smith, *Hacking Pacemakers, Insulin Pumps and Patients' Vital Signs in Real Time*, CSO (Aug. 12, 2018, 10:18 PM), https://www.csoonline.com/article/3296633/hacking-pacemakers-insulin-pumps-and-patients-vital-signs-in-real-time.html [https://perma.cc/YZ47-GXCN].

179. Saqib Shah, *FDA Recalls Close to Half-a-Million Pacemakers Over Hacking Fears*, ENGADGET (Aug. 31, 2017), https://www.engadget.com/2017-08-31-fda-pacemakers-abbott-hacking.html [https://perma.cc/AT3A-KMT6]; Press Release, U.S. Food & Drug Admin., Firmware Update to Address Cybersecurity Vulnerabilities Identified in Abbott's (Formerly St. Jude Medical's) Implantable Cardiac Pacemakers: FDA Safety Communication (Aug. 29, 2017), https://www.fda.gov/medical-devices/safety-communications/firmware-update-address-cybersecurity-vulnerabilities-identified-abbotts-formerly-st-jude-medicals [https://perma.cc/W5N5-XUXL].

180. Andrea Peterson, *Yes, Terrorists Could Have Hacked Dick Cheney's Heart*, WASH. POST (Oct. 21, 2013, 7:58 AM), https://www.washingtonpost.com/news/the-switch/wp/2013/10/21/yes-terrorists-could-have-hacked-dick-cheneys-heart/ [https://perma.cc/WRH2-WV5N].

181. Kim Zetter, *Why Hospitals Are the Perfect Targets for Ransomware*, WIRED (Mar. 30, 2016, 1:31 PM), https://www.wired.com/2016/03/ransomware-why-hospitals-are-the-perfect-targets/ [https://perma.cc/M72C-ZRXN].

182. Some scholars have argued that computer crime can best be deterred by treating cyberspace much how we would treat physical spaces. *See* Orin S. Kerr, *Virtual Crime, Virtual Deterrence: A Skeptical View of Self-Help, Architecture, and Civil Liability*, 1 J.L. ECON. & POL'Y 197, 198 (2005) (noting that Neal Katyal contends that computer crime can be deterred by redesigning the architecture of cyberspace in ways that mirror how architects design physical spaces to deter traditional crime). Under this logic, treating what amounts to the internet age's version of physical assault in the same manner as society treats physical assault would be an appropriate method for deterring similar computer crimes.

V. DIFFERENTIAL TREATMENT FOR VIRTUAL ATTACKS

The need to create a new cause of action for virtual assaults, treated differently from existing tort and criminal actions for traditional in-person assault, stems from implicit differences in the ways in which virtual harms can be perpetrated. Harms caused by virtual means can be more easily replicated and widely dispersed than harms caused in-person. Consider the example of revenge pornography. If a scornful man has an explicit photograph of an ex-girlfriend and wants to embarrass her, going door-to-door with that photograph would simply not have the same reach and permanency—and thus not cause the same harm—as posting that photograph online where it can be more easily and widely accessed as well as widely disseminated. The internet has a significantly greater reach. And this reach, combined with the fact that messages sent online can be made anonymous and that it is easier to tag-team victims in the online context, necessitates treating virtual assaults differently than in-person assaults.

For example, someone could walk up to an individual with epilepsy while holding a strobe light and induce a seizure. But it is less likely that the assailant could find thousands of epileptics in a single place, shine his strobe light, and put thousands of lives at risk. The same cannot be said for the virtual world. The hackers of the Epilepsy Foundation's Twitter account utilized virtual means in an attempt to assault thousands of followers[183]—a number made possible only because the internet was utilized—with a single act.

Replicating harms by virtual means is also easier. As previously noted, once word spread that Eichenwald had suffered an initial seizure, he was sent flashing strobe gifs from over forty more Twitter accounts.[184] In contrast, the ability for multiple individuals to attempt to copycat the initial assailant in real life would be much more limited: each would need to buy a strobe light, physically track down and travel to Eichenwald, and carefully time an attack without being stopped by a passerby or friend of the target. The same can be said for other potential examples of virtual assault. Presumably, a skilled auto hacker could more easily twist the wheels and halt the breaks of multiple cars in an effort to cause dangerous traffic accidents than he could cause the same number of accidents targeting the same number of cars through in-person means. The mode for attack, and potential extensive reach, is simply different in the virtual world.

Numerous scholars and practitioners specifically considering virtual torts have made similar arguments in different contexts. In the context of defamation, for instance, intellectual property litigator Steven Shelton has suggested that "[e]lectronic media allow one to destroy the reputation of others over a wide geographic area in an instant."[185] He has noted that "[i]n light of increased communication online and via social media, the informal nature of such communica-

183. Miller, *supra* note 3.

184. *See* Eichenwald, *supra* note 48.

185. Steven T. Shelton, *Defamation in Online and Social Media Communication*, 31 No. 20 WESTLAW J. COMPUT. & INTERNET 1, 4 (2014) 2014 WL 977445 (WJCOMPI).

tion, and the speed with which it is conducted, it is now far easier to defame others . . . ."[186] While doctrine has been slow to adapt to the changing social media space, Shelton predicts that "case law will continue to develop in this area because of technological advances."[187] Professors Lyrissa Barnett Lidsky and Thomas F. Cotter of the University of Missouri School of Law and the University of Minnesota School of Law, respectively, agree.[188] They have noted in works that "the architecture of the Internet makes it easy to speak anonymously" but also caution against adopting extensive regulations of online speech that could interfere with First Amendment rights.[189]

With regard to online invasion of privacy, scholars have raised similar points. For example, Professor Jeffrey Rosen of George Washington University Law School has written extensively about how virtual communications and online conduct can be monitored by multiple parties.[190] He has raised concern that "cyberspace has blurred the distinction between home and office," enabling employers to peruse through emails and digital files at a whim.[191] More concerningly though, Professor Rosen has explained that internet users leave "electronic footprints that make it possible to monitor and trace nearly everything we read, write, browse, and buy," which explains the "unsettling experience some Internet users have had of being bombarded with targeting ads after expressing an interest in a particular topic."[192] This practice, Professor Rosen notes, is not only "technologically possible, [but has generally been] legally permissible" and can be done with ease in light of technological advancements.[193] Enacting regulations to keep these intrusions in check are therefore, in his view, a necessity.[194]

This Article's call to regulate virtual attacks is in line with related proposals to more carefully monitor the virtual landscape. While any regulation arguably involving communications or speech ought to be carefully drawn to avoid any constitutional infringements, creating a tort and criminal cause of action for virtual assaults, as defined in this piece, would advance policy objectives relating to public safety while adhering to constitutional tenants regarding free speech protections.

VI. CONCLUSION

Recent events have shown that technology can be used to cause physical injuries to individuals even without any physical contact. Virtual attacks should generally be able to serve as the basis for criminal and tort liability where a

186. *Id.*

187. *Id.*

188. Lyrissa Barnett Lidsky & Thomas F. Cotter, *Authorship, Audiences, and Anonymous Speech*, 82 NOTRE DAME L. REV. 1537, 1537–38 (2007).

189. *Id.* at 1555, 1577.

190. *See* JEFFREY ROSEN, THE UNWANTED GAZE: THE DESTRUCTION OF PRIVACY IN AMERICA 160–165 (2001).

191. *Id.* at 160.

192. *Id.* at 162–63.

193. *Id.* at 163–64.

194. *Id.* at 127.

sender intended to cause imminent physical harm. Recognizing a cause of action for such conduct as a means of virtual assault is constitutionally permissible and does not run afoul of the First Amendment. Rather, creating new categorical exclusions for such conduct would serve to further advance the purpose of already-existing categorical exclusions. Taking these steps to regulate virtual conduct is necessary to protect vulnerable individuals online and elsewhere from harm caused by virtual attacks.