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# GOOGLE GLASS WHILE DRIVING

Adam M. Gershowitz\*

## ABSTRACT

*Is it legal to use Google Glass while driving? Most states ban texting while driving and a large number also forbid drivers from being able to see television and video screens. But do these statutes apply to Google Glass? Google advises users to check their states' law and to "[r]ead up and follow the law!"<sup>1</sup> Yet, laws designed for a tangible world are very difficult to apply to virtual screens projected by futuristic wearable technology. In short order, however, police and prosecutors across the country will be called upon to apply outdated distracted driving laws to Google Glass.*

*This article describes how the plain language of most distracted driving statutes is not broad enough to reach Google Glass. Moreover, even statutes that arguably forbid drivers from "using" Glass are practically unenforceable because drivers could easily claim the devices were turned off or that they were being used for lawful functions—such as phone calls or GPS directions—that are allowed under texting while driving statutes. The lack of a clear prohibition on Google Glass while driving is troublesome. Social science evidence demonstrates that using hands-free devices while driving creates "cognitive tunnel vision" that drastically reduces drivers' mental focus on the road.*

*After analyzing the nation's distracted driving laws and reviewing the social science evidence, this article proposes a statutory framework for effectively banning Google Glass while driving.*

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1. *FAQ: Can I use Glass While Driving or Bicycling?*, GOOGLE GLASS, [https://support.google.com/glass/answer/3064131?hl=en&ref\\_topic=3063354](https://support.google.com/glass/answer/3064131?hl=en&ref_topic=3063354). (last visited Oct. 13, 2015).

## INTRODUCTION

In October 2013, a California Highway Patrol officer ticketed Cecilia Abadie for using Google Glass while driving.<sup>2</sup> The officer did not charge her with a violation of California's texting while driving law because that statute specifically allows drivers to use hands-free electronic devices.<sup>3</sup> Instead, the officer was forced to turn to the section of California's Vehicle Code that forbids a television monitor from being in front of the driver's view.<sup>4</sup> A few months later, the trial judge dismissed the charge because there was no proof that Abadie's Google Glass was turned on while she was driving.<sup>5</sup>

But what if there had been proof that Abadie was using Google Glass while driving? Imagine that the officer had seen the device's light illuminated, or that Abadie had simply admitted to using the device while driving? Do existing statutes actually forbid Google Glass while driving? The answer in California (and almost every other state) is probably not. The statute used to charge Abadie forbids drivers from (1) using monitors or screens (2) to view broadcast or video signals. It is not clear that Google Glass's virtual display constitutes a screen under the first statutory requirement, and it is doubtful that the functions most often utilized with Google Glass (texting, emailing, photos, and social media) actually satisfy the second requirement that there be a "broadcast or video signal." Put simply, Google Glass falls in a gap between California's distracted driving statutes.

In the last few years, there has been a groundswell of support for banning wireless activity while driving. More than forty states now forbid texting while driving, and many states go further and forbid a broad swath of other electronic activity while a vehicle is in motion.<sup>6</sup> Yet, even though many

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2. See Bill Chappell, *I Was Very Shocked, Says Driver Ticketed for Wearing Google Glass*, NAT'L PUB. RADIO (Oct. 31, 2013), <http://www.npr.org/blogs/thetwo-way/2013/10/31/242103718/i-was-very-shocked-says-driver-ticketed-for-wearing-google-glass>.

3. See CAL. VEH. CODE § 23123.5(a) (2013).

4. See CAL. VEH. CODE § 27602 (2011) (specifying that "a television receiver, a video monitor, or a television or video screen, or any other similar means of visually displaying a television broadcast or video signal" cannot be "located in the motor vehicle at a point forward of the back of the driver's seat").

5. See Bill Chappell, *Google Glass Driver Is Cleared in San Diego Court*, NAT'L PUB. RADIO (Jan. 16, 2014), <http://www.npr.org/blogs/thetwo-way/2014/01/16/263152869/-google-glass-driver-is-cleared-in-san-diego-court>.

6. See *infra* notes 38–39 and accompanying text.

distracted-driving statutes were enacted in just the last few years, only a small number of them plausibly forbid the use of Google Glass.<sup>7</sup>

There are two reasons for the gap in the law. First, because of the common belief that hands-free cell phone use is less dangerous, more than two-dozen states have enacted statutes allowing hands-free wireless activity.<sup>8</sup> The hands-free exceptions were intended to allow drivers to make phone calls and to orally dictate text messages.<sup>9</sup> Nevertheless, the broad “hands-free” language in these statutes inadvertently creates a large loophole for Google Glass.

Second, a number of states have drafted statutes that attempt to thread the needle and outlaw only certain cell phone functions that are perceived to be dangerous while driving—for instance, texting and emailing—while allowing drivers to continue to use GPS technology and other functions. While these statutes made sense when applied to simple cell phones, they are unclear and ill-fitting in the face of rapidly emerging technology such as Google Glass.

Over the last year, legislators in a few states have moved to close the gap by introducing bills that would ban head-mounted electronic devices while driving.<sup>10</sup> However, Google has successfully lobbied against legislation that would prohibit the use of Glass while driving.<sup>11</sup> Moreover, most of the proposed statutes are so badly drafted that they would be practically unenforceable.<sup>12</sup>

At present, the problem is not significant. Google initially made Glass available only to a select group of “explorers” for a hefty cost of \$1,500.<sup>13</sup> In May 2014, Google made Glass available to the public, but it has not yet reduced the price or widely marketed the device.<sup>14</sup> It is therefore not surprising that there have been only a few documented instances of people

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7. See *infra* Section II.A.

8. See *infra* Section II.A.1.

9. See Matt Richtel, *Drivers and Legislators Dismiss Cell Phone Risks*, N.Y. TIMES (July 18, 2009), <http://www.nytimes.com/2009/07/19/technology/19distracted.html>.

10. See *infra* Part IV.

11. See WYOMING LEGISLATIVE SERVICE OFFICE, PROPOSED LEGISLATION PROHIBITING WEARABLE ELECTRONIC DEVICES WHILE DRIVING (Feb. 18, 2014), <https://legisweb.state.wy.us/LSOResearch/2014/14FS004.pdf>.

12. See *infra* Section IV.A.

13. See Jenna Wortham, *More Tech Magic, If You Can Afford It*, N.Y. TIMES (May 4, 2013), <http://www.nytimes.com/2013/05/05/technology/google-glass-offers-more-tech-magic-if-you-can-afford-it.html>.

14. See Sam Frizell, *Now Anyone Can Buy Google Glass*, TIME (May 14, 2014), <http://time.com/98945/google-glass-on-sale-now/>.

using Google Glass while driving.<sup>15</sup> That is likely to change drastically in the near future though.

News articles are beginning to document the beneficial use of Glass.<sup>16</sup> Business experts predict that Google will soon drop the price of Glass to a more manageable sum and begin to vigorously market it to the public, leading millions of people to purchase the device.<sup>17</sup> At that point, police will undoubtedly begin to see more drivers wearing the device. Without distracted driving statutes that clearly cover Glass and other wearable electronic devices, police and prosecutors will be relegated to using a patchwork of outdated and ill-fitting statutes to address the problem of Google Glass while driving.

This article analyzes the current state of the law and argues that legislative action is needed. Part I begins with a brief overview of how Google Glass operates. Part II then analyzes the state statutes that forbid the use of electronic devices while driving. Part II demonstrates that even though many states have banned hand-held cell phone use and television and video screen viewing while driving, most legislators never contemplated a device that could be worn on a driver's face. Accordingly, the plain language of existing laws in most states does not actually forbid the use of Google Glass while driving. Part III considers the research on distracted driving and demonstrates that even hands-free wireless activity drastically reduces cognitive focus on driving and is thus extremely dangerous. Part IV then reviews the proposed legislation in a few states to ban Google Glass while driving. Part IV explains that most of the proposed statutes are fatally flawed because they require prosecutors to prove the driver was "using" Google Glass for a prohibited function, which is

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15. In addition to Cecilia Abadie, a few explorers have acknowledged using Google Glass while driving. See, e.g., Aarti Shahani, *Does Google Glass Distract Drivers? The Debate Is On*, NAT'L PUB. RADIO (Mar. 24, 2014), <http://www.npr.org/blogs/alltechconsidered/2014/03/24/289802359/does-google-glass-distract-drivers-the-debate-is-on>; Kevin C. Tofel, *Driving With Google Glass: Road Hazard or a Smooth Ride?*, GIGAOM (Feb. 25, 2014), <https://gigaom.com/2014/02/25/driving-with-google-glass-road-hazard-or-a-smooth-ride/>.

16. See Anahad O'Connor, *Google Glass Enters the Operating Room*, N.Y. TIMES (June 1, 2014), <http://well.blogs.nytimes.com/2014/06/01/google-glass-enters-the-operating-room/>; Mohana Ravindranath, *At One Hospital, iPhones, iPads, and Google Glass Become Key Medical Tools*, WASH. POST (July 13, 2014), [http://www.washingtonpost.com/business/on-it/at-one-hospital-iphones-ipads-and-google-glass-become-key-medical-tools/2014/07/13/ce2657b0-0842-11e4-a0dd-f2b22a257353\\_story.html](http://www.washingtonpost.com/business/on-it/at-one-hospital-iphones-ipads-and-google-glass-become-key-medical-tools/2014/07/13/ce2657b0-0842-11e4-a0dd-f2b22a257353_story.html).

17. See Tony Danova, *Google Glass Will Become a Mainstream Product and Sell Millions by 2016*, BUSINESS INSIDER (Dec. 31, 2013), <http://www.businessinsider.com/google-glass-sales-projections-2013-11>.

practically impossible to demonstrate. Finally, Part V proposes a clearer prohibition on wearable electronic devices that would be much easier to enforce.

## I. A PRIMER ON GOOGLE GLASS

Google Glass is a device that users wear on their faces, like a pair of glasses without lenses.<sup>18</sup> Glass connects to users' cell phones and allows them to do most of the things they could do with a cell phone—texting, email, photos, videos, and phone calls, to name a few—without ever having to look down at the phone.<sup>19</sup> Users see all of the content through a small piece of glass over their right eye that projects a screen visible only to the user.<sup>20</sup>

Users can control Google Glass in two ways. First, they can manually control the device by lightly touching the side of the frame.<sup>21</sup> For instance, when a user receives an incoming phone call, she simply touches the frame to answer the phone or decline the call.<sup>22</sup> The user can also touch the device to slide through a series of applications, much like watching a slide show.<sup>23</sup>

Second, users can control Google Glass with voice-activated commands.<sup>24</sup> To do this, the user simply tilts her head upward at a thirty-degree angle and the Glass screen appears.<sup>25</sup> The user then says aloud “O.K. Glass” and follows it with a command such as “Take a Picture.”<sup>26</sup>

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18. See Claire Cain Miller, *Google Searches for Style*, N.Y. TIMES (Feb. 21, 2013), <http://www.nytimes.com/2013/02/21/technology/google-looks-to-make-its-computer-glasses-stylish.html>.

19. See Joanna Stern, *Google Glass: What You Can and Can't Do with Google's Wearable Computer*, ABCNEWS.COM (May 2, 2013), <http://abcnews.go.com/Technology/google-glass-google-goggles-wearable-gadget/story?id=19091948>.

20. See Hayley Tsukayama, *Everything You Need to Know About Google Glass*, WASH. POST (Feb. 27, 2014), <https://www.washingtonpost.com/news/the-switch/wp/2014/02/27/everything-you-need-to-know-about-google-glass/>.

21. See *id.*

22. See *id.*

23. See *id.*

24. See *id.*

25. See Edward C. Baig, *The View from Google Glass? Cool*, USA TODAY (May 14, 2013), <http://www.usatoday.com/story/tech/columnist/baig/2013/05/14/google-glass-impressions/2156161/>.

26. In a promotional video, a Glass explorer tells the device to “Take a Photo,” “Record a Video,” and “Google photos of tiger heads.” Google, *See How it Feels [through Google Glass]*, YOUTUBE (Feb. 20, 2013), <https://www.youtube.com/watch?v=v1uyQZNg2vE>.

Users can conduct a phone conversation by using Glass because it includes speakers and a microphone.<sup>27</sup> They can also take pictures, record videos, access the internet, and send and receive text messages, just as they could with a standard cell phone. And just as with a cell phone, Glass users can use apps with the device. The applications include Google products—such as Google’s search engine, Gmail, and Google Maps—as well as third-party apps ranging from news sources like the *New York Times*, to social media such as Twitter and Facebook, to entertainment such as “Name This Song.”<sup>28</sup> There are already more than 100 applications available and the list is continually growing.<sup>29</sup>

If a Glass user stops using the device for about ten seconds, it goes to sleep, the same way that a cell phone screen turns off.<sup>30</sup> To wake the device, the user can either touch the side of the frame or simply tilt his head back and the screen will re-appear.<sup>31</sup>

Google initially made Glass available to a select group of “explorers” beginning in 2013.<sup>32</sup> In mid-2014, Google expanded availability to the public, but it kept the price at a fairly expensive \$1,500 and made clear that the device was still in the testing phase and subject to hardware and software changes.<sup>33</sup> Google has not disclosed how many Glass units are currently in use, but as of June 2014 some technology experts estimated there were about 240,000 total users.<sup>34</sup> That number is likely to expand exponentially in the near future though. Business experts predict that Google will lower the price of Glass to a more manageable \$600 and that by 2018 Google will be selling more than twenty million units of Glass per year.<sup>35</sup>

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27. See Donna Tapellini, *Living with Google Glass: Calling on Glass*, CONSUMERREPORTS.ORG (May 9, 2014), <http://www.consumerreports.org/cro/news/2014/05/living-with-google-glass-calling-on-glass/index.htm>.

28. See Claire Cain Miller, *New Apps Arrive on Google Glass*, N.Y. TIMES (May 20, 2013), <http://bits.blogs.nytimes.com/2013/05/16/new-apps-arrive-on-google-glass/>.

29. See *Google Glass Application List*, GOOGLE GLASS APPS, <http://glass-apps.org/google-glass-application-list> (last visited Oct. 15, 2015).

30. See Baig, *supra* note 25.

31. See *id.*

32. See Gary Shteyngart, *O.K., Glass: Confession of a Google Glass Explorer*, THE NEW YORKER (Aug. 5, 2013), <http://www.newyorker.com/magazine/2013/08/05/o-k-glass>.

33. See James O’Toole, *Google Glass Is For Sale Again*, CNN MONEY (May 14, 2014), <http://money.cnn.com/2014/05/14/technology/innovation/google-glass-sale/>.

34. See Al Sacco, *How Many People Actually Own Google Glass*, CIO (June 4, 2014), <http://www.cio.com/article/2369965/consumer-technology/how-many-people-actually-own-google-glass-.html>.

35. See Danova, *supra* note 17.

## II. GOOGLE GLASS FALLS BETWEEN THE CRACKS OF MOST STATES' DISTRACTED DRIVING LAWS

Can you lawfully drive while using Google Glass? The answer to that question is not clear to a lay observer. No state has a statute that specifically forbids Google Glass while driving. Most states, however, do have laws forbidding texting while driving.<sup>36</sup> And about two-thirds of states have statutes forbidding television or video screens from being in front of a driver while a vehicle is moving.<sup>37</sup> The statutory language in both types of provisions varies considerably by state, thus leaving the average driver without a good sense of whether Google Glass is permissible or not. In this Part, I examine the texting while driving and video screen statutes across the country. As I explain below, most of these statutes do not prohibit the use of Google Glass.

### *A. Statutes Forbidding Texting While Driving and the Use of Other Wireless Devices Typically Do Not Cover Google Glass*

In the last few years, the vast majority of states<sup>38</sup> have enacted laws to crack down on distracted driving.<sup>39</sup> Although a few states have simply criminalized texting while driving, most have made an effort to forbid other activities such as emailing; accessing the internet; and, in a few instances, utilizing social media while driving. Surprisingly, as the law has developed, states have not adopted a model statute or copied the language used by neighboring states. In most instances, it appears that each state has drafted its own language from scratch. The result is a hodgepodge of statutory language across the country. Accordingly, as new technology develops, the legality of using the technology while driving will vary by state throughout the country.

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36. See *infra* Section II.A

37. See *infra* Section II.B

38. In some states that have not banned texting while driving, cities and municipalities have forbidden it. For instance, the State of Texas does not ban texting while driving, but its capital city of Austin does. See Eric Dexheimer, *Everything You Wanted To Know—and More!—About Austin's New Texting While Driving Ban*, STATESMAN (Dec. 31, 2009), <http://www.statesman.com/news/news/state-regional/everything-you-wanted-to-know-and-more-about-austi/nRcLF/>. I have not included these city and municipal ordinances in this article.

39. For useful summaries of the state laws, see *Cellular Phone Use and Texting While Driving Laws*, NAT'L CONF. OF STATE LEGISLATURES (July 1, 2015), <http://www.ncsl.org/research/transportation/cellular-phone-use-and-texting-while-driving-laws.aspx>.



Whether Google Glass falls within states' distracted driving statutes is a matter of chance, not the product of deliberative and thoughtful analysis by legislatures. Most jurisdictions probably never gave much thought to wearable electronic devices—particularly head-mounted devices—when drafting distracted driving statutes. As such, whether drivers can utilize Google Glass while driving depends on the quirks and inadvertent word choices in distracted driving statutes, some of which were enacted more than five years ago and have not been updated. Quite simply, states appear not to have consciously factored Google Glass into their statutory schemes. Applying distracted driving statutes to Glass is therefore a difficult task.

In this section, I canvass texting while driving laws from around the country to see whether they cover Google Glass. Although there are numerous variations in state statutes, they generally break down into three categories: (1) states where Google Glass is clearly permissible because the statutes permit voice-operated or hands-free cell phone use; (2) states that have statutory language that forbids some, but not all, Google Glass applications, which makes enforcement very difficult; and (3) states with statutory language that is ambiguous when applied to Google Glass and which might, or might not, forbid the device while driving. As I explain below, prosecutors in most states—perhaps even all states—would be hard-pressed to successfully convict drivers for using Google Glass while operating a motor vehicle.

#### 1. Most State Statutes Allow Drivers to Use Wireless Devices if the Communication is Voice Operated or Hands Free

Many people (including many legislators) believe that it is more dangerous to use a cell phone while driving when the driver is physically holding the phone.<sup>40</sup> Although most of the social science evidence rejects this view,<sup>41</sup> there is some intuitive logic to support it. Using one hand to hold a phone means the driver can only have one hand (or possibly no hands) on the wheel. And while holding a phone, the driver can be tempted to remove his eyes from the road in order to look down at the phone to read messages or enter data. Under one school of thought, it is not talking on a

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40. See David Libby & Alex Chaparro, *Distracted While Driving: A Comparison of the Effects of Texting and Talking on a Cell Phone*, in PROCEEDINGS OF THE HUMAN FACTORS AND ERGONOMICS SOCIETY 57TH ANNUAL MEETING 1874, 1877–78 (2013).

41. As explained in Part III below, the social science literature indicates that engaging in texting or other activities while driving is cognitively distracting even if the driver has two hands on the road.

phone that is most dangerous, but rather removing the driver's eyes from the road and her hands from the wheel that causes accidents.

Based on the belief that hand-held cell phone use is more dangerous, a large number of states have banned drivers from holding phones and other wireless devices while driving. These states did not completely forbid cell phone use while driving though. Drivers can continue to use the phone so long as they connect the device to earphones or use a Bluetooth to link the phone through the vehicle's speakers. For instance, as far back as 2005, Connecticut forbid typing, sending, or reading a text message with a hand-held device, and it also forbid drivers from holding the phone while making a call.<sup>42</sup> But hands-free wireless activity has long been permissible in Connecticut.<sup>43</sup>

Other states have adopted the same regime in more recent years. In 2012, Alabama banned the use of “[a] handheld cellular telephone, a text-messaging device, a personal digital assistant, a stand alone computer, or any other similar wireless device that is readily removable from a vehicle and is used to write, send, or read text or data through manual input.”<sup>44</sup> The statute expressly states however that it does not forbid a “device which is voice-operated and which allows the user to send or receive a text-based communication without the use of either hand . . . .”<sup>45</sup>

Some state statutes expressly contemplate that text messages may be read and composed by voice-operated technology. For example, in 2014 South Dakota enacted its first ban on text-based communication while driving, but provided an exception for voice operated or hands free technology.<sup>46</sup> And South Dakota defined that exception to include “technology that allows a user to write, send, or listen to a text-based communication without the use of either hand . . . .”<sup>47</sup>

Other states have been similarly blunt. In 2012, Idaho adopted a statute that forbid texting while driving, but provided an exception for “voice-operated or hands free devices that allow the user to review, prepare and transmit a text message without the use of either hand . . . .”<sup>48</sup> In California, drivers cannot use a handheld device to write, send, or read a text-based communication, “unless the electronic wireless device is specifically

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42. See CONN. GEN. STAT. § 14-296aa (2005).

43. See *id.*

44. ALA. CODE § 32-5A-350 (2012).

45. *Id.*

46. See S.D. CODIFIED LAWS § 32-26-47 (2014).

47. *Id.* § 32-26-46(2) (2014).

48. IDAHO CODE § 49-1401A (2012).

designed and configured to allow voice-operated and hands-free operation.”<sup>49</sup> Florida’s statute is named the “Florida Ban on Texting While Driving law” but it specifically does not apply to “wireless interpersonal communication that does not require *manual* entry of multiple letters, numbers, or symbols. . . .”<sup>50</sup> Similar statutes authorizing “hands-free” texting are in place in Arkansas,<sup>51</sup> the District of Columbia,<sup>52</sup> Hawaii,<sup>53</sup> Illinois,<sup>54</sup> Indiana,<sup>55</sup> Iowa,<sup>56</sup> Kansas,<sup>57</sup> Kentucky,<sup>58</sup> Minnesota,<sup>59</sup> New Jersey,<sup>60</sup> New Mexico,<sup>61</sup> North Carolina,<sup>62</sup> Ohio,<sup>63</sup> Oregon,<sup>64</sup> Rhode Island,<sup>65</sup> Utah,<sup>66</sup> Wisconsin,<sup>67</sup> and Wyoming.<sup>68</sup>

Other statutes implicitly suggest that drivers can use hands-free technology to text while driving because the statutes only prohibit actually *holding* wireless devices. For example, in Michigan, “a person shall not read, manually type, or send a text message on a wireless 2-way

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49. CAL. VEH. CODE § 23123.5(a) (2013).

50. FLA. STAT. § 316.305(3)(b) (2014) (emphasis added).

51. See ARK. CODE ANN. § 27-51-1504 (2009).

52. See D.C. CODE § 50-1731.04(a) (2001).

53. See HAW. REV. STAT. § 291C-137(a) (2013).

54. See 625 ILL. COMP. STAT. 5/12-610.2(d)(3) (2014).

55. See IND. CODE § 9-21-8-59(a) (2014).

56. See IOWA CODE § 321.276 (2013).

57. See KAN. STAT. ANN. § 8-15 111(a)(1) (2010).

58. Kentucky’s statute does not expressly mention voice-operated technology. KY. REV. STAT. ANN. § 189.292(2) (West 2011). However, it only forbids using a personal communications device to “manually” communicate with another person. *Id.* In this context, the word “manually” presumably means with the use of hands, although it is not defined.

59. See MINN. STAT. § 169.475, Subd. 3 (2015).

60. See N.J. STAT. ANN. § 39:4-97.3(a) (2014).

61. See N.M. STAT. ANN. § 66-7-374 (West 2014) (“A person shall not read or view a text message or manually type *on a handheld mobile communication device* for any purpose while driving a motor vehicle . . .”) (emphasis added).

62. See N.C. GEN. STAT. § 20-137.4A(b)(4) (2012).

63. See OHIO REV. CODE ANN. § 4511.204(8) (West 2015). The Ohio rule appears to forbid drivers from “reading text messages” even with a wireless device, but allows all other hands-free activity. *See id.*

64. See OR. REV. STAT § 811.507(3)(d) (2014).

65. See 31 R.I. GEN. LAWS § 31-22-30(d) (2015).

66. See UTAH CODE ANN. § 41-6a-1716(3)(g)(i) (West 2015).

67. See WIS. STAT. § 346.89(3)(b)(4) (2015). Although Wisconsin allows hands-free texting, a new portion of its distracted driving statute enacted in 2014 forbids drivers from operating or observing any electronic device that is “providing entertainment primarily by visual means.” *Id.* § 346.89(5). This section would seemingly prevent Google Glass users from watching certain videos while driving, although it is not clear what videos would be prohibited. Would a news video on CNN.com be entertainment? Unfortunately, the statute does not define “entertainment.”

68. See WYO. STAT. ANN. § 31-5-237(a)(iv) (West 2015).

communication device that is located in the person's hand or in the person's lap. . . ."<sup>69</sup> The Michigan statute makes no reference to voice-operated technology, but the inference is that using that technology to text would be lawful because the phone would not be in the driver's hand or lap.

Similarly, New York forbids drivers from "using" portable electronic devices while driving, but it defines "using" to mean that the driver is actually "holding" the device while transmitting images, accessing the internet, texting, or doing numerous other tasks.<sup>70</sup> Delaware's statute also implicitly allows hands-free texting and emailing. The Delaware prohibition on cell phone use is very broad and provides that "[n]o person shall drive a motor vehicle on any highway while using an electronic communication device . . . ."<sup>71</sup> But the statute goes on to define "using" to mean "holding in a person's hand or hands an electronic communication device"<sup>72</sup> thereby (probably inadvertently) completely exempting head-mounted devices such as Google Glass.

In short, twenty-six states and the District of Columbia allow drivers to use electronic devices while driving as long as they use voice-operated or hands-free technology. In all likelihood few, if any, legislators who voted for these statutes contemplated Google Glass or any other device that could be worn on a driver's face. Nevertheless, the plain language of these statutes allows drivers to use Google Glass while operating motor vehicles. Additionally, there are six states that have not banned texting while driving at all.<sup>73</sup> Thus, in a total of thirty-two states—which accounts for over two-thirds of the country by population<sup>74</sup>—there is no texting while driving law that even possibly prohibits the use of Google Glass while driving.

## 2. Some Distracted Driving Statutes Are Written in a Way That Would Forbid Some, But Certainly Not All, Google Glass Activity, Thus Making Prosecution Very Difficult

Some states have allowed drivers to continue using mobile devices for phone calls, while attempting to forbid certain other electronic activity. In

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69. MICH. COMP. LAWS § 257.602b(12) (2014).

70. N.Y. VEH. & TRAF. § 12250d.1225-d (2014).

71. DEL. CODE ANN. tit. 21, § 4176C(a) (West 2012).

72. *Id.* § 4176C(b)(6).

73. See *Distracted Driving Laws*, GOVERNOR'S HIGHWAY SAFETY ASS'N, [http://www.ghsa.org/html/stateinfo/laws/cellphone\\_laws.html](http://www.ghsa.org/html/stateinfo/laws/cellphone_laws.html) (last visited Oct. 9, 2015).

74. The total population of each state is available at *State and County Quick Facts*, UNITED STATES CENSUS, <http://quickfacts.census.gov/qfd/index.html> (last visited Oct. 9, 2015).

these states, simply having Google Glass turned on while driving would not be unlawful. But using the device to perform certain functions would be prohibited.

Some states forbid very little electronic activity while driving. The State of Washington, for example, only subjects a driver to a traffic violation if (s)he “sends, reads, or writes a text message.”<sup>75</sup> Under the plain language of the statute, Google Glass users (as well as people using ordinary cell phones) would be authorized to send email, surf the internet, and use hundreds of other applications while driving.

Vermont’s statute is only slightly broader; it prohibits “the reading or the manual composing or sending of electronic communications, including text messages, instant messages, or emails.”<sup>76</sup> The neighboring state of Maine has a very similar statute.<sup>77</sup> Drivers in Maine and Vermont can therefore use Google Glass to verbally compose emails or text messages, surf the internet, watch videos, scroll through facebook, and do countless other things without violating the statutes.

Georgia’s law is broader in that it forbids drivers from using a wireless device to “write, send, or read any text based communication, including but not limited to a text message, instant message, e-mail, *or Internet data*.”<sup>78</sup> Statutes in Louisiana,<sup>79</sup> North Dakota,<sup>80</sup> Pennsylvania,<sup>81</sup> and West Virginia,<sup>82</sup> while written with different language, seemingly cover the same types of communications as the Georgia statute. While these statutes are more encompassing, they still leave drivers with the opportunity to view photos, watch videos, and take pictures with Google Glass’s camera.

There are two problems with the statutory designs of these eight states that forbid some, but not all, wireless activities while driving. First, if states choose to ban emailing and texting while driving, they should also forbid comparably dangerous activities such as viewing photos or watching videos. Second, and even more important, allowing some functions to remain lawful creates crippling enforcement difficulties. If a driver in one of these states is accused of something clearly forbidden by the law—for instance, texting—she can easily claim that she was looking at photos or some other application that is not prohibited under the statute.

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75. WASH. REV. CODE § 46.61.668 (2013).

76. VT. STAT. ANN. tit. 23, § 1099 (West 2015).

77. See ME. STAT. tit. 29-A, § 2119 (2013).

78. GA. CODE ANN. § 40-6-241.2(b)(1) (2015) (emphasis added).

79. LA. STAT. ANN. § 32:300.5(A)(2) (2013).

80. See N.D. CENT. CODE § 39-08-23 (2011).

81. See 75 PA. CONS. STAT. § 3316 (2012).

82. See W. VA. CODE § 17C-14-15(b)(7) (2013).

The second problem has already played out with ordinary cell phone use while driving. Drivers have successfully contested texting while driving charges by claiming that they were using the phone for another function that is not prohibited by the statute.

For example, in 2012, a police officer in New York pulled over a driver after the officer saw him “looking down at his phone while driving” and because the driver “appeared to be texting.”<sup>83</sup> New York’s statute forbids a driver from “using” a portable electronic device and it defines “using” to mean “holding a portable electronic device while viewing, taking or transmitting images, playing games, or composing, reading, viewing, accessing, browsing, transmitting, saving, or retrieving e-mail, text messages, or other electronic data.”<sup>84</sup> The driver maintained that he was not texting but instead that he “was trying to turn [the] Bluetooth on while I was stopped at the light.”<sup>85</sup> The court acquitted the defendant because turning on a Bluetooth is not forbidden by the statute and the prosecution had insufficient evidence to prove the driver was using the phone for a different, prohibited function.<sup>86</sup>

In another New York case involving the same statute, a different court acquitted a driver who claimed that she was looking at her phone to check the time, rather than texting.<sup>87</sup> Without much analysis, the court concluded that “the Defendant’s actions [were] akin to taking a pocket watch out to view the time. Surely the New York State Legislature did not intend to prohibit this kind of action . . . .”<sup>88</sup>

For every reported case like these from New York, there are surely many other unreported instances in which courts have rejected charges because the prosecutor could not prove the driver was engaged in a prohibited function while using the phone. At bottom, while eight states have statutes that could be construed to prohibit some use of Google Glass while driving, those statutes are very difficult to enforce. Absent a confession from the driver that she was utilizing a prohibited function rather than a lawful one, police and prosecutors would be hard pressed to prove violation of the statutes.

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83. See *People v. Goldstein*, No. BD2103522, 2012 WL 2923201, at \*1 (N.Y. Just. Ct. June 14, 2012).

84. *Id.* at \*2 (quoting N.Y. VEH. & TRAF. LAW § 1225-d 2(b) (McKinney 2014)).

85. *Id.* at \*1.

86. See *id.* at \*4.

87. See *People v. Riexinger*, 968 N.Y.S.2d 832, 834 (Town Ct. 2013).

88. *Id.*

### 3. A Few States Have Statutory Language That May Be Too Ambiguous to Forbid Google Glass While Driving

In banning texting while driving, some states had the foresight to also prohibit other wireless activity such as emailing and internet browsing while driving.<sup>89</sup> However, legislators cannot predict what technology will develop in future years. In the years after enactment, prosecutors are often in the position of fitting round pegs (for instance, Google Glass) into square holes (such as texting while driving statutes). In some instances, the pegs fit in the holes. In other instances, the fit is not ideal. Put simply, some statutes designed to prohibit drivers from texting with hand-held cell phones are ambiguous when applied to more advanced technology like Google Glass.

The major ambiguity in texting while driving statutes is that they prohibit the “use” of handheld devices while a vehicle is moving, without defining the word “use.” What does it mean to “use” a cell phone? When most states enacted texting while driving legislation it was obvious that preventing drivers from “using” a cell phone meant typing text into the phone and reading messages on the phone’s screen. Some statutes explicitly stated as much. For instance, Nebraska law provides, *inter alia*, that “no person shall use a handheld wireless communication device to . . . manually type a written communication.”<sup>90</sup> Google Glass, of course, does not require drivers to physically touch (or even look at) the screen of a handheld device. Drivers “use” the cell phone only as a conduit that sends the data to the Glass.

When dealing with state statutes written five or more years ago it is not clear how expansive the word “use” was intended to be and whether it should apply to cell phones being used as a conduit, rather than a primary input and export of data. The statutory language offers no real clues. For example, in 2009 Tennessee enacted a statute specifying that “[n]o person while driving a motor vehicle . . . shall use a hand-held mobile telephone or a hand-held personal digital assistant to transmit or read a written message.”<sup>91</sup> The statute provides no definition of “use.”

In 2009, Maryland adopted a law providing that a driver “may not use a text messaging device to write, send, or read a text message or an electronic message while operating a motor vehicle . . . .”<sup>92</sup> The Maryland legislature took the time to define “text messaging device” as “a handheld device used

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89. See Adam M. Gershowitz, *Texting While Driving Meets the Fourth Amendment: Deterring Texting and Warrantless Cell Phone Searches*, 54 ARIZ. L. REV. 577, 586–87 (2012).

90. NEB. REV. STAT. § 60-6,179.01 (2014) (emphasis added).

91. TENN. CODE ANN. § 55-8-199 (West 2009).

92. MD. CODE ANN., TRANSP. § 21-1124.1(b) (West 2014).

to send a text message or an electronic message . . . .”<sup>93</sup> The statute contains no definition of “use,” however. The statutes in Massachusetts,<sup>94</sup> Nebraska,<sup>95</sup> Nevada,<sup>96</sup> New Hampshire,<sup>97</sup> and Virginia<sup>98</sup> all suffer from the same problem.

Resolving this statutory problem involves a debate between legislative purpose and plain language. Legislators in these states almost certainly thought they were forbidding drivers from typing on the phone itself. And this purpose seems not to apply to Google Glass, because the driver would never hold the phone while operating Glass. With the phone tucked away in a pocket or a purse, it hardly seems that the driver is “using” the phone. On the other hand, the driver technically would have to “use” her mobile phone while driving because Google Glass operates by wirelessly linking to a cell phone and sending and receiving data from the phone. If there were no phone in “use,” Google Glass would not work.<sup>99</sup>

The “use” problem is reminiscent of the argument between Justice Scalia and Justice O’Connor in *Smith v. United States*, which dealt with whether trading a firearm for drugs constituted “use” of a firearm under 924(c) of Title 18 of the United States Code.<sup>100</sup> In *Smith*, the defendant tried to trade his MAC-10 firearm for cocaine.<sup>101</sup> Section 924(c) provides that any person who “uses or carries” a firearm in drug trafficking is subject to a minimum sentence of five years (and a longer sentence of thirty years when the weapon is a machinegun).<sup>102</sup>

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93. *Id.* § 21-1124.1(a)(3).

94. *See* MASS. GEN. LAWS ch. 90, § 13B (2010).

95. *See* NEB. REV. STAT. § 60-6,179.01 (2014).

96. *See* NEV. REV. STAT. § 484B.165 (2014).

97. *See* N.H. REV. STAT. ANN. § 265:79-c (2015).

98. *See* VA. CODE ANN. § 46.2-1078.1 (West 2015).

99. A similar problem exists in Missouri, where drivers who are twenty-one and under may not send, read, or write a text message “by means of a hand-held electronic wireless device.” MO. REV. STAT. § 304.820(1) (2013) (emphasis added). The Missouri statute is even more problematic though because it defines “send, read, or write a text message or electronic message” as “manually communicat[ing] with any person by using an electronic message.” *Id.* § 304.820(9) (emphasis added). The word “manually” typically involves the use of hands. *See Manual*, BLACK’S LAW DICTIONARY 964 (6th ed. 1990) (defining manual as “[o]f, or pertaining to, the hand or hands”). Thus, arguably a driver using Google Glass is not “manually” texting because most commands are voice-activated. On the other hand, the statute references manually “read[ing]” text messages, which, of course, does not typically involve the use of the driver’s hands. The Missouri statute leaves us with the same problem: Is a Google Glass user sending data “by means of” a cell phone?

100. *See* *Smith v. United States*, 508 U.S. 223, 228–46 (1993).

101. *See id.* at 225–26.

102. 18 U.S.C. § 924(c)(1)(A) (2006).



Writing for the majority, Justice O'Connor noted that Smith had used a firearm in the "everyday meaning of that term."<sup>103</sup> Justice O'Connor consulted dictionaries and prior Supreme Court definitions of "use."<sup>104</sup> She concluded that trading a gun for drugs is, in fact, use the gun.<sup>105</sup> Justice Scalia dissented, arguing that "[t]o use an instrumentality ordinarily means to use it for its intended purpose. When someone asks 'Do you use a cane?,' he is not inquiring whether you have your grandfather's silver-handled walking stick on display in the hall; he wants to know whether you walk with a cane."<sup>106</sup>

The term "use" in the Google Glass context might be as divisive as in the firearms context in *Smith*. Indeed, confusion reigns even in states that have tried to define "use." Colorado law provides that "a person under eighteen years of age shall not use a wireless telephone while operating a motor vehicle."<sup>107</sup> Colorado then defines "use" as "talking on or listening to a wireless telephone or engaging the wireless telephone for text messaging or other similar forms of manual data entry or transmission."<sup>108</sup> When a person uses Google Glass to send a text message, he certainly is "engaging" the phone, which seemingly means Colorado juveniles cannot use Google Glass while driving. On the other hand, the definition compares text messaging to "other similar forms of manual data entry" and using Google Glass does not involve manual data entry.

It is difficult to say for certain whether a driver using "Google Glass" would also be "using" her cell phone. Under Justice O'Connor's majority opinion in *Smith*, the answer would likely be "yes." But, of course, state courts interpreting state statutes are not bound by the U.S. Supreme Court's interpretations of federal statutes. At best, all that can be said is that the multiple texting while driving statutes are ambiguous when applied to Google Glass.

In sum, while most states have statutes that forbid texting and other wireless activity while driving, not a single statute imposes a clear and enforceable ban on Google Glass while driving. Most statutes provide a blanket exemption for hands-free devices, thus providing a loophole for Google Glass. And the remaining states have statutes that forbid only certain Glass functions and thus are practically unenforceable.

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103. *Smith*, 508 U.S. at 228.

104. *See id.* at 228–29.

105. *See id.* at 237.

106. *Id.* at 242 (Scalia, J., dissenting).

107. COLO. REV. STAT. § 42-4-239(2) (2009).

108. *Id.* § 42-4-239(1)(c).

*B. Many States Have Older “Screen” Statutes Forbidding Television and Video Screens, But These Statutes Either Do Not Cover Glass or Would Be Impossible to Enforce*

In addition to texting while driving statutes, about two-thirds of states have laws banning television and video screens from being in front of drivers while a vehicle is moving.<sup>109</sup> These laws were primarily designed to prevent drivers from watching television and, thus not surprisingly, were typically enacted a few decades ago.<sup>110</sup> While a few of these statutes could plausibly apply to Google Glass, most lack clear enough language to do so. Moreover, these statutes all suffer from the same enforcement problem identified in *supra* Section II.A.2; even if Google Glass’s virtual screen fell within the statute, drivers could simply say that the device was turned off while they were driving, and thus no screen was in front of the driver. This Part briefly describes the existing television and video screen statutes and demonstrates why they are flawed when applied to Google Glass.

1. Statutes That Only Apply to Television Screens

Many “screen” statutes are specifically limited to “television” or “television type” devices and on their face simply cannot apply to Google Glass. For instance, Indiana’s law forbids drivers from having “a television set installed so that the screen of the television set can be seen by a person sitting in the driver’s seat.”<sup>111</sup> Maine forbids drivers from “receiving a television broadcast that is visible to the operator.”<sup>112</sup> Minnesota forbids the driver from using a “television screen.”<sup>113</sup> Oklahoma law does not allow driving in vehicles “in which there is installed any television-type receiving equipment.”<sup>114</sup> Alabama’s statute is captioned “Location of Television Viewers” and specifies that “[n]o television viewer, screen, or other means of visually receiving a television broadcast shall be located in a motor vehicle at any point forward of the back of the driver’s seat.”<sup>115</sup>

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109. See Kristina Wilson, Comment, *No, We’re Not There Yet: A Proposed Legislative Approach to Video Entertainment Screens in Cars*, 100 NW. U. L. REV. 999, 1008 (2006).

110. See Heather Kelly, *Ticket for Driving in Google Glass Dismissed*, CNN (Jan. 17, 2014, 3:09pm), <http://www.cnn.com/2014/01/16/tech/innovation/google-glass-ticket-dismissed/>.

111. IND. CODE § 9-19-17-1 (1991).

112. ME. STAT. tit. 29-A § 1921 (1995) (amended 2015).

113. MINN. STAT. § 169.471 (2008).

114. OKLA. STAT. tit. 47, § 12-411 (2003).

115. ALA. CODE § 32-5-219 (1975).

Other states—Florida,<sup>116</sup> Nebraska,<sup>117</sup> Nevada,<sup>118</sup> New Jersey,<sup>119</sup> New Mexico,<sup>120</sup> New York,<sup>121</sup> Pennsylvania,<sup>122</sup> Rhode Island,<sup>123</sup> South Dakota,<sup>124</sup> Virginia,<sup>125</sup> Washington,<sup>126</sup> and Wyoming<sup>127</sup>—also limit their statutes to television screens or “television-type” equipment.

To get a sense of how outdated these statutes are, one need only look at Oregon, which makes it a crime for a driver to be able to see “a broadcast television image or a visual image from a digital video disc or *video cassette player*” while driving.”<sup>128</sup> Indeed, some of these television screen statutes are so outdated that legislatures have begun to repeal them. In August 2014, Wisconsin repealed a law that forbade drivers from having in front of them “any device for visually receiving a television broadcast.”<sup>129</sup> A similar Kansas law banning “television-type receiving equipment” was repealed in 2007.<sup>130</sup> And Kentucky repealed its statute—originally enacted in 1952—requiring a permit for cars to be equipped with television receivers.<sup>131</sup>

## 2. A Few States Have Screen Statutes That Are Too Ambiguous To Allow for Criminal Liability

Some “screen” statutes contain language that is simply unclear when applied to Glass. For example, Cecilia Abadie was ticketed for violating a California statute forbidding drivers from operating “a television receiver, a video monitor, or a television or video screen, or any other similar means of visually displaying a television broadcast or video signal that produces entertainment or business applications” forward of the driver’s seat.<sup>132</sup> It is

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116. See FLA. STAT. § 316.303 (1999).

117. See NEB. REV. STAT. § 60-6,287 (1988).

118. See NEV. REV. STAT. § 484D.490 (2009).

119. See N.J. REV. STAT. § 39:3A-1 (2015).

120. See N.M. STAT. ANN. § 66-7-358 (1989).

121. See N.Y. VEH. & TRAF. LAW § 375(24) (McKinney 2014).

122. See 75 PA. CONS. STAT. § 4527 (1994).

123. See 23 R.I. GEN. LAWS ANN. § 31-23-38 (West 2012).

124. See S.D. CODIFIED LAWS § 32-15-9.

125. See VA. CODE ANN. § 46.2-1077 (West 2015).

126. See WASH. REV. CODE § 46.37.480.

127. See WYO. STAT. ANN. § 31-5-961(a) (West 2015).

128. OR. REV. STAT. § 815.240(1) (2005) (emphasis added).

129. WIS. STAT. § 346.89(2) (2012) (repealed 2014).

130. See KAN. STAT. ANN. § 8-1748 (2006) (repealed in 2007).

131. See KY. REV. STAT. ANN. § 189.025 (West 1952) (repealed 1988)

132. CAL. VEH. CODE § 27602(a) (West 1959) (repealed 2015).

not clear whether Google Glass’s virtual display constitutes a video screen or something sufficiently “similar.” It is also unclear whether Glass falls under the “video signal” language.

The legislative history of California’s screen statute is not illuminating. In 1959, California enacted a ban on drivers being in a position to see a “television receiver, screen, or other means of virtually receiving a television broadcast.” That language remained unchanged for over forty years. In the late 1990s and early 2000s car manufacturers began selling millions of vehicles equipped with DVD players designed to entertain children.<sup>133</sup> Noting the rise of DVD viewing,<sup>134</sup> the legislature amended the statute in 2003 to forbid “a television receiver, a video monitor, or a television or video screen, or any other, similar means of visually displaying a television broadcast or video signal that produces entertainment or business applications” from being forward of the back of the driver’s seat.<sup>135</sup>

Although there is limited legislative history to draw upon, the amended statutory language—particularly the three references to “video”—is consistent with merely restricting DVDs. Notably, laptop computers were omnipresent in 2003, but the California statute makes no reference to computers, suggesting the law was focused on DVDs. On the other hand, Google Glass’s virtual screen is “similar” to a “video screen” in that both enable people to see moving images. And, of course, Glass receives a signal that enables it to play videos, although the mode of communication over the internet is different than the connection between a DVD player and a traditional screen.

At bottom, it is not clear whether the California statute could be stretched to cover Google Glass. Other states—Connecticut,<sup>136</sup> Illinois,<sup>137</sup> Louisiana,<sup>138</sup> Michigan,<sup>139</sup> Tennessee,<sup>140</sup> and Texas<sup>141</sup>—also have language about video screens or include reference to “similar” devices that are also unclear. In many instances, the language in these statutes is decades old<sup>142</sup>

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133. See Wilson, *supra* note 109, at 1004–06.

134. See Allison Hoffman, *Behind the Wheel: New Law Aims to Keep Eyes on the Road*, L.A. TIMES, Feb. 3, 2004, at B2.

135. CAL. VEH. CODE § 27602(a) (West 2015).

136. CONN. GEN. STAT. § 14-105 (2015).

137. See 625 ILL. COMP. STAT. 5/12-604.1 (2015).

138. See LA. STAT. ANN. § 32:365 (2014).

139. See MICH. COMP. LAWS § 257.708b (2015).

140. See TENN. CODE ANN. § 55-9-105 (West 2015).

141. See TEX. TRANSP. CODE ANN. § 547.611 (West 2015).

142. For instance, Texas amended its statute to add the additional language in 2003. See 2007 Tex. Gen. Laws 3259.

and the plain language and legislative history offers no guidance as to whether the statutes should apply to Google Glass.

Finally, the statutes in three other states probably fail to cover the use of Google Glass because of an unfortunate wording choice. The screen statutes in Maryland<sup>143</sup> and South Carolina<sup>144</sup> are defined broadly to include a wide array of devices that could distract drivers. However, the statutes specify that “no person shall drive a motor vehicle *equipped* with any image display device which is located in the motor vehicle at any point forward of the back of the driver’s seat.”<sup>145</sup> Of course, no vehicle is equipped with Glass, because the device rests on the driver’s face and is in no way connected to the vehicle itself. West Virginia’s statute uses the same “equip” language and thus seemingly does not cover Glass.<sup>146</sup>

While the plain language of the Maryland, South Carolina, and West Virginia statutes seems to prevent them from applying to Google Glass, it is not impossible that a court would follow the spirit, rather than the letter, of the law to ignore the inconvenient “equipped” language. As such, the best that can be said for these three statutes is that they are ambiguous when applied to Glass.

In sum, more than a dozen states use twentieth-century terms designed for a tangible world that are ambiguous when applied to twenty-first-century technology. In some states, the language may be loose enough to allow prosecution for the use of Google Glass while driving, but prosecutions will likely fail in other states. Moreover, these statutes violate the basic tenet of criminal law that criminal prohibitions should be clear and unambiguous so as to give people enough notice to conform their conduct to the law.<sup>147</sup>

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143. See MD. CODE ANN., TRANSP. §§ 21-1129, 22-414.1 (West 2015).

144. S.C. CODE ANN. § 56-5-4440 (2015).

145. See MD. CODE ANN., TRANSP. §§ 21-1129, 22-414.1 (West 2015); S.C. CODE ANN. § 56-5-4440(B) (2015).

146. W. VA. CODE § 17C-15-42 (2015). West Virginia’s statute suffers from a further ambiguity. The statute provides that “[n]o motor vehicle may be operated on a street or highway in this state when equipped with a television receiver, video monitor, television or video screen.” *Id.* Glass’s virtual display is surely not a television receiver, video monitor or a television screen. Whether it could be categorized as a “video screen” is debatable.

147. Justice Holmes stated the premise well, and he even used a vehicle metaphor to do so. See *McBoyle v. United States*, 283 U.S. 25, 27 (1931) (“When a rule of conduct is laid down in words that evoke in the common mind only the picture of vehicles moving on land, the statute should not be extended to aircraft simply because it may seem to us that a similar policy applies, or upon the speculation that if the legislature had thought of it, very likely broader words would have been used.”).

Finally, in addition to being ambiguous, the statutes in this section all suffer from the problem discussed in Section II.B.3 *infra*. Because these statutes prohibit the *use* of *certain* technology, rather than the *wearing* of *all* devices, drivers could easily avoid liability by claiming their Google Glass was off or was being used for a lawful function.

### 3. Statutes That Forbid Using or Viewing Devices, But Which Are Very Hard to Enforce When Applied to Google Glass

Finally, even states that have screen statutes that could plausibly apply to the use of Google Glass are practically unenforceable. In all of the states described below, drivers could avoid liability by claiming that their Google Glass was turned off and that they were simply *wearing* the frames, rather than *using* the virtual screen. And in some states, drivers could also maintain that while they were using Glass, they were performing lawful functions (such as following GPS directions), rather than the specific behaviors forbidden by the statutes.

For instance, Alaska’s law forbids drivers from using a “television, video monitor, portable computer, or any other similar means capable of providing a visual display that is in full view of a driver in a normal driving position.”<sup>148</sup> The Alaska statute is broad enough to cover Google Glass because Glass is a computer and the visual display would be in full view of the driver. However, it would be very difficult for police and prosecutors to enforce the Alaska statute. Even if an officer were standing next to someone with Google Glass, it would be difficult to know if the device was turned on.<sup>149</sup> Police officers on the side of the road would have absolutely no way of knowing whether a driver wearing Glass was using the device, and the police would thus lack probable cause to believe the screen was on.

The New Hampshire statute is almost as broad as Alaska’s statute, yet suffers from the same problem. In New Hampshire, a driver cannot use an “image display device” capable of displaying, *inter alia*, “entertainment content transmitted by other wireless means to the image display device.”<sup>150</sup> The driver could simply argue that her Google Glass was not on and that no entertainment or other images were visible to the driver.

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148. ALASKA STAT. § 28.35.161(a)(1) (2015).

149. See Kristin Bergman, *Cyborgs in the Courtroom: The Use of Google Glass Recordings in Litigation*, 20 RICH. J.L. & TECH. 11, 17 (2014) (describing how easily Glass can record a video without nearby people realizing it).

150. N.H. REV. STAT. ANN. § 266:75(a) (2015).

Other states have statutes that cover some, but not all, Google Glass applications. These statutes would be nearly impossible to enforce if the driver said she was using Glass to look at something not forbidden by the statute. Consider Colorado's statute, which specifically allows computers in front of the driver but only if they are "not used to display visual entertainment, including internet browsing, social media, and e-mail, to the driver while the motor vehicle is in motion."<sup>151</sup> The driver could circumvent the statute by claiming that he was using Google Glass to look at GPS directions, to view photos, or to conduct a phone call.

The statute in Vermont is even narrower than Colorado's. In Vermont, the driver cannot be in a position of seeing a screen or other device that is "transmitting a moving entertainment picture."<sup>152</sup> Thus, a Vermont driver could say that her Google Glass was not turned on. Or she could claim that while the device was operating, she was using it for anything other than watching "a moving entertainment picture," which is presumably only a movie or video.

Illinois's statute suffers from the same problem. The Illinois statute only applies if the video screen is "operating" and specifically does not apply if "the moving entertainment images that the equipment displays are not visible to the driver while the motor vehicle is in motion."<sup>153</sup> Thus, an Illinois driver could say that her Google Glass was not turned on. Or she could claim that while the device was operating, she was using it for something other than watching television or video images.

North Carolina's statute clearly covers Google Glass because it specifically applies to computers.<sup>154</sup> However, the statute contains a large loophole because it explicitly "does not apply to . . . turn-by-turn navigation displays or similar navigation devices . . . ."<sup>155</sup> One of Glass's most prominent features is its ability to help drivers navigate.<sup>156</sup> Drivers could thus avoid liability in North Carolina by simply claiming they were using Glass to help with driving directions.

Finally, New Hampshire's statute covers Google Glass in its current form, but might not cover a next generation version of the device. In New Hampshire, drivers are prohibited from viewing visual devices from DVD's

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151. COLO. REV. STAT. ANN. § 42-4-201(3) (West 2015).

152. VT. STAT. ANN. tit. 23, § 1095 (West 2015).

153. 625 ILL. COMP. STAT. 5/12-604.1 (2015).

154. See N.C. GEN. STAT. ANN. § 20-136.1 (West 2015).

155. *Id.*

156. See Adario Strange, *Google Glass Video Shows Off Turn-by-Turn Directions*, PC MAG (Aug. 14, 2013, 9:50 AM), <http://www.pcmag.com/article2/0,2817,2423068,00.asp>.

or “other storage device[s].”<sup>157</sup> Google Glass does not play DVDs and its primary purpose is not to store information. It is a conduit through which information can be accessed. However, the first-generation version of the device does have the capability to store a few gigabytes of data.<sup>158</sup> As such, it appears to qualify as a “storage device” and thus falls within the New Hampshire statute. However, technology manufacturers are famous for designing sleeker and cheaper versions of the same product that lack all of the functions of the main version. For instance, users can play music on an iPhone, an iPod Touch, an iPod, and an iPod shuffle.<sup>159</sup> Google could follow the same model and introduce a cheaper version of Glass that connects to a cell phone but does not have its own storage capacity.

Moreover, the New Hampshire “storage device” statute suffers from the same problem as other statutes that nominally cover Google Glass. The statute contains an exception for devices that are “displaying images that provide the driver with navigation and related traffic, road, and weather information.”<sup>160</sup> Additionally, the statute only prohibits “dynamic visual image[s], other than text . . . .”<sup>161</sup> Drivers could thus say (perhaps honestly) that they were only using Glass to view driving directions or text messages.

The statutes in all seven of these states—as well as the ambiguous statutes identified in Section II.B.2, *infra*—are subject to major enforcement difficulties. Drivers could avoid liability by simply saying their devices were turned off. Or drivers could parse the statutory language and contend they were using Glass for a non-prohibited activity, such as looking at photos or using navigation applications.

### C. Current Laws Fail to Adequately Ban Google Glass While Driving

The statutes described in Sections II.A and II.B *supra*, demonstrate that current laws across the United States fail to adequately ban Google Glass while driving.

As Section II.A documents, while most states forbid texting and other wireless activity while driving, not a single texting statute imposes a clear and enforceable ban on Google Glass while driving. More than half of the

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157. See N.H. REV. STAT. ANN. § 266:75 (2015).

158. See Bergman, *supra* note 149, at 5.

159. See *iPod Touch*, APPLE, <http://www.apple.com/ipod> (last visited Nov. 7, 2015); *Compare iPhone Models*, APPLE, <http://www.apple.com/iphone/compare> (last visited Nov. 7, 2015).

160. N.H. REV. STAT. ANN. § 266:75(IV)(b) (2015).

161. *Id.* § 266:75(I)(b).



texting while driving statutes provide a blanket exemption for hands-free devices, thus providing a loophole for Google Glass. And the remaining states have statutes that forbid only certain Glass functions and thus are practically unenforceable.

The laws banning television screens described in Section II.B are equally ineffective. Fourteen states have no statute in place that bans drivers from having screens of images in front of them while driving.<sup>162</sup> Another eighteen states have statutes that only apply to television (or, in a few cases, DVD players and VCRs). Then there are nearly a dozen state statutes that are simply ambiguous when applied to Google Glass. And while a handful of states have broadly written screen statutes that seemingly forbid Google Glass, those statutes are practically unenforceable because drivers could simply (and plausibly) say that they had the device turned off or that the device was being used for a non-prohibited function.

### III. WIRELESS ACTIVITY WHILE DRIVING IS DANGEROUS EVEN IF IT IS HANDS-FREE

As Part II demonstrates, states do not have laws in place that would effectively forbid Google Glass or other wearable technology while driving. Should it be illegal to drive with Google Glass? Google maintains that using Glass is not dangerous because the device was designed not to be visually distracting.<sup>163</sup> Indeed, some Glass users point to an app called “DriveSafe”<sup>164</sup> that gives drivers audible alerts if the device senses the driver is falling asleep.<sup>165</sup>

Although there are no studies yet about the safety of Google Glass while driving, a wide body of distracted driving literature casts considerable doubt on Google’s claim that it is safe to drive with Glass. In this Part, I review

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162. Those states are Arkansas, Delaware, Georgia, Hawaii, Idaho, Iowa, Kansas, Kentucky, Mississippi, Missouri, Montana, North Dakota, Ohio, and Utah. The District of Columbia has no screen statute either. *See supra* Section II.B.

163. *See* Melissa Nann Burke, *Google Glass: A Danger on the Roads?*, THE NEWS JOURNAL (Mar. 15, 2014, 4:51 PM), <http://www.delawareonline.com/story/money/2014/03/15/a-danger-on-the-roads-/6432315/>.

164. For a demonstration video, see DriveSafe, *DriveSafe—Keeping Drivers Alert & Informed with Google Glass*, YOUTUBE (Mar. 17, 2014), <https://www.youtube.com/watch?t=3&v=qZw38YdCkCg>.

165. *See* Gustavo Solis, *Google Glass Should Be Banned Behind the Wheel, State Assemblyman Says*, DNAINFO NEW YORK (Jan. 13, 2014, 4:01 PM), <http://www.dnainfo.com/new-york/20140113/sunset-park/google-glass-should-be-banned-behind-wheel-state-assemblyman-says> (quoting Drive Safe developer Jake Steinerman).

the literature indicating that hands-free wireless use creates cognitive tunnel vision and is thus dangerous even if the driver never touches the device.

*A. Cell Phone Use Creates Cognitive Tunnel Vision That Distracts Drivers*

Cell phone use is widely considered the most deadly form of distracted driving.<sup>166</sup> More than 1.5 million accidents<sup>167</sup> and thousands of deaths each year<sup>168</sup> are attributed to cell phone use while driving.

Texting while driving has received most of the (negative) attention in the public's focus on distracted driving. And there is good reason to be concerned about texting. A vehicle moving at sixty five miles per hour covers ninety five feet in just one second.<sup>169</sup> When drivers are texting they look away from the road an average of fourteen times every thirty seconds to see their phones.<sup>170</sup> A study by the Virginia Tech Transportation Institute that observed millions of miles of videotape of truck drivers found that drivers who were texting had their eyes off the road for 4.6 out of every six

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166. See Marc Benjamin, *Drivers Keep Talking in Face of Cell Phone Law*, FRESNO BEE, Oct. 6, 2008, at A1 (noting California Highway Patrol data indicating cell phone use to be the top distraction leading to traffic accidents).

167. See Nat'l Safety Council, *National Safety Council Estimates That At Least 1.6 Million Crashes Each Year Involve Drivers Using Cell Phones and Texting*, PR NEWSWIRE (Jan. 12, 2010), <http://www.prnewswire.com/news-releases/national-safety-council-estimates-that-at-least-16-million-crashes-are-caused-each-year-by-drivers-using-cell-phones-and-texting-81252807.html>; see also *The Problem of Cell Phone Distracted Driving*, NAT'L SAFETY COUNCIL, <http://www.nsc.org/learn/NSC-Initiatives/Pages/distracted-driving-problem-of-cell-phone-distracted-driving.aspx> (last visited Sept. 25, 2015).

168. A 2003 study by the Harvard Center of Risk Analyses estimated that 2,600 deaths per year are attributable to cell phone use while driving. See Ashley Halsley III, *Experts Say 'Distracted Drivers' React to Penalties*, WASH. POST (Oct. 5, 2009), <http://www.washingtonpost.com/wp-dyn/content/article/2009/10/04/AR2009100402938.html>. For the study from which the numbers were extrapolated, see Joshua T. Cohen & John D. Graham, *A Revised Economic Analysis of Restrictions on the Use of Cell Phones While Driving*, 23 RISK ANALYSIS 5 (2003), <http://onlinelibrary.wiley.com/doi/10.1111/1539-6924.00286/epdf>.

169. Dusty Horwitt, Note, *Driving While Distracted: How Should Legislators Regulate Cell Phone Use Behind the Wheel?*, 28 J. LEGIS. 185, 191 (2002).

170. See Robert L. Sachs, Jr., *TXT MSGS and Other Driving Distractions*, 44 TRIAL 20, 22 (2008). Another study found that drivers spend up to 400% more time looking off the road when text messaging while driving. See SIMON HOSKING ET AL., MONASH UNIV. ACCIDENT RESEARCH CENTRE, REP. NO. 246, *THE EFFECTS OF TEXT MESSAGING ON YOUNG NOVICE DRIVER PERFORMANCE* xii (2006).

seconds.<sup>171</sup> Other studies have found that texting while driving increases vehicles' stopping distance by over 300 feet,<sup>172</sup> increases inadvertent leaving of lanes by ten percent,<sup>173</sup> and increases the risk of accidents six-fold.<sup>174</sup> A meta-analysis of eighty distracted driving studies found that "it is abundantly clear that the effect of text messaging while driving rivals [the danger that is] attributable to alcohol and surpasses that of marijuana use" while driving.<sup>175</sup> As far back as 1997, research published in *The New England Journal of Medicine* found a four-times greater risk of an accident when the driver was using a cell phone.<sup>176</sup>

One explanation for the large number of accidents caused by texting while driving is that drivers have to take their eyes off their phones in order to type on their phones.<sup>177</sup> Indeed, the study conducted by the Virginia Tech Transportation Institute found that talking on a cell phone while driving marginally increased the risk of crashing, but that texting while driving was 23.2 times more dangerous than non-distracted driving.<sup>178</sup>

If the "eyes off the road" explanation were the only available evidence, it might counsel in favor of allowing Google Glass while driving. The primary selling point of Glass is that users do not need to look down at their cell phones and can keep their eyes in front of them and see the world as it is goes by. However, a large number of social science studies indicate that drivers' use of hands-free wireless devices is also highly dangerous because

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171. Sherri Box, *New Data From Virginia Tech Transportation Institute Provides Insight into Cell Phone Use and Driving Distraction*, VA. TECH TRANSP. INST. (July 29, 2009), <http://www.vtnews.vt.edu/articles/2009/07/2009-571.html>.

172. Michael Austin, *Texting While Driving: How Dangerous Is It?*, CAR AND DRIVER (June 2009), <http://www.caranddriver.com/features/texting-while-driving-how-dangerous-is-it-the-results-page-2>.

173. Shannon L. Noder, Note, *Talking and Texting While Driving: A Look at Regulating Cell Phone Use Behind the Wheel*, 44 VAL. U.L. REV. 237, 247 n.45 (2009). In a study of novice drivers, lane excursions due to text messages rose to 28%. See HOSKING ET AL., *supra* note 170, at 21.

174. See HOSKING ET AL., *supra* note 170, at 22.

175. Paola Pascual-Ferrá et al., *A Meta-Analytic Comparison of the Effects of Text Messaging to Substance-Induced Impairment on Driving Performance*, 29 COMM. RES. REP. 227, 234–35 (2012); see also David L. Strayer et al., *A Comparison of the Cell Phone Driver and the Drunk Driver*, 48 J. HUM. FACTORS & ERGONOMICS SOC'Y 381, 390 (2006) (reaching similar conclusion in single study).

176. Donald A. Redelmeier & Robert J. Tibshirani, *Association Between Cellular-Telephone Calls and Motor Vehicle Collisions*, 336 NEW ENG. J. MED. 453, 456 (1997).

177. See, e.g., Simon G. Hosking et al., *The Effects of Text Messaging on Young Drivers*, 51 J. HUM. FACTORS AND ERGONOMICS SOC'Y 582, 583 (2009) ("Increases in the amount of time that drivers spend looking away from the road to interface with an in-vehicle device can lead to degraded driving performance, such as increased steering wheel deviations . . .").

178. Box, *supra* note 171.

any cell phone use impairs cognitive functioning in the brain and leads drivers to pay far less attention to the act of driving.

For instance, researchers at Carnegie Mellon University studied MRI brain scans and determined that listening to a cell phone conversation while driving results in a drastic decrease in brain activity focused on driving.<sup>179</sup> The reason is that talking on a cell phone creates a “cognitive tunnel vision” or “inattention blindness” in which drivers fail to notice what is happening around them.<sup>180</sup>

In a 2001 study of simulated driving, researchers found that college students who were deeply involved in cell phone conversations missed traffic signals at twice the rate of those not using phones.<sup>181</sup> A similar study in 2004 found that “conversing on a cellular phone disrupts the driver’s attention to the visual environment” and that drivers “were less likely to create a durable memory” for objects they passed while driving.<sup>182</sup>

A 2007 study by the leading researchers David Strayer and Frank Drews replicated the results of earlier studies and documented that cell phone conversations were more dangerous than conversations with passengers in the vehicle.<sup>183</sup> Subjects in the study wore hands-free cell phone devices and began conversations before starting to drive in a simulator. At no time did the subjects have to touch the device while driving. Strayer and Drews found that drivers were less likely to remember objects in front of them on the road if they had been talking on a hands-free device. The reason was that “cell-phone conversation disrupts performance by diverting attention from the external environment associated with the driving task to an engaging context associated with the cell-phone conversation.”<sup>184</sup> Notably, the researchers found that drivers were more distracted when talking on a

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179. See Annie Barret Wallin, *Cell Phones Pose a Distraction to Drivers But Legislative Ban Is Not the Answer*, 98 KY. L.J. 177, 184–85 (2009–10) (discussing the study).

180. See Ana M. Alaya, *Cell Phone Law Having Trouble Getting Traction—Drivers Ignore It, While Factions Debate Its Contribution to Safety*, STAR-LEDGER, Jan. 2, 2005, at 15 (quoting University of Utah psychology professor David Strayer). See also Marcel Adam Just et al., *Interdependence of Nonoverlapping Cortical Systems in Dual Cognitive Tasks*, 14 NEUROIMAGE 417, 420–21 (2001) (finding that listening to someone speak uses some of the resources that people otherwise use for visual analysis).

181. See David L. Strayer & William A. Johnston, *Driven to Distraction: Dual-Task Studies of Simulated Driving and Conversing on a Cellular Telephone*, 12 PSYCHOL. SCI. 462, 465 (2001).

182. David L. Strayer et al., *What Do Drivers Fail to See when Conversing on a Cell Phone?*, 48 PROC. HUM. FACTORS & ERGONOMICS SOC’Y ANN. MEETING 2213, 2216 (2004).

183. See David L. Strayer & Frank A. Drews, *Cell-Phone-Induced Driver Distraction*, 16 CURRENT DIRECTIONS PSYCHOL. SCI. 128, 130 (2007).

184. *Id.* at 129.

cell phone than when holding a similar conversation with passengers sitting in the vehicle.<sup>185</sup> Passengers in the vehicle were able to assist the driver with location and traffic information, whereas the person on the cell phone call was not.<sup>186</sup>

Other studies have documented that “a conversation with a passenger in the vehicle is often qualitatively different from conversations on a cell phone.”<sup>187</sup> One study by Frank Drews and his colleagues found that “cell phone use negatively impacts lane keeping . . . and leads to an impairment in a navigation task while passenger conversations have only little effect.”<sup>188</sup> The Drews study found that, by contrast, “passengers take an active role in supporting the driver”<sup>189</sup> by “frequently talking about the surrounding traffic” and by decreasing the complexity of the conversation when the road conditions become more dangerous.<sup>190</sup>

In sum, the wide body of literature on cell phone conversations while driving strongly suggests that bans on cell phone use while driving make sense, and that hands-free exceptions do not. As the leading scholars have observed,

legislative initiatives that restrict handheld devices but permit hands-free devices are not likely to eliminate the problems associated with using cell phones while driving because these problems are attributed in large part to the distracting effects of the phone conversations themselves, effects that appear to be due to the direction of attention away from the external environment and toward an internal cognitive context associated with the phone conversation.<sup>191</sup>

Although most of the literature focuses on phone conversations, a few studies of voice-activated emailing and texting support the conclusion that

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185. *See id.* at 130.

186. *See id.*

187. David L. Strayer et al., *Cell Phone-Induced Failures of Visual Attention During Simulated Driving*, 9 J. EXPERIMENTAL PSYCHOL.: APPLIED 23, 31 (2003) [hereinafter Strayer et al., *Cell Phone-Induced Failures*].

188. Frank A. Drews et al., *Passenger and Cell Phone Conversations in Simulated Driving*, 14 J. EXPERIMENTAL PSYCHOL.: APPLIED 392, 398 (2008).

189. *Id.*

190. *See id.*; *see also* David L. Strayer & Frank A. Drews, *Cell-Phone-Induced Driver Distraction*, 16 CURRENT DIRECTIONS IN PSYCHOL. SCI. 128 (2007).

191. Strayer et al., *Cell Phone-Induced Failures*, *supra* note 187, at 31. Of course, this is not to say that current bans on hand-held phones have been a total failure. *See* Oh Hoon Kwon et al., *Evaluating the Effectiveness of the Law Banning Handheld Cellphone Use While Driving*, 70 SAFETY SCI. 50, 53 (2014) (studying California accident data and concluding that the hand-held cell phone ban contributed to a reduction in collisions).

hands-free cell phone use is extremely dangerous. In 2004, researchers analyzed the effect of speech-based email on driver safety. Jamson and colleagues simulated an email system in which an envelope appeared on an LCD display in the driving simulator and two seconds later an email was orally read to the driver.<sup>192</sup> The researchers found that the email led to increased braking time and that “[p]articipants were less effective in using environmental cues to anticipate the requirement to brake when dealing with E-mail, as compared with the no-E-mail [group].”<sup>193</sup>

More recently, a study compared hand-based texting with speech-based texting.<sup>194</sup> Researchers designed a simulated driving study in which one group of college students manually entered text on a phone, while another group used a hands-free device to verbally enter the same text.<sup>195</sup> The authors found that while hand-held texting increased braking time and was overall more dangerous, speech-based texting “still significantly impaired driving compared to the drive-only condition.”<sup>196</sup>

Another recent study casts even greater doubt on the safety of voice-texting. In 2013, Christine Yager of the Texas A&M Transportation Institute compared manual texting and two different voice texting systems (Siri and Vlingo).<sup>197</sup> Yager found, perhaps surprisingly, that voice-texting systems led drivers to remove their eyes from the road.<sup>198</sup> Also surprisingly, drivers took more time to complete the texts using voice commands than manual entry.<sup>199</sup> Yager found that drivers who were texting, no matter whether it was manually or with voice commands, had a response time that was approximately twice as slow, regardless of the mode of texting.<sup>200</sup> For this reason, Yager concluded that her initial findings “suggest that using

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192. See A. Hamish Jamson et al., *Speech-Based E-Mail and Driver Behavior: Effects on an in-Vehicle Messaging System Interface*, 46 J. HUM. FACTORS & ERGONOMICS SOC'Y 625, 628 (2004).

193. *Id.* at 637.

194. See Jibo He et al., *Texting While Driving: Is Speech-Based Text Entry Less Risky than Handheld Text Entry?*, 72 ACCIDENT ANALYSIS & PREVENTION 287, 287 (2014).

195. *Id.* at 290.

196. *Id.* at 287.

197. See CHRISTINE YAGER, AN EVALUATION OF THE EFFECTIVENESS OF VOICE-TO-TEXT PROGRAMS AT REDUCING INCIDENCES OF DISTRACTED DRIVING 7 (2013).

198. *Id.* at 69.

199. In part, this may be because the voice-activated technology is complicated to use. See Andrew F. Amendola, *Can You Hear Me Now? The Myths Surrounding Cell Phone Use While Driving and Connecticut's Failed Attempt at a Remedy*, 41 CONN. L. REV. 339, 356–57 (2008).

200. See YAGER, *supra* note 197, at xiv.

voice-to-text applications to send and receive text messages while driving do not increase driver safety compared to manual texting.”<sup>201</sup>

*B. The Social Science Literature Strongly Suggests that Using Google Glass While Driving is Dangerous*

The social science evidence available to date does not definitively tell us about the safety or risk of using Google Glass while driving. Nevertheless, studies about cell phone conversations, manual texting, and speech-based texting point strongly toward a need for banning Google Glass while driving.

First, the numerous studies documented in Section III.A *supra* indicate that when a driver removes her eyes from the road she drastically increases the risk of a crash. The social science evidence available to date does not definitively tell us about the safety or risk of using Google Glass while driving. Nevertheless, studies about cell phone conversations, manual texting, and speech-based texting point strongly toward a need for banning Google Glass while driving.

First, the numerous studies documented in Section III.A *supra* indicate that when a driver removes her eyes from the road she drastically increases the risk of a crash.<sup>202</sup> For experienced users, Google Glass may require less “eyes off the road” than hand-held manual texting, but it still involves looking away from traffic. The Glass users must direct their attention to the upper right-hand corner of their line of sight. Moreover, when the Glass screen has gone to sleep, the users will need to tilt their heads back at a thirty-degree angle to wake up the device. And, of course, beginners and less adept Glass users will have to look harder and longer at the virtual screen, thus further removing their attention from the road.

Second, and possibly more importantly, the wide body of literature about the cognitive distraction of cell phone conversations applies with great force to Glass. As described in Section III.A, *supra*, carrying on a cell phone conversation with a person increases the risk of accidents because the driver, while keeping his eyes on the road, develops cognitive tunnel vision

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201. *Id.* at xv. Based on the Yager study and other distracted driving research, the Traffic Injury Research Foundation—a fifty-year-old organization with the mission of reducing traffic deaths and injuries—has advocated that legislatures ban hands-free texting. See Daniel Mayhew et al., *Driver Distraction and Hands-Free Texting While Driving*, TRAFFIC INJURY RES. FOUND. 7 (Apr. 2013), [http://www.tirf.ca/publications/PDF\\_publications/TIRF-Hands-FreeTexting-2013\\_Final\\_6.pdf](http://www.tirf.ca/publications/PDF_publications/TIRF-Hands-FreeTexting-2013_Final_6.pdf).

202. See *supra* notes 168–78 and accompanying text.

or inattention blindness and does not “see” as much of what is in front of him.<sup>203</sup> The primary way to use Google Glass involves talking to the device. While further research is needed, there is reason to believe that interacting and conversing with Glass will be cognitively distracting just like carrying on a phone conversation with a live person. Users will divert their mental focus to instructing Glass and will not “see” objects on the road as clearly even if they are looking directly at them.

Third and finally, early research indicates that verbal texting (by using Siri or other programs) poses just as great a danger as manual texting.<sup>204</sup> This may be due to glitches in early generation technology that make verbal texting less accurate and more difficult than manual texting. If that is correct, it is particularly problematic when applied to Google Glass. Many explorers have noted that the device does not operate smoothly and that users must often repeat or correct commands.<sup>205</sup> This, in turn, may lead drivers to direct their focus away from the road for even longer.

In sum, while more research needs to be done, the evidence strongly suggests that Google Glass will carry the same dangers as texting while driving and other cell phone use while driving. Accordingly, states should ban Google Glass and other wearable electronic devices while driving. The remaining question is how to effectively accomplish that goal.

#### IV. LEGISLATIVE EFFORTS TO BAN GLASS WHILE DRIVING HAVE BEEN UNSUCCESSFUL SO FAR AND MOST PROPOSED LEGISLATION IS BADLY DRAFTED

Consistent with the social science data outlined in Part III, a handful of legislators have introduced bills to ban Google Glass while driving. Legislators in Delaware and West Virginia proposed the first legislation in early 2013. After the publicity following Cecilia Abadie’s Google Glass ticket in October 2013 (and the dismissal of the charge in January 2014),

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203. See *supra* notes 179–91 and accompanying text.

204. See *supra* notes 197–201 and accompanying text.

205. *Hands-on with Google Glass: Limited, Fascinating, Full of Potential*, CNET (May 1, 2013, 10:21 PM), <http://www.cnet.com/products/google-glass/>. See also Daniel Cristo, *Google Glass: Thank You For Exploring with Us*, MARKETING LAND (Feb. 3, 2015, 12:29 PM), <http://marketingland.com/thank-exploring-us-115582>; Robert Sorokanich, *What do You Think: Is Google Glass Doomed?*, GIZMODO (Jan. 5, 2014, 11:20 AM), <http://gizmodo.com/what-do-you-think-is-google-glass-doomed-1494953279>; Joshua Topolsky, *I Used Google Glass: The Future, but with Monthly Updates*, THE VERGE (Feb. 22, 2013, 11:39 AM), <http://www.theverge.com/2013/2/22/4013406/i-used-google-glass-its-the-future-with-monthly-updates>.



legislators in six other states followed suit and introduced legislation to ban wearable or “head-mounted” electronic devices while driving.<sup>206</sup>

As of mid-2014, legislators in eight states have introduced bills that would make it illegal to drive while using Google Glass and other head-mounted devices.<sup>207</sup> Google has lobbied against the bills<sup>208</sup> and the proposed legislation is currently stalled in all eight states. As explained below, the proposed legislation is badly drafted or under-inclusive in six of the eight states considering bans on Google Glass while driving.

*A. Badly Drafted Legislation That Would Be Nearly Impossible to Enforce*

In May 2013, a Delaware legislator introduced a bill that would add “wearable computer with a head-mounted display” to its list of electronic devices that drivers cannot use while a vehicle is in motion.<sup>209</sup> The bill was clearly aimed at Google Glass and its sponsor remarked that “[j]ust like the cellphone, it’s not something you should be using while driving.”<sup>210</sup>

While Delaware’s proposed ban would be a step in the right direction, the proposed statutory language is flawed and would make enforcement nearly impossible. The proposed amendment does not forbid drivers from physically wearing Google Glass or other electronic devices. It only forbids drivers from “using” such devices while a vehicle is in motion. This is problematic for two reasons. First, and most obviously, a driver could simply say that he was only wearing Google Glass (perhaps because it contains his prescription lenses)<sup>211</sup> and that he was not “using” the device at all. Indeed, a police officer who was observing traffic would have no way to know whether a passing driver was “using” as opposed to simply “wearing” Google Glass, and the officer therefore might lack reasonable suspicion to even pull over the driver in the first place.

The second problem with the proposed Delaware legislation is that current Delaware law banning electronic devices while driving includes an

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206. See *infra* notes 208–28 and accompanying text.

207. See Dan Levine, *Exclusive: Google Sets Roadblocks to Stop Distracted Driver Legislation*, REUTERS (Feb. 25, 2014, 7:05 AM), <http://www.reuters.com/article/2014/02/25/us-google-glass-lobbying-idUSBREA100P920140225>.

208. See *id.*

209. See H.B. 155, 147th Gen. Assemb., 1st Reg. Sess. (Del. 2013), <http://legis.delaware.gov/LIS/LIS147.nsf/vwlegislation/7C818FC1D584593785257B650063B533>.

210. See Burke, *supra* note 163.

211. See *infra* notes 221–23 and accompanying text.

exception allowing a “person [to engage] in a *call* with a hands-free electronic communication device while utilizing hands-free equipment.”<sup>212</sup> Because of this provision, prosecutors would be in the unfortunate position of having to prove that a driver was using Google Glass for a prohibited function (for example, texting), rather than the lawful activity of engaging in a hands-free phone call. A police officer who observed a driver wearing Google Glass and talking would have no way of knowing whether the driver was (lawfully) carrying on a cell phone conversation with another person or whether the driver was (unlawfully) instructing Google Glass to send a text message or an email.<sup>213</sup>

In its current form, the proposed Delaware law aimed at restricting Google Glass would be incredibly difficult to enforce and drivers would easily avoid prosecution.<sup>214</sup> Proposed legislation in other states suffers from the same problem.

In January 2014, New Jersey legislators introduced a bill that they said was specifically aimed at Google Glass.<sup>215</sup> The new law would prohibit “[t]he use of a wearable computer with head mounted display by an operator of a moving motor vehicle.”<sup>216</sup> However, the bill did not define “use” to mean the same thing as “wear,” thus suggesting the driver would have to have Google Glass turned on and in operation to fall within the language of the statute. As with Delaware’s approach, this would be nearly impossible to enforce.

West Virginia’s proposed statute is similar to the Delaware and New Jersey bills in that it would prohibit a driver from “using a wearable computer with a head mounted display.”<sup>217</sup> The proposed legislation does not define “using” in this context, leaving open the argument that drivers who were simply wearing Google Glass that was turned off would not be in violation of the statute.

Proposed legislation in Wyoming suffers from the same problem. A Wyoming bill introduced in February 2014 would amend the state’s texting while driving law to also prohibit a person from operating a motor vehicle

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212. DEL. CODE ANN. tit. 21, § 4176C(c)(4) (2012) (emphasis added).

213. If there were a passenger in the car who the driver plausibly could have been speaking to, it would be even harder to prove the driver was “using” Google Glass.

214. Although Delaware’s proposed legislation was not enacted in 2013, it was resurrected in 2014, raising the possibility that it could become law in the near future. *See supra* note 208. The bill was amended in June 2014 to include a minor technical fix.

215. *See* Assemb. B. 1802, 216th Leg., 1st Ann. Sess. (N.J. 2014). The Statement of the bill pointed to Google Glass as the only example.

216. *Id.*

217. H.B. 3057, 81st Leg., Reg. Sess. (W. Va. 2014).

while “using a wearable computer with a head mounted display.”<sup>218</sup> The proposed amendment fails to define “using,” however. In the absence of a specific definition, the most logical interpretation of “using” a wearable computer is that the device is on and that the driver is accessing data from it. Just like the proposed statutes in Delaware, New Jersey, and West Virginia, the Wyoming legislation would make it difficult for prosecutors to prove beyond a reasonable doubt that a driver was “using” Google Glass.

Proposed legislation in New York is drafted slightly better, but it also would have enforcement problems. Only days after a California judge dismissed the charge against Cecilia Abadie for wearing Google Glass while driving,<sup>219</sup> New York legislators introduced legislation to amend the state’s current ban on driving with portable electronic devices to also “prohibit the use of electronic devices like Google Glass while driving.”<sup>220</sup> The proposed New York statute would ban drivers from wearing a portable electronic device while texting, emailing, playing games or doing a litany of other activities.<sup>221</sup> As with New York’s current ban on hand-held electronic devices, the proposed legislation would create a presumption that a person who wears portable electronic device “in a conspicuous manner while operating a motor vehicle . . . is presumed to be using such a device.”<sup>222</sup>

The presumption that a driver who is wearing Google Glass is in fact using the device would make it easier for prosecutors to convict drivers. However, the presumption is rebuttable under the proposed New York statute. And the same type of rebuttable presumption (which already exists in New York’s ban on hand-held devices) has proven problematic for enforcing the state’s texting while driving prohibition. Drivers in New York have successfully defeated the presumption by saying that they were using the cell phone for lawful purposes—for instance, adjusting the Bluetooth function or checking the clock—rather than engaging in prohibited activities such as texting or email.<sup>223</sup>

New York drivers would have an even easier time rebutting the presumption under the proposed legislation for wearable electronic devices. While police officers can fairly easily testify that they saw a driver wearing Google Glass, the driver could simply say that the device was not in use.

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218. S. File 35, 2014 Budget Sess. (Wyo. 2014).

219. Heather Kelly, *Ticket for Driving in Google Glass Dismissed*, CNN (Jan. 17, 2014, 3:09 PM), <http://www.cnn.com/2014/01/16/tech/innovation/google-glass-ticket-dismissed/>.

220. See Assemb. B. 8496, 237th Leg. Sess. (N.Y. 2013).

221. See *id.*

222. *Id.*

223. See *supra* notes 83–88 and accompanying text.

This would be particularly persuasive if the driver testified that her Google Glass is configured with prescription glasses that she must leave on in order to see. Put simply, drivers would have plausible claims that they were wearing, but not “using,” Google Glass, thus creating a large loophole and excessive litigation.

*B. Proposed Legislation that Would be more Effective*

The pending Google Glass legislation in the other three states—Illinois, Maryland, and Missouri—is better drafted and would be more easily enforceable. Unfortunately, as with the poorly drafted bills described in Section IV.A *supra*, these states’ proposals are limited to head-mounted devices and do not address other wearable technology that can be attached to other body parts. While not as comprehensive as the model statute outlined in Part V *infra*, the proposed legislation in these three states is preferable to the unenforceable proposals described in Section IV.A *supra*.

Consider the proposal in Illinois. Under current Illinois law, a person “may not operate a motor vehicle on a roadway while using an electronic communication device.”<sup>224</sup> Simply adding Google Glass to the list of prohibited electronic devices would create an enforcement problem because it would be difficult to prove the driver was “using” Glass. The proposed Illinois legislation avoids this problem however because it provides that a person may not operate a motor vehicle “while *wearing* a mobile computing headset.”<sup>225</sup> The Illinois amendment thus solves the enforcement problem by eliminating the requirement that prosecutors prove that Google Glass was turned on or in use. Unfortunately, the Illinois bill died in committee.<sup>226</sup>

Proposed Maryland legislation would also forbid drivers from “*wearing* or using a wearable computer with a head-mounted display.”<sup>227</sup> Unfortunately, the Maryland proposal is currently stalled.

Finally, legislators in Missouri have proposed amending their state’s texting while driving statute in a way similar to the Illinois and Maryland proposals.<sup>228</sup> Drivers would not be permitted to “operate or wear a head-mounted display while operating a motor vehicle upon the highways of this

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224. 625 ILL. COMP. STAT. 5/12-610.2 (2014).

225. S.B. 2632, 98th Gen. Assemb., 1st Reg. Sess. (Ill. 2013), <http://legiscan.com/IL/text/SB2632/id/899836>.

226. *Id.*

227. H.B. 604, 434th Sess. Gen. Assemb. (Md. 2014) (emphasis added).

228. H.B. 1123, 97th Gen. Assemb., 2d Reg. Sess. (Mo. 2014).

state.”<sup>229</sup> Unfortunately, Missouri’s current texting while driving statute only applies to drivers twenty-one years and under.<sup>230</sup> Thus, even if the proposed Missouri legislation is enacted it would only ban Google Glass while driving for a small fraction of Missouri drivers.

In sum, of the eight states with pending legislation to ban Google Glass while driving, the bills in five states are practically unenforceable. The proposed legislation in Missouri would be easier to enforce, but it would only apply to young drivers and is thus too narrow. The proposed statutes in Illinois and Maryland are the best designed; yet, even those bills are inadequate because they apply only to head-mounted computers and would thus fail to prohibit smart watches and other technology while driving. As explained in Part V *infra*, a more inclusive statute is necessary.

#### V. STATES SHOULD ADOPT A BROAD AND BRIGHT-LINE PROHIBITION ON GOOGLE GLASS AND OTHER WIRELESS DEVICES WHILE DRIVING

The discussion in Part II *supra* demonstrates that the current patchwork of distracted driving laws across the country does not forbid drivers from using Google Glass. Roughly half of states allow hands-free wireless devices while driving. And many of the states without hands-free exceptions ban only certain activities, thus making them practically unenforceable when applied to Google Glass. The social science evidence reviewed in Part III *supra* strongly indicates that Google Glass and other wearable electronic devices pose a considerable danger while driving. While all risks involve a cost-benefit calculation, there is little evidence to support the benefit of Google Glass while driving. This Part, therefore, proposes a comprehensive ban on Google Glass and other wearable devices while driving.

Below, I propose a statute that is broader than the pending legislation described in Part IV *supra* and it is designed to be more easily enforceable. Before describing the model statute though, I briefly consider why legislatures must move briskly.

##### A. Legislatures Should Move Quickly

Once Glass is in mainstream use it will become much harder for legislatures to ban its use while driving. There are two reasons for this. First

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229. *Id.*

230. Mo. Rev. Stat. § 304.820(1) (2013).

and quite simply, when an activity is legal and convenient, it is difficult to move to a regime that forbids that activity. The classic example is driving while intoxicated, which was only taken seriously by the criminal justice system after decades of work by Mothers Against Drunk Driving and other activists.<sup>231</sup>

Second, although the original version of Glass had no lenses, it is now possible to build prescription lenses into the device.<sup>232</sup> At present, prescription glasses appear to work poorly with Glass, but Google is working to seamlessly integrate them.<sup>233</sup> Indeed in March 2014, Google announced a partnership with the world's largest eyeglass company to design and distribute frames specifically for Glass.<sup>234</sup>

The point of Glass is for users to have the device on their faces at all times. Once prescription lenses are regularly built into Google Glass, users will certainly want to (and, perhaps may *have* to) leave the device on their faces to see while driving. At that point, Google will have a stronger rationale for why legislatures should not completely ban the wearing of Glass while driving. Legislators should, therefore, move quickly to ban drivers from wearing Google Glass before the prescription glass problem takes root.

### *B. A Proposed Statute for Banning Google Glass and Other Wearable Devices*

An effective statutory ban on Google Glass must have three components. First, to be plausibly enforceable, the statute should ban *wearing* electronic devices. Second, the statute should also forbid “using” Glass so that drivers cannot circumvent the law by mounting the devices on something close to their faces in the vehicle. Third, legislatures should define the term “device” broadly to encompass smart watches as well as technology that presently does not exist but which could be created in the near future. After explaining these points, I offer a model statute that legislatures could adopt.

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231. See Adam M. Gershowitz, *12 Unnecessary Men: The Case for Eliminating Jury Trials in Drunk Driving Cases*, 2011 U. ILL. L. REV. 961, 966–69 (2011).

232. See Claire Cain Miller, *Google Glass to Be Covered by Vision Care Insurer VSP*, N.Y. TIMES, Jan. 28, 2014, at B1, <http://www.nytimes.com/2014/01/28/technology/google-glass-to-be-covered-by-vision-care-insurer-vsp.html>.

233. See *id.*

234. See Claire Cain Miller, *Biggest Eyewear Company Signs on with Google Glass*, N.Y. TIMES, Mar. 25, 2014, at B2, <http://www.nytimes.com/2014/03/25/technology/biggest-eyewear-company-signs-on-with-google-glass.html>.

### 1. The Statute must Prohibit “Wearing” Glass

First, to be enforceable, it is essential that a statute banning Google Glass while driving prohibit drivers from *wearing* Glass while a vehicle is in operation. As noted, six of the eight states with pending Google Glass legislation have only proposed banning the “use” of Glass while driving.<sup>235</sup>

To understand why a “use” statute will not work for banning Glass, consider the difference between Glass and regular cell phones. It is fairly easy for police to spot drivers who appear to be texting on hand-held phones.<sup>236</sup> Officers can then testify to what they observed and judges can easily credit the officers’ testimony, even over drivers’ claims that they were not texting or holding the phone.<sup>237</sup> In short, prosecutors regularly prove texting while driving beyond a reasonable doubt solely based on the testimony of an officer.

A prohibition on using Google Glass would not work nearly so easily. As noted above, it is very difficult for people standing near a Google Glass user to know if the device is even turned on. Certainly, police officers observing traffic from across the street would have no way of knowing that a driver’s Glass was “on.” Even if an officer were stopped at a traffic light and could see the driver in the next car was wearing Google Glass, that officer would have no way of knowing whether Glass was turned on. In fact, even if the driver’s mouth were moving and there were no passengers in the vehicle, the officer would still have no idea whether the driver was issuing commands to Glass or just singing along with the radio.

A statute that only forbids “use” rather than wearing of the device therefore creates two significant problems. First, because it would not be illegal to wear Glass, the officer would lack reasonable suspicion to even pull over a driver in the first place.

Second, even if the officer could lawfully stop the vehicle, the driver could easily claim that her Google Glass was off while the vehicle was in motion. To disprove the driver’s claim, the officer would have to seize the device and find evidence—perhaps a recently sent text message that is time

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235. *Supra* Section IV.A.

236. See Gretchen Gregory, *Statewide Texting Ban Takes Effect Friday*, THE ATHENS MESSENGER, Aug. 28, 2012, at 3, [http://www.athensmessenger.com/news/statewide-texting-ban-takes-effect-friday/article\\_75331ec6-f08a-11e1-9679-0019bb2963f4.html](http://www.athensmessenger.com/news/statewide-texting-ban-takes-effect-friday/article_75331ec6-f08a-11e1-9679-0019bb2963f4.html) (quoting state trooper).

237. See Brian R. Gallini, *To Serve and Protect? Officers as Expert Witnesses in Federal Drug Prosecutions*, 19 GEO. MASON L. REV. 363, 410 (2012) (noting, in federal drug cases that “any defendant who testifies in her own defense to rebut the officer’s testimony engages in a credibility contest that she is destined to lose”).

stamped—that Glass was in use while driving. Finding that evidence would be difficult. Documenting it for a later trial would be virtually impossible. And, of course, most officers will not want to take the time to conduct such a thorough search of an electronic device to document a low-level misdemeanor offense.<sup>238</sup> Moreover, such a search would no longer be permissible under the search incident to arrest doctrine after the Supreme Court’s 2014 decision in *Riley v. California*,<sup>239</sup> thus, forcing officers to demonstrate probable cause and rely on the automobile exception.<sup>240</sup>

At bottom, acquiring and documenting proof beyond a reasonable doubt that a driver was “using” Glass would be nearly impossible. By contrast, proving that a driver was “wearing” the device is much more plausible. So long as the officer can get a good look at the driver’s face, Glass is very recognizable. Given that officers regularly recognize and ticket drivers for texting while driving, there is good reason to believe officers can also observe when drivers are wearing Glass.

## 2. The Statute Should also Prohibit “Using” Electronic Devices

To be comprehensive, a statute banning Google Glass while driving should also prohibit the “use” of Glass and it should provide a very clear and expansive definition of “use.”

Glass is designed to sit on a person’s face, just like a pair of ordinary glasses. However, the virtual screen is still visible when it is held a few inches away from the face.<sup>241</sup> Thus, a driver could mount Glass on the steering wheel or allow it to hang on her neck with an eyeglass chain and still be able to use it. Truly clever drivers might hang a string from the ceiling of the vehicle and attach Glass to the string, just like a periscope, or new products may take this step for drivers. In August 2014, a startup named Navdy unveiled a device that it called “Google Glass for your car” that will mount on the vehicle’s dashboard and allow you to see a virtual

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238. Reported cases of cell phone searches do not involve minor traffic violations. Instead, most cell phone searches primarily appear to involve searches for drugs. See Adam M. Gershowitz, *Password Protected? Can a Password Save Your Cell Phone From a Search Incident to Arrest*, 96 IOWA L. REV. 1125, 1132–36 (2011).

239. 134 S. Ct. 2473, 2495 (2014).

240. For the contours of the automobile exception, see *California v. Acevedo*, 500 U.S. 565, 569–72 (1991).

241. This was the author’s experience while testing Glass for a few weeks.



screen and interact with all of your phone's applications.<sup>242</sup> To avoid this type of loophole, legislatures should ban not only wearing Glass and equivalent devices, but also the *use* of the device while driving.

And in banning the "use" of the device, legislatures should be clear to impose a definition that Glass is in "use" in virtually all circumstances, whether that be phone calls, texting, or practically any other application. A major problem with texting while driving statutes throughout the United States is that they only forbid the use of certain functions—for example, texting or emailing—but allow the use of other functions, such as GPS directions.<sup>243</sup> These distinctions were difficult enough to apply to early generation cell phone technology and are completely ill-suited to advanced technology like Google Glass.

It is easy to see how legislatures could be pressured to offer a limited definition of what it means to "use" Glass. Legislatures might be tempted to allow drivers to make phone calls with Glass (because Glass operates just like a pair of earphones for phone conversations) while forbidding drivers from watching videos or texting with the device. This effort to be nuanced will hinder police enforcement, however. First, drivers could claim (dishonestly in many cases) that they were using Glass for a lawful purpose. Second, as Glass becomes capable of new functions and applications that legislatures could not envision at the time the statute was drafted, the statute will quickly become under-inclusive and out of date.

To avoid litigation about whether a driver really was using the device for a prohibited purpose, legislatures should adopt the simplest and broadest definition of "use" imaginable. The definition should prohibit any way of holding the device, any method of interacting with it, and almost every application that could run on Glass.

### 3. The Statute Should Define Electronic Devices Broadly

The final important element of a ban on Google Glass while driving is that the prohibited technology be broadly defined. Google Glass is one of the newest wireless communications devices, but it is not the only wearable device and it surely will not be the last technological advance. Because it often takes years for legislatures to enact statutes that deal with emerging

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242. See Jessica Menton, *Navdy: Watch Startup Unveil 'Google Glass for Your Car,'* INT'L BUS. TIMES (Aug. 5, 2014, 6:57 PM), <http://www.ibtimes.com/navdy-watch-startup-unveil-google-glass-your-car-video-1649946>.

243. See *supra* Section II.B.

technology, new legislation should include a broad definition of devices that will not become obsolete shortly after the law is enacted.

As noted in Part IV *supra*, legislators in eight states have introduced bills designed to ban Google Glass while driving. The legislators have had the foresight not to use the words “Google Glass” in their proposed legislation, but their definitions of the prohibited devices are almost that narrow. In five states—Delaware, New Jersey, West Virginia and Wyoming—the legislation would prohibit “wearable computers with head mounted displays.”<sup>244</sup> New York’s proposed legislation would forbid “head-mounted mobile phones,” which is specifically defined as “wearing a portable electronic device on the head, ears, and nose as eyeglasses or eyewear.”<sup>245</sup> The bill in Illinois proposes to ban a “mobile computing headset,” which is defined as a “head mounted display that can project visual information into the field of vision of the wearer.”<sup>246</sup> Missouri would ban a “head-mounted display” that “has a small display optic in front of one or each eye.”<sup>247</sup>

Unfortunately, the definitions of the prohibited devices are very narrow in the eight states with pending legislation.<sup>248</sup> Legislators might as well have said people shall not drive with “Google Glass or any nearly identical face-worn product manufactured by another company.”

The primary problem with these definitions is that they only prohibit “head-mounted” devices. These bills therefore would not cover other wearable electronic devices. The most obvious such device is a “smart watch,” which users wear on their wrists like an ordinary time-piece. The smart-watch enables the user to read text messages and run some of the same third-party applications that people use on cell phones.<sup>249</sup> One version—the “Martian Victory” smart watch—allows you to use voice commands to answer phone calls and use more than twenty applications, including texting, emailing, facebook, and twitter.<sup>250</sup> While smart watches

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244. See H.R. 115, 147th Leg. (Del. 2013); H.R. 604, 431st Leg. (Md. 2014); H.R. A1802, 216th Leg. (N.J. 2014); H.R. 3057, 81st Leg., 1st Reg. Sess. (W. Va. 2013); S. 35, 62nd Leg. (Wyo. 2014).

245. H.R. AO8496, 200th Leg. (N.Y. 2014).

246. S. 2632, 98th Leg. (Ill. 2013).

247. H.R. 1123, 97th Leg., 2d Reg. Sess. (Mo. 2014).

248. See *supra* notes 238–40 and accompanying text.

249. See Adam Dachis, *What Can I Do With a Smartwatch and Should I Get One?*, LIFEHACKER (June 17, 2013, 8:00 AM), <http://lifehacker.com/what-can-i-do-with-a-smartwatch-and-should-i-get-one-513197351>.

250. See Voice Command Watch Overview, MARTIAN, <http://www.martianwatches.com/products/features/> (last visited Nov. 17, 2015).

do not currently run as many functions as Google Glass, the technology is in its infancy and will undoubtedly improve.

Smart watches would immediately fall into a gap between current bans on hand-held phones and pending legislation in eight states that would prohibit head-mounted devices. The existing social science literature described in Part III *supra* indicates that smart watches would be just as dangerous as hand-held texting while driving. Drivers who look at their watches to read text messages would be taking their eyes off the road *and* using cognitive brainpower that would distract their mental focus from the road.

The most important takeaway is not the level of danger posed by smart watches, but that proposed legislation would not cover devices that are already more ubiquitous than Glass.<sup>251</sup> Put simply, the proposed legislation in eight states to ban wearable electronic devices is already outdated long before it has even been enacted. Moreover, entirely new types of wireless devices are surely on the way. If new devices can operate without being “head-mounted”—for instance, if they were to attach to an armband and project a virtual screen from the driver’s bicep—then they would not be prohibited by pending legislation.

The solution to this problem is for legislatures to impose a broader definition of prohibited electronic wireless devices. Statutes should not limit the part of the body where the devices are worn. Rather, they should simply make clear that, with the exception of medical devices, no electronic wireless device may be worn anywhere where the device or a virtual projection from the device would be visible to the driver.

### C. A Model Statute That Legislatures Should Adopt

Because technology is evolving so quickly, it is difficult to draft a statute that imposes a comprehensive and enforceable ban on wireless electronic devices while driving. As noted in Part IV *supra*, a few states have proposed legislation aimed at banning Google Glass that is poorly drafted and under-inclusive. A better approach to banning Google Glass (as well as

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251. Just one smart watch manufacturer sold 400,000 units in 2013. See JP Mangalindan, *Pebble Sold 400,000 Smartwatches Last Year, on Track to Double Revenues in 2014*, FORTUNE (Mar. 20, 2014, 4:29 PM), <http://fortune.com/2014/03/20/pebble-sold-400000-smartwatches-last-year-on-track-to-double-revenues-in-2014/>. The industry estimates that three million smart watches were sold in 2013. See *Top 10 Smart Watch Companies (Sales)*, SMARTWATCH GROUP, <http://www.smartwatchgroup.com/top-10-smartwatch-companies-sales/> (last visited Nov. 17, 2015).

smart watches and other devices that create dangerous driving conditions) would be for legislatures to adopt the following statutory scheme:

Section 1: No person shall operate a motor vehicle while wearing a wireless electronic communication device.

Section 2: No person shall operate a motor vehicle while using a wireless electronic communication device.

Section 3: The following definitions shall apply to Sections 1 and 2 of this statute:

(A) Using is defined as talking to; commanding; typing on; reading from; looking at; having a phone conversation on; projecting a virtual screen from; holding in the hand, lap or on any other body part or outer-garment; or running any application or program on a wireless electronic communication device. For purposes of this statute, “using” does not include any program that audibly dictates GPS coordinates or directions to a driver without the driver having to touch or look at the electronic wireless communications device.

(B) Wearing is defined as having a device attached to the head, wrist, arm, leg, waist, or any other body part, or to the outer-clothing covering any body part. Wearing does not include having a wireless electronic communication device completely inside of a pocket of clothing such that no part of the device or any projection or screen from the device is visible to the driver.

(C) Wireless electronic communication device is defined as any item that can be used to communicate with another person; provide access to the internet, email, text messages, or any other electronic or virtual communication; play an electronic game; or operate a virtual screen. Wireless electronic communication device does not include a medical device that operates autonomously and which need not be manually adjusted while driving.

A few things are notable about this proposed statute. First, the proposed statute bans both *wearing* and *using* wireless electronic communication devices while driving. As described in Section IV.A *supra*, merely banning drivers from “using” Google Glass while driving makes statutes unenforceable because drivers could (falsely) say their Glass was turned off and the prosecutor would lack evidence to refute them. On the other hand, prohibiting only the “wearing” of devices is under-inclusive because drivers could simply mount Google Glass or other products in their vehicles and circumvent the prohibition on wearing the device. An effective statute must therefore ban both the wearing and the using of devices like Google Glass.

Second, the proposed statute defines “wearing” much more broadly than any current or pending legislation. Existing statutes ban only hand-held electronic devices. Proposed legislation to ban Google Glass has only forbidden head-mounted devices. If those bills are ever enacted they will be obsolete from the moment they are signed into law because they fail to cover smart watches and will likely be too narrow to encompass future technology. Any attempt to ban wearable devices like Google Glass should define “wearing” extremely broadly to ensure that manufacturers do not simply re-locate a similar device to sit on a different body part.

Third and related, the proposed statute defines “using” much more broadly than any current or proposed laws. Like many existing texting while driving statutes, my definition of “using” includes typing on a device or reading from it. In order to cover Glass and similar devices, my definition also forbids talking to the device, commanding it, or operating it to create a virtual screen. Finally, and probably controversially, the proposed definition of “using” also includes carrying on a phone conversation. To date, no state has banned hands-free phone conversations while driving; at most, states restrict phone calls to hands-free devices.<sup>252</sup> The social science research documented in Part III *supra*, however, strongly suggests that hands-free conversations are extremely dangerous and should also be banned. Moreover, in order to make a ban on Glass enforceable, legislatures should ban phone conversations so that drivers cannot claim they were simply talking on the phone instead of interacting with Glass and commanding it to do a prohibited function or application.

Finally, my proposed statute defines wireless electronic communications devices very broadly. Indeed, my initial definition is so broad that it requires a caveat that it should not include medical devices—for example, certain cardiac devices<sup>253</sup>—that the driver would not control but which would technically communicate wirelessly.

In sum, the model statute aims to create a broad set of bright-line prohibitions that would leave little room for drivers to claim they were using Google Glass or another device in a way that was not prohibited. Because of the myriad functions that Google Glass can be used for, it is imperative that statutes impose a comprehensive ban on all Glass applications if the prohibition is to be enforceable.

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252. See *supra* Section II.A.

253. For instance, some pacemakers and defibrillators send a wireless signal from the patient so that doctors can monitor the device remotely. See Barnaby J. Feder, *A Heart Device Is Found Vulnerable to Hackers*, N.Y. TIMES (Mar. 12, 2008), <http://www.nytimes.com/2008/03/12/business/12heart-web.html>.

## CONCLUSION

A vast body of social science literature indicates that using Google Glass while driving would be distracting and dangerous. Even though Glass has been available to “explorers” for over a year and was recently released to the public, no state has a law in place that specifically bans Glass while driving. And current distracted driving statutes in almost every state fail to cover the use of Glass while driving. Most texting while driving statutes contain an exception for hands-free devices, and many statutes banning television and video screens from being in front of drivers are too outdated to apply to Google Glass. Moreover, even when existing statutes could arguably be construed to apply to Glass, they are largely unenforceable because drivers could simply claim that they were using their devices for lawful functions such as phone calls or that Glass was turned off altogether.

Although legislators in a few states have introduced legislation that would ban Glass while driving, Google has successfully lobbied against new statutes. Moreover, the proposed legislation is badly drafted because it applies only to head-mounted devices and would, thus, fail to cover other devices, such as smart watches and new technology on the horizon that is not head-mounted. To make matters worse, most proposed legislation only forbids “using” Glass, which would leave prosecutors in the nearly impossible position of having to prove that a screen that is invisible to the public was visible to a driver while a vehicle was moving.

Legislatures should move briskly to draft a clear prohibition on Google Glass while driving. States should ban not just the use of Glass but also “wearing” the device while driving. And they should define the types of devices and the type of prohibited activity very broadly to ensure that any ban will at least have a chance of keeping pace with rapidly advancing technology.