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# SOUND RIGHTS: LEGAL PROTECTIONS FROM AUDIO INTRUSIONS IN LIGHT OF DIRECTIONAL SOUND TECHNOLOGY

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## I. INTRODUCTION

“Who is that? Who’s there? It’s not your imagination.” whispered a voice in the ears of any pedestrian that happened to cross Prince Street in Manhattan in early December 2007.<sup>1</sup> To those on the street, the voice sounded intimately close and yet the sound came from a pair of speakers positioned atop a nearby multistory building.<sup>2</sup> How could a voice, so soft that only a few pedestrians could hear it, travel such a distance? The speakers employed a recently developed technology patented by Holosonic Research Labs (“Holosonics”).<sup>3</sup> Holosonics markets the technology as the “Audio Spotlight,”<sup>4</sup> but the technology generically is called directional sound technology.<sup>5</sup> Directional sound technology employs a concentrated beam of sound focused on individual subjects.<sup>6</sup>

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<sup>1</sup> See *On the Media: Head Space* (NPR radio broadcast Dec. 14, 2007), transcript available at <http://www.onthemedial.org/transcripts/2007/12/14/05>; A&E Audio Spotlight Wallscape, <http://www.youtube.com/watch?v=qwAeb3RBZ1Y> (demonstrating the continuous loop of the advertisement).

<sup>2</sup> Steve Guttenberg, *I Hear Voices: Could Highly Directional Sound Advertising Be the Next Big Thing?*, CNET NEWS, Dec. 20, 2007, [http://www.news.com/8301-10784\\_3-9836453-7.html?tag=tb](http://www.news.com/8301-10784_3-9836453-7.html?tag=tb).

<sup>3</sup> *Id.*

<sup>4</sup> *Id.*

<sup>5</sup> See David Ho, *Advertisers Using “Directed Sound” to Get in Your Head*, ATLANTA J.-CONST. Feb. 19, 2008, available at [http://www.ajc.com/news/content/business/stories/2008/02/18/sound\\_0219.html?cxntlid=inform\\_sr](http://www.ajc.com/news/content/business/stories/2008/02/18/sound_0219.html?cxntlid=inform_sr).

<sup>6</sup> Holosonic Research Labs, Technology, <http://www.holosonics.com/technology.html> [hereinafter Holosonics Technology] (last visited Nov. 17, 2008).

Unlike the traditional loudspeaker, the beam of sound cannot be heard by anyone outside of the focus area; thus, the speakers can privately suggest ideas to their subjects.<sup>7</sup>

For the individuals in Manhattan in December 2007, the whisper and accompanying billboard advertised an A&E Television Networks (“A&E”) television show focusing on paranormal activity.<sup>8</sup> The main advantage of directional sound technology in this specific application is that the advertisement did not disturb any of the neighborhood residents in their homes or patrons of adjacent businesses while they shopped or ate. The technology has also been utilized by museums allowing some visitors to enjoy interactive exhibits with sound while allowing other patrons to roam other areas undisturbed.<sup>9</sup> But as with most technological innovations, as the potential advantages increase, so do the potential detriments.

Directional sound technology may deceive the unsuspecting listener. For instance, Dr. F. Joseph Pompei, the developer of the Audio Spotlight, while a graduate student at the Massachusetts Institute of Technology, playfully aimed the sound of breaking glasses at caterers in a university building from four floors above the atrium.<sup>10</sup> The Department of Homeland Security and the New York City Police Department have both purchased a non-commercial version of the technology designed to disorient targets with the sound beam.<sup>11</sup> A balance must be struck between acceptable and unacceptable use. Yet, the current law fails to strike any balance. Federal and state regulatory protections were developed prior to the advent of the technology, failed to foresee the manipulation of sound, and leave the victim ill equipped to deal with potential abuse of

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<sup>7</sup> See *id.*

<sup>8</sup> Andrew Hampp, *Hear Voices? It May Be an Ad*, ADVERTISING AGE, Dec. 10, 2007, at 3. The speakers advertised the program “Paranormal State,” a show focused on a group of Pennsylvania State University students who investigate paranormal activity. Press Release, Holosonic Research Labs, A&E’s Manhattan Billboard “Whispers” at Passerby with the Audio Spotlight (Dec. 10, 2007) [hereinafter Holosonics A&E Press Release], available at [http://www.holosonics.com/PR\\_AE.htm](http://www.holosonics.com/PR_AE.htm).

<sup>9</sup> See, e.g., Press Release, Holosonic Research Labs, Holosonics’ Audio Spotlight Technology Installed at the Smithsonian (Nov. 6, 2003) [hereinafter Holosonic Smithsonian Press Release], available at [http://www.holosonics.com/PR\\_Smithsonian.html](http://www.holosonics.com/PR_Smithsonian.html). Audio Spotlight:

uses ultrasonic energy to create extremely narrow beams of sound that behave like beams of light. By “shinning” the sound to one location specific listeners can be targeted with sound—without others nearby hearing it. This . . . permits the Museum to fashion a highly localized listening region for their visitors.

*Id.*

<sup>10</sup> Jennifer 8. Lee, *An Audio Spotlight Creates a Personal Wall of Sound*, N.Y. TIMES, May 15, 2001, at F4.

<sup>11</sup> See Steve Harvey, *Sound as a Weapon*, PROSOUND NEWS, Jan. 1, 2006, at 1 (describing long-range acoustic device (LRAD) technology and situations where the device may have been used).

the technology.

This Comment will examine the capabilities of directional sound technology, the need for regulation of the new technology, and will ultimately conclude that current regulations are insufficient to protect the general public from abuse. More specifically, Part II will explain the technology and dispel misconceptions and exaggerations of the technology's power. Part III will analyze the laws of tort, advertising, communications, and privacy in relation to the technology, exposing the lack of on-point legislation and public protection. Part IV will consider the conflicting rights at issue in a regulation limiting the use of directional sound technology, whether such a regulation can be upheld, and which body of the federal government has the appropriate authority to regulate the technology. Ultimately, this Comment concludes that no enforcement body currently has the necessary authority to regulate the technology. In order to protect a susceptible public, Congress must grant the Federal Communications Commission ("FCC") the power to regulate directional sound technology under a new licensing authority.

## II. DIRECTIONAL SOUND TECHNOLOGY

Directional sound technology focuses sound waves more narrowly than traditional sound production technologies. To understand the advancement of directional sound technology, a general understanding of sound production is helpful.

Sound travels as waves through the air.<sup>12</sup> A typical audio loudspeaker begins to create sound through compression, when its diaphragm pushes outward forcing air molecules closer together to create a high-pressure region.<sup>13</sup> These molecules then push back on the diaphragm, creating a low pressure region, rarefaction.<sup>14</sup> Alternating waves of high pressure and low pressure send waves through the air. The tympanic membrane—the human eardrum—senses the changes of pressure in the air and vibrates at the frequency of the sound wave.<sup>15</sup>

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<sup>12</sup> DAVID C. KNIGHT, *SILENT SOUND* 14 (1980). Contrast the movement of sound with electromagnetic radiation, which is currently regulated by the FCC. Office of Engineering and Technology, Radio Frequency Safety, <http://www.fcc.gov/oet/rfsafety/rf-faqs.html> (last visited Nov. 17, 2008). Electromagnetic radiation consists of waves of photons moving through space. NASA, Electromagnetic Spectrum, [http://imagine.gsfc.nasa.gov/docs/science/known\\_11/emspectrum.html](http://imagine.gsfc.nasa.gov/docs/science/known_11/emspectrum.html) (last visited Nov. 17, 2008). Depending on the number of photons, the wave is categorized into the electromagnetic spectrum ranging from radio waves at the low end to gamma rays at the high end. *Id.*

<sup>13</sup> LEO L. BERANEK, *ACOUSTICS* 3–6 (2d ed., 1996) (1954); Science Clarified, Ultrasonics, <http://www.scienceclarified.com/everyday/Real-Life-Physics-Vol-3-Biology-Vol-1/Ultrasonics.html> [hereinafter *Ultrasonics*] (last visited Nov. 17, 2008).

<sup>14</sup> BERANEK, *supra* note 13, at 6; *Ultrasonics*, *supra* note 13.

<sup>15</sup> FREDRICK N. MARTIN & JOHN GREER CLARK, *INTRODUCTION TO AUDIOLOGY* 12–13

This initiates the vibration of three bones in the middle ear that spur movement of inner ear fluid and create electrical energy that sends signals to the brain.<sup>16</sup> Then, the brain interprets the signals.<sup>17</sup> To extend the range of the sound wave, loudspeakers increase the intensity of the signal.<sup>18</sup> That is, they create a higher range between the high pressure and low pressure region. The higher range increases the loudness of the signal—measured in decibels (“dBs”).<sup>19</sup> As the signal travels, it dissipates in the air.<sup>20</sup> The human ear can generally hear frequencies—measured in Hertz (“Hz”)—between 20 Hz and 20,000 Hz,<sup>21</sup> but the ear is most sensitive to sound frequencies between 1000 Hz and 4000 Hz, the range of normal human speech.<sup>22</sup> Frequencies above 16,000 Hz are referred to as ultrasound.<sup>23</sup>

As an early adopter of ultrasonic technology, the U.S. Navy used sound navigation and ranging (“SONAR”) technology to detect the depth of the water and locate large obstacles.<sup>24</sup> In the 1960s, two researchers, Dr. Peter J. Westervelt, a physicist, and Dr. Orhan Berktag, an acoustician, developed a SONAR system that could focus on one particular area rather than send a signal out equally in all directions.<sup>25</sup> They also derived a related mathematical formula that calculated the distortion of the sound within water.<sup>26</sup> David Blackstock and Mary Beth Bennett, a professor and student, respectively, at the University of Texas, furthered the technology in 1975<sup>27</sup> when they were able to successfully create an audible sound from the combination of high frequency sounds.<sup>28</sup> In the 1980s, a team of Japanese scientists, led by Masahide Yonehama and Jun-ichiroh Fujimoto, published a paper on audio spotlight technol-

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(8th ed. 2003).

<sup>16</sup> *Id.*

<sup>17</sup> *Id.*

<sup>18</sup> Ultrasonics, *supra* note 13. Intensity is related to volume and amplitude. *Id.*

<sup>19</sup> MARTIN & CLARK, *supra* note 15, at 39, 44–45. Humans can hear loudness in a range from 0–140 dBs. *Id.* At 140 dBs, the sound becomes painful to humans. *Id.*

<sup>20</sup> Ultrasonics, *supra* note 13.

<sup>21</sup> MARTIN & CLARK, *supra* note 15, at 45.

<sup>22</sup> *Id.* at 42.

<sup>23</sup> KNIGHT, *supra* note 12, at 15. Bats, grasshoppers, rats, guinea pigs, and cats can all produce ultrasounds. *Id.* The nearly inaudible dog whistle is also an example of ultrasonic sound. *Id.*

<sup>24</sup> See KNIGHT, *supra* note 12, at 28, 30.

<sup>25</sup> See Holosonics Technology, *supra* note 6; MATHIAS BARBAGALLO, MENDEL KLEINER & AUGUSTO SARTI, MODULATION AND DEMODULATION OF STEERABLE ULTRASOUND BEAMS FOR AUDIO TRANSMISSION AND RENDERING, at DAFX-1 (2008), [http://www.acoustics.hut.fi/dafx08/papers/dafx08\\_41.pdf](http://www.acoustics.hut.fi/dafx08/papers/dafx08_41.pdf) (explaining the studies of Westervelt and Berktag on nonlinear effects); see also Lee, *supra* note 10.

<sup>26</sup> Lee, *supra* note 10.

<sup>27</sup> *Id.*; see Holosonics Technology, *supra* note 6.

<sup>28</sup> Lee, *supra* note 10. Their experiment created high-pitched chirps, but they had little practical application. *Id.*

ogy suggesting the ability to aim sound at a specific location.<sup>29</sup> However, the commercial uses were limited by cost and extremely high levels of distortion.<sup>30</sup>

Since that time, two competing inventors have both developed directional sound technology based on similar principles. Dr. F. Joseph Pompei of Holosonic Research Labs in Watertown, Massachusetts retained and trademarked the Japanese-created name of Audio Spotlight.<sup>31</sup> Elwood “Woody” Norris of American Technology Corporation (“ATC”) in Poway, California calls his commercial version of directional sound technology Hypersonic Sound (“HSS”).<sup>32</sup>

These technologies function on a similar concept: specialized speakers create a narrow ultrasonic wave, and as the wave travel through the air the sound becomes audible.<sup>33</sup> A complex mathematical formula accounts for the dissipation and mixing of the sound waves as they travel through the air, and allows sounds to be reproduced without significant distortion.<sup>34</sup> Because ultrasonic waves are small, they can be directed like a beam and focused in a particular direction, an advantage over traditional speakers.<sup>35</sup> While some sources have reported that the technology uses the inside of the human skull to conduct the sound and cannot be blocked by covering one’s ears,<sup>36</sup> the technology actually functions like normal sound and can be impeded with a simple pair of ear-plugs.<sup>37</sup> The true advantage of the technology is that sound can be targeted at a single person or a few individuals and not heard by others within proximity.

ATC also produces a non-commercial directional sound device for govern-

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<sup>29</sup> See Masahide Yoneyama & Jun-ichiro Fujimoto, *The Audio Spotlight: An Application of Nonlinear Interaction of Sound Waves to a New Type of Loudspeaker Design*, 73 J. ACOUSTICAL SOC’Y AM. 1532, 1532 (1983) (explaining the concept of the technology and the difficulties of putting the technology into production); Lee, *supra* note 10.

<sup>30</sup> See Holosonics Technology, *supra* note 6; Lee, *supra* note 10.

<sup>31</sup> Evan I. Schwartz, *The Sound War*, TECH. REV., May 2004, at 50, 52. Improvement in the speaker technology—using thin film made of a plastic and metal composite rather than the typical piezoelectric crystal—allowed ultrasonic and therefore audible sound to be produced without distortion. Alok Jha, *Sounds Convenient: Audio Spotlights Can Aim as Precisely as Laser Beams*, GUARDIAN (U.K.), Mar. 31, 2005, at 9.

<sup>32</sup> Schwartz, *supra* note 31, at 50, 52.

<sup>33</sup> See Brian C. Fenton, *Hypersonic Sound: Radical New Speakers Generate Audio from Thin Air*, POPULAR MECHANICS, June 1997, at 124–25 (regarding Hypersonic sound); Holosonics Technology, *supra* note 6 (explaining Audio Spotlight technology).

<sup>34</sup> See Fenton, *supra* note 33, at 124–25 (regarding Hypersonic sound); see also Holosonics Technology, *supra* note 6 (regarding Audio Spotlight technology).

<sup>35</sup> See Fenton, *supra* note 33, at 125.

<sup>36</sup> See, e.g., *On the Media*, *supra* note 1 (suggesting that “the transmitter uses the skull as a speaker . . . so [that] the sound resonates inside the head” and “you can’t cover your ears to not hear it.”).

<sup>37</sup> See F. Joseph Pompei, *TalkBack: I Hear Voices: Could Highly Directional Sound Advertising Be the Next Big Thing?*, CNET NEWS, Dec. 20, 2007, [http://www.news.com/5208-10784\\_3-0.html?forumID=1&threadID=33889&start=0](http://www.news.com/5208-10784_3-0.html?forumID=1&threadID=33889&start=0) (indicating in a comment by the developer of the technology that the abilities of the technology have been exaggerated).

ment use called either medium-range acoustic device (“MRAD”) or long-range acoustic device (“LRAD”) depending on the distance the sound can travel.<sup>38</sup> These devices use inner and outer transducers to produce competing waves to cancel out audible sound.<sup>39</sup> These devices are not as directional as ultrasound-based devices and can still be heard outside of the target area.<sup>40</sup>

Despite its advantages, the technology still has some shortcomings as compared to traditional loudspeakers. First, directional sound technology is unable to produce sounds at the lower end of the human hearing range.<sup>41</sup> Specifically, it cannot produce low bass sounds in the same proportion as it produces higher frequency sounds.<sup>42</sup>

Second, once the wave creates audible sound, the audible sound continues. This limitation was evident when Daimler-Chrysler attempted to employ the technology in a concept sport-utility vehicle a few years ago.<sup>43</sup> Chrysler used Audio Spotlight in the vehicle to provide each passenger with a private radio tuner.<sup>44</sup> This concept allowed a backseat passenger to listen to rock music, while the driver listened to cool jazz. However, after the ultrasonic waves mixed and the sound became audible to one passenger, the sound began to reflect off the leather interior thereby becoming audible to multiple passengers.<sup>45</sup>

In addition to the need for continued technological advancements before wide-scale implementation is achieved, the cost of the systems must decrease before the technology gains widespread commercial adoption.<sup>46</sup> A single commercial Audio Spotlight system installation costs between \$1000 and \$2000.<sup>47</sup> Portable LRAD systems for use by the military or police range in cost from \$10,000 to \$75,000 per unit.<sup>48</sup> Both inventors are working on improving the

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<sup>38</sup> See Harvey, *supra* note 11, at 1 (explaining that LRAD technology has a range of up to three-hundred yards).

<sup>39</sup> Tracy V. Wilson, *How LRAD Works*, HowStuffWorks.com (last visited Nov. 14, 2008), <http://science.howstuffworks.com/lrad1.htm> (“Fifteen degrees outside the beam, the volume drops about 20 dB.”). This process of mixing sound waves is called “heterodyning.” Fenton, *supra* note 33, at 125.

<sup>40</sup> Wilson, *supra* note 39.

<sup>41</sup> Schwartz, *supra* note 31, at 54 (explaining that the technology produces sounds at 20,000 Hz).

<sup>42</sup> See *id.*

<sup>43</sup> *Id.* One speaker was placed in the roof above each of the four cabin seats. *Id.*

<sup>44</sup> See *id.*

<sup>45</sup> *Id.* However, Pompei analogized the level of audible sounds to the map lights found above individual seats in cars. That is, one passenger’s channel was audible when the other passengers were sitting in silence. If other passengers listened to their own channels, they could not hear each others music. Comments of F. Joseph Pompei (on file with author).

<sup>46</sup> See Schwartz, *supra* note 31, at 54.

<sup>47</sup> *Id.*

<sup>48</sup> Xeni Jardin, *Sonic “Lasers” Head to Flood Zone*, WIREd, Sept. 2, 2005, <http://www.wired.com/print/science/discoveries/news/2005/09/68732>.

technology to combat these issues<sup>49</sup> and costs will inevitably drop as the technology becomes more widely adopted.

In spite of its current limitations, directional sound technology may have a significant impact on society, both positive and negative. In addition to the aforementioned street billboard advertisement and car audio applications, the technology has been tested for in-store advertising.<sup>50</sup> For in-store advertising applications, audio could be directed at customers who walk down aisles past certain products.<sup>51</sup> Approaching a soda machine may trigger the *plink* of ice cubes dropping into a glass, followed by the *click* and *hiss* of twisting off a bottle cap, culminating in the *glug* of the soda pouring into the glass.<sup>52</sup> Aside from purely commercial applications, the creator of the LRAD suggested that the technology may be adapted to emergency vehicles so that first responders en route to a late night emergency in a city will not unnecessarily wake an entire neighborhood.<sup>53</sup> Some corporations have purchased the technology for use in office environments.<sup>54</sup> Directional sound has been popular at museums as well. Both the Smithsonian of Washington, D.C.<sup>55</sup> and the Brooklyn Historical Society in New York City have used the technology in exhibits.<sup>56</sup> One New Jersey man even purchased the device so that he could watch television in bed while his wife slept.<sup>57</sup>

Not all uses, however, are consumer friendly. The NYPD purchased a portable version of the technology following a 2004 anti-war protest where demonstrators were unable to hear police instructions.<sup>58</sup> The NYPD could use the technology to assist with crowd control and providing directions during future large gatherings. However, in the same year, the city reportedly used the technology's disorientation function against protestors during the Republican National Convention.<sup>59</sup> The police just as easily could apply the technology in an

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<sup>49</sup> Schwartz, *supra* note 31, at 54.

<sup>50</sup> Hampp, *supra* note 8, at 30.

<sup>51</sup> See *id.* (noting that Dr. Pompei has tested deployments with Procter & Gamble, who may employ the sound of gurgling water to encourage the sale of laundry detergent).

<sup>52</sup> See Marshall Sella, *The Sound of Things to Come*, N.Y. TIMES MAG., Mar. 23, 2003, at 34, 36 (referring to less subtle Japanese soda machines that project "the plink of ice cubes" followed by "the invocation, 'Wouldn't a Coke taste great right about now?'" ).

<sup>53</sup> *Id.*

<sup>54</sup> Schwartz, *supra* note 31, at 54. Specifically, Steelcase tested it for its offices and Cisco installed it in its corporate lobbies. *Id.*

<sup>55</sup> Holosonic Smithsonian Press Release, *supra* note 9.

<sup>56</sup> Guttenberg, *supra* note 2.

<sup>57</sup> Jenn Abelson, *The Marketers Have Your Ear: Beam of Sound Aims Its Messages*, BOSTON GLOBE, Apr. 24, 2007, at A1.

<sup>58</sup> Harvey, *supra* note 11, at 1.

<sup>59</sup> See Posting of Noah Shachtman, Georgia Police Turns [sic] Sonic Blaster on Demonstrators, Wired.com, <http://blog.wired.com/defense/2007/11/georgia-police-.html> (Nov. 15, 2007, 11:43 EST) (noting the device has also been used against protestors in the country of

interrogation room and purport to be an interviewee's conscience.<sup>60</sup>

The U.S. Military has employed the same disorientation function. The disorientation setting allows the LRAD to "directecast" a highly annoying sound at a distance of three hundred yards.<sup>61</sup> The annoying sound has been described as a smoke detector, only much louder.<sup>62</sup> The LRAD has settings that produce sound above the threshold of pain and can cause hearing damage.<sup>63</sup> The device also supports sound input from microphones, MP3 and CD players, Voice Response Translators, and laptops.<sup>64</sup> U.S. and British forces reportedly have used the device in Iraq.<sup>65</sup> The National Guard also reportedly used the device for crowd control in New Orleans following Hurricane Katrina.<sup>66</sup>

Considering the plethora of applications for this technology, one would expect a similar number of protections limiting abuse of the technology. However, laws protecting people from sound abuses were designed prior to the development of directional sound technology, and the unique advantages of the technology render traditional legal protections insufficient. Current law offers little protection from abuse of the technology from either unscrupulous citizens or the government. Furthermore, directional sound technology may render current protections from sounds unenforceable.

### III. CURRENT LEGAL PROTECTIONS

Three major areas of the law may offer legal protection for those assailed via directional sound technology. These areas are: tort law, or the ability to obtain compensation when imposed on by another; regulatory law, in which the government has created agencies to handle issues arising from complex

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Georgia).

<sup>60</sup> See *Frazier v. Cupp*, 394 U.S. 731, 737, 739 (1969) (holding that police may lie to extract a voluntary confession); see also Deborah Young, *Unnecessary Evil: Police Lying in Interrogations*, 28 CONN. L. REV. 425, 471 (1996) (discussing the necessity of such a power by the police); see also AMERICAN TECH. CORP., LRAD: THE SOUND OF FORCE PROTECTION 1 (2004) (listing "[s]upported missions" as "[w]aterside force protection;" "[c]rowd and riot control;" "[a]rea denial of personnel;" "[b]uilding clearing operations;" "[and psychological operations]" in a sales brochure) (emphasis added) [hereinafter LRAD Brochure], available at [http://www.atcsd.com/pdf/LRAD\\_SellSht-0728-2.pdf](http://www.atcsd.com/pdf/LRAD_SellSht-0728-2.pdf).

<sup>61</sup> See Harvey, *supra* note 11, at 1 (noting that the noise level is equivalent to that of the Concorde jet, which was discontinued in part due to noise pollution); see also Wilson, *supra* note 39.

<sup>62</sup> Harvey, *supra* note 11, at 1.

<sup>63</sup> Wilson, *supra* note 39.

<sup>64</sup> LRAD Brochure, *supra* note 60, at 1.

<sup>65</sup> See Harvey, *supra* note 11, at 1.

<sup>66</sup> *Id.*; Shactman, *supra* note 59; see also Day to Day: Focused Sound "Laser" for Crowd Control (NPR radio broadcast Sept. 21, 2005), transcript available at <http://www.npr.org/templates/story/story.php?storyId=4857417> (picturing the National Guard at the Superdome).

industries (specifically the advertising and communication industries in the case of directional sound technology); and privacy law, a mostly constitutionally-based area of law that prevents the government from infringing on the rights of the public. This Comment will consider each of these areas and describe the protections, if any, that each area of law offers. It will address considerations specific to directional sound technology and how the new technology will impact the law, or how the law can adapt to impact harmful uses of the technology.

#### A. Protections under Tort

When considering rules that protect citizens from harms, tort protections—the ability to receive compensation for an injury caused by another—likely are the most common. Of the boundless law of torts, four specific torts are the most pertinent to this new technology: private nuisance, an action against harassment from one’s neighbor; public nuisance, an action by the state against those that harass its citizens; emotional distress, an action against one for causing undesired concerned thoughts; and traditional battery, an action against someone causing physical harm.

##### 1. Private Nuisance

The Second Restatement of Torts defines a private nuisance as “a nontrespassory invasion of another’s interest in the private use and enjoyment of land.”<sup>67</sup> The most pertinent private nuisance case relating to sound is *Stodder v. Rosen Talking Machine Co.*<sup>68</sup> In *Stodder*, the defendant placed a “Columbia Graphonola” outside his business everyday when the weather was not cold or stormy.<sup>69</sup> He played various records on the graphonola during business hours.<sup>70</sup> The proprietor of the shop across the street claimed that the noise could easily be heard at his place of business and rendered his employees nervous, head-ached, and unable to concentrate on their assigned tasks.<sup>71</sup> The court found for the plaintiff by enjoining the defendant from using the machine on the street, but allowed the defendant to use the machine if it was not “appreciably heard”

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<sup>67</sup> RESTATEMENT (SECOND) OF TORTS § 821D (1979).

<sup>68</sup> *Stodder v. Rosen Talking Mach. Co.*, 135 N.E. 251 (Mass. 1922).

<sup>69</sup> *Id.* at 252–53. A graphonola, also grafonola, was a phonograph-type record player with an internal horn initially manufactured in 1907. Lynn Bilton, The Columbia Graphophone and Grafonola, <http://www.intertique.com/TheColumbiaGraphophoneAndGrafonola.html> (last visited Nov. 17, 2008) (explaining the history of the Columbia Graphophone and Grafanola).

<sup>70</sup> *Stodder*, 135 N.E. at 253.

<sup>71</sup> *Id.* at 252–53.

at the plaintiff's place of business.<sup>72</sup>

In a more recent case of the same nature, a music store broadcasted commercial advertising within its store via a loudspeaker projected towards the street.<sup>73</sup> The plaintiff, a hospital across the street, claimed that noise from the broadcast was distinctly audible above the normal street noise of traffic and conversation.<sup>74</sup> The court found that the in-store broadcast impeded on the plaintiff's right to use and peaceful enjoyment of its property.<sup>75</sup> The court enjoined the defendant from operating any device in such a manner that the sounds of the device would be audible in the plaintiff's nearby buildings.<sup>76</sup>

Similarly, in *Biggs v. Griffith*, the court enjoined a movie theater proprietor from advertising current attractions using a loudspeaker system on the exterior of his theater and attached to a car.<sup>77</sup> The plaintiffs claimed that the advertisements could be heard in their homes and businesses, thereby disturbing their peace and contentment on their property.<sup>78</sup> The court held for the residents and proprietors affirming an injunction imposed by a lower court against the operator of the loudspeaker.<sup>79</sup>

In each of these decisions, the court focused on the consistent and repetitive invasion of the peace and sanctity of another's property. The inventors of directed sound technology designed the technology to allow communication without unnecessarily annoying others.<sup>80</sup> To some extent, directional sound technology prevents the harm—those wishing to maintain peaceful enjoyment of their property without distraction may do so, while proprietors freely advertise to potential cliental. Because directional sound technology allows sound to be isolated to a small area, only the people the advertiser or other operator of the device intends to target are affected. If a nefarious individual aimed a directional sound device across the street or into the business of another continuously, the tort of private nuisance would still apply, therefore the law does provide some protection. The issue lies in the chasm between continuous annoy-

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<sup>72</sup> *Id.* at 253.

<sup>73</sup> *Clinic & Hosp., Inc. v. McConnell*, 236 S.W.2d 384, 385–86 (Mo. Ct. App. 1951).

<sup>74</sup> *Id.* at 386.

<sup>75</sup> *Id.* at 390.

<sup>76</sup> *Id.* at 392.

<sup>77</sup> *Biggs v. Griffith*, 231 S.W.2d 875, 881 (Mo. Ct. App. 1950).

<sup>78</sup> *Id.*

<sup>79</sup> *Id.* The court also upheld the lower court's finding that the nuisance was a private nuisance, not a public nuisance, and that the plaintiffs were therefore able to seek an injunction. *Id.*

<sup>80</sup> Pompei, *supra* note 45 (“The whole point is to eliminate the noise problems in the first place. By keeping the sound where it is intended, any issues of neighbor complaints are eliminated.”); see Sella, *supra* note 52, at 138 (explaining that inventor Woody Norris believes that “100 confined spheres of sound is preferable to one where 12 speakers are blaring over each other.”).

ance and fleeting harassment. With the advent of the technology, the average citizen is more susceptible to fleeting harassment by sound.

Using the examples from the above cases, an electronics salesman, a music store, or a theater operator may utilize directed sound technology to play advertisements during all business hours and not disturb neighbors across the street. While this may not be as effective as using a loudspeaker to draw in customers, it achieves the advertiser's goals (within legal limitations) of projecting an audible message without affecting its neighbor's enjoyment of their property. For directional technology to fall under the scope of such a law, a sound beam would likely have to be aimed inside another person's property.<sup>81</sup> Thus, the private nuisance law affords the individuals outside of their own property little or no protection against directional sound technology.

## 2. *Public Nuisance*

The Second Restatement of Torts defines public nuisance as "an unreasonable interference with a right common to the general public."<sup>82</sup> The Restatement further explains, "the conduct [usually] involves a significant interference with the public health, the public safety, the public peace, the public comfort or the public convenience."<sup>83</sup> Public nuisance is similar to private nuisance in that it must interfere with another person's right, but public nuisance is limited in scope because its regulation clashes with constitutional concerns. Specifically, the constitutional conflicts with the tort of public nuisance are the First and the Fourteenth Amendments, representing the rights to free speech and equal protection, respectively.

The Fourteenth Amendment incorporates certain amendments of the federal Constitution applies them to the states.<sup>84</sup> This includes protection of the First Amendment free speech rights from infringement by state and local governments.<sup>85</sup> When state regulations clash with fundamental rights, such as those set forth in the First Amendment,<sup>86</sup> the court reviews the regulation with strict scrutiny.<sup>87</sup> Under strict scrutiny, in order for the law to be upheld, the regulator

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<sup>81</sup> This could easily be counteracted by closing a window or shutting a door.

<sup>82</sup> RESTATEMENT (SECOND) OF TORTS § 821B(1) (1979).

<sup>83</sup> *Id.* § 821B(2)(a).

<sup>84</sup> See *Gideon v. Wainwright*, 372 U.S. 335, 341–42 (1963) (summarizing the Supreme Court's application of the incorporation doctrine).

<sup>85</sup> See *Va. Pharmacy Bd. v. Va. Citizens Consumer Council*, 425 U.S. 748, 761–62 (1976) (specifically protecting commercial speech from unwarranted governmental regulation).

<sup>86</sup> See *Palko v. Connecticut*, 302 U.S. 319, 326–28 (1937) (applying the Due Process Clause of the Fourteenth Amendment to state governments and specifically identifying the First Amendment as another right that would also apply to the states).

<sup>87</sup> See *Cent. Hudson Gas & Elec. v. Pub. Serv. Comm'n*, 447 U.S. 557, 564 (1980)

must assert that a compelling government interest is involved and that the regulation has been constructed as narrowly as possible, so as to not unnecessarily abridge any protected rights.<sup>88</sup>

The Supreme Court has defined a compelling interest very narrowly, especially in relation to the First Amendment.<sup>89</sup> Generally, in order to survive a compelling interest challenge, the government must invoke its power of public protection.<sup>90</sup> In relation to noise ordinances, governments rely on their police power to protect citizens from unwelcome sound.<sup>91</sup> For instance, in *Friedrich v. City of Chicago*, the court held valid a city ordinance that limited street performances to certain times of day when the roads were not congested.<sup>92</sup> Prior to the ordinance, large groups of people would gather around break dancers, and the crowds would spill into the street, furthering congestion.<sup>93</sup> The court held that by limiting the performance to times of the day with light traffic, the city sufficiently limited the ordinance not to offend the fundamental right to free speech—therefore, the court upheld the ordinance.<sup>94</sup>

Municipalities have also adopted sound ordinances that impose decibel caps in an attempt to narrowly tailor the ordinance to avoid it being declared unconstitutional. For instance, in New York City, a city ordinance prohibits excessively loud noises.<sup>95</sup> The police department cites persons who exceed the al-

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(holding that the state could not completely ban an electric utility from advertising even though the state had granted it a monopoly).

<sup>88</sup> *See id.*

<sup>89</sup> *See, e.g., Va. Pharmacy Bd.*, 425 U.S. at 761–62 (holding that an advertising ban could not be imposed on pharmacies to ensure ethical or performance standards); *Linmark Assocs., Inc. v. Willingboro*, 431 U.S. 85, 95–96 (1977) (holding that the township’s interest in integrated housing was insufficient to support a ban on “For Sale” signs on front lawns).

<sup>90</sup> *See Niemotko v. Maryland*, 340 U.S. 268, 273–74 (1951) (Frankfurter, J. concurring) (stating that legislatures and courts “have for years grappled with claims of the right to disseminate ideas in public places as against claims of an effective power in government to keep the peace and to protect other interests of a civilized community.”).

<sup>91</sup> *See, e.g., Friedrich v. City of Chicago*, 619 F. Supp. 1129, 1144–45 (N.D. Ill. 1985); *Turley v. N.Y. City Police Dep’t*, 988 F. Supp. 675, 679–90 (S.D.N.Y. 1997); *Croman v. City of Kansas City*, 29 F. Supp. 2d 587, 590–91 (W.D. Mo. 1997) (discussed *infra* note 97).

<sup>92</sup> *Friedrich*, 619 F. Supp. at 1144–45.

<sup>93</sup> *Id.* at 1136–37 (noting that pedestrians wishing to pass around the crowds would be forced to walk around the crowds on the street, creating a situation that was “inherently unsafe”).

<sup>94</sup> *Id.* at 1144–45.

<sup>95</sup> *See* N.Y.C. ADMIN. CODE § 24-218 (2007) In pertinent part:

General prohibitions. No person shall make, continue or cause or permit to be made or continued any unreasonable noise, except that this section shall not apply to any sound from any source where the decibel level of such sound is within the limits prescribed by another section of this title and where there is compliance with all other applicable requirements of law with respect to such sound.

(a) No person shall make, continue or cause or permit to be made or continued any

lowable decibel ceiling by ten dB above the ambient noise level at fifteen feet.<sup>96</sup> Other cities limit noise at specific times. For example, Kansas City, Missouri, prohibits amplified sound on public streets from 11 p.m. to 6 a.m.<sup>97</sup> Like private nuisance law, existing public nuisance laws could protect against nefarious uses of directional sound technology. However, individuals cited for violations of existing laws for misusing directed sound technology, likely have a strong constitutional challenge.

For ordinances similar to New York City's, which place an upper bound on decibel levels,<sup>98</sup> directional sound technology may help street performers and musicians avoid fines by directing the sound so that it only extends to a fourteen-foot radius, thereby avoiding the current fifteen-foot threshold.<sup>99</sup> That way, pedestrians who wish to observe the performances can do so freely with-

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unreasonable noise.

(b) Unreasonable noise shall include but shall not be limited to sound, attributable to any device, that exceeds the following prohibited noise levels:

(1) Sound, other than impulsive sound, attributable to the source, measured at a level of 7 dB(A) or more above the ambient sound level at or after 10:00 p.m. and before 7:00 a.m., as measured at any point within a receiving property or as measured at a distance of 15 feet or more from the source on a public right-of-way.

(2) Sound, other than impulsive sound, attributable to the source, measured at a level of 10 dB(A) or more above the ambient sound level at or after 7:00 a.m. and before 10:00 p.m., as measured at any point within a receiving property or as measured at a distance of 15 feet or more from the source on a public right-of-way.

(3) Impulsive sound, attributable to the source, measured at a level of 15 dB(A) or more above the ambient sound level, as measured at any point within a receiving property or as measured at a distance of 15 feet or more from the source on a public right-of-way. Impulsive sound levels shall be measured in the A-weighting network with the sound level meter set to fast response. The ambient sound level shall be taken in the A-weighting network with the sound level meter set to slow response.

(c) Notwithstanding the provisions of subdivision b of this section, where a particular sound source or device is subject to decibel level limits and requirements specifically prescribed for such source or device elsewhere in this code, the decibel level limits set forth in this section shall not apply to such sound source or device.

(d) The decibel level limits set forth in this section shall not apply to sound attributable to construction devices and activities.

N.Y.C. ADMIN. CODE § 24-218.

<sup>96</sup> Turley, 988 F.Supp. at 679–86; *see also* Turley v. Giuliani, 86 F.Supp. 2d 291, 297 (S.D.N.Y. 2000) (upholding the ordinance as constitutional). The code was later amended to allow the sound to propagate within a fifteen-foot radius. N.Y.C. ADMIN. CODE § 24-218.

<sup>97</sup> *See* KAN. CITY, MO., CODE OF ORDINANCES § 50-8(b) (1995) (asserting “No person shall use any loudspeaker, public address system . . . or similar device of any kind to amplify sound, in or upon any public street, sidewalk, alley, bridge, park or other public place . . . between 11:00 p.m. of any day and 6:00 a.m. of the following day.”); *see also* Croman v. Kansas City, 29 F. Supp. 2d 587, 590–91 (W.D.Mo. 1997) (upholding the ordinance as constitutional).

<sup>98</sup> N.Y.C. ADMIN. CODE § 24-218 (2007).

<sup>99</sup> *Id.*

out sacrificing listening quality, and passers-by may continue walking without being affected. If the passers-by and surrounding business remain undisturbed, then no inference with a common right has been committed and thus, no plaintiff may recover under a public nuisance tort.

In a time ordinance, similar to the one in Kansas City, the ban might still apply to directional sound because technically directional sound technology is amplified sound. However, if a street performer used directional sound technology between the hours of 11 p.m. and 6 a.m., and the police subsequently cited the performer for violation of the regulation, then the performer may have a good case for overturning the ban on constitutional grounds.<sup>100</sup>

A Missouri court previously upheld the Kansas City ban on the premise that the rights of the street performer to perform must be balanced against those residents of the neighborhood who wish to enjoy themselves in their homes at night.<sup>101</sup> The advent of directional sound technology effectively makes these two actions independent. Since one right no longer infringes on the other, a complete ban on one activity for the sake of the other exceeds the narrowly tailored requirement of the Supreme Court's strict scrutiny test.<sup>102</sup> Even if the street performer does not employ directional sound technology, the performer may consider a challenge to the fine as the law now appears to be constitutionally overbroad—sacrificing too many rights unnecessarily. This reasoning would likely make many municipal ordinances unconstitutional, which in turn could lead to increased permissible use of traditional loud speakers. Municipalities have two modification options to ensuring their codes comply with the U.S. Constitution. First, a city could include a specific exception for directional sound technology. But, that may allow users of the technology to use it un-

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<sup>100</sup> See generally Paula P. Bentley, *A Line in the Sand: Florida Municipalities Struggle to Determine the Line Between Valid Noise Ordinances and Unconstitutional Restrictions*, 35 STETSON L. REV. 461 (2006) (discussing effective noise ordinances and the unconstitutionality of subjective noise ordinances); Armando O. Bonilla, *First Amendment-Free-Speech: Municipal Noise Ordinance Imposing Mandatory Adherence to Sound Amplification Guidelines Constitutes a Valid Time, Place, or Manner Restriction on Protected Speech: Ward v. Rock Against Racism*, 491 U.S. 781 (1989), 1 SETON HALL CONST. L.J. 451 (1991) (discussing a sound ordinance and the Supreme Court's subsequent affirmation).

<sup>101</sup> Croman, 29 F. Supp. 2d at 590–91.

<sup>102</sup> The argument can be made that the individual rights are only independent if one party expends funds on directional sound technology. However, the Supreme Court has previously ruled on constitutional search requirements that necessitated outlays for new technology. In *United States v. Carey*, the Court required that in order to avoid infringement of the Fourth Amendment, in the context of computer searches, police had to first sort documents by type and then search only the type of documents specified in the warrant. *United States v. Carey*, 172 F.3d 1268, 1275 (10th Cir. 1999). While the Court did not explicitly require police to use the latest technology to achieve this result, it likely is the practical impact of its holding. *Carey* also demonstrates that the Court is willing to reevaluate the narrowness of the rule based on technological advances. See *id.*

abashedly, in any direction at any hour, and might undermine the ordinance in general. Alternatively, the city could modify its code to a functional distance regulation like New York City's ordinance.

Both private and public nuisance torts provide ineffective protection from fleeting misuse of directional sound technology. However, the tort of intentional infliction of emotional distress might provide citizens with slightly more protection.

### 3. *Intentional Infliction of Emotional Distress*

The Second Restatement of Torts describes the act of intentional infliction of emotional distress as “[o]ne who by extreme and outrageous conduct intentionally or recklessly causes severe emotional distress to another is subject to liability for such emotional distress . . . .”<sup>103</sup> While the tort originally required emotional distress in conjunction with physical harm, at least thirty-seven states and the District of Columbia have adopted the Restatement position, which allows suit without a coinciding physical injury.<sup>104</sup> In addition to the thirty-seven states, several states have allowed recovery on the tort without physical injury while not expressly adopting the Restatement.<sup>105</sup>

The elements of intentional infliction of emotional distress as identified by the Restatement are: (1) the defendant must act intentionally or recklessly; (2) the conduct must be extreme and outrageous; (3) which must be the cause; (4) of severe emotional distress to another.<sup>106</sup> The most difficult element to prove is “extreme and outrageous” conduct—it is inconsistently defined even within the same jurisdiction and every jury has its own view of what outrageous conduct entails.<sup>107</sup>

As an application of the rule, the case of *Cook v. Winfrey*<sup>108</sup> is instructive. In *Cook*, Randolph Cook planned to tell a story to the supermarket tabloids about a romantic relationship he had with Oprah Winfrey, the talk show host, and about the couple's illicit drug use.<sup>109</sup> Winfrey, however, preemptively announced her illicit drug use on her show while denying her romantic involve-

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<sup>103</sup> RESTATEMENT (SECOND) OF TORTS § 46(1) (1979).

<sup>104</sup> Annotation, *Modern Status of Intentional Infliction of Mental Distress as Independent Tort; “Outrage,”* 38 A.L.R. 4th 998 (1985).

<sup>105</sup> See generally Daniel Givelber, *The Right to Minimum Social Decency and the Limits of Evenhandedness: Intentional Infliction of Emotional Distress by Outrageous Conduct*, 82 COLUM. L. REV. 42 (1982) (identifying states with similar causes of action to the Restatement).

<sup>106</sup> RESTATEMENT (SECOND) OF TORTS § 46 (1979).

<sup>107</sup> See Givelber, *supra* note 105, at 51–54.

<sup>108</sup> 141 F.3d 322 (7th Cir. 1998).

<sup>109</sup> *Id.* at 324.

ment with Cook.<sup>110</sup> Cook retaliated with a law suit claiming, among other things, intentional infliction of emotional distress.<sup>111</sup> The court affirmed the dismissal of the claim under Federal Rule of Civil Procedure 12(b)(6) for failure to state a claim for which relief could be granted.<sup>112</sup> The court reiterated from prior cases the insufficiency of the accused “act[ing] with an intent which is tortuous or even criminal or . . . intend[ing] to inflict emotional distress, or even . . . conduct . . . characterized by ‘malice,’ or a degree of aggravation [that] would entitle the plaintiff to punitive damages for another tort.”<sup>113</sup> Although the Court determined Winfrey’s actions could be considered defamatory, they could not be considered “extreme and outrageous.”<sup>114</sup>

Another difficult element to prove in an emotional distress action is causation. In order to prove causation, a plaintiff must be able to link the person creating the emotional distress to the harm or resulting injury.<sup>115</sup> Even if an actor is a “but-for cause” of an injury,<sup>116</sup> that actor may not be a proximate or legal cause of the injury.<sup>117</sup>

In particular, the case of *Wass v. Ashland Day & Night Bank* exposes the difficulty with proving causation and emotional distress.<sup>118</sup> *Wass* involved a “run” on a bank, in which many of the bank’s customers simultaneously attempted to withdrawal their deposits from the bank.<sup>119</sup> The teller, a stockholder of the bank, accused the plaintiff of causing the run on the bank by spreading rumors about the financial condition of the institution.<sup>120</sup> The teller also threatened to have the plaintiff arrested and incarcerated in the federal penitentiary for spreading the rumors.<sup>121</sup> The plaintiff, in an agitated mental state thereafter,

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<sup>110</sup> *Id.*

<sup>111</sup> *Id.*

<sup>112</sup> *Id.* at 331 (explaining that while dismissal on the grounds that the harm claimed was not severe enough was invalid, dismissal on the grounds that Winfrey’s conduct was not extreme or outrageous was valid).

<sup>113</sup> *Id.* (internal quotation marks omitted).

<sup>114</sup> *Id.*

<sup>115</sup> See Givelber, *supra* note 105, at 49. However, the noted article also contends that causation usually is submitted to the jury in emotional distress cases with little or no argument as to whether the accused was the proximate cause of the harm. *Id.*

<sup>116</sup> A “but-for cause” is “[t]he cause without which the event could not have occurred.” BLACK’S LAW DICTIONARY 234 (8th ed. 2004).

<sup>117</sup> A discussion of proximate cause usually entails a discussion of the seminal case of *Palsgraf v. Long Island Railroad* considering whether proximate causation needs to be foreseeable at the time an action is undertaken, or if it can merely be directly related to the action in time and space in hindsight. *Palsgraf v. Long Island R.R. Co.*, 162 N.E. 99 (N.Y. 1928). However, the discussion adds little to this paper—an explanation of the case therefore is omitted.

<sup>118</sup> *Wass v. Ashland Day & Night Bank*, 257 S.W. 29 (Ky. 1923).

<sup>119</sup> *Id.* at 29.

<sup>120</sup> *Id.*

<sup>121</sup> *Id.*

returned to his home and attempted to commit suicide.<sup>122</sup> The failed suicide attempt caused permanent blindness, pain, and an inability to pursue meaningful employment.<sup>123</sup> The court reasoned that such a reaction was not a “logical and natural consequence of [the teller’s] act” and therefore while the teller was a “but-for” cause, he was not the proximate cause of the harm.<sup>124</sup>

In contrast to *Wass*, the court in *Louisville & Southern Indiana Traction Co. v. Worrell* drew a different conclusion.<sup>125</sup> In *Louisville & Southern*, a woman riding a street car on her way home from work was frightened by “flames of fire, vivid flashes [o]f electricity, and a dense smoke” emanating from the front cab of the car.<sup>126</sup> In response to the emergency, she leapt from the car while it was still in motion.<sup>127</sup> Landing on the ground, she broke her arm.<sup>128</sup> The court held that the jury properly found the fire in the streetcar was the proximate cause of her broken arm.<sup>129</sup>

One way to differentiate *Wass* and *Louisville & Southern* might be to consider the relative foreseeability of the victim-plaintiff’s response. Common sense dictates that exiting a burning train car is a more logical response than attempting suicide when facing a prison sentence. However, a different way to reconcile these cases may turn on the harm. Specifically, reactions to physical harms are more concrete than emotional harms, and therefore, the court and a jury can more easily discern causation in the case of a physical reaction rather than an emotional response. Due to the difficulty in establishing the necessary elements of a case for intentional infliction of emotional distress, using the tort as a remedy for someone who suffers harm caused by directional sound technology likely would not be successful.

In fact, proving an emotional distress case involving directional sound technology could greatly exceed the difficulty of a normal emotional distress case. Not only must the plaintiff overcome the unpredictably applied standard of extreme and outrageous conduct, he or she must also identify a perpetrator that could be three hundred yards away in order to file suit.<sup>130</sup> At three hundred

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<sup>122</sup> *Id.* at 30 (explaining that the plaintiff “procured a pistol and went to his home and shot himself through the head . . .”).

<sup>123</sup> *Id.*

<sup>124</sup> *Id.* at 31.

<sup>125</sup> *Louisville & S. Ind. Traction Co. v. Worrell*, 86 N.E. 78 (Ind. App. 1908) (appealed on the basis of improper admission of a deposition).

<sup>126</sup> *Id.* at 80.

<sup>127</sup> *Id.*

<sup>128</sup> *Id.*

<sup>129</sup> *Id.* at 82.

<sup>130</sup> See Harvey, *supra* note 11, at 1 (noting that the range of LRAD is as far as 300 yards). But see Sella, *supra* note 52, at 37 (implying that the commercial version has a range of 150 yards).

yards, the target might have difficulty identifying the origin of the sound.<sup>131</sup> Unlike harassment with a bullhorn or a traditional loud speaker, no one other than the two parties involved may realize an event has transpired. Unlike a telephone call, there is no record of the event. Thus, meeting the evidentiary standards in a court of law that prove the suspect is the perpetrator would be even more difficult. Therefore, causation could be extremely difficult to prove.

Yet, private abuse of this technology rising to the level of extreme and outrageous conduct is not difficult to imagine. For instance, the sound could be transmitted at a distance and claim to be the voice of God.<sup>132</sup> Whether the target believes that the voice heard only by him actually is God depends on the person, but significant potential exists for the unscrupulous to prey upon the mentally challenged, the elderly, children, or the normal person unaware of the existence of such technology. Such deceit would likely rise to the level of extreme and outrageous conduct.

Even in the unlikely event that the tort of extreme emotional distress affords the victim some recompense from harm caused by directional sound technology, the cumbersome method of achieving the protection renders the punishment useless. The nature of the technology means that the two people privy to the conversation causing emotional distress would be the perpetrator and the victim, and the victim's knowledge of the perpetrator likely would be limited. This cause of action may deter a few perpetrators, but it alone is inadequate to protect citizens who will be affected involuntarily by directional sound technology. A similar cause of action may arise if the victim is physically injured by the technology.

#### 4. *Traditional Battery*

Under the Second Restatement of Torts, “[a]n actor is subject to liability to another for battery if (a) he acts intending to cause a harmful or offensive contact with . . . [another] person . . . , and (b) a harmful contact with the person of the other directly or indirectly results.”<sup>133</sup> This straightforward tort would occur when directional sound technology is used as a weapon and causes physical injury.<sup>134</sup> The same issue arises with this tort related to causation as with emo-

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<sup>131</sup> See Harvey, *supra* note 11, at 1.

<sup>132</sup> Several Internet blogs claim that the U.S. Army has used the technology to speak to Iraqis claiming to be the voice of God. See, e.g., *Death Ray Replaced by the Voice of God*, STRATEGYPAGE, Dec. 17, 2007, <http://www.strategypage.com/htm/htweap/articles/20071217.aspx>.

<sup>133</sup> RESTATEMENT (SECOND) OF TORTS § 13 (1979).

<sup>134</sup> See Harvey, *supra* note 11, at 1 (describing the possible use of LRAD technology as a weapon).

tional distress; the plaintiff may have difficulty identifying the perpetrator.<sup>135</sup> Additionally, if used as a weapon, the technology would likely be utilized in the military context,<sup>136</sup> and battlefield torts rarely apply even when statutes provide for recovery of damages.<sup>137</sup> Thus, despite the availability of recovery for battery, this protection alone is insufficient to provide appropriate protection. Thus, the public must turn to other areas of the law to seek protection. Those areas of law that may provide protection and have contemplated everyday intrusions on the lives of a private citizen are advertising and communications law.

## B. Protections under Advertising Law

The federal government has partitioned the regulation of advertising, dividing the responsibility mainly among the Federal Trade Commission (“FTC”) and the FCC. The FTC regulates what may be said about particular products, mainly to prevent false advertising.<sup>138</sup> The FCC indirectly regulates advertising in several ways, including through broadcast regulations ensuring that content conforms to public decency standards.<sup>139</sup> Both agencies must be concerned with their regulations clashing against the First Amendment right of free speech. Although the Supreme Court found a lesser right for commercial speech as compared to other forms of speech (*e.g.* political speech),<sup>140</sup> the Court has since held even purely commercial speech is protected by the First Amendment.<sup>141</sup> However, the protection of free speech and the current limitations of the missions of these agencies prevent either agency from effectively regulating directional sound technology.

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<sup>135</sup> See discussion *supra* Part III.A.3.

<sup>136</sup> See Harvey, *supra* note 11, at 1.

<sup>137</sup> See, *e.g.*, *Acree v. Republic of Iraq*, 370 F.3d 41, 44 (D.C. Cir. 2004) (holding that even though Foreign Sovereign Immunities Act allowed for recovery, such recovery was barred because it occurred in a battle zone).

<sup>138</sup> About the Federal Trade Commission, <http://www.ftc.gov/ftc/about.shtm> (last visited Nov. 17, 2008).

<sup>139</sup> About the FCC, <http://www.fcc.gov/aboutus.html> (last visited Nov. 17, 2008).

<sup>140</sup> See, *e.g.*, *Valentine v. Chrestensen*, 316 U.S. 52, 55 (1942) (holding that New York City could prohibit a business owner from distributing handbills even if the handbills contained a political message in addition to a commercial message).

<sup>141</sup> See *Va. Pharmacy Bd. v. Va. Citizens Consumer Council, Inc.*, 425 U.S. 748, 764–65 (1976) (holding that a mandated limitation on advertising by a pharmacy violated the Constitutional right to free speech).

### 1. Federal Trade Commission Protection

The FTC's regulatory authority flows from the Commerce Clause of the Constitution, and Congress narrowly tailored the role of the FTC to protect consumers from harm.<sup>142</sup> Congress designed the FTC's authority to ensure little conflict with the First Amendment.<sup>143</sup> The Wheeler-Lea Amendments to the Federal Trade Commission Act of 1914 provided the FTC with the power to regulate "unfair or deceptive acts or practices in or affecting commerce."<sup>144</sup>

To declare an act or practice unfair, the FTC must find "the act or practice causes or is likely to cause substantial injury to customers [that] is not reasonably avoidable by consumers themselves and not outweighed by countervailing benefits to consumers or to competition."<sup>145</sup> To find a deceptive practice, the FTC requires that "first, there is a representation, omission, or practice, that, second, is likely to mislead consumers acting reasonably under the circumstances, and third, the representation, omission, or practice is material."<sup>146</sup> In evaluating the unfairness or deceptiveness of an advertisement, the FTC considers the impression of the advertisement on the ordinary purchaser or "a substantial portion of the purchasing public."<sup>147</sup> While the general public includes "the ignorant, the unthinking and the credulous,"<sup>148</sup> the advertisement does not necessarily have to be accessible to everyone.

*Standard Oil Co. v. FTC* illustrates this point.<sup>149</sup> In *Standard Oil*, the FTC brought action against Standard Oil for running three television commercials for a fuel additive.<sup>150</sup> Standard Oil claimed the fuel additive to increase mileage and decrease automobile pollution.<sup>151</sup> As an example, one of the commercials showed two scales that ran from zero ("Clean") to one-hundred ("Dirty")

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<sup>142</sup> See 15 U.S.C. § 45 (2006).

<sup>143</sup> See *id.*

<sup>144</sup> *Id.* § 45(a)(1); see also Wheeler-Lea Act, Pub. L. No. 75-447, sec. 2, § 5, 52 Stat. 111 (1938).

<sup>145</sup> 15 U.S.C. § 45(n).

<sup>146</sup> *In re Cliffdale Assocs., Inc.*, 103 F.T.C. 110, 165 (1984) (requiring that a company cease marketing an automobile product as new when in fact a significant portion of cars already used the part and required it to run properly); see also *FTC v. Pantron I Corp.*, 33 F.3d 1088, 1095 (9th Cir. 1994) (quoting *Cliffdale*, 103 F.T.C. at 165) (holding *Cliffdale* deceptive practice test as binding on the FTC).

<sup>147</sup> *Feil v. FTC*, 285 F.2d 879, 881 (9th Cir. 1960) (disallowing a company from describing its product as able to stop all bed-wetting, when the device would not be effective for children where the bed-wetting was caused by an organic defect or disease and the inability to stop organic defects or disease would have been obvious to experts, but not to the general public).

<sup>148</sup> *Aronberg v. FTC*, 132 F.2d 165, 167 (7th Cir. 1943).

<sup>149</sup> See *Standard Oil Co. v. FTC*, 577 F.2d 653 (9th Cir. 1978).

<sup>150</sup> *Id.* at 655-56.

<sup>151</sup> *Id.*

connected to car exhausts.<sup>152</sup> Predictably, the car that had been treated with the fuel additive rated Clean on the scale, and the car that had not been treated with the additive rated Dirty.<sup>153</sup> The court held no television viewer could reasonably believe that simply adding a chemical concoction to his gasoline tank would eliminate all pollution coming from a car,<sup>154</sup> and therefore the advertisement did not constitute a deception upon the public.<sup>155</sup>

In evaluating a claim related to a directional sound advertisement, these same regulations would apply. Therefore, if while walking past a movie theater, a pedestrian hears Morgan Freeman's voice saying, "This is the voice of God and I will be starring in the sequel to *Evan Almighty*," the FTC would likely have no reasonable cause of action against the theater or the advertiser. However, if a booming voice said, "This is God. God wants you to eat McDonald's," the FTC might have a better case. Interestingly, this law also impacts advertisements like the one for the A&E paranormal television show mentioned in the introduction of this Comment.<sup>156</sup> There, the sound advertisement accompanied a billboard that implied seventy-three percent of Americans believe in ghosts.<sup>157</sup> If 73% of Americans believe in ghosts (a substantial number of the general public) and any one believed the whispering voice to be a ghost, the company and their advertising agency might be subject to a fine from the FTC.

A related consideration might be the public's knowledge of the existence and functionality of directional sound technology. As the technology becomes more widespread and the public becomes aware that sound can be moved in a way so that a single person in a crowd can hear the noise, a person's susceptibility to ruses like "God wants you to eat McDonald's" will decrease.<sup>158</sup> Therefore, consumer protections will rely less upon the average citizen's perception and more on regulation of communication technology, which brings the FCC's jurisdiction into consideration.

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<sup>152</sup> *Id.* at 656.

<sup>153</sup> *Id.*

<sup>154</sup> *Id.* at 657 ("We do not think that any television viewer would have a level of credulity so primitive that he could expect to breathe fresh air if he stuck his head into a bag inflated by exhaust, no matter how clean it looked.").

<sup>155</sup> *Id.* at 664.

<sup>156</sup> See discussion, *supra* Part I.

<sup>157</sup> Holosonic A&E Press Release, *supra* note 8.

<sup>158</sup> See Lee, *supra* note 10. The creator of the Audio Spotlight system, F. Joseph Pompei, used the technology to trick caterers at his university into thinking they had broken dishes. *Id.* Eventually, the caterer would realize that the inventor was shooting the sound at them and the trick no longer worked. *Id.*

## 2. Federal Communications Commission Protections

The FCC's authority, like the FTC's, flows from the federal government's power to regulate interstate commerce.<sup>159</sup> The federal government has delegated a portion of this power to the FCC with respect to licensing broadcast media.<sup>160</sup> Congress provided broad support for licensing power through section 336 of the Communications Act.<sup>161</sup> Specifically, the FCC may "prescribe such other regulations as may be necessary for the protection of the public interest, convenience, and necessity."<sup>162</sup> Drawing on these ancillary powers, the FCC regulates the electromagnetic spectrum<sup>163</sup> and the content of broadcast networks,<sup>164</sup> among other areas of communications.

The Supreme Court has provided three rationales for upholding the FCC's jurisdiction over the broadcast frequencies: spectrum scarcity, pervasiveness, and accessibility to children.<sup>165</sup> Although support for the rationale for regulation of the electromagnetic spectrum has been waning,<sup>166</sup> the Supreme Court has upheld these justifications as appropriate and necessary so as to not infringe on the rights of others.<sup>167</sup> The FCC has used these three justifications to expand the scope of its power to include regulation of content.<sup>168</sup>

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<sup>159</sup> See 47 U.S.C. § 151 (2000) (establishing the FCC's authority to regulate "interstate and foreign commerce in communication").

<sup>160</sup> See § 307.

<sup>161</sup> See § 336.

<sup>162</sup> § 336(b)(5).

<sup>163</sup> See § 303.

<sup>164</sup> See, e.g., § 336(b), (d) (allowing regulation of broadcast television content in the public interest, convenience, and necessity). *But see* § 326 (prohibiting censorship).

<sup>165</sup> See *Red Lion Broad. v. FCC*, 395 U.S. 367, 388–89 (1969) (scarcity rationale); *FCC v. Pacifica Found.*, 438 U.S. 726, 748–50 (1978) (pervasiveness and accessibility to children rationale). For a discussion of these rationales and consideration of whether these rationales are still appropriate to justify FCC regulation, see generally Adam Thierer, *Why Regulate Broadcasting? Toward a Consistent First Amendment Standard for the Information Age*, 15 COMMLAW CONSPECTUS 431 (2007).

<sup>166</sup> See Thierer, *supra* note 165, at 435 ("Broadcast regulation . . . has always stood on shaky constitutional footing. Today these foundations are crumbling rapidly as legal and technological changes render moot the old regulatory assumptions and rationales." (internal citation omitted)).

<sup>167</sup> See, e.g., *United States v. Playboy Entm't Group, Inc.*, 529 U.S. 803, 811 (2000) ("[W]hen we consider the further circumstance that the material comes unwanted into homes where children might see or hear it . . . there are legitimate reasons for regulating it."); *FCC v. League of Women Voters of Cal.*, 468 U.S. 364, 376–77 (1984) (noting the scarcity rationale was a well established principle in evaluating broadcast regulations).

<sup>168</sup> See, e.g., *League of Women Voters*, 468 U.S. at 375 (noting that the government had argued that scarcity of the spectrum allowed for regulation of broadcasters' ability to editorialize); *In re Complaints Regarding Various Television Broadcasts Between February 2, 2002 and March 8, 2005, Notice of Apparent Liability and Memorandum Opinion and Order*, 21 F.C.C.R. 2664, ¶¶ 10, 100 (Feb. 21, 2006) (using the pervasiveness and uniquely-accessible-to-children scarcity rationales to justify imposition of liability against Fox Tele-

The FCC regulates broadcast content in three areas: political speech, indecent speech, and children's broadcasting.<sup>169</sup> Political speech and indecent speech are the only regulated broadcast areas that directional sound technology might occupy.

Political speech involves two components: candidate access and equal time.<sup>170</sup> The candidate access rule requires that broadcast stations "allow reasonable access to or to permit purchase of reasonable amounts of time . . . by a legally qualified candidate for Federal elective office on behalf of his candidacy."<sup>171</sup> In effect, this mandate requires that broadcast stations must provide commercial access to federal candidates at the lowest rates the broadcaster offers to other advertisers.<sup>172</sup> The equal time rule requires broadcasters to provide candidates for public office equal amounts of air time.<sup>173</sup> That is, if one candidate appears on the air in any substantial manner, then the broadcaster must provide that same amount of time to the other candidates.<sup>174</sup>

The FCC also may regulate broadcasts for indecent speech or content.<sup>175</sup> One justification for this regulation is the assumption that children have access to broadcast media, and, therefore, it should be regulated.<sup>176</sup> Another reason for regulation of indecent speech is the pervasiveness of the broadcast medium in that a broadcast comes uninvited into the home.<sup>177</sup> While the FCC regulates the broadcast media for political and indecent content, it has yet to regulate short

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vision Network for an indecent and profane broadcast).

<sup>169</sup> PAUL SIEGEL, *COMMUNICATION LAW IN AMERICA* 446–62 (2002); *see also* 47 U.S.C. §§ 312(a)(7), 315 (2000 & Supp. V 2005) (permitting regulation of political speech by requiring equal access and equal time for federal political candidates); 18 U.S.C. § 1464 (2006) (prohibiting the broadcast of "obscene, indecent, or profane language . . ."); *FCC v. Pacifica*, 438 U.S. 726, 744–45, 750–51 (1978) (stating that obscene speech is wholly prohibited and allowing regulation of some indecent speech); *In re Policies and Rules Concerning Children's Television Programming; Revision of Programming Policies for Television Broadcast Stations, Report and Order*, 11 F.C.C.R. 10,660, ¶¶ 1, 14–15 (Aug. 8, 1996) (revising the rules governing broadcasters' obligations to provide programming intended for children).

<sup>170</sup> 47 U.S.C. §§ 312(a)(7), 315.

<sup>171</sup> *Id.* § 312(a)(7).

<sup>172</sup> *See id.*; 47 U.S.C. § 315(b) (2000 & Supp. V 2005), *invalidated by* *McConnell v. FEC*, 251 F. Supp. 2d. 176 (D.D.C. 2003), *rev'd in part* 540 U.S. 93 (2003).

<sup>173</sup> 47 U.S.C. § 315(a).

<sup>174</sup> *Id.* (requiring broadcasters to give equal time to opposing candidates, but granting an exception if a candidate's appearance was in connection with any "(1) bona fide newscast, (2) bona fide news interview, (3) bona fide news documentary . . . or (4) on-the-spot coverage of a bona fide news event . . .").

<sup>175</sup> 47 U.S.C. § 303(m)(1)(D) (permitting the FCC to suspend a license if the licensee has aired "signals or communications containing profane or obscene words, language, or meaning."); *see* 18 U.S.C. § 1464 (making it a criminal offense to "utter[] any obscene, indecent, or profane language by means of radio communication.").

<sup>176</sup> *FCC v. Pacifica Found.*, 438 U.S. 726, 749–50 (1978).

<sup>177</sup> *Id.* at 748.

range transmissions for the same.<sup>178</sup>

Directional sound technology does not fit neatly into any of the FCC's regulated categories, but some regulations may apply to the technology nonetheless. Some directional sound technology functions over a distance of up to three-hundred yards.<sup>179</sup> While the sound beams may occasionally cross state lines, the federal government may have a difficult time justifying jurisdiction over the technology under the Commerce Clause.<sup>180</sup> However, assuming that the Supreme Court continues its traditionally liberal interpretation of the Commerce Clause,<sup>181</sup> Congress should be able to grant the FCC jurisdiction and preempt state regulation. Currently, the FCC has jurisdiction over the electromagnetic spectrum, which does not include the sound spectrum used by directional sound technology.<sup>182</sup> Since directional sound technology currently is an unlicensed medium, the FCC rules governing broadcasters would not immediately apply. Thus, unlike the FTC rules governing commercial advertisements, political statements and indecent material could be communicated unabashedly via directional sound technology.

In addition to regulating content, Congress also assigned the FCC the general duty of regulating communications as necessary to protect the public interest.<sup>183</sup> The FCC determined that regulation in the public interest also included the ability to regulate the presentation of information.<sup>184</sup> It first made this decision in 1957, when the public became concerned about subliminal advertis-

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<sup>178</sup> See generally 47 U.S.C. § 301. This specifically relates to multipoint distribution servers ("MMDS"), which use superhigh microwave frequencies to transmit signals over line-of-sight for approximately twenty-five miles. SIEGEL, *supra* note 169, at 478 ("The systems are not covered by most of the traditional rules governing broadcasting . . .").

<sup>179</sup> See Harvey, *supra* note 11, at 1.

<sup>180</sup> U.S. CONST. art. I, § 8 ("The Congress shall have power . . . to regulate commerce with foreign nations, and among the several states . . .").

<sup>181</sup> See *United States v. Darby*, 312 U.S. 100, 113-14 (1941) (upholding the Fair Labor Standards Act that imposed federal regulations on manufacturers). The Court reasoned that although manufacturing itself may not be interstate commerce, because it affects the interstate traffic of goods, it also affects interstate commerce, and therefore is subject to federal regulation under the Commerce Clause. *Id.* at 113. *But see United States v. Lopez*, 514 U.S. 549 (1995) (holding the Gun Free School Zones Act that prohibited the possession of a firearm within a school zone was unconstitutional because the owning of a gun in a school zone did not sufficiently affect interstate commerce). In the case of directed sound technology, since the technology would invariably carry advertisements, the connection to interstate commerce is more like *Darby* than *Lopez*. Therefore, federal regulation of the technology likely would be constitutional.

<sup>182</sup> See 47 U.S.C. § 303 (regulating electromagnetic spectrum); see also KNIGHT, *supra* note 12 (contrasting sound production with electromagnetic radiation).

<sup>183</sup> 47 U.S.C. § 336(b)(5).

<sup>184</sup> See, e.g., *In re Public Notice Concerning the Broadcast of Information by Means of "Subliminal Perception" Techniques*, 44 F.C.C. 2d 1016 (Jan. 24, 1974) [hereinafter *Subliminal Perception Notice*].

ing.<sup>185</sup> Subliminal messages are those that are given below the tolerable limit of normal human recognition.<sup>186</sup> The National Association of Broadcasters (“NAB,” formerly the National Association of Radio and Television Broadcasters)<sup>187</sup> requested that known use of subliminal messaging be reported to its Television Code Board.<sup>188</sup> The FCC released a statement of support arguing that regulation of such advertising was in the public interest.<sup>189</sup> This action quelled the public until the fall of 1973 when an advertising agency incorporated the phrase “Get It” into a television advertisement at a normally unperceivable level.<sup>190</sup> The NAB became aware of the advertisement after it aired initially and requested that television stations remove the subliminal message from the programming before re-airing it.<sup>191</sup> Additionally, the NAB updated its code to prohibit transmission of messages “below the threshold of normal awareness.”<sup>192</sup> The FCC responded with a notice, asserting that subliminal messages were against the public interest and inconsistent with the obligations of a broadcast licensee.<sup>193</sup> Thus, if the broadcast licensees began to use subliminal advertising, the FCC would have authority to respond by revoking or suspending the license of the broadcaster.<sup>194</sup>

The Notice also referenced an investigation being conducted by the FTC into subliminal advertising.<sup>195</sup> Neither agency took further action to prevent subliminal advertising. The FCC did, however, release a subsequent statement on subliminals that summarized several inconclusive studies on the effects of the advertising.<sup>196</sup> Future studies of the technique show that the messages have

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<sup>185</sup> *Id.* at 1016.

<sup>186</sup> See MAX SUTHERLAND & ALICE K. SYLVESTER, *ADVERTISING AND THE MIND OF THE CONSUMER* 30–31, (2d ed. 2000).

<sup>187</sup> The National Association of Broadcasters was originally formed in 1922 with the goal of forming rational spectrum allocation rules for radio. Cheryl Harris, *National Association of Broadcasters*, in *THE MUSEUM OF BROADCAST COMMUNICATIONS, ENCYCLOPEDIA OF TELEVISION* 1602 (Horace Newcomb ed. 2d ed. 2004), available at <http://www.museum.tv/archives/etv/N/htmlN/nationalassob/nationalassob.htm>. The association succeeded by assisting in the passage of the Radio Act of 1927 and thereby avoided direct governmental regulation of station operations and programming. *Id.*

<sup>188</sup> See Subliminal Perception Notice, *supra* note 184, at 1016.

<sup>189</sup> *Id.*

<sup>190</sup> *Id.* at 1016–17.

<sup>191</sup> *Id.* at 1017.

<sup>192</sup> *Id.*

<sup>193</sup> *Id.*

<sup>194</sup> See *id.*; 47 U.S.C. §§ 303(m)(1), 312(a).

<sup>195</sup> Subliminal Perception Notice, *supra* note 184, at 1017.

<sup>196</sup> See Subliminal Projection, *Information Bulletin* (1977), available at <http://www.broadcasting101.ws/subliminal.htm>. Part of the reason for a lack of action on both the part of the FTC and the FCC is the lack of the conclusiveness of the effect of subliminal advertising on consumers. Following the initial 1957 notice, several localized tests were conducted, including splicing the contact information of television stations into shows and broadcasting barely audible advertisements over the radio airwaves. The broadcasters re-

no measurable impact on the perceiver.<sup>197</sup>

The lack of formal regulation appears reasonable because if subliminals have no impact the FCC maintains no justification or constitutional authority to regulate the advertising under the public interest standard. Still, Congress and the FCC never enacted any law or regulation related to subliminals,<sup>198</sup> and no related FCC regulation exists that might have an impact on directional sound. However, borrowing from the reasoning behind the potential regulation of subliminals, directional sound technology might be subject to regulation in the public interest. Outside of the general public interest standard, the public also has a legally protected right to privacy.

### C. Right to Privacy

#### 1. *The Establishment of Privacy*

Another avenue for protection from directional sound technology might be a right to privacy. Modern privacy rights focus on protecting the individual from intrusion rather than imposition upon the individual. However, a classic view of privacy incorporates both intrusion and imposition.<sup>199</sup>

##### *a. Right to Privacy as a Tort*

Samuel Warren and Louis Brandeis presented the original case for the right of privacy in their seminal comment on the possibility of a common law right of privacy grounded in tort law.<sup>200</sup> Their discussion appears almost clairvoyant in light of the development of directional sound technology. For instance, when establishing the case for the right to privacy they refer to then recent rul-

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ported that no noticeable increase of station contact followed the broadcasts. However, one advertising firm claimed the opposite. During the movie "Picnic" the firm spliced "Drink Coca-Cola" and "Hungry? Eat Popcorn" into the film every 1/3000<sup>th</sup> of a second and claimed that sales of both increased. The firm did not release statistical data on the study. *Id.*; see also *infra* note 197.

<sup>197</sup> See SUTHERLAND & SYLVESTER, *supra* note 186, at 35 (noting that more than two hundred studies have been conducted but not one has been able to demonstrate effects on the audience). Additionally, the firm that claimed that subliminal advertising had worked in the movie theater to increase Coca-Cola and popcorn sales admitted that the results were fabricated. *Id.*

<sup>198</sup> See *Information Bulletin*, *supra* note 196.

<sup>199</sup> See generally Samuel D. Warren & Louis D. Brandeis, *The Right to Privacy*, 4 HARV. L. REV. 193 (1890).

<sup>200</sup> See *id.* at 193–96 (arguing for the acceptance of a common law tort right to privacy, largely in response to invasion of personal privacy by the press).

ings supporting “the right to be let alone,”<sup>201</sup> which implies that the right also includes a protection from harassment. Warren and Brandeis claimed:

The intensity and complexity of life, attendant upon advancing civilization, have rendered necessary some retreat from the world, and man, under the refining influence of culture, has become more sensitive to publicity, so that solitude and privacy have become more essential to the individual; but modern enterprise and invention have, through invasions upon his privacy, subjected him to mental pain and distress, far greater than could be inflicted by mere bodily injury.<sup>202</sup>

Although the Warren and Brandeis tort view of privacy gained some following in most states over the decades following its publication,<sup>203</sup> modern holdings and commentators reject the right, viewing it as conflicting with and subordinate to the First Amendment.<sup>204</sup> As such, the right of privacy is unlikely to withstand a constitutional challenge.<sup>205</sup> Ironically, when developing a constitutional right to privacy, the Supreme Court considered the right of privacy to be an implied portion of the First Amendment necessary to uphold free speech and the right to associate.<sup>206</sup>

### *b. Constitutional Right to Privacy*

While the Supreme Court built upon the reasoning of previous cases to develop the right of privacy, the opinion in *Griswold v. Connecticut* first identified a right of privacy as a constitutional right.<sup>207</sup> *Griswold* involved a physi-

<sup>201</sup> *Id.* at 195 (quoting THOMAS M. COOLEY, COOLEY ON TORTS 29 (2d ed. 1888)).

<sup>202</sup> *Id.* at 196.

<sup>203</sup> See Ken Gormely, *One Hundred Years of Privacy*, 1992 WIS. L. REV. 1335, 1356 (1992) (citing William L. Prosser, *Privacy*, 48 CAL. L. REV. 383, 386 (1960)).

<sup>204</sup> See *id.* at 1386–91.

<sup>205</sup> See, e.g., *Zacchini v. Scripps-Howard Broad. Co.*, 433 U.S. 562, 578–79 (1977) (holding that a human cannonball performer could not recover when his performance was taped and broadcast without his permission); Eugene Volokh, *Freedom of Speech and the Right of Publicity*, 40 HOUS. L. REV. 903, 929–30 (2003) (arguing against the right to control one’s likeness as property). However, these arguments against the freedom from publicity tend not to address the “right to be let alone.” See Warren & Brandeis, *supra* note 199, at 195.

<sup>206</sup> See *Griswold v. Connecticut*, 381 U.S. 479 (1965).

<sup>207</sup> See generally *id.* See also JOHN E. NOWAK & RONALD D. ROTUNDA, CONSTITUTIONAL LAW 917 (7th ed. 2004) (1978). The Court previously ruled that the state may not force the English language upon students, explaining that parents had the right to educate their children as they wished. *Meyer v. Nebraska*, 262 U.S. 390, 400, 403 (1923). The Court also ruled a convict may not be sterilized by the state only for felonies that specifically relate to crimes of moral turpitude. *Skinner v. Oklahoma*, 316 U.S. 535, 541–42 (1942). Both cases held for the appellant based on the equal protection clause. Justice Harlan relied on the reasoning in these cases and referred to a right of privacy in *Poe v. Ullman* (364 U.S. 497, 522 (1961) (Harlan, J. dissenting)), but the majority dismissed the case. In *Griswold v. Connecticut*, the majority adopted the opinion that the appellant was entitled to a right of privacy based on penumbras and emanations of the right to associate found within the First Amendment, the limited ability of the government to force disclosure found in the Fourth

cian and a director of the local Planned Parenthood League that provided information to married couples regarding the prevention of pregnancy through contraception.<sup>208</sup> Justice Douglas reasoned that the First Amendment expressed an implied “freedom of inquiry, freedom of thought, and freedom to teach . . . .”<sup>209</sup> He reasoned that a series of recent cases found the rights guaranteed by the Constitution and the Bill of Rights included peripheral rights required to ensure that the scripted rights functioned appropriately.<sup>210</sup> He christened these peripheral rights “penumbras, formed by emanations from those guarantees that help give them life and substance.”<sup>211</sup>

Justice Douglas then turned to *Boyd v. United States* where the court held that the Fourth and Fifth Amendments protected citizens against government intrusions.<sup>212</sup> The Court’s reasoning in *Boyd* relied on the principles of constitutional liberty and security explained by Lord Camden in *Entick v. Carrington*.<sup>213</sup> The *Boyd* court explained that Lord Camden determined that constitutional liberty and security applies to “all invasions on the part of the government and its employe’s [sic] of the sanctity of a man’s home and the privacies of life.”<sup>214</sup> The Court further expounded:

It is not the breaking of his doors, and the rummaging of his drawers, that constitutes the essence of the offence; but it is the invasion of this indefeasible right of personal security, personal liberty and private property, where that right has never been forfeited by his conviction of some public offence . . . . [A]ny forcible and compulsory extortion of a man’s own testimony, or of his private papers to be used as evidence to convict him of crime, or to forfeit his goods, is within the condemnation of that judgment.<sup>215</sup>

Justice Douglas explained that the implied additional protections required to secure the fundamental enumerated rights were also fundamental.<sup>216</sup> That is, the

and Fifth Amendments, and the protection of unenumerated rights found in the Ninth Amendment. See *Griswold*, 381 U.S. 479 at 484.

<sup>208</sup> *Griswold*, 381 U.S. at 480.

<sup>209</sup> *Id.* at 482.

<sup>210</sup> See *id.* at 482–83 (citing *NAACP v. Ala.*, 357 U.S. 449 (1958) and *Schwartz v. Bd. of Bar Exam’rs*, 353 U.S. 232 (1957)). In *NAACP*, the Court held that membership lists of an association should not automatically be disclosed to the government because releasing a list would undermine the freedom of association. *NAACP*, 357 U.S. at 462. In the same vein, the Court held in *Schwartz* that a lawyer’s association with the Communist party was not grounds to revoke his bar licenses because the association in itself was not proof of bad moral character. *Schwartz*, 353 U.S. at 244–47.

<sup>211</sup> *Griswold*, 381 U.S. at 484.

<sup>212</sup> *Id.* (citing *Boyd v. United States*, 116 U.S. 616, 630 (1886)).

<sup>213</sup> *Boyd*, 116 U.S. at 626, 630 (citing *Entick v. Carrington*, 19 Howell’s State Trials 1029 (C.P. 1765)); see also discussion *infra* Part III.C.2 (discussing technology and privacy as they relate to the home).

<sup>214</sup> *Boyd*, 116 U.S. at 630 (discussing Lord Camden’s judgment in *Entick v. Carrington*, 19 Howell’s State Trials 1029 (C.P. 1765)).

<sup>215</sup> *Id.*

<sup>216</sup> See *Griswold v. Connecticut*, 381 U.S. 479, 485 (1965).

government cannot ensure the rights of freedom from self incrimination and illegal search and seizure without also protecting the additional right of privacy of the individual.<sup>217</sup> After establishing the right to privacy as a fundamental right, Justice Douglas reasoned that such a right should apply to the states through the incorporation clause in the Fourteenth Amendment.<sup>218</sup> Then, the opinion summarily found the law prohibiting the *use* of contraceptives inconsistent with the right to privacy and unjustified.<sup>219</sup> Therefore, the convictions of the physician and executive were reversed.<sup>220</sup>

In a concurring opinion, Justice Goldberg, joined by Chief Justice Warren and Justice Brennan, rejected the idea that “all of the first eight amendments” have been incorporated as fundamental rights through the Due Process Clause of the Fourteenth Amendment.<sup>221</sup> Rather, they focused on the Ninth Amendment as the source of their decision to incorporate the right of privacy.<sup>222</sup> Justice Goldberg asserted that “the Ninth Amendment reveal[s] that the Framers . . . believed that there are additional fundamental [non-enumerated] rights,” existing that protect the public from governmental infringement.<sup>223</sup> To incorporate the Ninth Amendment into the Connecticut state contraception law, Justice Goldberg relied on the Due Process Clause protection of “liberties that are so rooted in the traditions and conscience of our people as to be ranked as fundamental.”<sup>224</sup>

If the Framers would have considered a specific freedom fundamental under the Ninth Amendment, then the freedom would likewise be considered fundamental under the Fourteenth Amendment.<sup>225</sup> Justice Goldberg identified the marital right to privacy as one such right.<sup>226</sup> The concurrence implied that the right to privacy applies specifically to the family and should not extend beyond

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<sup>217</sup> *Id.* at 484–85.

<sup>218</sup> *See id.* at 481–82. In *Palko v. Connecticut*, the Supreme Court noted that not all the rights from the Bill of Rights automatically applied to each of the United States through the Fourteenth Amendment. *Palko v. Connecticut*, 302 U.S. 319, 323 (1937). Rather, the Due Process Clause of the Fourteenth Amendment incorporated specific rights that were traditional and fundamental. There, the Court incorporated the privileges and immunities clause of Article Four. *Id.* at 324–28.

<sup>219</sup> *See Griswold*, 381 U.S. at 485–86. Justice Douglas also criticized the implications of the law challenged in *Griswold*: “Would we allow the police to search the sacred precincts of marital bedrooms for telltale signs of the use of contraceptives? The very idea is repulsive to the notions of privacy surrounding the marriage relationship.” *Id.*

<sup>220</sup> *Id.* at 486.

<sup>221</sup> *Id.* at 486–87 (Goldberg, J. concurring).

<sup>222</sup> *See id.*; *see also* U.S. CONST. amend. IX (“The enumeration in the Constitution, of certain rights, shall not be construed to deny or disparage others retained by the people.”).

<sup>223</sup> *See Griswold*, 381 U.S. at 488–89 (Goldberg, J. concurring).

<sup>224</sup> *Id.* at 487 (quoting *Snyder v. Massachusetts*, 291 U.S. 97, 105 (1934)).

<sup>225</sup> *See id.* at 492–93.

<sup>226</sup> *Id.* at 495.

a familial relationship right.<sup>227</sup> The concurrence therefore limited the right of privacy to the right of marital privacy specifically, rather than the broader interpretation supported by Justice Douglas.

Another concurrence penned by Justice Harlan looked only to the Fourteenth Amendment and its Due Process Clause as standing on “its own bottom.”<sup>228</sup> That is, the Due Process Clause of the amendment alone sufficiently invalidated the Connecticut statute.<sup>229</sup> In a third concurrence, Justice White agreed with this conclusion based on a similar line of reasoning. He reasoned the statute failed to adhere to the concept of “liberty” as used in the Fourteenth Amendment.<sup>230</sup> After finding that liberty is a fundamental right, he determined that the Connecticut law conflicted with the right and therefore required review under strict scrutiny.<sup>231</sup> As noted above,<sup>232</sup> under strict scrutiny review a state must identify a compelling state interest and employ narrowly tailored means to accomplish that goal.<sup>233</sup> However, Connecticut claimed that its contraceptive law existed to limit “all forms of promiscuous or illicit sexual relationships, be they premarital or extramarital.”<sup>234</sup> Since the law against contraceptives affected marital relationships as well, Justice White found the law itself to be overbroad and therefore invalid.<sup>235</sup>

The Supreme Court later abandoned the exercise of differentiating between specific reasons for the right of privacy, but continued to assert that it exists.<sup>236</sup> In *Roe v. Wade*, Justice Blackmun, writing for the majority, stated that the particular location of the privacy right in the Constitution was not important, but it clearly existed as a fundamental right and happened to “encompass a woman’s decision whether or not to terminate her pregnancy.”<sup>237</sup> However, without establishing a source of the right, it is difficult to determine exactly what the right encompasses.<sup>238</sup> Thus, the right to privacy found in *Roe*, although clearly

<sup>227</sup> *Id.* at 495–96.

<sup>228</sup> *Id.* at 500 (Harlan, J. concurring).

<sup>229</sup> *See id.* at 499–500.

<sup>230</sup> *Id.* at 502 (White, J. concurring).

<sup>231</sup> *Id.* at 502–04 (noting that statutes reviewed under strict scrutiny “if reasonably necessary for the effectuation of a legitimate and substantial state interest, and not arbitrary or capricious in application, are not invalid under the Due Process Clause.”).

<sup>232</sup> *See* discussion *supra* Part III.A.2 (discussing the application of strict scrutiny to time and place ordinances in the context of public nuisance law).

<sup>233</sup> *Sell v. United States*, 539 U.S. 166, 177–78, 181 (2003).

<sup>234</sup> *Griswold*, 381 U.S. at 505 (White, J. concurring).

<sup>235</sup> *Id.* at 505–06.

<sup>236</sup> *See Roe v. Wade*, 410 U.S. 113, 152–53 (1973).

<sup>237</sup> *Id.* at 153.

<sup>238</sup> *See Planned Parenthood of Southeastern Pa. v. Casey*, 505 U.S. 833, 979–86 (1992) (Scalia, J. concurring in part and dissenting in part) (explaining that even if there is a right to privacy or liberty it does not necessarily include a women’s right to terminate her pregnancy).

asserted, fails to provide sufficient explanation of the right to determine what it entails.

Future cases upheld the right of privacy and refined the analysis for upholding state laws. For instance, in *Sell v. United States*, the Supreme Court ruled on whether the state could involuntarily administer drugs to the appellant, Charles T. Sell, in order to ensure his competence to stand trial.<sup>239</sup> While at first blush this case does not appear related to privacy, the case actually turns upon the liberty of the individual.<sup>240</sup> This is the same liberty that Justice Harlan used in his concurrence in *Griswold*.<sup>241</sup> The majority in the *Sell* case defined a four-part standard for evaluating laws when a fundamental interest is at stake.<sup>242</sup>

First, to impose upon liberty, an *important governmental interest* must be the focus of the current law, regulation, or requirement.<sup>243</sup> Second, the requirement must “*significantly further* those concomitant state interests.”<sup>244</sup> Third, the requirement must be “*necessary* to further those interests . . . [and] [t]he court must find that any alternative, less intrusive [impositions] are unlikely to achieve substantially the same results.”<sup>245</sup> Finally, the regulation must be *appropriate* taking into consideration other extrinsic factors.<sup>246</sup> Ultimately, the Court found that under circumstances where a defendant was not dangerous to himself or others, the government could not involuntarily administer drugs to the defendant.<sup>247</sup> Both *Sell* and *Griswold* in combination present three possible

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<sup>239</sup> *Sell v. United States*, 539 U.S. 166, 169 (2003).

<sup>240</sup> *See id.* at 180–81.

<sup>241</sup> *Compare* *Griswold v. Connecticut*, 381 U.S. 479, 499–501 (1965) (Harlan J. concurring), *with* *Sell*, 539 U.S. at 180–81.

<sup>242</sup> *See* *Sell*, 539 U.S. at 180–81 (defining the four part test). Note that the minority dissented because the case was brought to the Court on an interlocutory appeal. *Id.* at 186–93 (Scalia, J., dissenting). The minority thought such a case on appeal violated *stare decisis*, and it set a precedent for the future in which criminals may delay their trials by injecting a fundamental freedom into the process. *Id.* at 189–92 (Scalia, J. dissenting). Justice Scalia, writing for the minority, suggests that a prisoner may stop taking his medication or wear a “Black Power” T-shirt to obtain an interlocutory appeal and delay the trial. *Id.* at 191–92.

<sup>243</sup> *Sell*, 539 U.S. at 180.

<sup>244</sup> *Id.* at 181 (emphasis in original).

<sup>245</sup> *Id.* (emphasis in original).

<sup>246</sup> *See id.* (requiring that the administration of drugs when medically appropriate—that is properly balanced between possible side effects and effectiveness in alleviating the condition).

<sup>247</sup> *Id.* at 186. The Court analyzed the consequences of forcing the administration of drugs and not forcing the drugs. *Id.* at 177. The Court reasoned that if appellant was not given drugs, he would be held in a mental institution, where he could not harm the public, until he was fit to stand trial. *Id.* at 178. Comparing the imposition upon the right of a citizen with an increased monetary cost to the state incurred by holding the suspect in a mental institution, the Court concluded that the administration of drugs was unnecessary because no public interest was better served by forcing the trial upon the mentally ill patient. *Id.* at 184–85. That is, in either scenario, the suspect was not a threat to himself or others and the only possible difference was cost. *See id.* at 180. The cost difference was not enough to outweigh

lines of analysis for privacy that might impact the Supreme Court's judgment of directional sound technology and indicate a line of reasoning by the Court: the traditional Lord Camden approach, Douglas's peripheral rights analysis, or Goldberg's liberty as a fundamental right.

*c. Privacy and Directional Sound Technology*

The first application of the right to privacy to directional sound technology might be an analysis under the traditional approach established by Lord Camden. Under a Lord Camden analysis, the true harm is caused when the government absconds with an individual's information, not merely breaking down the doors.<sup>248</sup> The Court might analogize the intrusion upon the mind by directional sound technology to that of breaking down doors. If so, directional sound may affect a subject, but without extracting anything from the subject, there would be no violation of privacy. However, if technology was used to elicit a confession or expose evidence for an investigation, the use might be considered the equivalent of the government breaking down a door and removing papers from the house of a citizen. The difficulty with this argument is demonstrating the link between the use of the technology and the confession. Unlike physically breaking a door and the carrying away evidence, the cause and effect of mental stimulation is much more difficult to measure.<sup>249</sup> Because of the attenuation between the cause and effect, a Lord Camden analysis would not effectively discourage the government from using directional sound technology in criminal investigations.

The second line of reasoning a defendant might put forth in an action for a privacy violation is similar to Justice Douglas in the majority opinion of *Griswold*.<sup>250</sup> Under this line of reasoning, the Court will look to peripheral rights or other rights already incorporated through the Bill of Rights to the states or the federal government.<sup>251</sup> More specifically, the Court may look to the freedom to associate and the freedom of speech guaranteed by the First Amendment,<sup>252</sup>

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the infringement upon a constitutional right. *See id.*

<sup>248</sup> *See* *Boyd v. United States*, 116 U.S. 616, 630 (1886); *see also* *Griswold v. Connecticut*, 381 U.S. 479, 484 (1965) (defining a constitutional right to privacy).

<sup>249</sup> *See* discussion *supra* Part III.A.3 (discussing the difficulty of proving causation in the context of an action in tort).

<sup>250</sup> *See* *Griswold*, 381 U.S. at 485 (looking to "zone of privacy created by several fundamental constitutional guarantees.").

<sup>251</sup> *See id.*

<sup>252</sup> U.S. CONST. amend. I. The First Amendment in full reads: "Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the government for a redress of grievances." *Id.*

which the Court has previously established as incorporated to the states.<sup>253</sup> Both the ability to associate and the ability to speak freely require the ability to think freely and clearly. Thus, since established rights require free thought, then freedom of thought must also be a fundamental right. The Court would then have to consider whether the use of directional sound technology infringed on the fundamental right of free thought. This argument, however, might be difficult, even under egregious circumstances.

For example, if law enforcement used a directional sound device to speak directly to a suspect under interrogation and the suspect later contended that his rights were violated due to the use of the technology, the suspect's attorney would have to convince a fact finder that the technology had a direct impact on his cognitive process. The impact on the suspect's cognitive process would have had to sufficiently restrict the suspect's right to think freely. The difficulty in this reasoning lies with the lack of physical evidence and our current legal jurisprudence regarding causation.<sup>254</sup> If, however, the government prevented the suspect from sleeping with violent noises from the technology for a period of several days, the suspect's attorney might have a better chance of proving causation because a jury and medical research can more easily connect the lack of sleep to a decline in the ability to think.<sup>255</sup> However, even if causation is shown, a defense attorney would have a difficult time proving that such actions rose to the level of a *denial* of the ability to think. The difficulty arises because the interruption of the thought process would only be temporary or partial and therefore not a full violation of a fundamental right.<sup>256</sup>

For a third line of reasoning, the Court might focus on liberty as a fundamental right. Justice Goldberg's *Griswold* reasoning on the marital right to privacy analysis would not apply directly because the use of directional sound

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<sup>253</sup> See *Palko v. Connecticut*, 302 U.S. 319, 326–27 (1937) (noting in dicta that these two rights are already incorporated and implying that required implied surrounding rights—such as the freedom of thought—are also incorporated through the Due Process Clause); see also *Wooley v. Maynard*, 430 U.S. 705, 714–15 (1977) (invalidating the requirement for New Hampshire license plates to carry the phrase “Live Free or Die” based on “the right of the freedom of thought protected in the First Amendment.”); *United States v. Reidel*, 402 U.S. 351, 359 (1971) (Harlan, J. concurring) (explaining “the First Amendment right of the individual to be free from governmental programs of thought control . . .”); *Jones v. Opelika*, 316 U.S. 584, 618 (1942) (“Freedom to think is absolute of its own nature; the most tyrannical government is powerless to control the inward workings of the mind.”).

<sup>254</sup> See discussion *supra* Part III.A.3 (discussing the difficulty associated with proving mental causation); see also *Palsgraf v. Long Island R.R. Co.*, 162 N.E. 99, 100–01 (N.Y. 1928) (discussing causation in general).

<sup>255</sup> However, the lack of sleep has not been held as limiting the freedom to think sufficiently as to elevate sleep deprivation to an unreasonable offense. See, e.g., *Lisenba v. California*, 314 U.S. 219, 229–30, 240 (1941) (finding interrogation of a suspect who was deprived of sleep was not a per se deprivation of due process).

<sup>256</sup> See *id.*

technology does not implicate the marital right.<sup>257</sup> Likewise, the right to privacy found in *Roe* might include such protection, but without identifying the source of the privacy right, determining whether the right would apply in a directional sound circumstance would be difficult.<sup>258</sup> Nevertheless, the Court could focus on Goldberg's path through the Ninth Amendment, or Harlan and White's path through due process. In either case, the analysis would be similar.

In their *Griswold* concurrences, the justices establish liberty as a fundamental freedom.<sup>259</sup> To apply this reasoning to directional sound technology, the use of the technology must infringe on liberty. Like the marital right, the traditional notions of liberty in the United States include the right to think freely, as implied by the freedom of speech<sup>260</sup> and the freedom to associate.<sup>261</sup> One might even argue that the creation of the Constitution itself—the creation of a non-standard government for the time—demonstrates an implied right to think freely and creatively. If directional sound technology usurps the ability to think freely—a subset of liberty—then the technology also usurps liberty itself.<sup>262</sup> Thus, the use of directional sound technology infringes upon the Ninth or Fourteenth Amendment's due process clauses.

Regardless of which line of reasoning establishes a fundamental right infringed upon by directional sound technology, the Court would then use the four-part analysis identified in *Sell* to consider whether a compelling interest of the state justifies and out-weighs such an infringement.<sup>263</sup> The compelling state interest here is the state police power with the goal of protecting the public from crime. The state police power is the same compelling interest the Court has used in the Fourth Amendment context when considering whether a search is unconstitutional.<sup>264</sup> Borrowing from the Fourth Amendment rationale, the

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<sup>257</sup> *Griswold v. Connecticut*, 381 U.S. 479, 486–87 (1965) (Goldberg, J. concurring).

<sup>258</sup> See *Planned Parenthood of Southeastern Pa. v. Casey*, 505 U.S. 833, 979–86 (1992) (Scalia, J. concurring in part and dissenting in part) (noting that the privacy established in *Roe* is not sufficiently defined to determine what the right encompasses).

<sup>259</sup> *Griswold*, 381 U.S. at 486–87 (Goldberg, J. concurring); *Id.* at 502–06 (White, J. concurring).

<sup>260</sup> See, e.g., *Wooley v. Maynard*, 430 U.S. 705, 714 (1977) (“[T]he right of freedom of thought protected by the First Amendment against state action includes both the right to speak freely and the right to refrain from speaking at all.”).

<sup>261</sup> See, e.g., *NAACP v. Button*, 371 U.S. 415, 430–31 (1963) (discussing the contribution of membership in the NAACP “to the ideas and beliefs of our society”).

<sup>262</sup> See *Jones v. Opelika*, 316 U.S. 584, 618 (1942) (suggesting freedom of thought is necessary in a democracy).

<sup>263</sup> See *Sell v. United States*, 539 U.S. 166, 180–81 (2003).

<sup>264</sup> See, e.g., *Camara v. Municipal Ct. of the City of San Francisco*, 387 U.S. 523, 533–34 (1967) (noting that the inspections of buildings based on public health and safety are a reasonable infringement upon the Fourth Amendment); see also *Niemotko v. Maryland*, 340 U.S. 268, 273–74, 282 (1951) (Frankfurter, J. concurring) (discussing legislatures and courts determining the boundaries on the government's ability to keep the peace).

protection of the public would be a valid state interest,<sup>265</sup> but it must be balanced against the fundamental rights of individuals.

Once a person's fundamental right conflicts with an *important governmental interest*, the Court will proceed with the *Sell* analysis. That is, the Court must also consider whether the action *further*s the state interest, whether the action is *necessary* to further the state interest, and whether such action is *appropriate*.<sup>266</sup> The use of directional sound technology in an interrogation situation may help convict criminals, an important tenet of the criminal justice system and surely an important governmental interest. If the device helps—even in a few cases—to elicit a confession then it would appear to further the state interest in convicting criminals.

A more difficult debate would revolve around whether the use of directional sound is necessary and whether it is appropriate. The government could not discover facts related to a crime if it could not interrogate suspects, thus the action seems necessary. Yet, if the governmental action is defined as using the directional sound technology, then the action appears unnecessary because interrogations have been effective for centuries without the use of the technology. This would imply that the use of the technology is not constitutionally permitted. However, would those other methods be equally as effective or efficient and are effectiveness and efficiency enough to make the use of the technology necessary? The answer to this question bleeds into the appropriateness analysis and turns on whether a temporary infringement on a fundamental right is substantial enough to outweigh the government's interest.<sup>267</sup> Likely, the infringement is not substantial enough to outweigh government interests.

Compare this to the temporary restraint on freedom when a suspect is detained for questioning by police. When detained, a suspect's liberty is temporarily infringed upon, and yet this always has been an acceptable sacrifice for the safety of society and for the administration of justice.<sup>268</sup> Therefore, even if a right to privacy or liberty exists, it would not serve to protect citizens from the use of such technology.

The right to privacy in the interrogation context does not seem to offer the public much protection. However, the public may have slightly more protection if the government targets the technology at a citizen's home.

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<sup>265</sup> See *Camara*, 387 U.S. at 533–35.

<sup>266</sup> *Sell*, 539 U.S. at 180–82.

<sup>267</sup> See *id.* (discussing balancing temporary infringement on a fundamental right with the governments interest in ensuring a fair trial for the defendant).

<sup>268</sup> See *Terry v. Ohio*, 392 U.S. 1, 20–21, 27, 30–31 (1968) (holding that the police could temporarily detain a person if they have reasonable, articulable suspicion of a crime).

## 2. Privacy, Technology, and the Home

The Supreme Court case in which technology, the privacy rights, and citizens' interests in their homes converge is *Kyllo v. United States*.<sup>269</sup> In *Kyllo*, an agent for the U.S. Department of the Interior, without a warrant, aimed a heat-sensing device at the house of a private individual suspected of growing marijuana.<sup>270</sup> Producers of marijuana grown indoors typically use high-intensity heat producing lamps.<sup>271</sup> The agent used an image obtained from the heat-sensing device—in addition to other evidence—to obtain a search warrant for the individual's home.<sup>272</sup> A post-warrant search confirmed that the individual was illegally cultivating marijuana.<sup>273</sup>

Justice Scalia in his opinion for the Court focused his analysis on the Fourth Amendment and whether law enforcement violated the petitioner's right "to be secure in [his] person[], house[], papers, and effects, against unreasonable searches and seizures . . ." <sup>274</sup> The Court invoked *Silverman v. United States*, stating that "[a]t the very core" of the Fourth Amendment "stands the right of a man to retreat into his own home and there be free from unreasonable governmental intrusion."<sup>275</sup> The determination of whether the Fourth Amendment was violated depended not on whether the intrusion was reasonable, but whether a picture taken from the public street was an intrusion into the house at all.<sup>276</sup> The dissent argued that no search had been conducted because the heat information was merely an observation of the home.<sup>277</sup> Under the dissent's reasoning, using technology that could see through-the-wall rather than off-the-wall without a warrant would be considered a search and therefore a constitu-

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<sup>269</sup> *Kyllo v. United States*, 533 U.S. 27 (2001).

<sup>270</sup> *Id.* at 29. The agent, William Elliott, used an Agema Thermovision 210 thermal imager that converts heat radiation into "images based on relative warmth—black is cool, white is hot, shades of gray connote relative differences . . ." *Id.* at 29–30.

<sup>271</sup> *Id.* at 29.

<sup>272</sup> *Id.* at 30. The scan of the home showed the roof over the garage emanating more heat than neighboring garages. *Id.* The agent also had collected tips from informants and utility bills for petitioner's home, which also indicated the cultivation of marijuana. *Id.*

<sup>273</sup> *Id.* The petitioner was indicted for the manufacture of marijuana, violating 21 U.S.C. § 841(a)(1). *Id.*

<sup>274</sup> *Id.* at 31 (quoting U.S. CONST. amend. IV).

<sup>275</sup> *Id.* (quoting *Silverman v. United States*, 365 U.S. 505, 511 (1961)). In *Silverman* the Court held that the act of attaching a listening device to a heating duct outside the home, which ran throughout the home and allowed federal agents to hear every conversation throughout the house without a warrant, constituted an illegal search. *Silverman*, 365 U.S. at 511–12.

<sup>276</sup> See *Kyllo v. United States*, 533 U.S. 27, 31–32 (2001). The Court also noted that it decoupled the laws of trespass and Fourth Amendment rights, so that physical intrusion onto the petitioner's property was not necessary to implicate the Fourth Amendment. *Id.* at 32 (citing *Rakas v. Illinois*, 439 U.S. 128, 143 (1978)).

<sup>277</sup> See *Kyllo*, 533 U.S. at 41 (Stevens, J. dissenting).

tional violation.<sup>278</sup> In response, Justice Scalia claimed that such an approach was inconsistent with previous privacy holdings and would “leave the homeowner at the mercy of advancing technology.”<sup>279</sup> He also pointed out in a footnote that recently developed technology would render the standard defined by the dissent irrelevant because new technology would further erode the distinction between the through-the-wall and off-the-wall standard.<sup>280</sup>

The government attempted to avoid a Fourth Amendment violation by arguing that the thermo-image did not provide the agent with any intimate details of the inside of the home.<sup>281</sup> Scalia disputed this assertion by providing examples in which thermo-imaging technology could provide intimate details of the home; for example he explained that the technology could be used to determine “what hour each night the lady of the house takes her daily sauna and bath.”<sup>282</sup> Scalia went on to criticize the idea of an intimacy test as too indeterminate and subjective to provide officers with workable standard.<sup>283</sup> While the majority rejected this case as a Fourth Amendment violation against an individual in their home, the underlying precedent supporting this reasoning remains intact for areas outside the home.<sup>284</sup> This might imply that as long as the technology used outside the home does not interfere with intimate details of a person’s life the government is free to use the technology in investigations. Therefore, the government could use directional sound technology as it pleases

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<sup>278</sup> *See id.*

<sup>279</sup> *Id.* at 35–36. Justice Scalia applied the dissent’s analysis to the facts in *Katz v. United States*, 39 U.S. 347 (1967). In *Katz*, law enforcement agents attached a listening device to the outside of a telephone booth and eavesdropped on the petitioner’s conversation regarding an illegal wager. *Katz*, 389 U.S. at 348. The Court overturned the petitioner’s conviction on Fourth Amendment grounds. *Id.* at 359. The Court later adopted the reasoning of Justice Harlan’s concurrence that required a reasonable expectation of privacy on the part of the accused and a general willingness by society to accept that expectation of privacy as reasonable for the Fourth Amendment protection to be applicable. *See id.* at 361 (Harlan, J. concurring). If the test articulated in Steven’s dissent in *Kyllo* was applied to the *Katz* facts, the listening device placed on the *outside* of the phone booth would not violate the “through-the-wall” test, or the Fourth Amendment. Thus, Scalia considered the holdings to be inconsistent. *Kyllo*, 533 U.S. at 35–36.

<sup>280</sup> *Kyllo*, 533 U.S. at 36 & n.5. The technology Scalia identified as further eroding the standard included “a Radar-Base Through-the-Wall Surveillance System, [a] Handheld Ultrasound Through-the-Wall Surveillance, and a Radar Flashlight” allowing officers to detect individuals through walls. *Id.* at 36 n.3 (internal quotation marks omitted).

<sup>281</sup> *Id.* at 37. The Government based its argument on the holding in *Dow Chemical Co. v. United States*, which allowed the admission of photographs taken from an aerial search despite previous Fourth Amendment jurisprudence that held technology may be used by the government to the extent it is commonly available to the public. *Id.* (citing *Dow Chemical v. United States*, 476 U.S. 227, 234 (1986)); *see California v. Ciraolo*, 476 U.S. 207 (1986) (concluding an aerial review of a person’s curtilage is not an unreasonable search).

<sup>282</sup> *Kyllo*, 533 U.S. at 38.

<sup>283</sup> *Id.* at 38–39.

<sup>284</sup> *See Dow Chemical*, 476 U.S. at 227.

outside the home.

However, a suspect in his or her home might have some protection. In *Kyllo*, Scalia created a bright-line standard relying upon language from *Payton v. New York* stating “the Fourth Amendment has drawn ‘a firm line at the entrance to the house.’”<sup>285</sup> The Court noted that an individual’s expectation of privacy is greatest in the home.<sup>286</sup> Scalia’s bright-line standard declared that government agents cannot use a technological device that is not available to the general public to gather previously unknown information from a home, or else the gathering of information will be considered a search and presumptively unreasonable under the Fourth Amendment if done without a warrant.<sup>287</sup> Courts have implied that in addition to being consistent with the bright-line holding, future rulings related to technology and the home must take “a long view” and consider the implication on further technological development.<sup>288</sup>

At first glance, the standard set forth in *Kyllo* would appear to support a prohibition on the use of directional sound technology on criminal suspects by upholding a privacy right.<sup>289</sup> However, in actuality, the standard fails to provide protection because of the uniqueness of directional sound technology. Directional sound technology pushes sound on to the suspect. Law enforcement might use the technology to distract a suspect or force the suspect out of his or her home because of unbearable noise.<sup>290</sup> This tactic might previously have been frowned upon by neighbors in residential areas, but with directional sound technology, the sound could be concentrated on the suspect’s house or even apartment without the neighbors even noticing. Under Scalia’s bright-line standard, this action would not be a violation of privacy because no informa-

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<sup>285</sup> *Kyllo*, 533 U.S. at 40 (quoting *Payton v. New York*, 445 U.S. 573, 590 (1980)) *Payton* involved a warrantless, non-consensual entry into a home to make a felony arrest. *Payton*, 445 U.S. at 576–77.

<sup>286</sup> *Kyllo*, 533 U.S. at 33.

<sup>287</sup> *Id.* at 40.

<sup>288</sup> *See, e.g.*, *United States v. Lopez*, 380 F.3d 538, 544 (1st Cir. 2004) (distinguishing *Kyllo* as pertinent to the home and to technology rather than to a car—the space invaded in the case); *State v. Wiegand*, 645 N.W.2d 125, 130 & n. 3 (Minn. 2002) (limiting the *Kyllo* ruling to searches involving technology and the home).

<sup>289</sup> The holding prohibited the particular search of the home. *Kyllo*, 533 U.S. at 40.

<sup>290</sup> Sounds have been used to force suspects out of homes before. *See, e.g.*, Greg Allen, *Noriega Set for Release—to Where?*, (NPR radio broadcast July 24, 2007), *story summary and archived broadcast available at* <http://www.npr.org/templates/story/story.php?storyID=12193713> (mentioning that U.S. Forces played rock music over loudspeakers to drive General Manuel Noriega from the Vatican’s embassy after the invasion of Panama). However, like a traditional loud speaker, directed sound technology cannot travel through solid surfaces, and therefore can be blocked by closing windows or using earplugs. *See* Pompei, TalkBack, *supra* note 37. *Cf. Kyllo*, 533 U.S. at 36 n.3 (describing newly available technology, including a “Handheld Ultrasound Through-the-Wall Surveillance” device (emphasis added)).

tion is gathered.<sup>291</sup> However, *Kyllo* did not invalidate previous rulings it relied upon, so *Payton* may offer some protection.<sup>292</sup>

*Payton* established a firm line at the door preventing officers from entering;<sup>293</sup> nevertheless, it too was concerned with the information taken away when officers actually stepped inside the home.<sup>294</sup> Although the concept of privacy within the home is touted by the court,<sup>295</sup> no current line of decisions prevents the harassment of a resident with directional sound technology.<sup>296</sup>

Whether the fundamental right implicated is the right to liberty, privacy, or to be secure in one's home, the Constitution affords little protection, if any, against governmental use of directional sound technology. Even if it did offer protection, it would only be against state action<sup>297</sup> and therefore private citizens could use the technology to interfere with the thoughts of other private citizens.

#### IV. REQUIRED REGULATION

The three areas of tort, advertising, and privacy law all have the greatest ability to protect the public from the improper uses of directional sound technology, but fail to do so as currently drafted.

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<sup>291</sup> See *Kyllo v. United States*, 533 U.S. 27, 40 (2001).

<sup>292</sup> See *Payton v. New York*, 445 U.S. 573, 590 (1980) (“[T]he Fourth Amendment has drawn a firm line at the entrance to the house.”).

<sup>293</sup> *Id.*

<sup>294</sup> *Id.* at 587.

<sup>295</sup> See *id.* at 589.

<sup>296</sup> Interestingly, the best line of reasoning to prevent unreasonable use of directed sound technology might be the opinion that the *Kyllo* court rejected. The dissent in the case suggests an “off-the-wall” versus a “through-the-wall” approach that would allow technology to sense information that emanates from the house, but not allow technology that penetrates the walls of the house. See *Kyllo*, 533 U.S. at 41 (Stevens, J. dissenting) (referring to the off-the-wall approach as an observations whereas the through-the-wall approach would be an invasion). Ironically in the case of directed sound technology, the dissent's method might provide more protection to the private citizen because directed sound technology has to pass through a barrier to work (push air molecules creating sound waves), which would have been a search and therefore a violation of the Fourth Amendment under the through-the-wall approach. However, generally, the majority's opinion is considered to grant individuals a greater right to privacy because it held that police procured the evidence from an unconstitutional search. *Id.* at 33–37.

<sup>297</sup> See LAURENCE H. TRIBE, *AMERICAN CONSTITUTIONAL LAW* 1691 (2d ed. 1978). Tribe explains the two purposes of the state action requirement:

First, by exempting private action from the reach of the Constitution's prohibitions, it stops the Constitution short of preempting individual liberty—of denying to individuals the freedom to make certain choices, such as choices of the persons with whom they will associate. . . . Second, the state action requirement reinforces the two chief principles of division which organize the governmental structure that the Constitution creates: federalism and the separation of powers.

*Id.*

In tort law, the law of public and private nuisance concern loudness and unwanted, undesired, and consistent annoyance of the injured party.<sup>298</sup> While inventors designed the technology to benefit society,<sup>299</sup> the design only avoids some of the harms, while avoiding most of the current legal restrictions. Additionally, the advent of the technology may render some traditional nuisance protections unconstitutional and lead to uneven protection. The nuisance torts may provide some protection in prolonged usage. But, the long distance at which directional sound technology can function and the inability to pinpoint a source, as well as the traditionally strict requirements of the tort of extreme emotional distress, render harms caused by fleeting use unenforceable.<sup>300</sup> An unenforceable tort does not provide meaningful protection.

Nor are the current regulations of the two executive agencies sufficient to protect the public. The FTC protects consumers from false advertising, but not from the constant barrage of advertisements that consumers can expect to receive as the price of the directional sound technology declines and its use becomes widespread.<sup>301</sup> Additionally, the FTC's potentially limited jurisdiction<sup>302</sup> over directional sound technology makes the agency an ineffective regulator because it will likely not be willing to spend the time and effort required to regulate this specific market.<sup>303</sup>

The FCC's current regulations apply to spectrum licensees—currently directional sound technology does not require a spectrum license.<sup>304</sup> The only other potential area of FCC regulation that might apply to the technology—subliminal messaging—does not carry the rule of law.<sup>305</sup> Therefore, attempted regulation of directional sound technology under the subliminal scheme would be ineffective. Current agency regulation does not protect the public.

Thus far, constitutional protections have not extended far enough to prevent the use of directional sound technology. The rulings surrounding privacy and the freedom of thought have not clearly enunciated a right that would pertain to directional sound technology.<sup>306</sup> Although such rulings might eventually extend to protect the mind from assault by law enforcement, the current rulings are insufficient to deter the use of the technology by law enforcement agencies.

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<sup>298</sup> See discussion *supra* Part III.A.1–2.

<sup>299</sup> Pompei, *supra* note 45.

<sup>300</sup> See discussion *supra* Part III.A.3.

<sup>301</sup> See 15 U.S.C. § 45 (2006).

<sup>302</sup> See discussion *supra* Part III.B.1.

<sup>303</sup> Radio, television, and print media by their nature are easier to regulate because they reach more people, tend to be more homogenous through the country, and evidence remains of their transmission after the transmission has occurred. That may not be the case with directed sound attached to a microphone outside a city store.

<sup>304</sup> See 47 U.S.C. § 336 (2000).

<sup>305</sup> See discussion *supra* Part III.B.2.

<sup>306</sup> See discussion *supra* Part III.B.2.c.

Additionally, although the Court and the Constitution consider the home to be sacrosanct, the current rulings limit the government's ability to withdraw information from the home, rather than preventing government to inject disturbance into the home.<sup>307</sup> The Supreme Court is unlikely to rule in a way that would create a right, absent legislative action. This is evidenced by the Court's opinion first expressed in *West Coast Hotel Co. v. Parish*<sup>308</sup> and confirmed in *Griswold*, where it refused to "sit as a super-legislature to determine the wisdom, need, and propriety of laws that touch economic problems, business affairs, or social conditions."<sup>309</sup>

Even if the Court extended its rulings so that privacy or the freedom of thought applied to directional sound technology, the protection provided by such a ruling would be insufficient for two reasons. First, the ruling would only relate to government action—the ruling would apply to the federal government, perhaps through the Ninth Amendment, and state governments through the Fourteenth Amendment.<sup>310</sup> Private individuals would retain the unfettered ability to misappropriate the technology. Second, even if the government violated the ruling, private individuals would have little remedy. A criminal might have the right to exclude any evidence obtained during the course of the investigation, thereby increasing the chances of her receiving a not guilty verdict.<sup>311</sup> However, the innocent citizen can do nothing but complain if the government infringes upon her rights.<sup>312</sup> Citizens remain unprotected by the law as it stands.

In order to prevent infringement of common law or constitutional rights of citizens, Congress needs to act immediately. Without quick action, the technology may proliferate uncontrollably. Due to the rapidly changing nature of technology, Congress must provide authority to an agency to regulate the technology as it develops. The obvious consideration then, is which of the two agencies that already regulate issues tangential to directional sound technology

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<sup>307</sup> *Id.*

<sup>308</sup> See *W. Coast Hotel Co. v. Parrish*, 300 U.S. 379, 398 (1937) ("[T]imes without number, we have said that the legislature is primarily the judge of the necessity of such an enactment . . . and that though the court may hold views inconsistent with the wisdom of the law, it may not be annulled unless palpably in excess of legislative power." (quoting *Nebbia v. New York*, 291 U.S. 502, 537–38 (1934))).

<sup>309</sup> See *Griswold v. Connecticut*, 381 U.S. 479, 482 (1965).

<sup>310</sup> See U.S. CONST. amend. IX; U.S. CONST. amend. XIV.

<sup>311</sup> See *Weeks v. United States*, 232 U.S. 383, 398 (1914) (establishing the exclusionary rule); see also *Mapp v. Ohio*, 367 U.S. 643, 660 (1961) (extending the exclusionary rule to state violations of the Fourth Amendment).

<sup>312</sup> If the citizen did nothing wrong, then no trial may be brought and thus, there is no evidence to exclude. There are no repercussions suffered by government agents who break the rule against innocent citizens. See JOSHUA DRESSLER & ALAN C. MICHAELS, *UNDERSTANDING CRIMINAL PROCEDURE VOL. 1* 375–78 (4th ed. 2006) (1991) ("Early empirical studies suggest, and common sense tells us, that the exclusionary rule does not and cannot function as a meaningful deterrent." (citation omitted)).

should regulate the technology. The FTC regulates commerce, and while the goal of the agency—to protect America’s consumers—seems broad, the function of the agency typically is limited to the control of the marketplace.<sup>313</sup> Thus, because of its broader authority, the most appropriate agency to act is the FCC. Directional sound technology runs parallel to the agency’s purview. The agency regulates similar technologies like the electromagnetic spectrum for communications and short-range transmission of microwave transmissions.<sup>314</sup> Additionally, Congress has specifically provided the FCC with the power to regulate new technologies.<sup>315</sup>

Congress could create a framework for the FCC to regulate directional sound technology, but appropriate regulation may be difficult. Even if directional sound devices proliferate,<sup>316</sup> the sound spectrum is not subject to limitation and interference in the same way as the electromagnetic spectrum.<sup>317</sup> Sounds may overlap with one another, but multiple sounds do not necessarily prevent or distort each other. However, absent regulation, there exists a possibility of abuse.<sup>318</sup>

The most efficient course of action is for Congress to grant the FCC licensing authority over the manufacture of directional sound devices and to prose-

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<sup>313</sup> See Federal Trade Commission, About the Federal Trade Commission, <http://www.ftc.gov/ftc/about.shtml> (last visited Nov. 17, 2008) (explaining that the FTC primarily focuses on the prevention of “unfair and deceptive acts or practices.”).

<sup>314</sup> 47 U.S.C. § 303(y) (2000); see *In re* Amendment of Parts 2, 21, 74, and 91 of the Commission’s Rules and Regulations Relative to the Licensing of Microwave Radio Stations Used to Relay Television Signals to Community Antenna Television Systems, *First Report and Order and Further Notice of Proposed Rulemaking*, 1 F.C.C. 2d 897, ¶ 15 (Oct. 13, 1965).

<sup>315</sup> See 47 U.S.C. § 157 (2000).

(a) It shall be the policy of the United States to encourage the provision of new technologies and services to the public. Any person or party (other than the Commission) who opposes a new technology or service proposed to be permitted under this chapter shall have the burden to demonstrate that such proposal is inconsistent with the public interest.

(b) The Commission shall determine whether any new technology or service proposed in a petition or application is in the public interest within one year after such petition or application is filed. If the Commission initiates its own proceeding for a new technology or service, such proceeding shall be completed within 12 months after it is initiated.

*Id.*

<sup>316</sup> In the near future, several companies plan to begin employing the technology on a massive scale. See, e.g., Ho, *supra* note 5 (noting grocery chains have contracted with American Technology Corporation to use its technology in their stores). Elwood Norris, chairman of American Technology Corporation, claimed the consumer electronics giant, Sony, has started using the systems in its televisions and speaker systems. Sella, *supra* note 52 at 37; Schwartz, *supra* note 31, at 54.

<sup>317</sup> See discussion *supra* note 12.

<sup>318</sup> See discussion *supra* Part III.A.

cute illegal uses. Directional sound devices should be defined functionally as devices that produce a narrow audible sound at a moderate distance. This would provide developers and businesses with economic certainty, and it would prevent the undue economic waste of litigating uncertain situations or of spending capital on non-useful technological developments. Similar to the current electromagnetic interference approval function,<sup>319</sup> manufacturers would be required to obtain approval from the FCC prior to production. A minimal license fee would be required, but the regulation would also make illegal the manufacture or distribution of directional sound products produced without a license.

The regulations should also prohibit directional sound devices from being concealed.<sup>320</sup> As the technology become more prevalent, the FCC should undertake a campaign of public service announcements to inform the public about the technology. This would eliminate the element of surprise in all situations—making abuse by either other citizens or the government less effective. Police stations could not use it in an interrogation room because the use of such technology would be apparent to the suspect. No fan could smuggle the technology into a baseball stadium and use directional sound to harass the opposing team's batters. A home owner if subject to a barrage of sound by the police can look outside, identify the source, and take steps to prevent further disturbance with earplugs.

## V. CONCLUSION

The citizen is inadequately prepared to face the implications of directional sound technology. The law is inadequate to protect the public. Action must be immediately taken to prevent economic waste and unregulated proliferation. Congress must promptly grant the authority to the FCC to regulate directional sound technology in order to protect the public and prevent abuse of the technology. The FCC must then take the appropriate steps to regulate the technology. The best action in the interest of the public is to license the manufactures of the technology. The unsuspecting public should be educated about the tech-

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<sup>319</sup> 47 U.S.C. § 301 (2000); *see* News Release, Fed. Commc'ns Comm'n, FCC Simplifies, Streamlines, Equipment Authorization Process; Adopts Electronic Filing Process, ET Docket No. 97-94 (Apr. 2, 1998) (noting the requirement that producers of equipment that might cause interference must obtain approval to manufacture the device from the FCC).

<sup>320</sup> The ability of the federal government and the FCC to regulate the device in this manner may be constitutionally limited by the Second Amendment if the device is considered a weapon. *See* U.S. CONST. amd. II (“[T]he right of the people to keep and bear Arms shall not be infringed.”); *but see* District of Columbia v. Heller, No. 07-290, slip op. at 55 n.26 (June 26, 2008) (rejecting the D.C. ban of handguns, but allowing reasonable regulation of weapons in dicta).

nology, and its misuse should be easily punishable. By doing so, the government could protect the public and avoid the infringement of the public's constitutional rights.

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## MAJOR COURT DECISIONS, 2008

### **Alliance for Community Media v. FCC, 529 F.3d 763 (6th Cir. 2008)**

*Issue:* Whether the Federal Communications Commission (“Commission” or “FCC”) had the authority to adopt an *Order* interpreting a provision of the Communications Act of 1934 and whether the contents of the *Order* merited judicial deference pursuant to *Chevron USA v. Natural Resources Defense Council*, 467 U.S. 837 (1984), or if the Commission’s rulemaking activity in promulgating the *Order* was arbitrary, capricious, or an abuse of discretion.

*Holding:* The United States Court of Appeals for the Sixth Circuit denied petitioners’ review of the *Order*, finding that the Commission was authorized to draft rules implementing a section of the Communications Act that contained no reference to the FCC but did provide for a judicial review remedy. Furthermore, the court gave judicial deference to FCC’s construction since the term “unreasonably” in the statute was found to be ambiguous. Next, the court held that the four rules articulated in section 621, were reasonable and permissible statutory construction. Finally, the court found that the FCC did not act arbitrarily or capriciously in drafting this rule.

*History:* Local Franchising Authorities (“LFAs”) and the Commission have both sought to exert their influence in regulating cable. In 1984, Congress passed the Cable Communications Policy of 1984 as an amendment to the Communications Act. By inserting Title VI provisions into the Communications Act, the legislation was intended to establish a national policy clarifying the regulation of cable television. The Commission was granted exclusive jurisdiction over cable services while the LFAs had the authority to award cable franchises. In 1992, Congress again intervened by enacting the Cable Television Consumer Protection and Competition Act, revising section 621(a)(1) of Title VI to specify that an LFA may grant “one or more franchises within its jurisdiction; except that a franchising authority may not grant an exclusive franchise and may not unreasonably refuse to award an additional competitive franchise.” Congress provided for a judicial remedy by allowing applicants to bring an action before federal or state court within 120 days after receiving a final, adverse decision from an LFA.

Subsequently, the FCC initiated a rulemaking, inviting comment on two issues: whether the franchising process’ goals of “enhanced cable competition and accelerated broadband deployment” were being unreasonably obstructed, and what constitutes an “unreasonable refusal to award an additional competitive franchise under section 621(a)(1).” After receiving and reviewing comments filed by new entrants, incumbent cable operators, LFAs, and consumer