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# The Robot-Transporter: Sex Trafficking, Autonomous Vehicles, and Criminal Liability for Manufacturers

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## The Robot-Transporter: Sex Trafficking, Autonomous Vehicles, and Criminal Liability for Manufacturers

Olivia Phillips\*

### ABSTRACT

Despite global condemnation, sex trafficking continues to plague our world. Even in developed countries, the problem persists. Technological advancements, like the Internet, have spurred the development of organized sex trafficking networks and have made “transactions” easier. Although law enforcement agencies have tried to adapt their investigative techniques to combat the problem, developments in technology move at a much quicker rate.

Autonomous vehicles (AVs) will present a new set of challenges for law enforcement agencies in the fight against sex trafficking. In the not-too-distant future, AVs, or “self-driving cars,” will dominate the roadways. An AV will be completely aware of the surrounding world and will be programmed to respond appropriately to cues that it receives from these surroundings.

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\* J.D. Candidate, The Pennsylvania State University’s Dickinson Law, 2019. Thank you to my parents for instilling in me the value of hard work from a young age. Thank you to Professors Gaudion and Groome for your guidance throughout this project and throughout my law school career. Special thanks to Michael for providing me steadfast support in times when I most needed it.

An AV should also be aware of the happenings inside its passenger compartment. Because an AV will perpetually focus on the roads, its human occupants can turn their attention elsewhere. A pimp, for instance, will be able to continuously monitor his reluctant, minor passenger. And, because the AV will obey all traffic laws, police are less likely to find cause to pull over an AV. Thus, AVs will make evading police detection easier for a sex trafficker.

This Comment argues that curtailing sex trafficking in an AV-dominated future requires imposing federal criminal liability on AV manufacturers for failing to equip their AVs with facial-recognition technology. First, this Comment examines current federal laws criminalizing sex trafficking and explains how these laws are insufficient to hold AV manufacturers criminally liable. Next, this Comment demonstrates how civil penalties and regulatory fines are insufficient deterrent mechanisms. Finally, this Comment proposes a statute that requires standards for the facial-recognition technology, imposes criminal liability for violations of such standards, and creates a federal commission authorized to set such standards.

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## I. INTRODUCTION

The year is 2040. Holly, a 14-year-old missing child, is in a car with Jim, the 38-year-old leader of a sex trafficking ring. The car has no steering wheel or pedals, obeys all traffic laws, and travels towards a destination predetermined by Jim via a cellphone application; it is an autonomous vehicle (AV). Because Holly has been with Jim for several weeks, she knows that they are heading towards a motel where Jim will force her to have sex with other older men for money.

Holly asks Jim why he always makes her “do disgusting things with men” and pleads with him to take her back to her parents. Sick of Holly’s whining, Jim slaps her across the face and tells her to be quiet before he hurts her worse than that. Holly begins to cry and clutches her cheek but says nothing more. Eventually, the pair arrive at the motel and Jim forces Holly to go to work.

In an AV-dominated future, police will have no cause to pull over vehicles that obey all traffic laws. In fact, if all goes as it should, an AV’s passengers will almost never interact with police officers because the always-alert AV will avoid all car accidents. So how is Holly supposed to escape from Jim? Holly has no control over the vehicle’s destinations because Jim forbids her from using a cellphone. And because the vehicle controls itself, Jim can continuously monitor Holly to ensure that she does not try to jump out.

As defined by the U.S. Code, sex trafficking is “the recruitment, harboring, transportation, provision, obtaining, patronizing,

or soliciting of a person for the purpose of a commercial sex act.”<sup>1</sup> The Code also refers to human trafficking as a modern form of slavery.<sup>2</sup> Recently, Congress passed a law that penalizes website creators who remain complicit while others use their website for sex trafficking.<sup>3</sup> The passage of this law demonstrates Congress’s willingness to impose criminal penalties on third parties whose technology facilitates sex trafficking.<sup>4</sup>

In order to function correctly, an AV must be hyper-aware of its surroundings.<sup>5</sup> Today, technology that equips computers with the ability to recognize a person’s face or mood exists (hereinafter “facial-recognition technology”).<sup>6</sup> Further, under current Fourth Amendment jurisprudence, individuals travelling on public roads have a diminished expectation of privacy in their vehicles<sup>7</sup> and no expectation of privacy in their movements on public roadways.<sup>8</sup> Therefore, including facial-recognition technology in AVs is both legally and technologically feasible for AV manufacturers.<sup>9</sup>

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1. 22 U.S.C. § 7102(10) (2018).

2. *See, e.g.*, 22 U.S.C. § 7101(b)(1) (2018) (“Trafficking in persons is a modern form of slavery, and it is the largest manifestation of slavery today.”).

3. Allow States and Victims to Fight Online Sex Trafficking Act of 2017, Pub. L. No. 115-164, 132 Stat. 1253 (2018) (codified at 47 U.S.C. § 230 and in scattered sections of 18 U.S.C.).

4. *Id.*; *see infra* Part II.C.2.

5. *E.g.*, *Technology*, WAYMO [hereinafter *Waymo Tech*], <http://bit.ly/2QscSgO> (last visited Sept. 16, 2018) (describing the different types of sensors an AV will use to monitor its surroundings); *see also infra* Part II.A.

6. *See, e.g.*, Arthur Allen, *Feeling Mad? New Devices Can Sense Your Mood and Tell—or Even Text—Others.*, WASH. POST (Jan. 13, 2014), <http://wapo.st/2yhQxuy> (discussing how sensors can interpret internal bodily signals associated with emotions and tell others what a person is feeling); Curtis Silver, *Patents Reveal How Facebook Wants to Capture Your Emotions, Facial Expressions and Mood*, FORBES (June 8, 2017), <http://bit.ly/2zjvFn4> (discussing how Facebook received patents to use emotion-detecting technology).

7. *E.g.*, *Byrd v. United States*, 138 S. Ct. 1518, 1526 (2018). For a thorough application of current Fourth Amendment jurisprudence to AVs, *see* Lindsey Barrett, Note, *Herbie Fully Downloaded: Data-Driven Vehicles and the Automobile Exception*, 106 GEO. L.J. 181 (2017).

8. *Carpenter v. United States*, 138 S. Ct. 2206, 2213–16 (2018) (clarifying how tracking a person’s movements via their cell phone goes beyond allowing police officers to follow automobiles for a short period of time without violating the Fourth Amendment); *United States v. Jones*, 565 U.S. 400, 412 (2012); *United States v. Knotts*, 460 U.S. 276, 281 (1983) (“A person traveling in an automobile on public thoroughfares has no reasonable expectation of privacy in his movements from one place to another.”).

9. The author of this Comment acknowledges that there are privacy concerns with including facial recognition technology in AVs. Addressing all of these concerns, however, is beyond the scope of this Comment. *See infra* notes 132–138 and accompanying text (discussing the information already collected by car companies); *see generally* Dorothy J. Glancy, *Privacy in Autonomous Vehicles*, 52 SANTA

Society recognizes the horrors of sex trafficking.<sup>10</sup> The advent of AVs facilitates an environment that allows sex trafficking to remain unnoticed more easily and intensifies the challenges for law enforcement in combatting sex trafficking.<sup>11</sup> In the past, Congress has successfully criminalized a manufacturer's failure to proactively prevent the dangerous misuse of its products. For example, the number of recalls for toys made with lead paint dropped to zero after Congress imposed harsher criminal penalties on manufacturers.<sup>12</sup> Thus, Congress should impose criminal liability on an AV manufacturer that fails to implement facial-recognition technology in its AVs and create a new federal commission to develop the parameters of this technology.

Part II of this Comment provides background on the advent of AVs and the criminalization of sex trafficking; it also demonstrates how current sex trafficking laws do not apply to AV manufacturers. Part II also highlights previous instances where Congress compelled companies to take proactive measures using the threat of criminal penalties. Part III demonstrates how criminal punishment effectively deters manufacturer complicity while civil damages and regulatory fines do not. Part III also sets forth the structure of this Comment's Proposed Legislation to compel AV manufacturers to be proactive. Part IV provides concluding remarks on the issues addressed in this Comment.

## II. BACKGROUND

### A. *Introducing Autonomous Vehicles*

Advancements in artificial intelligence and vehicle technology have led to the creation of self-driving cars.<sup>13</sup> While there are tiers of automation, a vehicle that operates without any human intervention is at "level five automation."<sup>14</sup> Vehicles at level five automation do not require a steering wheel or pedals.<sup>15</sup> These self-driving cars are known as "autonomous vehicles" (AVs) because the car

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CLARA L. REV. 1171 (2012) (proposing suggestions for how best to handle potential privacy issues associated with AVs).

10. *E.g.*, *What Is Human Trafficking?*, NAT'L HUM. TRAFFICKING HOTLINE, <http://humantraffickinghotline.org> (last visited Sept. 16, 2018).

11. *See infra* notes 163–73 and accompanying text.

12. *See infra* Part II.D.1–2; *see also infra* notes 191–92 and accompanying text.

13. *E.g.*, *Waymo Tech*, *supra* note 5.

14. Matt Burgess, *When Does a Car Become Truly Autonomous? Levels of Self-Driving Technology Explained*, WIRED (Apr. 21, 2017), <http://bit.ly/SAEWired>.

15. *Id.*

itself makes all the decisions that a human driver ordinarily would make.<sup>16</sup>

Some vehicles available for purchase have self-driving capabilities.<sup>17</sup> But even these vehicles require that the human occupant remain ready to retake control of the vehicle, if necessary.<sup>18</sup> Out of all the vehicles currently available for purchase, none are at level five automation.<sup>19</sup> Nevertheless, AVs do exist.<sup>20</sup> For instance, in 2015, Waymo<sup>21</sup> successfully achieved the world's first fully autonomous ride on a public road.<sup>22</sup>

The anticipated dominance of AVs will likely render human drivers unnecessary.<sup>23</sup> While nobody can definitively predict the configuration of AV-dominated roadways, AV developers have invested time and money into their preferred visions of the future.<sup>24</sup> Some developers foresee a world where ridesharing dominates.<sup>25</sup> Other developers foresee a world where people own personal

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16. See Jeffrey K. Gurney, *Crashing into the Unknown: An Examination of Crash-Optimization Algorithms Through the Two Lanes of Ethics and the Law*, 79 ALB. L. REV. 183, 189–90 (2016) (providing the history of self-driving cars).

17. E.g., *Model S*, TESLA, <http://www.tesla.com/models> (last visited Sept. 16, 2018) (highlighting Tesla's Autopilot feature); *Model X*, TESLA, <http://www.tesla.com/modelx> (last visited Sept. 16, 2018) (same).

18. See Danny Yadron & Dan Tynan, *Tesla Driver Dies in First Fatal Crash While Using Autopilot Mode*, GUARDIAN (June 30, 2016), <http://bit.ly/TeslaDeath> (illustrating the consequences of a driver's failure to remain alert behind the wheel in autopilot mode even though the car instructs the driver to remain alert and highlighting the lingering need for a human driver in current commercially available self-driving cars).

19. See, e.g., Alex Davies, *This Is Big: A Robo-Car Just Drove Across the Country*, WIRED (Apr. 3, 2015) [hereinafter Davies, *This Is Big*], <http://bit.ly/DelphiRoboCar> (discussing how an autonomous vehicle drove from San Francisco to New York but still required human intervention in a few situations).

20. E.g., *Waymo Tech*, *supra* note 5.

21. Waymo began as the Google self-driving car project in 2009 and became an independent company in 2016. *Journey*, WAYMO, <http://waymo.com/journey/> (last visited Sept. 16, 2018).

22. *Id.* (describing the first fully self-driving ride on public roads: a blind man, alone, in a vehicle without a steering wheel or pedals).

23. Vivek Wadhwa, *Move Over, Humans, the Robo-Cars Are Coming*, WASH. POST (Oct. 14, 2014), <http://wapo.st/2i6izFA> (predicting that the debate in 15 years will be whether humans should be allowed to drive at all).

24. E.g., Mike Isaac, *Uber Bets on Artificial Intelligence with Acquisition and New Lab*, N.Y. TIMES (Dec. 5, 2016), <http://nyti.ms/2kMfzz2>.

25. See *Looking Further*, FORD, <http://ford.to/2g59g4v> (last visited Sept. 16, 2018); Anthony Levandowski, *San Francisco, Your Self-Driving Uber Is Arriving Now*, UBER BLOG (Dec. 14, 2016), <http://ubr.to/2hDkPQw> (discussing the benefits of ride sharing and autonomous vehicles).

AVs.<sup>26</sup> In any case, it is likely that both personal and shareable AVs will simultaneously dominate the roadways of the future.<sup>27</sup>

By taking human drivers off the road, AVs will quell the leading cause of traffic accidents: human error.<sup>28</sup> Automobile manufacturers' announcements of their decisions to pursue AV production cite the safety benefits of AVs; specifically, AVs are safer because they have heightened awareness and intelligence.<sup>29</sup> Consequently, AVs will eliminate tired, drunk, and distracted driving.<sup>30</sup>

Further, AVs will respond to external signals by using different sensors to determine road conditions, anticipate the movements of other vehicles, and respond properly.<sup>31</sup> AVs will even communicate with pedestrians<sup>32</sup> and respond appropriately to emergency sirens.<sup>33</sup> While AV manufacturers are spending thousands of hours training their AVs to navigate the roads safely,<sup>34</sup> these same manufacturers are overlooking the development of unique safety features for inside the AV.<sup>35</sup> In creating a vehicle that protects passengers from external threats only, an AV manufacturer disregards severe internal threats.<sup>36</sup>

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26. Alex Davies, *The Mercedes Robo-Car That Made Me Want to Stop Driving*, WIRED (Mar. 23, 2015) [hereinafter Davies, *Mercedes Robo-Car*], <http://bit.ly/2ykIT4e>; Paul Stenquist, *Nissan Announces Plans to Release Driverless Cars by 2020*, N.Y. TIMES: WHEELS (Aug. 29, 2013, 6:00 AM), <http://nyti.ms/2ykAFJv>; Jack Stewart, *Elon Musk Says Every New Tesla Can Drive Itself*, WIRED (Oct. 19, 2016), <http://bit.ly/2yKDmWb>.

27. Johanna Zmud & Paul Carlson, *Realistically, Here's What the Very Near Future of Self-Driving Cars Looks Like*, BUS. INSIDER (July 30, 2017, 9:33 AM), <http://bit.ly/selfdrivefuture>.

28. Laiza King, *Top 15 Causes of Car Accidents and How You Can Prevent Them*, HUFFINGTON POST: BLOG (Aug. 31, 2016, 11:24 AM), <http://bit.ly/2F7jmAN>.

29. See, e.g., Conor Dougherty, *Self-Driving Trucks May Be Closer than They Appear*, N.Y. TIMES (Nov. 13, 2017), <https://nyti.ms/2jmszfU> (explaining how self-driving semi-trucks can reduce accidents if the trucks communicate with each other while under way); see also Margaret Krauss, *Bikes May Have to Talk to Self-Driving Cars for Safety's Sake*, NAT'L PUB. RADIO (July 24, 2017), <http://n.pr/2F9e5Zo> (describing how bicycles and AVs will need to communicate).

30. See Gurney, *supra* note 16, at 189; Wadhwa, *supra* note 23.

31. E.g., Waymo Tech, *supra* note 5.

32. See Aarian Marshall, *Want to Teach Self-Driving Vehicles to Talk? Pretend You're a Car Seat*, WIRED (Sept. 13, 2017), <http://bit.ly/2gCVUwT> (describing how Ford determined that a series of lights on the windshield was an effective way for AVs to interact with pedestrians).

33. E.g., Jack Stewart, *Driverless Cars Need Ears as Well as Eyes*, WIRED (Aug. 21, 2017), <http://bit.ly/DrivCarEyeEar> (describing how Waymo's vehicles learned the different sounds of emergency vehicles and the appropriate response needed).

34. E.g., *id.*

35. E.g., Davies, *This Is Big*, *supra* note 19.

36. See *infra* Part II.C.2.



## B. Congress Takes a Stand Against Sex Trafficking

Sex trafficking currently plagues the United States.<sup>37</sup> In 2000, Congress passed the Victims of Trafficking and Violence Prevention Act<sup>38</sup> (TVPA), which made engaging in sex trafficking a federal crime.<sup>39</sup> In the “Purposes and Findings” of the TVPA, Congress criticized how “the seriousness of [trafficking] is not reflected in current sentencing guidelines, [and this results] in weak penalties for convicted traffickers.”<sup>40</sup> Motivated in part by the haphazard nature of competing state laws,<sup>41</sup> Congress uniformly criminalized this horrid act.<sup>42</sup> Congress also called on the nations of the world to take similar action because sex trafficking is a formidable international problem.<sup>43</sup> The remainder of this section breaks down the parameters of the current federal laws prohibiting sex trafficking.<sup>44</sup>

### 1. Prohibition of Sex Trafficking in the United States Code

In enacting the TVPA, Congress determined that because “the right to be free from slavery and involuntary servitude is . . . [an] unalienable right[ ] . . . [c]urrent practices of sexual slavery and trafficking of women and children are similarly abhorrent to the principles upon which the United States was founded.”<sup>45</sup> With the creation of the TVPA, Congress criminalized the act of transporting a minor into sexual slavery,<sup>46</sup> an act that already constituted a fed-

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37. See, e.g., Priscilla Alvarez, *When Sex Trafficking Goes Unnoticed in America*, ATLANTIC (Feb. 23, 2016), <http://bit.ly/UnnoticedSexTrafficking>.

38. Victims of Trafficking and Violence Prevention Act of 2000, Pub. L. No. 106-386, 114 Stat. 1464 (2000) (codified as amended in scattered sections of 8, 18, 22 & 42 U.S.C.).

39. 18 U.S.C. § 1591 (2018).

40. 22 U.S.C. § 7101(b)(15) (2018).

41. *Id.* § 7101(b)(14) (“Existing legislation and law enforcement in the United States . . . are inadequate to deter trafficking and bring traffickers to justice . . .”).

42. *Id.* § 7101(b)(21) (“Trafficking in persons is an evil requiring concerted and vigorous action by countries of origin, transit or destination . . .”).

43. *Id.* § 7101(b)(24) (“Trafficking in persons is a transnational crime with national implications.”). Although Congress implores the nations of the world to take action in this subsection, this proclamation does not bind other countries to enact similar legislation: only a formal treaty can bind another country to do so. See *What Is a Treaty?*, LIBR. CONGRESS, <http://bit.ly/LOCdfTreaty> (last visited Sept. 16, 2018).

44. See *infra* Part II.B.1–4.

45. 22 U.S.C. § 7101(b)(22).

46. 18 U.S.C. § 1591(a) (2018) (listing “transports” as one of the acts that § 1591 prohibits); see also *United States v. Valenzuela*, 495 F. App’x 817, 822 (9th Cir. 2012) (clarifying transportation was just one act which constituted sex trafficking but not an essential element of the offense).

eral crime.<sup>47</sup> Under 18 U.S.C. § 2423,<sup>48</sup> it is illegal to transport a minor in interstate commerce with the intent that the minor engage in prostitution.<sup>49</sup> Consequently, for this one action—transporting a minor—law enforcement may hold an actor criminally liable under both the TVPA and the crime of transportation.<sup>50</sup>

Yet, the two offenses are significantly different.<sup>51</sup> The crux of the federal crime of transportation under § 2423 is the affirmative *intent* of the actor.<sup>52</sup> The actor must intend for the minor to engage in prostitution.<sup>53</sup> The crux of the TVPA, however, is the *knowledge* of the actor.<sup>54</sup> Here, the actor only must *know* or *recklessly disregard* the fact that the minor “will be caused” to engage in an illegal sex act.<sup>55</sup>

Despite the existence of 18 U.S.C. § 2423, Congress chose to separately criminalize the act of transporting a minor even when the actor merely knew that the minor would “be caused” to engage in a commercial sex act.<sup>56</sup> The difference between § 1591 and § 2423 is slight.<sup>57</sup> However, “the essence of the narrow distinction between [intent and knowledge] is the presence or absence of a *positive desire* to cause the result.”<sup>58</sup> Although both § 1591 and

47. See 18 U.S.C. § 2423(a) (2018) (prohibiting transporting minors in interstate commerce with the intent that the minor engage in an illegal sex act).

48. Protection of Children Against Sexual Exploitation Act of 1977 § 3(a), 18 U.S.C. § 2423 (2018).

49. *Id.* § 2423(a).

50. *E.g.*, *United States v. Williams*, 428 F. App'x 134, 139–40 (3d Cir. 2011) (finding sufficient evidence to support the lower court's conviction of the defendant under both 18 U.S.C. §§ 1581 and 2423 when he transported a 16-year-old girl into four different states with the purpose of causing her to engage in commercial sex acts).

51. Compare 18 U.S.C. § 1591(a) (requiring that the actor know or recklessly disregard the result of child prostitution), with 18 U.S.C. § 2423(a) (requiring that the actor intend prostitution as the result).

52. *Mortensen v. United States*, 322 U.S. 369, 375 (1944) (“What Congress has outlawed by [§ 2423] . . . is the use of interstate commerce as a calculated means for effectuating sexual immorality.”).

53. *Williams*, 428 F. App'x at 139 (noting that the actor's intent is the focus of § 2423, not whether the prostitution is actually accomplished).

54. 18 U.S.C. § 1591(a); see *United States v. Estrada-Tepal*, 57 F. Supp. 3d 164, 169 (E.D.N.Y. 2014) (confirming that § 1591 does not require intent); *United States v. Brooks*, 610 F.3d 1186, 1195 (9th Cir. 2010) (same).

55. 18 U.S.C. § 1591(a); see also *Estrada-Tepal*, 57 F. Supp. 3d at 169; *United States v. Garcia-Gonzalez*, 714 F.3d 306, 312 (5th Cir. 2013) (listing the three elements of § 1591: (1) acted with knowledge, (2) in or affecting interstate commerce, and (3) that the actor knew of or recklessly disregarded the future prostitution).

56. 18 U.S.C. § 1591(a).

57. Compare *id.* (requiring knowledge or reckless disregard), with 18 U.S.C. § 2423(a) (2018) (requiring specific intent).

58. PAUL H. ROBINSON, *CRIMINAL LAW: CASE STUDIES AND CONTROVERSIES* 124 (Vicki Been et al. eds., 3d ed. 2012) (emphasis in original).

§ 2423 prohibit the same conduct, only § 2423 requires that the actor possess the positive desire—intent—to cause the minor to engage in sexual activity.<sup>59</sup>

Accordingly, § 2423 requires a more stringent finding of the actor's mental state, or mens rea, than § 1591 requires.<sup>60</sup> When transporting a minor across state lines, an AV will not intend for the minor to engage in sexual activity.<sup>61</sup> The AV will intend only to transport its passengers safely from Point A to Point B.<sup>62</sup> Thus, an AV will not be criminally liable under § 2423.<sup>63</sup> Similarly, an AV manufacturer will not be criminally liable for the AV's role in transporting a minor under § 2423.<sup>64</sup> Manufacturers intend only to turn a profit from the widespread use of their AVs.<sup>65</sup>

In light of the implausibility of holding an AV manufacturer criminally liable under § 2423, this Comment focuses on § 1591. Section 1591 has a less stringent mens rea requirement than § 2423 and also criminalizes a broader range of conduct.<sup>66</sup> By twice criminalizing the act of transporting a minor for commercial sex acts,<sup>67</sup> Congress has demonstrated its intolerance of sex trafficking and those who commit such a crime.

## 2. *Conduct Prohibited by 18 U.S.C. § 1591*

Under 18 U.S.C. § 1591, Congress deemed two separate types of conduct a sex-trafficking crime.<sup>68</sup> Thus, under § 1591, there are two disjunctive conduct elements.<sup>69</sup> 18 U.S.C. § 1591 prohibits an actor from (1) knowingly transporting a victim into sexual slavery or (2) knowingly profiting from a venture in which this transportation occurs.<sup>70</sup> Hence, law enforcement can hold a person criminally

59. 18 U.S.C. § 2423(a).

60. See ROBINSON, *supra* note 58, at 124 (discussing the four different levels of criminal culpability and how “purpose” is more stringent than “knowledge”).

61. See *supra* notes 28–30 and accompanying text.

62. See *supra* notes 23–30 and accompanying text.

63. See 18 U.S.C. § 2423(a) (requiring intent).

64. See *id.*

65. See, e.g., Chris Martin & Joe Ryan, *Super-Cheap Driverless Cabs to Kick Mass Transit to the Curb*, BLOOMBERG (Oct. 25, 2016), <https://bloom.bg/2hElxgz>.

66. See *infra* notes 73–84 and accompanying text.

67. See 18 U.S.C. § 1591(a).

68. United States v. Moss, 379 F. App'x 651, 653 (9th Cir. 2010) (finding that 18 U.S.C. § 1591(a)(1) and (2) are two separate actions); see also United States v. King, 713 F. Supp. 2d 1207, 1218 (D. Haw. 2010) (finding that Congress intended for 18 U.S.C. § 1591(a)(1) and (2) to create two alternative means of committing one offense).

69. 18 U.S.C. § 1591(a)(1), (2).

70. *Id.* § 1591(a). Section 1591 provides in relevant part: Whoever knowingly

liable for either transporting a victim (hereinafter “firsthand conduct”)<sup>71</sup> or profiting from participating in a venture that engages in sex trafficking (hereinafter “secondhand conduct”).<sup>72</sup>

By enacting 18 U.S.C. § 1591, Congress intentionally criminalized a broad range of activities.<sup>73</sup> Congress decried how “[n]o comprehensive law exists in the United States that penalizes the range of offenses involved in the [sex] trafficking scheme.”<sup>74</sup> Accordingly, Congress crafted a statute that criminalized seemingly innocent actions<sup>75</sup> to prevent traffickers from “[escaping] deserved punishment.”<sup>76</sup>

Unlike 18 U.S.C. § 1111,<sup>77</sup> which criminalizes “the unlawful killing of a human being with malice aforethought,”<sup>78</sup> the acts criminalized by § 1591 are not inherently evil.<sup>79</sup> And yet, “nothing about what this statute proscribes is left to the imagination,”<sup>80</sup> because the purposes of the TVPA limit the scope of the conduct prohibited by § 1591.<sup>81</sup> Congress enacted the TVPA “to combat trafficking in persons, a contemporary manifestation of slavery whose victims are predominantly women and children, to ensure just and effective punishment of traffickers, and to protect their vic-

(1) in or affecting interstate or foreign commerce . . . transports . . . by any means a person; or

(2) benefits, financially or by receiving anything of value from participation in a venture which has engaged in an act in violation of paragraph (1), knowing, or . . . in reckless disregard of the fact, that means of force, threats of force, fraud, coercion . . . or any combination of such means will be used to cause the person to engage in a commercial sex act, or that the person has not attained the age of 18 years and will be caused to engage in a commercial sex act . . . .

*Id.*

71. *Id.* § 1591(a)(1).

72. *Id.* § 1591(a)(2).

73. *United States v. Estrada-Tepal*, 57 F. Supp. 3d 164, 169 (E.D.N.Y. 2014) (“[E]xpansiveness was a legislative goal in enacting the statute.”).

74. 22 U.S.C. § 7101(b)(14) (2018).

75. 18 U.S.C. § 1591 (prohibiting the following acts: recruiting, enticing, harboring, transporting, providing, obtaining, advertising, maintaining, patronizing, or soliciting).

76. 22 U.S.C. § 7101(b)(14).

77. 18 U.S.C. § 1111 (2018).

78. *Id.* § 1111(a).

79. *United States v. Estrada-Tepal*, 57 F. Supp. 3d 164, 169 (E.D.N.Y. 2014) (noting that the actions listed under § 1591(a) include “seemingly harmless conduct” within their scope).

80. *United States v. Wilson*, No. 10-60102-CR-ZLOCH/ROSENBAUM, 2010 U.S. Dist. LEXIS 75149, at \*25 (S.D. Fla. July 27, 2010).

81. *See United States v. Thompson*, 141 F. Supp. 3d 188, 199 (E.D.N.Y. 2015) (finding that the intent of the TVPA clarifies the parameters of the prohibited conduct).

tims.”<sup>82</sup> The law prohibits the listed actions only if the actor knew about or recklessly disregarded the existence of planned sex trafficking.<sup>83</sup> Thus, it is the mens rea requirement of § 1591 that prevents the prosecution of innocent transporters.<sup>84</sup>

### 3. *Results Prohibited by 18 U.S.C. § 1591*

The construction of § 1591 further illustrates the limited scope of the prohibited conduct.<sup>85</sup> Section 1591 has two disjunctive conduct elements.<sup>86</sup> The requisite mens rea for these conduct elements is “knowingly.”<sup>87</sup> Section 1591 also has two disjunctive result elements.<sup>88</sup> One result criminalizes the use of force, threats of force, fraud, coercion, or a combination of those means to cause the victim to engage in a commercial sex act (hereinafter the “forced sex result”).<sup>89</sup> The other result criminalizes the scenario where a perpetrator causes a victim under 18-years-old to engage in a commercial sex act (hereinafter the “child prostitution result”).<sup>90</sup> The actor’s conduct must either cause one of these results or support a plan to cause one of these results for the actor to satisfy the result element of sex trafficking under § 1591.<sup>91</sup>

These two result elements each have two mens rea options: “knowing” or “in reckless disregard of the fact.”<sup>92</sup> To convict an actor for sex trafficking, a court must find that the actor performed the act knowingly<sup>93</sup> and acted either (1) knowingly or in reckless

82. 22 U.S.C. § 7101(a) (2018) (providing the purpose of the TVPA).

83. 18 U.S.C. § 1591(a) (2018) (requiring that the actor know or recklessly disregard the fact that the victim “will be caused” to engage in commercial sexual activity).

84. *Id.*; see *United States v. Richards*, No. S1 13-CR-818(LAK), 2014 U.S. Dist. LEXIS 105659, at \*10 (S.D.N.Y. July 29, 2014) (rejecting the defendant’s argument that the statute is overbroad and would allow prosecution of a taxi driver who merely drives a prostitute to the police station after witnessing a fight with the prostitute and her pimp).

85. See *United States v. Estrada-Tepal*, 57 F. Supp. 3d 164, 168 (E.D.N.Y. 2014) (clarifying the elements of the statute under a plain reading); *United States v. Vanderhorst*, 2 F. Supp. 3d 792, 799–800 (D. S.C. 2014) (discussing the grammatical structure of the result element of the statute).

86. See U.S. DEP’T OF JUSTICE, U.S. ATTORNEYS’ MANUAL § CRM 227, <http://bit.ly/2D20AFM> (last visited Sept. 16, 2018) (providing instructions for how U.S. attorneys should litigate statutes with disjunctive elements).

87. 18 U.S.C. § 1591(a) (“Whoever knowingly —”); see *supra* Part II.B.2.

88. 18 U.S.C. § 1591(a).

89. *Id.*

90. *Id.*

91. See *id.* (listing the two different results with “or” in between).

92. *Id.*; see also *United States v. Banker*, 876 F.3d 530, 535–36 (4th Cir. 2017) (holding that the two mens rea options apply to both results).

93. 18 U.S.C. § 1591(a)(1), (2) (listing the two types of conduct prohibited under § 1591); see *United States v. Wearing*, 865 F.3d 553, 557 (7th Cir. 2017) (dis-

disregard of the fact of the forced sex result or (2) knowingly or in reckless disregard of the fact of the child prostitution result.<sup>94</sup>

#### 4. *The Different Mens Rea Required for the Prohibited Results Under 18 U.S.C. § 1591*

An actor must knowingly perform the prohibited act to satisfy the conduct element of § 1591. To satisfy the result element of § 1591, the actor must have acted with the requisite mens rea based on the information available to him at the time of the action.<sup>95</sup> Accordingly, courts will examine what information the actor either knew<sup>96</sup> or recklessly disregarded<sup>97</sup> at the time of the action.<sup>98</sup>

Regarding the first mens rea option, the construction of § 1591 makes it appear as though § 1591 prohibits conduct only if the actor knew the future when he acted.<sup>99</sup> However, the federal circuit courts have provided clarity as to what an actor must know for law enforcement to find him criminally liable under § 1591.<sup>100</sup> Rather than a prescient certainty of the future, the statute requires that “the defendant know in the sense of being aware of an established modus operandi that will in the future cause a person to engage in prostitution.”<sup>101</sup> Additionally, the future-tense of “will be caused” indicates that an actor can still incur liability even when the sex act

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cussing how the conduct element and the result element require showing two different types of knowledge).

94. 18 U.S.C. § 1591(a).

95. *See id.* (requiring that the actor either have known or recklessly disregarded that the result would occur).

96. *United States v. Valenzuela*, 495 F. App’x 817, 820 (9th Cir. 2012) (clarifying that the actor must have the requisite knowledge at the time of his action).

97. *United States v. Mozie*, 752 F.3d 1271, 1286 (11th Cir. 2014) (noting that the actor must know or recklessly disregard the fact of the result when he acts).

98. *See United States v. Willoughby*, 742 F.3d 229, 241 (6th Cir. 2014) (clarifying that the defendant’s criminal act occurred when he dropped the victim off where her client was waiting, and not when sexual conduct occurred).

99. *See* 18 U.S.C. § 1591(a).

100. *E.g.*, *United States v. Todd*, 627 F.3d 329, 334 (9th Cir. 2010) (“If ‘to know’ is taken in the sense of being sure of an established fact, no one ‘knows’ his own or anyone else’s future.”); *United States v. Tutstone*, 525 F. App’x 298, 304 (6th Cir. 2013) (finding that the statute does not equate “knowledge” with certainty of the future); *United States v. Roy*, 630 F. App’x 169, 171 (4th Cir. 2015) (finding that the statute requires “knowing” in the same way that common sense dictates).

101. *Todd*, 627 F.3d at 334; *see also United States v. Wearing*, 865 F.3d 553, 556 (7th Cir. 2017) (clarifying that “know” refers to the plan for the victim at the time of the action).

does not occur.<sup>102</sup> What is essential is that the actor knew, at the time of his action, that this event was planned to happen.<sup>103</sup>

The second mens rea option is less demanding because it requires only that the actor disregard a risk that something will happen, not that he knows the future.<sup>104</sup> An actor acts with reckless disregard when he takes action despite the fact that he has reason to believe one of the two prohibited results will occur.<sup>105</sup> For example, to find that an actor recklessly disregarded the child prostitution result, courts will consider the following: information the victim provided to the actor, questionable documentation, and the actor's knowledge of the "victim's grade level, or activities in which the victim engaged."<sup>106</sup>

In addition to these two mens rea options, § 1591(c) supplies an alternative method of satisfying the elements of sex trafficking. Section 1591(c) provides that the prosecution must prove neither reckless disregard nor knowledge if it can prove that the defendant had a "reasonable opportunity to observe" the victim.<sup>107</sup> Courts have found that an actor had such a reasonable opportunity to observe the victim when he had sex with the victim or spent a period of time in close proximity to the victim.<sup>108</sup> By providing this alternative, Congress intended to lessen the Government's burden of proving the actor's awareness of the victim's age beyond a reasonable doubt.<sup>109</sup>

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102. *United States v. Garcia-Gonzalez*, 714 F.3d 306, 312 (5th Cir. 2013) (finding that the text of § 1591 supports the inference that a sex act need not occur).

103. *Todd*, 627 F.3d at 334 ("The knowledge required of the defendant is such that if things go as he has planned, force, fraud or coercion will be employed to cause his victim to engage in a commercial sex transaction."). For an example of how prosecutors may prove the knowledge of the defendant solely by testimony of the victim, see *United States v. Williams*, 428 F. App'x 134, 140 (3d Cir. 2011).

104. 18 U.S.C. § 1591(a).

105. See *United States v. Wilson*, No. 10-60102-CR-ZLOCH/ROSENBAUM, 2010 U.S. Dist. LEXIS 75149, at \*17 (S.D. Fla. July 27, 2010) ("Reckless disregard means to 'be aware of, but consciously and carelessly ignore, [certain] facts and circumstances . . .'" (quoting *United States v. Pina-Suarez*, 280 F. App'x 813, 817-18 (11th Cir. 2008))).

106. *United States v. Phea*, 755 F.3d 255, 261 (5th Cir. 2014).

107. 18 U.S.C. § 1591(c) ("In a prosecution under subsection (a)(1) in which the defendant had a reasonable opportunity to observe the [victim] . . . the Government need not prove that the defendant knew or recklessly disregarded the fact, that the [victim] had not attained the age of 18 years."); see *United States v. Robinson*, 702 F.3d 22, 31-32 (2d Cir. 2011) (describing the role of subsection (c)).

108. *United States v. Davis*, No. CR-14-76, 2015 U.S. Dist. LEXIS 141754, at \*14 (E.D. La. Oct. 19, 2015); *United States v. Rivera*, No. 13-CR-149(KAM), 2015 U.S. Dist. LEXIS 157936, at \*72-73 (E.D.N.Y. Nov. 23, 2015).

109. See *Robinson*, 702 F.3d at 34 (providing a thorough account of the legislative history of the addition of § 1591(c)).

### C. *Autonomous Transporters for Sex Trafficking*

Because AVs will remove humans from the driver's seat, courts and legislators will need to redefine how existing laws will apply to AVs.<sup>110</sup> In an AV-dominated future, people will no longer have physical control over each movement of their vehicles.<sup>111</sup> No vehicle available for purchase is currently at level five automation;<sup>112</sup> thus, human drivers are still responsible when self-driving cars crash.<sup>113</sup> For example, in the wake of a deadly crash involving the use of the Tesla Autopilot,<sup>114</sup> the National Highway Traffic Safety Administration (NHTSA) determined that the human driver was responsible for the crash rather than the car.<sup>115</sup> Even though the car had full control of the vehicle when it crashed, the NHTSA faulted the human driver because the Autopilot feature requires that the human driver pay attention and remain ready to re-take control.<sup>116</sup>

#### I. *Applying Current Sex Trafficking Laws to AVs and AV Manufacturers*

As the law now stands, AVs<sup>117</sup> and AV manufacturers<sup>118</sup> will escape criminal liability under 18 U.S.C. § 1591 because both will

110. Dorothy J. Glancy, *Autonomous and Automated and Connected Cars—Oh My! First Generation Autonomous Cars in the Legal Ecosystem*, 16 MINN. J.L. SCI. & TECH. 619, 662 (2015) (arguing that the creation of AVs should result in a reconsideration of criminal laws); K.C. Webb, *Products Liability and Autonomous Vehicles: Who's Driving Whom?*, 23 RICH. J.L. & TECH. 9, 48 (2017) (proposing a "reasonable car standard" for tort law and arguing that car manufacturers should be liable when their AVs fail).

111. *E.g.*, *Waymo Tech*, *supra* note 5 (describing how Google's driverless car has no pedal or steering wheels).

112. *See supra* notes 14–19 and accompanying text.

113. *See* Steven Seidenberg, *Who's to Blame When Self-Driving Cars Crash?*, A.B.A. J. (July 2017), <http://bit.ly/2FOMg5r> ("The law, as it stands now, is simple. Human beings cannot delegate driving responsibility to their cars.").

114. Yadron & Tynan, *supra* note 18 (describing the circumstances of the first fatal crash in a Tesla using autopilot mode).

115. U.S. DEP'T OF TRANSP., NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., PE 16-007, ODI Resume 11 (2017), <http://bit.ly/2FQ5xDr>.

116. *Id.* (clarifying how there was no defect with the car's self-driving function because the driver was not correctly monitoring the car); *see Model S*, *supra* note 17 (describing the capabilities of AutoPilot).

117. *See* U.S. Dep't of Transp., Opinion Letter in Response to Google's Interpretation Request (Feb. 4, 2016), <http://bit.ly/2FRP15Q> (explaining the regulations where the NHTSA will consider the self-driving car to be the "driver" of the vehicle).

118. 18 U.S.C. § 1591(a) (2018) (criminalizing "whoever" transports another); 1 U.S.C. § 1 (2018) ("[T]he word[ ] . . . 'whoever' include[s] corporations, companies, associations, firms, partnerships, societies, and joint stock companies, as well as individuals.").



lack an awareness of the result element—sex trafficking—even if they both satisfy the conduct elements. With regard to these conduct elements, § 1591 currently prohibits transporting a victim into sex slavery<sup>119</sup> or profiting from a venture that engages in sex trafficking.<sup>120</sup> An AV can perform the first prohibited act when it transports a victim into sex slavery by carrying him or her from Point A to Point B;<sup>121</sup> the AV will do so knowingly because it will know that it is carrying passengers to a destination.<sup>122</sup> Thus, the AV's action will satisfy both the objective and subjective requirements of the firsthand conduct element.<sup>123</sup>

On the other hand, the ride-sharing AV manufacturer can perform the second prohibited act when it earns a profit from a ride in which one of its AVs transported passengers from one place to another.<sup>124</sup> The ride-sharing AV manufacturer will knowingly profit when its AV transports passengers from Point A to Point B.<sup>125</sup> Thus, the ride-sharing AV manufacturer's action will satisfy both the objective and subjective requirements of the secondhand conduct element.<sup>126</sup> A manufacturer who makes AVs for personal ownership will also satisfy the objective and subjective requirements of the secondhand conduct element, but only insofar as it will knowingly profit from the sale of an AV to a sex trafficker.<sup>127</sup>

AVs and AV manufacturers will escape criminal liability<sup>128</sup> under § 1591 because they lack the mens rea required by the result element.<sup>129</sup> To be liable for sex trafficking under § 1591, an actor must, at the time of his action, know or recklessly disregard the fact

119. 18 U.S.C. § 1591(a)(1) (firsthand conduct).

120. *Id.* § 1591(a)(2) (secondhand conduct).

121. *Id.* § 1591(a)(1) (prohibiting transporting a victim).

122. *See supra* notes 31–33 and accompanying text (discussing what the AV will know when it transports passengers).

123. 18 U.S.C. § 1591(a)(1) (prohibiting the knowing transport of a victim).

124. *Id.* § 1591(a)(2) (prohibiting profiting from a venture that engages in sex trafficking).

125. *See supra* notes 23–27 and accompanying text (discussing the ride-sharing version of the future).

126. 18 U.S.C. § 1591(a)(2) (prohibiting knowingly profiting from a venture that engages in sex trafficking).

127. Even though automobile manufacturers do collect information about their customers, the information collected does not tell the manufacturer what purpose the vehicle is being used for. *E.g.*, *Privacy Statement*, GEN. MOTORS, <https://www.gm.com/privacy-statement.html> (last visited Sept. 16, 2018).

128. *See* John W. Zipp, Note, *The Road Will Never Be the Same: A Reexamination of Tort Liability for Autonomous Vehicles*, 43 *TRANSP. L.J.* 137, 162–80 (2016) (arguing that AVs should be treated as the equivalent of a human driver under the law for liability in tort).

129. 18 U.S.C. § 1591(a) (requiring that the actor know or recklessly disregard the fact of the forced sex result or the fact of the child prostitution result).

of the forced sex result<sup>130</sup> or the fact of the child prostitution result.<sup>131</sup> When an AV performs the firsthand conduct, the only information available to the AV about its occupants will be: (1) the number of passengers it transported and (2) the pick-up and drop-off locations.<sup>132</sup> The AV will not know the trafficker's desired fate for his victim before the AV drops her off at her destination and will not know the age of the victim or her trafficker without the facial-recognition technology that this Comment proposes.<sup>133</sup> Therefore, the AV will lack sufficient information to form knowledge of or reckless disregard for either result.<sup>134</sup> Thus, the AV will not satisfy the second element of sex trafficking under § 1591 and will escape criminal liability.<sup>135</sup>

Similarly, both types of AV manufacturers will lack sufficient information to form knowledge or reckless disregard for either result element.<sup>136</sup> A trafficker will use an AV to transport a victim for sex trafficking. But the only information available to the ride-sharing AV manufacturer will be: (1) the name of the person who ordered the vehicle, (2) that person's phone number and credit card information, (3) the number of passengers, and (4) the pick-up and drop-off locations.<sup>137</sup> If car companies continue collecting data the way that they currently do, then manufacturers of AVs for personal ownership will only know: (1) personal details about the purchaser

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130. *Supra* notes 88–98 and accompanying text.

131. *Supra* notes 88–98 and accompanying text.

132. This is an example of the type of information that ride-sharing companies like Uber receive from customers. See *Privacy Policy*, UBER, <http://privacy.uber.com/policy> (last visited Sept. 16, 2018) (describing the information Uber collects).

133. A recent 360-video uploaded to the Waymo website exemplifies the type of information that an AV obtains as it drives along the road to its destination. This video demonstrates that an AV will absorb information from its surroundings with the sole goal of safely navigating the road. Waymo is not designing its AV to make predictions about what its passengers will do when they arrive at their destination. *Waymo Tech*, *supra* note 5; see also David King, Note, *Putting the Reins on Autonomous Vehicle Liability: Why Horse Accidents Are the Best Common Law Analogy*, 19 N.C. J.L. & TECH. 127, 145–59 (2017), <http://bit.ly/2NQumGd> (arguing that because horses and AVs obtain and process information in a similar manner, they should be treated similarly in modern jurisprudence).

134. *Supra* Part II.B.4. The author acknowledges that her conclusion inherently assumes that AVs will even have the *ability* to form mens rea. The author also acknowledges that it is impossible to know for certain what level of cognition AVs will have. Thus, the author's argument should be construed as if AVs will have the ability to form mens rea.

135. 18 U.S.C. § 1591(a) (2018).

136. *See id.*

137. *See Privacy Policy*, *supra* note 132.

of the vehicle and (2) the vehicle's movements.<sup>138</sup> Therefore, because the AV manufacturer will lack sufficient information to either know or recklessly disregard both of the result elements, it will escape criminal liability under § 1591.<sup>139</sup>

In addition, neither the AV nor the AV manufacturer will satisfy the requirements of the alternative method of criminal liability under § 1591(c), namely the "reasonable opportunity to view" the victim.<sup>140</sup> Currently, projected AV models do not have cameras inside the passenger compartment.<sup>141</sup> And because the AV will not have an opportunity to view its passenger compartment, there is also no way for the AV manufacturer to have a reasonable opportunity to observe the victim.<sup>142</sup> Accordingly, neither AVs nor AV manufacturers will satisfy the elements of sex trafficking under § 1591.

## 2. *Congress Reaffirms Its Commitment to Combatting Complicity in Sex Trafficking*

Recently, attention to sex-trafficking has focused on the Internet's role in facilitating such crimes.<sup>143</sup> Prosecutors have historically been unsuccessful in charging the owners of websites that sex traffickers use to facilitate sex trafficking.<sup>144</sup> For example, in January 2017, the State of California filed felony charges against Backpage.com's CEO for money laundering and pimping of a minor.<sup>145</sup> Backpage.com enabled online sex trafficking by allowing pimps to post ads of their "goods."<sup>146</sup> Despite evidence of the website's use in child sex-trafficking,<sup>147</sup> the court dismissed 13 state

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138. See *Privacy Statement*, *supra* note 127; Peter Holley, *Big Brother on Wheels: Why Your Car Company May Know More About You than Your Spouse*, WASH. POST (Jan. 15, 2018), <https://wapo.st/2JgdsV2> (discussing how car companies collect data on the movement of vehicles).

139. 18 U.S.C. § 1591(a).

140. 18 U.S.C. § 1591(c).

141. See, e.g., Davies, *Mercedes Robo-Car*, *supra* note 26.

142. See, e.g., *id.*

143. E.g., Shoshana Walter, *Online Sex Trade Is Flourishing Despite Efforts to Curb It*, N.Y. TIMES (Mar. 16, 2012), <http://nyti.ms/2xe6Mva>; Timothy Williams, *Backpage's Sex Ads Are Gone. Child Trafficking? Hardly.*, N.Y. TIMES (Mar. 11, 2017), <http://nyti.ms/2md5nvu>.

144. Darrell Smith, *Money Laundering Charges Against Backpage.com Execs Can Proceed, Judge Rules*, SACRAMENTO BEE (Aug. 23, 2017) [hereinafter Smith, *Money Laundering Charges Can Proceed*], <http://bit.ly/2zZ35b7>.

145. Complaint at 2–18, *State v. Ferrer*, No. 16FE024013, 2016 WL 7884408 (Cal. Super. Ct. 2016).

146. Williams, *supra* note 143; see also U.N. OFFICE ON DRUGS AND CRIME, *GLOBAL REPORT ON TRAFFICKING IN PERSONS 27* (2016), <http://bit.ly/2F5rAFm>.

147. Williams, *supra* note 143.

pimping charges.<sup>148</sup> Consequently, the executives of Backpage.com will not face charges for their involvement in online sex trafficking.<sup>149</sup>

Federal lawmakers, however, took a stand against companies who remain complicit when perpetrators use their product to facilitate sex trafficking. In a new law, the Allow States and Victims to Fight Online Sex Trafficking Act of 2017<sup>150</sup> (FOSTA), the Senate recognized that websites that enable sex-trafficking are undeserving of the civil immunities<sup>151</sup> currently provided to “interactive computer services providers”<sup>152</sup> under the Communications Decency Act.<sup>153</sup> Tech companies originally pushed back against FOSTA.<sup>154</sup> However, after months of pressure, these companies agreed to support the bill.<sup>155</sup>

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148. *State v. Ferrer*, No. 16FE024013, 2016 WL 6905743, at \*6 (Cal. Super. Ct. 2016) (demurring the defendants’ 13 pimping charges because the Communications Decency Act provides online providers immunity for republishing, on their website, content generated by a third party); Smith, *Money Laundering Charges Can Proceed*, *supra* note 144.

149. *Ferrer*, 2016 WL 6905743, at \*6.

150. Allow States and Victims to Fight Online Sex Trafficking Act of 2017, Pub. L. No. 115-164, 132 Stat. 1253 (2018) (codified at 47 U.S.C. § 230 and in scattered sections of 18 U.S.C.).

151. *Id.* § 2. As Senator Bill Nelson noted:

These shady and these highly profitable website operators know full well how their sites are being used. What is more, they are hiding behind a decades-old legal shield to immunize themselves from prosecution. We have to change that legal shield that was set up a decade ago for a different purpose.

164 CONG. REC. S1857 (daily ed. Mar. 21, 2018).

152. 47 U.S.C. § 230(f)(2) (2018). Section 230(f)(2) provides:

The term “interactive computer service” means 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 and such systems operated or services offered by libraries or educational institutions.

*Id.*

153. The Communications Decency Act of 1996, 47 U.S.C. § 230 (1996) (codified as amended in scattered sections of 47 U.S.C.). *See generally* Ryan J.P. Dyer, Comment, *The Communication Decency Act Gone Wild: A Case for Renewing the Presumption Against Preemption*, 37 SEATTLE U. L. REV. 837 (2014) (arguing that courts applying § 230 immunity should reexamine Congress’s intentions for the scope of the preemptive effect of § 230).

154. Nicholas Kristof, *Google and Sex Traffickers Like Backpage.com*, N.Y. TIMES (Sept. 7, 2017), <http://nyti.ms/2xRg2Cs> (describing tech companies’ opposition to a bill that ultimately became part of the FOSTA).

155. Cecilia Kang, *In Reversal, Tech Companies Back Sex Trafficking Bill*, N.Y. TIMES (Nov. 3, 2017), <http://nyti.ms/2j1qaW9>. *But see* Ali Breland, *Five Regulatory Fights Facing Tech in 2018*, HILL (Jan. 1, 2018), <http://bit.ly/2FZ2h8I> (describing how tech companies lobbied Congress to limit their liability).

The Communications Decency Act allowed tech companies to escape civil and criminal penalties even when they knowingly permitted perpetrators to use their websites to facilitate sex trafficking.<sup>156</sup> FOSTA enables individuals to bring civil actions against tech companies who continue to facilitate such conduct.<sup>157</sup> Further, FOSTA establishes federal criminal liability for actors who “facilitate” sex trafficking.<sup>158</sup> Additionally, FOSTA allows state attorneys general, acting as *parens patriae*, to bring civil actions on behalf of the residents of their states.<sup>159</sup>

While the federal government is taking steps against online sex traffickers with FOSTA, local law enforcement agencies are also changing how they treat victims of sex trafficking.<sup>160</sup> In the past, law enforcement officers arrested trafficking victims for prostitution rather than pimps for sex trafficking.<sup>161</sup> Acknowledging this injustice, federal agencies have led a recent nationwide push to invest resources in training both state and federal officers how to identify and assist victims of sex trafficking.<sup>162</sup>

Advances in technology hindered law enforcement agencies in the fight against sex trafficking,<sup>163</sup> but now law enforcement agencies are adapting more effectively.<sup>164</sup> Because of FOSTA, law enforcement agencies can now punish those who merely “facilitate” sex trafficking.<sup>165</sup> AVs, however, will present a new set of issues for

156. See 164 CONG. REC. S1853 (daily ed. Mar. 21, 2018) (statement of Sen. Heitkamp) (“No law should put anyone above liability if they are actively involved and complicit in selling children for sex.”).

157. Allow States and Victims to Fight Online Sex Trafficking Act of 2017, Pub L. No. 115-164 §§ 3(a), 4(a), 132 Stat. 1253, 1254 (2018) (codified at 47 U.S.C. § 230 and in scattered sections of 18 U.S.C.) (allowing harmed individuals to bring civil actions and removing immunity for website owners).

158. *Id.* § 5 (amending 18 U.S.C. § 1591).

159. *Id.* § 6(a) (amending 18 U.S.C. § 1595).

160. See Steve Volk, *Police Are Trained to Spot Drunken Driving and Drug Trafficking. Why Not Child Trafficking, Too?*, WASH. POST (Feb. 27, 2018), <http://wapo.st/2CSyThK>.

161. See *id.*; INST. OF MED. & NAT’L RESEARCH COUNCIL, CONFRONTING COMMERCIAL SEXUAL EXPLOITATION AND SEX TRAFFICKING OF MINORS IN THE UNITED STATES 14 (2013) (describing how police departments are just now beginning to move away from arresting young victims of sex trafficking for the crime of prostitution).

162. See *Human Trafficking/Involuntary Servitude*, FBI, <http://bit.ly/2G0h4Qv> (last visited Sept. 16, 2018).

163. See Walter, *supra* note 143.

164. See, e.g., Rod Rosenstein, *Getting Tough on Sex Traffickers*, N.Y. TIMES (Jan. 19, 2018), <https://nyti.ms/2FXIW84>.

165. See Allow States and Victims to Fight Online Sex Trafficking Act of 2017, Pub L. No. 115-164 § 5, 132 Stat. 1253, 1255 (2018) (codified in 47 U.S.C. § 230 and scattered sections of 18 U.S.C.); see also Nick Bilton, *Silicon Valley Murder Mystery: How Drugs and Paranoia Doomed Silk Road*, VANITY FAIR (May

lawmakers and law enforcement.<sup>166</sup> Victims of sex trafficking should not have to wait another 17 years<sup>167</sup> for lawmakers to address the technological advancements that will make sex trafficking easier.<sup>168</sup>

Even with the passage of FOSTA, AV manufacturers will still not be criminally liable when traffickers use their AVs to transport a victim for sex trafficking. FOSTA adds “facilitating, assisting, and supporting” to the definition of “participation in a venture” under 18 U.S.C. § 1591.<sup>169</sup> However, for a court to impose criminal liability, § 1591 requires an AV manufacturer to knowingly participate in a venture that engages in sex trafficking.<sup>170</sup> Even in the ride-sharing version of the future,<sup>171</sup> AV manufacturers still will not knowingly benefit from sex trafficking because they will not know the purpose of the ride.<sup>172</sup> Thus, Congress should impose new criminal penalties for a manufacturer’s failure to include facial-recognition technology in their AVs.<sup>173</sup> As the next section demonstrates, this Comment’s Proposed Legislation would not be the first time Congress used the threat of criminal penalties to compel companies to be proactive.

#### *D. Previous Examples of when Congress Used the Threat of Criminal Penalties to Compel Companies to Be Proactive*

Generally, two types of legal remedies deter misconduct: criminal liability and civil penalties.<sup>174</sup> Society has been hesitant to impose criminal liability on conduct that does not, at first glance,

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2017), <http://bit.ly/2Akk0b9> (describing one instance where a federal court found a website “manufacturer” criminally liable for the dangerous ways people used his website).

166. *See supra* Part II.D.1–2.

167. The TVPA was enacted in 2000 and FOSTA was introduced in 2017.

168. *See* 164 CONG. REC. S1857 (daily ed. Mar. 21, 2018) (statement of Sen. Nelson) (“[B]ut now when technology advances, you have to be on your guard about how new technology is used for the bad operators.”).

169. Allow States and Victims to Fight Online Sex Trafficking Act of 2017 § 5 (amending 18 U.S.C. § 1591(e) by adding a definition for “participation in a venture”).

170. 18 U.S.C. § 1591(a)(2) (2018) (prohibiting “knowingly” benefitting from participation in a venture that has engaged in sex trafficking).

171. *See supra* notes 25–27 and accompanying text.

172. *See supra* notes 124–42 and accompanying text.

173. *See supra* Part II.C.1 (applying the current sex trafficking laws to AVs and AV manufacturers).

174. *See* V.S. Khanna, *Corporate Criminal Liability: What Purpose Does It Serve?*, 109 HARV. L. REV. 1477, 1492–93 (1996) (comparing criminal and civil liability).

appear to be evil.<sup>175</sup> However, Congress has used the threat of criminal penalties to compel manufacturers to proactively prohibit dangerous uses of their products and to ultimately deter misconduct.<sup>176</sup> The following two sections provide examples of such instances.

### 1. *The Consumer Products Safety Act*

Congress has previously criminalized a manufacturer's failure to make its products safer. For the past 40 years, the Consumer Product Safety Commission (CPSC) has promulgated and enforced the safety standards of consumer products.<sup>177</sup> In 1972, Congress passed the Consumer Product Safety Act<sup>178</sup> ("Product Safety Act I"), to "protect the public from unreasonable risks of injury associated with consumer products."<sup>179</sup> At that time, a fragmented system of federal consumer product safety legislation addressed different products with different statutes.<sup>180</sup> In response to this haphazard statutory scheme, Congress enacted the Product Safety Act I to "develop uniform safety standards for consumer products and to minimize conflicting state and local regulations."<sup>181</sup>

While the Product Safety Act I efficiently functioned for several decades, it needed an update by the turn of the century.<sup>182</sup> In 2007, children's toy manufacturers recalled millions of toys made with lead paint.<sup>183</sup> This major recall prompted Congress to review and strengthen provisions of the Product Safety Act I and provide the CPSC with more resources.<sup>184</sup> To fix the problems of the Prod-

175. See, e.g., Ariel Bendor, *Prior Restraint, Incommensurability, and the Constitutionalism of Means*, 68 *FORDHAM L. REV.* 289, 340–41 (1999) (providing examples of when criminal liability is not appropriate).

176. *Infra* Part II.D.1–2.

177. Consumer Product Safety Act, 15 U.S.C. § 2053 (2018) (establishing the CPSC).

178. Consumer Product Safety Act of 1972, Pub. L. No. 92-573, 86 Stat. 1207 (1972) (codified as amended in 15 U.S.C. §§ 2050–2089 (2018)).

179. 15 U.S.C. § 2051(a)(3) (2018).

180. *Id.* § 2051(a)(4)–(5) (citing ineffective state and local regulations and inadequate federal regulations as reasons for enacting the Product Safety Act I).

181. *Id.* § 2051(b)(3).

182. See 154 *CONG. REC.* E1670-04 (daily ed. July 30, 2008) (statement of Rep. Conyers, Jr.) (pointing to the "regulatory embarrassment" of recalling 30 million toys and 15 million child products because of safety concerns as reason for amending the Product Safety Act I).

183. See *id.*; Louise Story & David Barboza, *Mattel Recalls 19 Million Toys Sent from China*, *N.Y. TIMES* (Aug. 15, 2007), <https://nyti.ms/2k4fW38> (explaining the gravity of the lead paint problem).

184. See 154 *CONG. REC.* E1709-01 (daily ed. July 30, 2008) (statement of Rep. Holt) ("The events of the past year have demonstrated the danger that

uct Safety Act I, Congress enacted the Consumer Product Safety Improvement Act of 2008<sup>185</sup> (“Product Safety Act II”).

The Product Safety Act II broadened the range of prohibited activities<sup>186</sup> and increased penalties for engaging in a prohibited activity.<sup>187</sup> The Product Safety Act II more than doubled the number of prohibited acts.<sup>188</sup> Additionally, the Product Safety Act II increased the severity of the criminal penalties for violating the prohibited activities.<sup>189</sup> In deciding to strengthen the provisions of Product Safety Act I, Congress cited the CPSC’s need for “better enforcement tools, including the power to impose higher penalties, so that the penalty for manufacturing or selling an unsafe product will act as a *real deterrent* to wrongdoing and not be simply dismissed as a *cost of doing business*.”<sup>190</sup>

Before the passage of the Product Safety Act II, manufacturers recalled over 150 children’s toys; around 20 of those recalls were because of lead paint.<sup>191</sup> By 2017, after Congress imposed the threat of criminal liability, manufacturers recalled only 28 children’s toys, none of which were recalled because of lead paint.<sup>192</sup>

The lead-paint-covered toys were dangerous only when ingested; similarly, AVs present the dangers described in this Comment only when used by pimps to transport victims for sex trafficking.<sup>193</sup> In other words, the danger from both AVs and lead-paint-covered toys comes from the product’s misuse.<sup>194</sup> Congress knew that lead-paint-covered toys were dangerous only when chil-

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American consumers face when the government does not give regulatory agencies the tools they need in order to protect consumers from unsafe products.”).

185. Consumer Product Safety Improvement Act of 2008, Pub. L. 110-314, 122 Stat. 3016 (2008) (codified as amended in scattered sections of 15 U.S.C.).

186. 15 U.S.C. § 2068 (2018).

187. 15 U.S.C. § 2070 (2018).

188. *Compare* 15 U.S.C. § 2068 (prohibiting 16 distinct actions), *with* Consumer Product Safety Act of 1972, Pub. L. No. 92-573, § 19, 86 Stat. 1207, 1224 (1972) (prohibiting seven distinct actions).

189. *Compare* 15 U.S.C. § 2070 (criminalizing an actor’s conduct based on strict liability, listing the possible imprisonment as five years, and imposing an additional potential punishment of asset forfeiture), *with* Consumer Product Safety Act of 1972, Pub. L. No. 92-573, § 21, 86 Stat. 1207, 1225 (criminalizing an actor’s “knowing[ ]” and “willful[ ]” conduct, listing the possible imprisonment time as one year, and not imposing any provisions for asset forfeiture).

190. H.R. REP. NO. 110-501, at 21 (2007) (emphasis added).

191. *Toy Recall Statistics*, U.S. CONSUMER PRODUCT SAFETY COMMISSION, <http://bit.ly/ToyRecallStats> (last visited Sept. 16, 2018).

192. *Id.*

193. *See Lead in Toys and Toy Jewelry*, U.S. ENVTL. PROTECTION AGENCY, <http://bit.ly/2OCCmId> (last visited Sept. 16, 2018) (describing the dangers of lead paint).

194. *Id.* (describing how lead poisoning occurs when lead paint is ingested).



dren misused these toys.<sup>195</sup> And yet, Congress still increased the criminal penalties available for a children's toy manufacturer who violates the prohibition of lead paint.<sup>196</sup> Similarly, Congress should compel AV manufacturers to implement facial-recognition technology in their AVs with the threat of criminal liability to prohibit sex traffickers from misusing AVs.

## 2. *The Currency and Foreign Transactions Reporting Act*

It is an accepted practice for Congress to compel corporations to take proactive measures with the threat of criminal penalties. In 1970, Congress passed the Currency and Foreign Transactions Reporting Act ("Reporting Act"),<sup>197</sup> requiring banks to maintain records that have a "high degree of usefulness in criminal, tax, or regulatory investigations or proceedings."<sup>198</sup> An officer of a bank that "willfully" violates one of the regulations imposed by the Reporting Act will be subject to a fine up to \$1,000, or sentenced to up to one year in prison, or both.<sup>199</sup> While minimal for a large financial institution, the penalty indicates Congress's willingness to impose criminal penalties on corporations who do not take proactive measures to combat crime.<sup>200</sup>

Similar to the projected role of AVs, banks are essential fixtures in society.<sup>201</sup> Congress can use the threat of criminal penalties to require companies to be proactive in deterring the misuse of their services.<sup>202</sup> Congress has used the threat of criminal penalties to compel banks to keep meticulous records in order to make it easier to identify and combat illegal activity.<sup>203</sup> Congress should

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195. 154 CONG. REC. E1663-03 (daily ed. July 30, 2008) (statement of Hon. Betty McCollum) ("Toy safety, which has been called 'last year's problem' by the toy industry, is still very much an urgent, current challenge. Congress must act to ensure that the products and toys our children are exposed to are free of toxins and hazards.").

196. See 15 U.S.C. § 2070 (2018) (listing the potential criminal penalties for violations of the product safety standards).

197. Currency and Foreign Transactions Reporting Act, Pub. L. 91-508, 84 Stat. 1118 (1970) (codified as amended in scattered sections of 12, 18, 31 U.S.C.).

198. 12 U.S.C. § 1951(b) (2018) (declaring the purpose of the Currency and Foreign Transactions Reporting Act).

199. 12 U.S.C. § 1956 (prohibiting willful violations of §§ 1952 and 1953).

200. See *In re Maycher*, 301 A.D.2d 287, 288 (N.Y. App. Div. 2002) (describing how the defendant was convicted under § 1956 in the U.S. District Court for the District of New Jersey for failing to maintain records in his law practice and was sentenced to one year's probation and ordered to pay a \$20,000 fine).

201. See Andrew Ross Sorkin, *How Banks Could Control Gun Sales If Washington Won't*, N.Y. TIMES (Feb. 19, 2018), <http://nyti.ms/2BDLBE7> (describing how easily banks could effectuate gun control if they wanted to).

202. See, e.g., 12 U.S.C. § 1956.

203. See 12 U.S.C. § 1951(b).

again use the threat of criminal penalties to compel AV manufacturers to include facial-recognition technology in their AVs to identify and save victims of sex trafficking.

### III. ANALYSIS

As the preceding section demonstrates, Congress has deemed the threat of criminal liability necessary to compel manufacturers to be proactive and assist in deterring certain types of dangerous activity. The threat of criminal liability has been successful in these contexts. And much like these previous instances, threatening criminal liability for an AV manufacturer's failure to implement facial-recognition technology is justified by the horrendous nature of the crime that the technology will combat: sex trafficking.

The following section examines how civil penalties are insufficient to deter corporate misconduct. The remainder of Part III evinces the consequences of overburdening a regulatory agency and concludes by suggesting the structure of the law Congress should pass to criminalize an AV manufacturer's failure to implement facial-recognition technology.

#### A. *The Threat of Civil Litigation Is Insufficient to Protect Victims of Sex Trafficking in the Era of AVs*

Theoretically, civil liability is the appropriate avenue for holding an AV manufacturer liable when a trafficker uses an AV in furtherance of sex trafficking.<sup>204</sup> Practically, however, civil liability is an insufficient deterrent mechanism for corporate misconduct.<sup>205</sup> Civil liability does not adequately deter misconduct because large corporations see no difference between civil damages and the routine costs of doing business.<sup>206</sup> And, as one mother, whose daugh-

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204. Cf. Jeffrey R. Zohn, Note, *When Robots Attack: How Should the Law Handle Self-Driving Cars that Cause Damages*, 2015 U. ILL. J.L. TECH. & POL'Y 461, 484 (2015) (arguing that states should deal with AVs similar to how they deal with autopilot or elevators).

205. See Victor E. Schwartz & Phil Goldberg, *Carrots and Sticks: Placing Rewards as well as Punishment in Regulatory and Tort Law*, 51 HARV. J. ON LEGIS. 315, 337 (2014) (arguing that it would be a more effective incentive than the fear of punishment to provide companies with a compliance defense to the harsh penalties of the Foreign Corrupt Practices Act).

206. David F. Drake & Robin L. Just, *Ignore, Avoid Abandon, and Embrace: What Drives Firm Responses to Environmental Regulation*, in ENVIRONMENTALLY RESPONSIBLE SUPPLY CHAINS 199, 203 (Atalay Atasu ed., 2016) ("In deciding how to respond to enacted regulation, profit-maximizing firms will weigh the expected cost of compliance against the expected cost of noncompliance.").

ter was trafficked online at the age of 15, remarked: “our children can’t be the cost of doing business.”<sup>207</sup>

The following two case studies highlight incidents where civil liability was an insufficient deterrent. No criminal penalties existed to force the companies to be proactive. Therefore, the companies continued to engage in harmful behavior despite the risk of civil liability.

### 1. Case Study of the Takata Airbags Recall

The recent recall of automobiles made with Takata airbags provides one example of the ineffectiveness of civil liability in curtailing dangerous conduct among automobile manufacturers.<sup>208</sup> Beginning in the early 2000s, automobile manufacturers installed Takata airbags in their vehicles.<sup>209</sup> By 2004, automobile manufacturers knew that these airbags were dangerous.<sup>210</sup> Nevertheless, automobile manufacturers continued to equip their vehicles with the less expensive and more volatile Takata airbags.<sup>211</sup> Finally, in 2008, Honda issued the first recall on vehicles using Takata airbags.<sup>212</sup> By 2014, Chrysler, Ford, Nissan, and Toyota had followed suit and issued recalls for vehicles with Takata airbags: a total of 10.9 million vehicles.<sup>213</sup>

Because Takata made the airbag inflator with an inexpensive compound, these airbags potentially can explode upon deployment.<sup>214</sup> Despite this inherent danger, of which the automobile manufacturers knew, the manufacturers saved money by using the

207. Kristof, *supra* note 154.

208. See Conor Dwyer Reynolds, *The Role of Private Litigation in the Automotive Recall Process*, 29 LOY. CONSUMER L. REV. 121, 142–44 (2016) (explaining the history of the Takata airbag recalls).

209. Hiroko Tabuchi, *A Cheaper Airbag, and Takata’s Road to a Deadly Crisis*, N.Y. TIMES (Aug. 26, 2016), <http://nyti.ms/2bEQ6i1>.

210. Hiroko Tabuchi & Neal E. Boudette, *Automakers Knew of Takata Airbag Hazard for Years, Suit Says*, N.Y. TIMES (Feb. 27, 2017) [hereinafter Tabuchi & Boudette, *Automakers Knew of Airbag Hazard*], <https://nyti.ms/2mwMWTs> (describing how Honda knew of the airbag inflator’s propensity to rupture because of tests Honda had conducted on the airbags).

211. Tabuchi, *supra* note 209 (discussing how Takata airbags injure passengers due to a degradation of the inflator compound, ammonium nitrate).

212. Reynolds, *supra* note 208, at 143.

213. *Id.* To date, 42 million vehicles have been recalled. Kelly Couturier & Hiroko Tabuchi, *The Airbag in Your Car Could Explode. This Is What You Should Do About It*, N.Y. TIMES, <http://nyti.ms/2k1rT9I> (last visited Sept. 16, 2018).

214. See Couturier & Tabuchi, *supra* note 213 (describing the cause and manner of the possible explosion of a Takata airbag).

Takata airbags.<sup>215</sup> As a result, the defective airbags have killed 23 and injured over 250 people worldwide.<sup>216</sup>

Injured individuals filed a class action lawsuit in federal district court against Takata and six automobile manufacturers.<sup>217</sup> Shortly thereafter, the plaintiffs began settlement negotiations with four of the six automobile manufacturers.<sup>218</sup> Eventually, those four automobile manufacturers agreed to pay a total of \$553 million.<sup>219</sup>

On its face, the settlement agreement appeared to punish the automobile manufacturers for their use of the airbags and compensate the affected consumers.<sup>220</sup> However, the settlement funds did not even cover the costs of injuries caused by the airbags; these funds reimbursed the plaintiffs for litigation expenses, rental car costs, and repair costs only.<sup>221</sup> The amount of money each manufacturer paid in the settlement was negligible compared to how much these companies make in a year.<sup>222</sup> For example, in 2017, Toyota made \$3 billion from sales in North America alone.<sup>223</sup> Toyota's \$278.5 million settlement agreement<sup>224</sup> comprised a small amount of its annual profit.<sup>225</sup>

Meanwhile, in connection with the faulty airbag issue, the United States charged three Takata executives for wire fraud and

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215. Tabuchi, *supra* note 209.

216. David Shepardson, *Ford Agrees to \$299.1 Million U.S. Takata Airbag Settlement*, REUTERS (July 16, 2018), <https://reut.rs/2Oq1f9x>.

217. *In re Takata Airbag Prods. Liab. Litig.*, 84 F. Supp. 3d 1371, 1372 (J.P.M.L. 2015).

218. Plaintiffs' Unopposed Omnibus Motion for Preliminary Approval of Class Settlements, Preliminary Certification of Settlement Classes, and Approval of Class Notices and Incorporated Memorandum of Law at 8, *In re Takata Airbag Prods. Liab. Litig.*, No. 15-MD-02599, 2017 U.S. Dist. LEXIS 76090 (S.D. Fla. May 18, 2017) [hereinafter Plaintiffs' Motion for Preliminary Approval of Class Settlements].

219. *Id.* at 10 (detailing the amounts Toyota, BMW, Subaru, and Mazda agreed to pay); *see also* Neal E. Boudette, *\$553 Million Accord for U.S. Drivers over Takata Airbags*, N.Y. TIMES (May 18, 2017), <https://nyti.ms/2qxO0L6>.

220. Boudette, *supra* note 219.

221. *Id.*; *see also* Plaintiffs' Motion for Preliminary Approval of Class Settlements, *supra* note 218, at 11; Shepardson, *supra* note 216 (describing Ford's recent settlement for costs associated with "economic loss").

222. *E.g.*, *Mazda Ends Fiscal Year with Record Sales and Profits*, MAZDA (Apr. 27, 2016), <http://bit.ly/2iujRaz> (reporting that Mazda ended the 2015-2016 fiscal year with \$1.71 billion operating profit).

223. *Toyota Motor Corporation (TMC) Announces Financial Results for Fiscal Year Ended March 31, 2017*, TOYOTA [hereinafter *Toyota Motor Co.*], <https://toyota.us/2wT0nTC> (last visited Sept. 16, 2018).

224. Plaintiffs' Motion for Preliminary Approval of Class Settlements, *supra* note 218, at 10.

225. *See* Boudette, *supra* note 219; *Toyota Motor Co.*, *supra* note 223.

fabricating test data.<sup>226</sup> The Takata executives pleaded guilty to the criminal charges, and the court assessed Takata with fines totaling one billion dollars.<sup>227</sup> Because of the fines, Takata filed for bankruptcy.<sup>228</sup>

While Takata remains bankrupt,<sup>229</sup> the automobile manufacturers continue to thrive.<sup>230</sup> In other words, criminal penalties thoroughly punished Takata for its part in the wrongdoing.<sup>231</sup> Meanwhile, those same automobile manufacturers remain operational.<sup>232</sup>

What's more, these same companies are doing so well that they are even striving to invent AVs.<sup>233</sup> Thus, the Takata airbag recall shows how civil liability inadequately deters misconduct by these soon-to-be AV manufacturers. Considering that sex trafficking is akin to slavery,<sup>234</sup> civil penalties cannot be the only way to deter AV manufacturers from allowing traffickers to use their AVs to further sex trafficking.

## 2. Case Study of Underground Gas Storage Tanks in California

The recent lawsuits that California filed against gas companies are another example of how civil penalties are ineffective at deterring misconduct. In 2011, California brought a lawsuit against Chevron for installing leak detection sensors too far from underground storage tanks,<sup>235</sup> a violation of the California Health and Safety Code.<sup>236</sup> The State settled the action with Chevron for

226. Indictment at 15–20, *United States v. Tanaka*, No. 2:16-cr-20810 (E.D. Mich. Dec. 7, 2016); Hiroko Tabuchi & Neal E. Boudette, *3 Takata Executives Face Criminal Charges over Exploding Airbags*, N.Y. TIMES (Jan. 13, 2017) [hereinafter Tabuchi & Boudette, *3 Takata Executives*], <http://nyti.ms/2jB3fzh>.

227. Plea Agreement at 9–15, *United States v. Takata Corp.*, No. 16-CR-20810 (E.D. Mich. Feb. 27, 2017); Tabuchi & Boudette, *Automakers Knew of Airbag Hazard*, *supra* note 210.

228. Jonathan Soble, *Takata, Unable to Overcome Airbag Crisis, Files for Bankruptcy Protection*, N.Y. TIMES (June 25, 2017), <https://nyti.ms/2t6GesP>.

229. *Id.*

230. Wayne Duggan, *The 10 Most Valuable Auto Companies in the World*, U.S. NEWS (May 8, 2018), <http://bit.ly/2Fbi1ZR>.

231. *See* Soble, *supra* note 228.

232. *But see* NADA USED CAR GUIDE, THE IMPACT OF VEHICLE RECALLS ON THE AUTOMOTIVE MARKET 11–16 (2013) (demonstrating how Toyota's 2010 recall of some of its vehicles negatively affected Toyota's competitive advantage over other automobile companies, but not its overall ability to turn a profit).

233. *See supra* notes 20–27 and accompanying text.

234. *E.g.*, NAT'L HUM. TRAFFICKING HOTLINE, *supra* note 10.

235. Complaint at 1, 5–11, *State v. Chevron U.S.A. Inc.*, No. RG11593515, 2011 WL 3922407 (Cal. Super. Ct. Sept. 2, 2011).

236. CAL. HEALTH & SAFETY CODE §§ 25291, 25299 (West 2018) (providing the requirements for underground gas storage tanks).

around \$24.5 million.<sup>237</sup> In 2013, California filed a lawsuit against BP for violating those same provisions of the California Health and Safety Code.<sup>238</sup>

Professors David F. Drake and Robin L. Just posit that BP knew of the lawsuit against Chevron and yet, made no effort to be proactive and correct its own misplaced sensors.<sup>239</sup> Drake and Just argue that BP found the potential costs of civil litigation more favorable than the costs of fixing sensors for 780 underground tanks.<sup>240</sup> The fact that Chevron and California publicly settled their action in 2011<sup>241</sup> lends support to Drake and Just's argument.<sup>242</sup>

The threat of a multimillion dollar settlement did not compel BP to fix its leak detection sensors.<sup>243</sup> In addition, had California not filed a lawsuit, BP likely never would have fixed the sensors.<sup>244</sup> The threat of monetary penalties was not grave enough to compel BP to be proactive by fixing its sensors.<sup>245</sup> Like the threat of a gas leak, sex trafficking is a danger to our world.<sup>246</sup> Accordingly, Congress must provide a stronger mechanism to compel AV manufacturers to implement facial-recognition technology in their AVs.

*B. The Threat of Regulatory Penalties Is Also Insufficient to Protect Victims of Sex Trafficking in the Era of AVs*

Regulatory penalties are another potential avenue to compel AV manufacturers to implement facial-recognition technology. However, as demonstrated by certain environmental regulations, these penalties are also insufficient deterrent mechanisms.<sup>247</sup> Simply stated, “[i]f the expected value of noncompliance is negative, we

237. Press Release, State of Cal. Dep't of Justice, Attorney General Kamala D. Harris Announces Proposed \$24.5 Million Settlement with Chevron Gas Station and Tank Owners (Sept. 7, 2011), <http://bit.ly/2ym4aeu>.

238. Complaint at 1, 3–5, *State v. BP W. Coast Prods., L.L.C.*, No. RG13665900, 2013 WL 450366 (Cal. Super. Ct. Feb. 1, 2013).

239. Drake & Just, *supra* note 206, at 207 (arguing that because BP was accused of violating the same regulations as Chevron, it is likely that the possible penalty was an insufficient deterrent).

240. *Id.*

241. Press Release, State of Cal. Dep't of Justice, *supra* note 237.

242. Drake & Just, *supra* note 206, at 207.

243. See Joshua E. Smith, *State, Counties Settle with BP for \$14 Million Over Fuel Tank Violations*, SAN DIEGO UNION TRIB. (Nov. 17, 2016), <http://bit.ly/CaliBPSettle>.

244. See *supra* notes 239–43 and accompanying text.

245. See Drake & Just, *supra* note 206, at 207.

246. See *supra* text accompanying notes 1–4.

247. See Drake & Just, *supra* note 206, at 206–09.

expect the rational polluter to comply with the law; if it is positive, we expect the polluter to violate the law.”<sup>248</sup>

### 1. *The Deepwater Horizon Oil Rig Disaster*

The Deepwater Horizon disaster provides an example of how regulatory penalties are insufficient to deter corporate misconduct.<sup>249</sup> In this disaster, BP’s oil rig sunk after the Macondo well exploded and destroyed the oil rig’s drill.<sup>250</sup> According to the government’s report on the incident, many of BP’s decisions saved the company considerable time and money on the project; but these decisions also increased the risk of the drill’s blowout.<sup>251</sup> In a discussion about one of BP’s imprudent attempts to stabilize the Macondo well, one of BP’s engineers sent an email stating: “But, who cares, it’s done, end of story, [we] will probably be fine.”<sup>252</sup> Even though offshore deep-water drilling had caused disasters for oil rigs in other countries,<sup>253</sup> BP continued to prioritize cutting costs and saving time over safely completing the job.<sup>254</sup>

### 2. *The Problem with Overburdening Regulatory Agencies*

It is likely that BP ignored offshore drilling safety regulations because it did not fear detection by the Minerals Management Service (MMS),<sup>255</sup> the federal agency responsible for overseeing the drill’s operation.<sup>256</sup> The MMS prioritized royalty collection<sup>257</sup> over

248. David B. Spence, *The Shadow of the Rational Polluter: Rethinking the Role of Rational Actor Models in Environmental Law*, 89 CAL. L. REV. 917, 921 (2001).

249. See David Barstow, David Rohde, & Stephanie Saul, *Deepwater Horizon’s Final Hours*, N.Y. TIMES (Dec. 25, 2010), <http://nyti.ms/2zmx7VP> (providing a detailed account of the sinking of the Deepwater Horizon).

250. *Id.*

251. NAT’L COMM’N ON THE BP DEEPWATER HORIZON OIL SPILL & OFFSHORE DRILLING, *DEEP WATER: THE GULF OIL DISASTER AND THE FUTURE OF OFFSHORE DRILLING* 125 (2011), <http://bit.ly/DeepW4terReport>.

252. *Id.* at 116 (second alteration in original).

253. *Id.* at 69; Barstow, Rohde, & Saul, *supra* note 249.

254. NAT’L COMM’N ON THE BP DEEPWATER HORIZON OIL SPILL & OFFSHORE DRILLING, *supra* note 251, at 122 (describing how BP failed to have their engineers review last minute changes to the drill’s design and safety protocols).

255. *Id.* at 64. The MMS was created by the Secretary of the Interior in 1982. *Id.*

256. Drake & Just, *supra* note 206, at 208.

257. NAT’L COMM’N ON THE BP DEEPWATER HORIZON OIL SPILL & OFFSHORE DRILLING, *supra* note 251, at 65 (“[T]he same agency became responsible for regulatory oversight of offshore drilling—and for collecting revenue from that drilling.”).

sending employees out to check on offshore drills.<sup>258</sup> Drake and Just argue that BP knew of MMS's skewed priorities and used that knowledge to its advantage when constructing the Deepwater Horizon.<sup>259</sup>

While the MMS's priorities do not reflect the priorities of a typical regulatory body, the disaster onboard the Deepwater Horizon also offers a useful lesson in the consequences of overburdening an agency.<sup>260</sup> The sinking of the Deepwater Horizon resulted in the deaths of 11 human beings and one of the worst environmental disasters in the history of the United States.<sup>261</sup> If the MMS had more resources, then it likely would not have prioritized royalty collections over its other responsibilities.<sup>262</sup> Also, BP likely would not have taken so many liberties when constructing the Deepwater Horizon if the MMS had the time to oversee construction of the oil rig.<sup>263</sup>

Accordingly, Congress must establish a new commission to set the standards for the facial-recognition technology in AVs. The Department of Transportation has a number of established responsibilities<sup>264</sup> and the facial-recognition technology will likely need to change rapidly.<sup>265</sup> Such rapid change necessitates a new commission devoted to facial-recognition technology which has adequate resources to match pace with the advancing technology. Additionally, Congress should impose criminal liability for failing to implement facial-recognition technology so as to compel AV manufacturers to be proactive.

### C. *The Consumer Product Safety Act Provides a Model Framework for Manufacturers' Criminal Liability*

The framework that the Product Safety Act I and the Product Safety Act II (collectively the "CPS Acts") created for the CPSC

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258. *Id.* at 68 (describing how MMS focused on maximizing revenue over all other responsibilities).

259. *Id.* at 126 (discussing the MMS regulation for cement plugs used in wells and how BP failed to comply with this regulation in the cement plug used in the Macondo well); Drake & Just, *supra* note 206, at 208.

260. See NAT'L COMM'N ON THE BP DEEPWATER HORIZON OIL SPILL & OFFSHORE DRILLING, *supra* note 251, at 65 (discussing the failures of those who created the MMS).

261. Barstow, Rohde & Saul, *supra* note 249.

262. NAT'L COMM'N ON THE BP DEEPWATER HORIZON OIL SPILL & OFFSHORE DRILLING, *supra* note 251, at 65.

263. Drake & Just, *supra* note 206, at 208.

264. See *About Us*, U.S. DEP'T TRANSP., <http://bit.ly/2D65bv6> (last visited Sept. 16, 2018).

265. See *supra* notes 5–6, 163–68 and accompanying text.



informs the structure of this Comment's Proposed Legislation.<sup>266</sup> When Congress enacted the Product Safety Act II, one senator noted that “[c]hildren have no business being used as guinea pigs or becoming victims of the expediency of the manufacturing process.”<sup>267</sup> It is with this idea in mind that this Comment urges Congress to enact a federal statute that uses the threat of criminal penalties to compel AV manufacturers to be proactive in combating sex trafficking by implementing facial-recognition technology in their AVs. The Proposed Legislation should mirror the following provisions of the CPS Acts.

First, the CPS Acts authorized the CPSC to conduct research on the safety of consumer products<sup>268</sup> and promulgate consumer product safety standards.<sup>269</sup> In so doing, the CPS Acts tasked the CPSC with the singular goal of ensuring the safety of consumer products.<sup>270</sup> To develop the safety standards for AVs, Congress should establish an analogous federal commission composed of technological experts. Like the CPSC, the Commission should have the power to conduct research,<sup>271</sup> issue safety standards,<sup>272</sup> and temporarily halt the distribution of “imminently hazardous”<sup>273</sup> AVs—AVs without facial-recognition technology—into interstate commerce.<sup>274</sup>

Second, the CPS Acts list prohibited actions for manufacturers and sellers of consumer products.<sup>275</sup> Similarly, the Proposed Legislation should expressly list prohibited actions.<sup>276</sup> The Proposed Legislation should prohibit: (1) selling an AV that does not have facial-recognition technology, (2) producing an AV for ride-sharing purposes that does not have facial-recognition technology, and (3) manufacturing an AV without facial-recognition technology.

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266. *See supra* Part II.D.1.

267. 154 CONG. REC. S7867-01, S7868 (daily ed. July 31, 2008) (statement of Sen. Inouye).

268. 15 U.S.C. § 2054(b) (2018).

269. 15 U.S.C. § 2056(a) (2018).

270. *See id.*

271. *Cf.* 15 U.S.C. § 2054(b).

272. *Cf.* 15 U.S.C. § 2056(a).

273. *Cf.* 15 U.S.C. § 2061(a) (2018).

274. *See* 154 CONG. REC. E1645-01 (daily ed. July 30, 2008) (statement of Rep. DeLauro) (expressing satisfaction that the CPSC will be able to cease the distribution of toys that pose an imminent hazard from the outset).

275. 15 U.S.C. § 2068 (2018); *see also* 154 CONG. REC. S7867-01, S7873 (daily ed. July 31, 2008) (statement of Sen. Schumer) (“Manufacturers, importers, and retailers will be required to do their part as well or face serious consequences.”).

276. *Cf.* 15 U.S.C. § 2068(a) (stating that it is “unlawful” for a person to act in a manner prohibited by this section).

Under the CPS Acts, a manufacturer acts unlawfully when it fails to conform with the applicable product safety rule set forth either by the CPS Acts or the CPSC.<sup>277</sup> Similarly, the Proposed Legislation should empower the Commission to issue performance standards for the facial-recognition technology, and the Proposed Legislation should impose criminal penalties on manufacturers who violate those standards. The Proposed Legislation should also specifically direct the Commission to create the performance standards for the facial-recognition technology with the goal of combatting sex trafficking.<sup>278</sup>

Though the specifics of the facial-recognition technology are beyond the scope of this Comment, this technology could, at the very least, include a device that scans the faces of the AV's occupants and compares these scans with photos from the missing persons database.<sup>279</sup> Alternatively, this technology could include mood detecting software or a listening device trained to identify specific phrases indicating that a victim is in the AV against his or her will.<sup>280</sup> Regardless of the actual technological composition of the facial-recognition device, the Proposed Legislation should be clear that the purpose of the technology is to scan for individuals who are being transported for sex trafficking and not to store personal information about the AV's occupants.<sup>281</sup>

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277. *Id.*; see also 15 U.S.C. § 2056(a) (allowing the CPSC to create a consumer product safety standard).

278. See *supra* notes 77–84 and accompanying text (discussing how the purpose of the TVPA limits the scope of its application).

279. See Rachel Metz, *Facial Recognition Is Only the Beginning: Here's What to Expect Next in Biometrics on Your Phone*, MIT TECH. REV. (Sept. 20, 2017), <http://bit.ly/2G4R7zC> (discussing how facial recognition is not a new phenomenon but that it will have different applications in the future as the technology advances).

280. See Elizabeth Dwoskin & Evelyn M. Rusli, *The Technology That Unmasks Your Hidden Emotions*, WALL ST. J. (Jan. 28, 2015), <http://on.wsj.com/2g7PGoj> (discussing mood-recognition capabilities of facial-recognition technology); Kieron Monks, *Feeling Glum, Happy, Aroused? New Technology Can Detect Your Mood*, CNN (Feb. 6, 2014), <http://cnn.it/2Dp9Sfe> (discussing an ongoing project at MIT to develop an empathetic vehicle).

281. See Jim Stenman, *Embracing Big Brother: How Facial Recognition Could Help Fight Crime*, CNN (Nov. 26, 2013), <http://cnn.it/2Dr5PiI> (discussing the pros and cons of facial-recognition technology and data collection). Although these privacy concerns are beyond the scope of this Comment, producing AVs for mass consumption already has a number of ethical problems that must be solved before eliminating the need for human intervention completely. See Olivia Goldhill, *Philosophers Are Building Ethical Algorithms to Help Control Self-Driving Cars*, QUARTZ (Feb. 11, 2018), <http://bit.ly/2FbHzpn>.

Third, the CPS Acts established criminal penalties for companies that violate the prohibitions of 15 U.S.C. § 2068.<sup>282</sup> Section 2070 imposes strict liability on corporations for violations of § 2068 provided that one of the corporation's officers engaged in a prohibited activity knowingly or willfully.<sup>283</sup> The Proposed Legislation should similarly impose criminal liability. Because of the egregious nature of sex trafficking, the criminal penalties under the Proposed Legislation should be as harsh, if not harsher, than those established under the CPS Acts.<sup>284</sup>

Congress must create a new federal commission because the CPSC cannot promulgate standards for motor vehicles.<sup>285</sup> Further, the CPSC already is responsible for monitoring the safety standards of hundreds of other products.<sup>286</sup> When agencies are overburdened and underfunded, innovation tends to fall by the wayside.<sup>287</sup> Advances in technology, like AVs, must not out-pace the law and allow sex traffickers to evade police detection.<sup>288</sup> Congress should compel AV manufacturers to implement facial-recognition technology because these manufacturers are best suited to prevent the misuse of their product.<sup>289</sup>

#### *D. An Alternative to Criminal Penalties: Injunctions*

Although criminal penalties for AV manufacturers would compel AV manufacturers to include facial-recognition technology in their AVs, sex traffickers are the ones who make AVs dangerous. Just like the risks presented by banks and lead-paint-covered children's toys, the danger addressed by the Proposed Legislation is the AV's misuse. Nonetheless, sex trafficking is an offense that justifies rigorous vigilance.<sup>290</sup> Moreover, Congress has indicated its willingness to criminalize manufacturing products that present dangers when misused.<sup>291</sup>

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282. See 15 U.S.C. § 2070 (2018) (listing the criminal penalties).

283. *Id.* § 2070(a), (b).

284. See *id.* § 2070(a) (listing the potential criminal penalties, including a sentence up to five years in prison, a fine up to a \$500,000, or both); 18 U.S.C. § 3571 (2018) (describing how to calculate the fine).

285. See 15 U.S.C. § 2052(a)(5)(C) (2018) (defining "consumer product" but excluding "motor vehicles" from that definition).

286. See 15 U.S.C. §§ 2051–2089.

287. See Emma G. Fitzsimmons, *Amtrak at a Junction: Invest in Improvements, or Risk Worsening Problems*, N.Y. TIMES (Apr. 24, 2017), <https://nyti.ms/2pVIA9Z>.

288. See *supra* notes 163–73 and accompanying text.

289. See *supra* Part II.D.1–2.

290. See 22 U.S.C. § 7101(b)(23) (2018).

291. See *supra* Part II.D.1–2.

This Comment explored how civil damages failed to compel manufacturers to be proactive;<sup>292</sup> however, enjoining manufacturers who fail to implement facial-recognition technology is a viable alternative to compel manufacturers to act. In fact, the CPS Acts authorize the CPSC or the U.S. Attorney General to seek an injunction to prevent a manufacturer from distributing a nonconforming product into interstate commerce.<sup>293</sup> Such injunctive relief should also be an option under the Proposed Legislation. In *United States v. Zen Magnets, L.L.C.*,<sup>294</sup> the Colorado District Court granted a permanent injunction prohibiting the defendant from selling certain magnets as desk-toys.<sup>295</sup> Similar to AVs, the magnets' inherent danger was apparent only when the magnets were misused.<sup>296</sup> If an individual ingested multiple magnets, then the magnets attracted "rapidly and forcefully" to each other within the individual's body and caused injuries that required immediate medical attention.<sup>297</sup>

The manufacturer of these magnets had no control over how consumers actually used its product.<sup>298</sup> Nevertheless, the court permanently enjoined the manufacturer from selling any more of the dangerous magnets, even though the danger was not within the manufacturer's direct control.<sup>299</sup> Similarly, an AV manufacturer will not have control over how consumers use its AVs.<sup>300</sup> But, as highlighted by this Comment, the AV manufacturer already knows of the potential misuse of AVs to further sex trafficking. Implementing facial-recognition technology is one way an AV manufacturer can control how the public uses its product. Therefore, the threat of permanent injunctive relief is also an appropriate mechanism to compel AV manufacturers to implement facial-recognition technology.

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292. *See supra* Part III.A.1–2.

293. 15 U.S.C. § 2071 (2018) (granting the U.S. district courts with jurisdiction over actions that seek this type of injunctive relief).

294. *United States v. Zen Magnets, L.L.C.*, 170 F. Supp. 3d 1365 (D. Colo. 2015).

295. *Id.* at 1379.

296. *Id.* at 1368.

297. *Id.*

298. *Id.*

299. *Id.* (granting permanent injunctive relief and permanently enjoining the defendants from selling the dangerous magnets).

300. *See supra* Part II.C.1.

#### IV. CONCLUSION

Recall the sad situation of Holly and Jim from Part I of this Comment. If Congress required AV manufacturers to include facial-recognition technology in their AVs, then Holly might someday be free of her chains. This technology could recognize Holly's face, match it with Holly's photo in the missing persons database, and alert the authorities as to Holly's last drop-off point. Or this technology could read Holly's feelings of extreme discomfort and hatred for Jim and suggest that the authorities watch Holly and Jim for a little while. The possibilities are endless.

Despite the uncertainty as to the specifics of this technology, the point is that such technology is feasible. Inventors and computer programmers only need to develop the parameters of this technology and determine the best mechanism for purging irrelevant data. If Congress compels AV manufacturers to include facial-recognition technology in their AVs, then the fictitious scenario of Holly and Jim will remain what it is today: a fiction.