

Addressing Gender Bias in Voice Assistants: European Advertising Nondiscrimination Laws as a Framework for Regulation

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\* J.D., May 2025, The George Washington University Law School; B.B.A. 2018, The George Washington University. Thank you to the FCLJ Editorial Board for all their help and support with this note. A special thank you to my parents, my sister, and Sam for all your love and encouragement during my law school journey. And to Alexis, Cait, Sierra, and Trish - I am so grateful to have had you by my side for these three years.

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## I. INTRODUCTION

On November 22, 2019, Ruth George, a sophomore student at the University of Illinois at Chicago, left a meeting with her professional fraternity and used a ride-sharing app to get to her car in a parking garage a few blocks away.<sup>1</sup> Upon arriving at the garage, she was catcalled by a passerby.<sup>2</sup> When she chose to ignore him, rather than engage him or thank him, the catcaller became enraged, followed her into the garage, and choked her to death.<sup>3</sup> Unfortunately, this tragedy is not an outlier.<sup>4</sup> It fits into a catalog of incidents where verbal harassers become enraged and incredulous when women do not respond to unsolicited and unwanted compliments with politeness and gratitude.<sup>5</sup> That catalog illustrates the damaging and sexist societal expectation that women should respond positively, even with gratitude, to these kinds of comments.<sup>6</sup>

Even after societal movements like #MeToo and public reckoning with the continued presence of sexism in society, the issue of sex discrimination persists.<sup>7</sup> The Merriam-Webster Dictionary defines sexism as “1. prejudice or discrimination based on sex, especially against women,” and “2. behavior, conditions, or attitudes that foster stereotypes of social roles based on sex.”<sup>8</sup> Gender Discrimination is defined in that same dictionary as “discrimination based on sex and especially against women.”<sup>9</sup> A 2023 study by MIT Sloan, the School of Business at the Massachusetts Institute of Technology, showed that women experience toxic workplace culture at a rate forty-one percent

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1. See Julie Bosman, *A College Student Was Killed by a Man Whose Catcalls She Tried to Ignore*, *Prosecutors Say*, N.Y. TIMES (Nov. 27, 2019), <https://www.nytimes.com/2019/11/27/us/chicago-college-student-killed-catcall.html> [<https://perma.cc/V3E6-CVBV>]; see also Mike Puccinelli, *Man Accused of Killing Chicago College Student After She Ignored His Catcalls*, CBS NEWS (Nov. 27, 2019), <https://www.cbsnews.com/video/man-accused-of-killing-chicago-college-student-after-she-ignored-his-catcalls/> [<https://perma.cc/9Z69-YL78>].

2. See Bosman, *supra* note 1.

3. See *id.*

4. See Claretta Bellamy & Uwa Ede-Osifo, *‘Brickgate’ Revives an Age-old Argument Between Black Men and Women*, NBC NEWS (Sept. 26, 2023), <https://www.nbcnews.com/news/nbcblk/brickgate-revives-age-old-argument-black-men-women-rcna104423> [<https://perma.cc/B7BM-PHAX>].

5. See *id.*; see also Ayesha Roscoe, *The Sunday Story: This is What it Feels Like to be Catcalled*, NPR (Oct. 29, 2023), <https://www.npr.org/2023/10/29/1198908962/cap-radio-this-is-what-it-feels-like-catcalling> [<https://perma.cc/54K9-KBQG>].

6. See Rosa Inocencio Smith, *The Sexism of Telling Women to Smile*, ATLANTIC (Oct. 4, 2016), <https://www.theatlantic.com/politics/archive/2016/10/the-sexism-of-telling-women-to-smile/623090/> [<https://perma.cc/G6TB-7V32>].

7. See *‘Me Too.’ Global Movement*, GLOB. FUND WOMEN, <https://www.globalfundforwomen.org/movements/me-too/> (last visited Nov. 20, 2023) [<https://perma.cc/B28E-BTSW>].

8. *Sexism*, MERRIAM-WEBSTER, <https://www.merriam-webster.com/dictionary/sexism> (last visited Mar. 1, 2024) [<https://perma.cc/2VW2-8WP3>].

9. *Sex Discrimination*, MERRIAM-WEBSTER, <https://www.merriam-webster.com/legal/sex%20discrimination> (last visited Mar. 1, 2024) [<https://perma.cc/H2AX-MSJB>].

higher than men.<sup>10</sup> In its 2023 Report on Pay Equity, Visier, a company focused on workforce analytics, reported a reversal in progress towards bridging the gap between genders for compensation, as their research showed a widening pay disparity.<sup>11</sup> In the STEM field alone, women are drastically underrepresented, with only about one in five students being women in the fields of computer sciences, engineering, and technology.<sup>12</sup> A study conducted by Stanford University's Clayman Institute for Gender Research shed light on how gender discrimination comes through in women's performance reviews.<sup>13</sup> The research found that "managers are significantly more likely to critique female employees for coming on too strong," and that women received "2.5 times the amount of feedback men did about aggressive communication styles."<sup>14</sup> Further, women were described as "helpful" at double the frequency that men were.<sup>15</sup> These studies are troubling, as they illustrate how deeply entrenched gender-based biases translate into double standards in the workplace—specifically in the unequal expectation of women to be more polite and helpful coworkers than their male counterparts.<sup>16</sup> In recent years, such gender inequities have been exacerbated by the biases of technology, and will continue to worsen without government intervention in the form of regulatory action.<sup>17</sup>

Beyond the context of the workplace or receiving a compliment in public, women face heightened expectations to be pleasant, polite, and obedient.<sup>18</sup> In recent years, this inequity has been exacerbated by the sexist

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10. See Donald Sull & Charles Sull, *The Toxic Culture Gap Shows Companies Are Failing Women*, MIT SLOAN MGMT. REV. (Mar. 14, 2023), <https://sloanreview.mit.edu/article/the-toxic-culture-gap-shows-companies-are-failing-women/> [<https://perma.cc/8885-K2MT>].

11. See VISIER, *THE STATE OF PAY EQUITY IN 2023: THE WAGE GAP BETWEEN WOMEN AND MEN WIDENS*, at 2 (2023), <https://assets.ctfassets.net/lbgy40h4xfb7/2gBq4yKWIG2yOZjTaz1KiW/36401965ad35ce06632580eb05298b2a/VISIER-insights-report-state-of-pay-equity-2023.pdf> [<https://perma.cc/67DG-USNQ>].

12. See *Women in STEM Statistics: Key Statistics*, STEM WOMEN (June 22, 2022), <https://www.stemwomen.com/women-in-stem-percentages-of-women-in-stem-statistics> [<https://perma.cc/J8CX-UDGK>].

13. See Rachel Emma Silverman, *Gender Bias At Work Turns Up in Feedback*, WALL ST. J., <https://www.wsj.com/articles/gender-bias-at-work-turns-up-in-feedback-1443600759> (last updated Sept. 30, 2015, 5:44 AM) [<https://perma.cc/7CKQ-M9VF>].

14. *Id.*

15. *See id.*

16. *See id.*

17. See Sonia Elks, *Hey Siri, You're Sexist, Finds U.N. Report on Gendered Technology*, REUTERS (May 22, 2019),

<https://www.reuters.com/article/us-global-women-technology/hey-siri-youre-sexist-finds-u-n-report-on-gendered-technology-idUSKCN1SS2C7/> [<https://perma.cc/4AHV-9JV6>]; see also Joan Goodchild, *Gender Bias in AI: 'Where Are All the Women?'*, SC MAG. (Sept. 27, 2023), <https://www.scmagazine.com/feature/gender-bias-in-ai-where-are-all-the-women> [<https://perma.cc/D484-7RG5>].

18. See Brijana Prooker, *It's Time For Women To Break Up With Politeness*, ELLE (Apr. 14, 2021), <https://www.elle.com/culture/a35854625/no-more-politeness-2021/> [<https://perma.cc/29PA-4BZE>].

biases that are baked into the functions of everyday technology.<sup>19</sup> Many emerging technologies rooted in artificial intelligence are positioned as “assistants,” communicating to users with a default female voice that responds to everyday requests and questions in an eager and polite tone.<sup>20</sup> Voice assistant technology is the foremost example of this.<sup>21</sup> While perhaps an unintentional programming effect, voice assistants are carrying forward harmful female behavioral conditioning in the way they have been programmed.<sup>22</sup> When interviewed about the societal expectations that women be polite, Dr. Leela Magavi, a psychiatrist who studied at Johns Hopkins University, said, “[d]uring childhood and adolescence, girls are socialized to respond to individuals’ remarks in a courteous manner, irrespective of the content. Over time, young girls evolve into women who prioritize other individuals’ comfort and emotions over their own.”<sup>23</sup> These behavioral gender biases have infiltrated voice assistant technology, which have quickly come to play a central role in the home, the office, and beyond.<sup>24</sup>

The federal government and its agencies are responsible for creating and implementing regulations that guide the function of voice assistants and protect against implicit reinforcement of harmful gender stereotypes.<sup>25</sup> In crafting this legislation, the government should look to European laws regulating the prevalence of gender stereotypes in media and advertising. The regulatory language of the United Kingdom’s Committees of Advertising Practice (“CAP”) Harm and Offence Rule 4.9 and Norway’s Marketing Control Act both aim to reduce gender bias in advertising.<sup>26</sup> Such language

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19. See Elks, *supra* note 17.

20. See Kinza Yasar & Bridget Botelho, *What is an AI Assistant?*, TECH TARGET, <https://www.techtarget.com/searchcustomerexperience/definition/virtual-assistant-AI-assistant> (last visited Apr. 9, 2025, 6:29 PM) [<https://perma.cc/K6Q6-5W2J>]; see also Elks, *supra* note 17.

21. See Yasar & Botelho, *supra* note 20.

22. See Leah Fessler, *We Tested Bots Like Siri and Alexa to See Who Would Stand Up to Sexual Harassment*, QUARTZ (Feb. 22, 2017), <https://qz.com/911681/we-tested-apples-siri-amazon-echos-alexa-microsofts-cortana-and-googles-google-home-to-see-which-personal-assistant-bots-stand-up-for-themselves-in-the-face-of-sexual-harassment> [<https://perma.cc/95VV-38U7>].

23. Prooker, *supra* note 18.

24. See Max Roser, *Technology Over the Long Run*, OUR WORLD DATA (Feb. 22, 2023), <https://ourworldindata.org/technology-long-run> [<https://perma.cc/ZRV3-H2T3>]; see also Elks, *supra* note 17; see also Larry Hardesty, *Study Finds Gender and Skin-Type Bias in Commercial Artificial-Intelligence Systems*, MIT NEWS (Feb. 11, 2018), <https://news.mit.edu/2018/study-finds-gender-skin-type-bias-artificial-intelligence-systems-0212> [<https://perma.cc/UGT6-85G9>].

25. See Joshua Meltzer, *The US Government Should Regulate AI if it Wants to Lead on International AI Governance*, BROOKINGS (May 22, 2023), <https://www.brookings.edu/articles/the-us-government-should-regulate-ai/> [<https://perma.cc/ZN2U-EJFW>]; see also *Government Regulation*, POL’Y CIRCLE, <https://www.thepolicycircle.org/brief/government-regulation/> (last visited May 12) [<https://perma.cc/WH4E-2NNR>].

26. See *Guidelines on Sexist Advertising*, NORWEGIAN CONSUMER AUTH. (Apr. 13, 2009), <https://www.forbrukertilsynet.no/english/guidelines/guidelines-on-sexist-advertising> (last visited Apr. 7, 2024) [<https://perma.cc/D34Q-J4E4>]; see also *Harm and Offence*, ADVERT. STANDARDS AUTH. (Aug. 7, 2023), [https://www.asa.org.uk/type/non\\_broadcast/code\\_section/04.html](https://www.asa.org.uk/type/non_broadcast/code_section/04.html) [<https://perma.cc/QX72-64B7>].

offers a useful framework for the United States to address gender bias in voice assistant technology. This Note will first explore the rules, guidelines, and applications set forth by European regulations and how they can serve as a framework for similar regulations in the United States aimed at curbing the gender-discriminatory effects of voice assistant technology. The language and standards set forth by European regulations can and should be applied directly to voice assistant technology to curb its discriminatory effects in regulation put forth by the United States.

## II. BACKGROUND

Voice assistants, like Siri and Alexa, represent one segment of the rapid technological growth our society has experienced in recent years.<sup>27</sup> Forecasts estimate that there are more than 132 million current users of voice assistant technology, with that number only expected to grow in the near future.<sup>28</sup> As of 2019, smart speakers, which utilize built-in voice assistants like Siri and Alexa, have found their way into twenty-five percent of households in America.<sup>29</sup> A more recent study by NPR found that thirty-five percent of Americans own a smart speaker.<sup>30</sup> Voice assistant technology is not immune from gender bias, and in fact has provided some of the most stunning examples of its prevalence in technology.<sup>31</sup>

### *A. The Problematic and Damaging Nature of Voice Assistants' Default Responses and Female Tone*

The default setting of voice assistants to speak in a female tone, as well as the responses they have been programmed with, have combined to create a problematic dynamic between the technology and its users. Since their

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27. See Vantage Market Research, *Voice Assistants Market Size & Share to Surpass \$22.2 Billion by 2030*, GLOBENEWSWIRE (May 31, 2023), <https://www.globenewswire.com/news-release/2023/05/31/2679109/0/en/Voice-Assistants-Market-Size-Share-to-Surpass-22-2-Billion-by-2030-Vantage-Market-Research.html> [https://perma.cc/7SVD-6RBZ].

28. See James Wohr, *Voice Assistants: What They Are and What They Mean For Marketing and Commerce*, INSIDER INTEL. (Oct. 17, 2023), <https://www.insiderintelligence.com/insights/voice-assistants/> [https://perma.cc/9WFK-RJ3C].

29. See Brooke Auxier, *5 Things to Know About Americans and Their Smart Speakers*, PEW RSCH. CTR. (Nov. 21, 2019), <https://www.pewresearch.org/short-reads/2019/11/21/5-things-to-know-about-americans-and-their-smart-speakers/> [https://perma.cc/Z5TN-TYVC]; see also Holly Pyne, *What Is A Smart Speaker And How Do They Work?*, RADIO TIMES (Sept. 7, 2020), <https://www.radiotimes.com/technology/what-is-a-smart-speaker/> [https://perma.cc/6EDX-4WQH].

30. See *Smart Speaker Ownership Reaches 35% of Americans*, NPR (June 16, 2022), <https://www.npr.org/about-npr/1105579648/npr-edison-research-smart-speaker-ownership-reaches-35-of-americans> [https://perma.cc/B9U6-JUK8].

31. See Elks, *supra* note 17.

launch, voice assistants have had a female voice.<sup>32</sup> Years later, that default for Siri and Alexa remains, although many voice assistants now provide customers the option to adjust the voice to different genders and accents.<sup>33</sup> Three years after its release, Alexa responded with “that’s nice of you to say” when told she was hot.<sup>34</sup> In response to being told she was a slut or receiving a request for sexual activity, voice assistant Siri said “I’d blush if I could.”<sup>35</sup> That same answer was also given if a user told Siri “you’re a b\*tch.”<sup>36</sup> These responses reinforce expectations that women should be both polite and obedient, even in the face of unwelcome or offensive comments.<sup>37</sup> Voice assistant creators have since re-programmed the technology to provide disengaging statements in response to comments like these, rather than gratuitous replies.<sup>38</sup> However, the effects of voice assistant technology on reinforcing gender stereotypes extend beyond their programmed responses.<sup>39</sup>

Because most voice assistants default to a female tone, the technology subconsciously teaches its users acceptable expectations and communication with female voices, and in turn, female humans.<sup>40</sup> In his book, *Wired for Speech*, Clifford Nass writes that “people tend to perceive female voices as helping us solve our problems by ourselves, while they view male voices as authority figures who tell us the answers to our problems. We want our technology to help us, but we want to be the bosses of it, so we are more likely to opt for a female interface.”<sup>41</sup> This demonstrates that users prefer to interact with a female voice, as market research indicates, because of its association with being helpful and subservient.<sup>42</sup>

Research by Calvin Lai, a professor of psychological and brain science who specializes in hidden forms of prejudice and discrimination, has demonstrated that an individual’s exposure to a certain gender association is positively correlated with the likelihood that they adopt that association in

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32. See Caitlin Chin-Rothmann & Mishaella Robison, *How AI Bots and Voice Assistants Reinforce Gender Bias*, BROOKINGS (Nov. 23, 2020), <https://www.brookings.edu/articles/how-ai-bots-and-voice-assistants-reinforce-gender-bias/> [<https://perma.cc/S86U-2SUK>].

33. See *id.*

34. Fessler, *supra* note 22; see also Brandon Vigliarolo, *Amazon Alexa: Cheat Sheet*, TECH REPUBLIC (Sep. 24, 2020), <https://www.techrepublic.com/article/amazon-alexa-the-smart-persons-guide/> [<https://perma.cc/A9CZ-VC22>].

35. Fessler, *supra* note 22.

36. *Id.*

37. See *id.*

38. See *id.*

39. See generally CLIFFORD NASS & SCOTT BRAVE, *WIRED FOR SPEECH* 29 (2006).

40. See Jessi Hempel, *Siri and Cortana Sound Like Ladies Because of Sexism*, WIRED MAG. (Oct. 28, 2015), <https://www.wired.com/2015/10/why-siri-cortana-voice-interfaces-sound-female-sexism/> [<https://perma.cc/C8ZE-ENSE>]; see also Calvin Lai & Mahzarin Banaji, *The Psychology of Implicit Intergroup Bias and the Prospect of Change*, in DIFFERENCE WITHOUT DOMINATION: PURSUING JUSTICE IN DIVERSE DEMOCRACIES 14-16 (D. Allen & R. Somanathan eds., 2020) (discussing implicit bias research that has shown that environmental stimuli inform and reinforce implicit biases and associations, while stimuli that counters existing associations can help to reduce them); see also *Implicit Bias*, AM. PSYCH. ASS’N, <https://www.apa.org/topics/implicit-bias> (last visited Oct. 2, 2024) [<https://perma.cc/2HAU-6RLJ>].

41. NASS & BRAVE, *supra* note 39; see also Hempel, *supra* note 40.

42. See Hempel, *supra* note 40.

their own minds.<sup>43</sup> Applying this principle to the gender-based responses of voice assistants supports the likelihood that by programming female voices to be pleasant, helpful, and obedient, the technology implicitly teaches its users what they can expect from female voices and females more broadly outside of the technology.<sup>44</sup> Even to everyday requests, voice assistants respond in a default-female tone, with a sense of eagerness and helpfulness, and without any agency to deviate from that pattern.<sup>45</sup> As users are under no obligation to address voice assistants in a polite or conversational manner, a voice assistant's eager and helpful reply is not dependent on having been asked a request in a respectful way.<sup>46</sup> This further engrains users' subconscious associations of women as subservient, polite, and eager to help.<sup>47</sup> As the use of voice assistants continues to expand, its creators, users, and the governmental bodies responsible for its regulation should be deeply concerned about the gendered expectations, assumptions, and stereotypes that the technology reinforces.<sup>48</sup> Thus, the following section will discuss the need for U.S. regulation in this field, specifically exploring European laws against gender discrimination in advertising as a framework for that regulation.

### III. ANALYSIS

#### *A. European Laws Against Gender Discrimination in Advertising Should Serve as a Framework for U.S. Regulation of Voice Assistants' Gender Discriminatory Effects.*

The previous section laid out the reasons why voice assistant technology is on track to negatively impact society, specifically in terms of perpetuating gender bias, if it is left unregulated. This section will further emphasize the need for regulation while exploring European anti-discrimination laws that can serve as a guiding model for that framework. Major news sources have reported that while the United States is rapidly adopting emerging technologies like artificial intelligence and the devices that leverage it, it is also quickly falling behind its peer countries in regulating their use.<sup>49</sup> Even the countries that are leading the way in artificial intelligence regulation have focused their efforts on accounting for transparency, security,

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43. See Lai & Banaji, *supra* note 40, at 14-16; see also AM. PSYCH. ASS'N, *supra* note 40; see also Sigal Samuel, *Alexa, Are You Making me Sexist?*, VOX (June 12, 2019), <https://www.vox.com/future-perfect/2019/6/12/18660353/siri-alexa-sexism-voice-assistants-un-study> [<https://perma.cc/SZ2E-P3GJ>].

44. See Lai & Banaji, *supra* note 40, at 14-16.

45. See MARK WEST ET AL., I'D BLUSH IF I COULD: CLOSING GENDER DIVIDES IN DIGITAL SKILLS THROUGH EDUCATION 113-114 (2019), <https://unesdoc.unesco.org/ark:/48223/pf0000367416.page=1> [<https://perma.cc/EQ5C-T6QA>].

46. See *id.*

47. See Lai & Banaji 14-16, *supra* note 40; see also AM. PSYCH. ASS'N, *supra* note 40.

48. See WEST, ET AL., *supra* note 45, at 113-114.

49. See Cecilia Kang, *In U.S., A.I. Regulation is in its 'Early Days'*, N.Y. TIMES (July 21, 2023), <https://www.nytimes.com/2023/07/21/technology/ai-united-states-regulation.html> [<https://perma.cc/TE9J-8WQV>].



and data privacy, rather than confronting the ways in which the technology can exacerbate discrimination and gender bias.<sup>50</sup> Current U.S. regulations aimed specifically at combatting gender discrimination focus on its presence in the workplace, at school, and at home, and do not lend themselves to instances of discrimination within technology, especially those that are implicit and not targeted at an individual.<sup>51</sup>

Several European countries have led efforts to curb the effects of gender discrimination in the media, evident in the laws they have passed to reduce discrimination in advertising.<sup>52</sup> Voice assistants are the next frontier, requiring the United States to pass regulations aimed at curbing their gender discriminatory effects.<sup>53</sup> The approach taken by European laws in the realm of gender discrimination in advertising can and should be leveraged as a valuable framework from which such domestic regulations can evolve. Two examples of such European laws are described below.

In 2019, the United Kingdom's Advertising Standards Authority introduced Committees of Advertising Practice ("CAP") Rule 4.9, which aims to eliminate the presence of gender stereotypes in advertising.<sup>54</sup> This rule and its accompanying guidance lend themselves to applications beyond advertising, also regulating emerging technologies. Similarly, Norway's Marketing Control Act and its accompanying guidelines also serve as an effective framework for modeling United States regulations focused instead on gender discrimination in voice assistant technology.<sup>55</sup> Both regulations provide useful language and examine cases that illustrate their application, thereby providing a model for voice assistant technology regulation in the United States. The following two sections of this Note will explore these regulations in depth, beginning with the United Kingdom's CAP Rule 4.9 and followed by Norway's Marketing Control Act.

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50. See Hiroki Habuka, *Japan's Approach to AI Regulation and its Impact on the 2023 G7 Presidency*, CTR. STRATEGIC & INT'L STUD. (Feb. 14, 2023), <https://www.csis.org/analysis/japans-approach-ai-regulation-and-its-impact-2023-g7-presidency> [https://perma.cc/2G56-SW46].

51. See *Know Your Rights: Sex Discrimination*, ACLU (2023), <https://www.aclu.org/know-your-rights/sex-discrimination> [https://perma.cc/F5U2-FW76].

52. See generally Public Interest Litigation Project, *Legal Frameworks for Sexism in Advertising*, DUTCH SECTION INT'L COMM'N JOURNALISTS (2015), <https://pilp.nu/wp-content/uploads/2023/10/150609-PILP-sexism-comparative-practice-memo1.pdf> [https://perma.cc/8Q3E-7ACU]; see also CAP Executive, *Offence: Sexual Orientation and Gender Identity*, ADVERT. STANDARDS AUTH. (Aug. 7, 2023), <https://www.asa.org.uk/advice-online/offence-sexual-orientation.html> [https://perma.cc/YU4B-KGF8].

53. See Elizabeth Yin, Mary Moynihan & Alexandra Walsh, *Hey Siri. Are You Regulated?*, REGUL. REV. (Feb. 18, 2023), <https://www.theregview.org/2023/02/18/saturday-seminar-hey-siri-are-you-regulated/> [https://perma.cc/AS72-P496].

54. See CAP Executive, *supra* note 52.

55. See *The Marketing Control Act*, NORWEGIAN CONSUMER AUTH. (Apr. 11, 2016), <https://www.forbrukertilsynet.no/english/the-marketing-control-act> [https://perma.cc/WFH6-LP8S]; see also NORWEGIAN CONSUMER AUTH., *supra* note 26.

*B. CAP Rule 4.9: The United Kingdom's Regulation Against Gender Discrimination in Advertising and its Potential for Application to Regulation of Voice Assistant Technology.*

The United Kingdom's CAP Rule 4.9 states that "marketing communications must not include gender stereotypes that are likely to cause harm, or serious or widespread offense."<sup>56</sup> Alongside the issuance of the rule, the Advertising Standards Authority, which is responsible for the rule's application, explained the overall intent behind the regulation, asserting that the rule is based on the principle that "[m]arketers should take account of the prevailing standards in society and the context in which a marketing communication is likely to appear to minimize the risk of causing harm or serious or widespread offense."<sup>57</sup> The issuing authority provided guidance alongside their statement of the rule and its purpose to offer additional clarity and practical examples of its use.<sup>58</sup> The guidance asserts that advertisements should strive not to indicate that a stereotypical characteristic or role is "always uniquely associated with one gender" or that are the "only options available to one gender."<sup>59</sup> An example of a prohibited advertisement may be one that depicts a husband relaxing, while his children make a mess, and his wife as the individual responsible for tidying that mess.<sup>60</sup> In announcing the implementation of CAP Rule 4.9, Shahriar Coupal, the Director of the Committees of Advertising Practice, declared that "harmful gender stereotypes have no place in UK advertisements. Nearly all advertisers know this, but for those that don't, our new rule calls time on stereotypes that hold back people and society."<sup>61</sup>

Since its creation, CAP Rule 4.9 has been deployed several times to ban advertisements by major companies, including Volkswagen and Philadelphia Cream Cheese, that fell short of its standards.<sup>62</sup> In 2022, a Match.com advertisement was banned for its depiction of a woman eagerly performing helpful household tasks for her male partner, implying that her completion of these tasks increased her value as a partner.<sup>63</sup> Specifically, the advertisement "feature[ed] a woman performing subservient tasks for her partner such as

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56. ADVERT. STANDARDS AUTH., *supra* note 26.

57. *Id.*

58. See *Advertising Guidance on Depicting Gender Stereotypes Likely to Cause Harm or Serious or Widespread Offence*, ADVERT. STANDARDS AUTH., <https://www.asa.org.uk/static/6c98e678-8eb7-4f9f-8e5d99491382c665/guidance-on-depicting-gender-stereotypes.pdf> (last visited Apr. 7, 2024) [<https://perma.cc/28U3-5WTS>].

59. *Id.*

60. *Id.*

61. *Harmful Gender Stereotypes in Ads to be Banned*, ADVERT. STANDARDS AUTH. (Dec. 14, 2018), <https://www.asa.org.uk/news/harmful-gender-stereotypes-in-ads-to-be-banned.html> [<https://perma.cc/7KWT-2DQZ>].

62. See Nick Breen & Jonathan Andrews, *Harmful Gender Stereotypes in Advertising: The First Rulings*, REEDSMITH (Aug. 21, 2019), <https://www.reedsmith.com/es/perspectives/2019/08/harmful-gender-stereotyping-in-advertising> [<https://perma.cc/KK6S-32DN>].

63. See *ASA Ruling on Match.com International Ltd t/a Match.com, Ourtime*, ADVERT. STANDARDS AUTH. (Oct. 5, 2022), <https://www.asa.org.uk/rulings/match-com-international-ltd-a22-1160258-match-com-international-ltd.html> [<https://perma.cc/6GVK-BGPR>].

making sure that football is on TV, and ensuring there are a fresh towel and socks ready for after his shower.”<sup>64</sup> In its ruling, the United Kingdom’s Advertising Standards Authority found that the advertisement depicted a female performing household chores, which is the kind of stereotypical gender role CAP Rule 4.9 seeks to eliminate.<sup>65</sup> The Authority reported that the fact that the domestic tasks portrayed in the advertisement were done to “please her male partner” and “were not reciprocated” supported their finding that a violation occurred.<sup>66</sup>

The regulations and accompanying standards set forth by CAP Rule 4.9, although written to curb the discriminatory effects of certain kinds of advertising, are directly applicable to the regulation of voice assistants. Instances of the rule’s application shed further light on the ways in which it can be applied in the context of voice assistants. The United States should look to the language of CAP Rule 4.9 as a model for its own much-needed regulation of voice assistant technology and its gender-discriminatory implications. The exact same standard set forth by Rule 4.9 could be applied to voice assistants, asserting that voice assistants must not perpetuate gender stereotypes that are likely to cause harm or serious or widespread offense, nor perpetuate the proposition that a certain quality is always uniquely associated with one gender.<sup>67</sup> Similarly to how the UK has applied the rule to advertisements perpetuating gender stereotypes, it would be applied to the default setting of voice assistants to female, polite, and pleasant voices, and to programmed responses that perpetuate harmful gender discrimination and stereotypes.

A plain reading of CAP Rule 4.9 in the context of voice assistant technology indicates that the default of voice assistants to polite female tones would be in clear violation of the rule.<sup>68</sup> The female-tone default of voice assistants perpetuates the idea that certain qualities, helpfulness and politeness, are more uniquely associated with women than with men, given that voice assistants are expected by their users to be available, helpful and polite, and those qualities will accompany a female tone a disproportionately higher number of times due to the default setting.<sup>69</sup> As illustrated by Calvin Lai, this association will translate to the real world, where it will perpetuate the expectation that women should be helpful, polite, and readily available for any everyday question.<sup>70</sup> This is deeply harmful and offensive in a real world context, boxing women into limited and stereotypical options for socially acceptable behavior, holding them to an unfair and unequal standard, and

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64. Mark Sweney, *Match.com Ad Showing Woman Carrying Out Subservient Tasks Banned for Being Sexist*, THE GUARDIAN (Oct. 4, 2022), <https://www.theguardian.com/media/2022/oct/05/matchcom-ad-showing-woman-carrying-out-subservient-tasks-banned-for-being-sexist> [https://perma.cc/XU66-WPZG].

65. See ADVERT. STANDARDS AUTH., *supra* note 63.

66. *Id.*

67. See ADVERT. STANDARDS AUTH., *supra* note 26.

68. See CAP Executive, *supra* note 52.

69. See Lai & Banaji, *supra* note 40; AM. PSYCH. ASS’N, *supra* note 40; ADVERT. STANDARDS AUTH., *supra* note 26.

70. See Lai & Banaji, *supra* note 40; AM. PSYCH. ASS’N, *supra* note 40 (showing that implicit bias is formed through learned associations and environmental stimuli, and can influence and affect behavior).

exposing them to criticism should they deviate from that expectation.<sup>71</sup> Voice assistants' default female tones and the stereotypical ideas they perpetuate about which traits are more associated with females also has potential to reap economic harm, as users will come to see women as more 'available' for petty requests in the real world, which may divert women's attention from more meaningful work and economic productivity.<sup>72</sup>

Looking beyond the default female voice setting of voice assistants to their programmed responses, which answer to rude, offensive, and gendered requests politely and gratefully, it is readily evident that those responses would also be in violation of CAP Rule 4.9.<sup>73</sup> Their harmful effect is glaringly obvious, as normalizing responses to appearance-based comments and remarks in the category of sexual harassment has dangerous ripple effects.<sup>74</sup> If voice assistant users are conditioned to expect that a woman should be grateful or flirtatious in response to a comment on her appearance, that can result in an uptick in that kind of behavior in the real world, an outcome that is deeply condescending and offensive to women, clearly meeting CAP Rule 4.9's standard for unacceptability.<sup>75</sup> Beyond offense, the normalization of appearance-based and sexual command comments, as well as the expectation that women receive them well, has the potential to cause emotional and physical harm to women, as those kinds of comments are emotionally degrading and can quickly escalate to violent and dangerous exchanges.<sup>76</sup>

*C. Norway's Marketing Control Act: An Additional European Approach to Regulating Gender Bias in Advertising that is An Effective Framework for U.S. Regulation of Voice Assistants.*

This section will explore the standards and application of Norway's Marketing Control Act as a second European legal framework that could prove helpful in regulating voice assistant technology in the United States. Norway has been at the forefront of regulatory efforts to curb gender

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71. See Silverman, *supra* note 13.

72. See Kathleen Davis, *The Imbalance of Labor at Home is Destroying the American Economy*, FAST CO. (Nov. 30, 2020), <https://www.fastcompany.com/90578848/the-imbalance-of-labor-at-home-is-destroying-the-american-economy> [<https://perma.cc/U32D-UGNU>]; see also Melissa Hogenboom, *The Hidden Load: How 'Thinking of Everything' Holds Mums Back*, BBC (May 18, 2021), <https://www.bbc.com/worklife/article/20210518-the-hidden-load-how-thinking-of-everything-holds-mums-back> [<https://perma.cc/39VP-YWT4>] (showing that women already face a substantial burden due to heightened expectations about their home labor obligations, which could worsen further).

73. See ADVERT. STANDARDS AUTH., *supra* note 26; see also Fessler, *supra* note 22.

74. See Silvia Galdi & Francesca Guizzo, *Media-Induced Sexual Harassment: The Routes from Sexually Objectifying Media to Sexual Harassment*, 84 SEX ROLES, 645, 645 (2021), <https://doi.org/10.1007/s11199-020-01196-0> [<https://perma.cc/7NNE-MPJG>].

75. See Lai & Banaji, *supra* note 40; see also AM. PSYCH. ASS'N, *supra* note 40; see also ADVERT. STANDARDS AUTH., *supra* note 26.

76. See Alisha Haridasani Gupta, *Misogyny Fuels Violence Against Women. Should It Be a Hate Crime?*, N.Y. TIMES (Mar. 25, 2021), <https://www.nytimes.com/2021/03/25/us/misogyny-violence-against-women-hate-crime.html> [<https://perma.cc/W629-RVV9>].

discrimination in marketing and advertising.<sup>77</sup> Norway's Marketing Control Act specifically addresses sexism in advertising.<sup>78</sup> Section 2 of the Act stipulates that marketing efforts in Norway may not "conflict with the equality of the sexes . . . or convey an offensive or derogatory appraisal of women or men."<sup>79</sup> Although the Act was updated as recently as 2018, its ban on gender discrimination in advertising has been in place since 1978, when Norway passed its Gender Equality Act.<sup>80</sup>

To accompany and clarify the Act, Norway's Consumer Authority has provided guidance which clarifies that in order to comply with the Act, advertisements may not go against the principle of gender equality, exploit bodily images of either gender, or depict an "offensive or derogatory" perspective on either gender.<sup>81</sup> The guidelines assert that the stated purpose of the law is to "promote equality between men and women, and in particular to improve the position of women" and that advertisements "shall not be contrary to equality between the sexes."<sup>82</sup>

Following the release of its guidelines, the country's Consumer Authority has reviewed and banned several advertisements found to conflict with the regulations.<sup>83</sup> In its assessment of a national magazine, *Cats*, the reviewing council determined that the magazine "may be perceived as sexist" and thus in violation of the Consumer Authority's guidelines because it portrayed women "as sexual objects and attention-grabbers in a way that was demeaning to women's general reputation and sense of pride."<sup>84</sup> This review provides a tangible example of the Authority's analysis and indicates that to be in compliance with the law, an advertisement must not be "demeaning to women's general reputation and sense of pride."<sup>85</sup>

Norway's Marketing Control Act and its accompanying guidelines can be directly applied to the regulation of voice assistants, specifically their default settings and sexist responses. The standard set forth by the act—which stipulates that marketing cannot "conflict with the equality of the sexes . . . or convey an offensive or derogatory appraisal of women or men"—is directly applicable to voice assistants.<sup>86</sup> The problematic responses voice assistants originally gave, specifically those that met sexually demeaning and inappropriate comments with gratitude and flirtatiousness, would clearly not

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77. See Press Release, United Nations Hum. Rts. Off. of the High Comm'r, Comm. on Elimination of Discrimination Against Women, Norway Called a 'Haven for Gender Equality' as Women's Anti-Discrimination Committee Examines Reports on Compliance with Convention (Jan. 20, 2003) (on file with the Office of the High Commissioner, United Nations Human Rights), <https://www.ohchr.org/en/press-releases/2009/10/norway-called-haven-gender-equality-womens-anti-discrimination-committee> [<https://perma.cc/CH7L-9E5H>].

78. See *Guidelines on Sexist Advertising*, NORWEGIAN CONSUMER AUTH. (Apr. 13, 2009), <https://www.forbrukertilsynet.no/english/guidelines/guidelines-on-sexist-advertising> [<https://perma.cc/D34Q-J4E4>].

79. *The Marketing Control Act*, *supra* note 55.

80. See NORWEGIAN CONSUMER AUTH., *supra* note 78.

81. *Id.*

82. *Id.*

83. See *id.*

84. *Id.*

85. *Id.*

86. See NORWEGIAN CONSUMER AUTH., *supra* note 78.

meet this standard.<sup>87</sup> Their derogatory nature is more than evident as they further the idea that sexually explicit or appearance-based comments directed towards women should be met with pleasantness.<sup>88</sup>

Applying the same overarching purpose of the Norwegian marketing regulations to domestic regulation of voice assistants would yield a positive result for society. As expressed in the clarifying guidelines, the purpose of the Norway Marketing Control Act's provisions related to gender is to "promote equality between men and women, and in particular to improve the position of women" and to eliminate advertisements that go against the ideal of gender equality.<sup>89</sup> To meet this standard, voice assistant technology would not only need to do no harm to the cause of gender equality, but would also need to actively work to improve it. To comply, answers responding with neutrality or pleasantness to inquiries rooted in sexism or gender-based aggression would need to be eliminated and replaced with responses that seek to actively protest such inquiries and educate the inquirer as to why their inquiry is offensive and problematic. Further, the application of this standard to more basic qualities of the technology, like its default female-tone setting, would yield other positive results, such as preventing further entrenchment of users' implicit associations between a female tone and the traits of voice assistants. Additionally, the Marketing Control Act's broad language regulating gender discriminatory effects will also be helpful in the United States context of artificial intelligence. Due to its flexibility and broad scope, the Act can be applied to future instances of gender discrimination by the technology that are likely to emerge as the technology develops.<sup>90</sup>

The Authority's regulation of the Cats magazine is a useful example of the law's application.<sup>91</sup> In ruling against the magazine's marketing, the Authority further fleshed out the standard behind the law, ruling that advertisements could not be demeaning to "women's general reputation and sense of pride."<sup>92</sup> The sexually offensive and objectifying nature of Cats magazine's advertising methods parallels the nature of the responses voice assistant technology gave to that same kind of stimulus in its original programming, as it responded to degrading and offensive remarks with a sense of acceptance.<sup>93</sup> Under the standard clarified by the Cats case, sexist programmed responses of voice assistants clearly fall outside of the acceptable practices set by Norway's Marketing Control Act.

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87. *See id.*; *see also* Fessler, *supra* note 22.

88. *See* Fessler, *supra* note 22.

89. *See* NORWEGIAN CONSUMER AUTH., *supra* note 78.

90. *See id.*; *see also* FTC Interprets "Unfair Competition" Broadly in New Section 5 Policy Statement, DAVIS POLK (Nov. 15, 2022), <https://www.davispolk.com/insights/client-update/ftc-interprets-unfair-competition-broadly-new-section-5-policy-statement> [<https://perma.cc/PG7W-4Z83>] (stating FTC Act's broad language has allowed for more expansive interpretation and regulation by the FTC).

91. *See* NORWEGIAN CONSUMER AUTH., *supra* note 78.

92. *Id.*

93. *See id.*; *see also* Fessler, *supra* note 22.

*D. A Model for Implementation: How the European Model of Gender Discrimination Regulation in Advertising Can Be Applied to Voice Assistant Regulation in the United States*

While the above sections have centered on the gender discriminatory effects of voice assistant's default settings and defined the rules, standards, and applications of European regulations, the next step is to explore how the model set forth by those regulations could be deployed in the United States. As illustrated by the above analysis of CAP Rule 4.9 and Norway's Marketing Act, European laws on sexism in advertising provide an effective framework and language for the regulation of voice assistant technology in the United States, and particularly of its gender discriminatory effects. The following section will further propose the necessary language of such laws, immediate changes necessary for technological compliance with such a regulation, and how and by whom such regulation would be administered and overseen in the United States.

1. Voice Assistant Technology Should be Regulated  
Nationally to Facilitate Consistency and International  
Cooperation and to Maximize Effectiveness

A foundational question in exploring proposed regulation of voice assistants is whether it should be regulated at a national or state level.<sup>94</sup> The answer is national regulation. Although states have so far led the way in regulating artificial intelligence, their approach is merely a band-aid, patchwork approach to regulation.<sup>95</sup> Allowing states to lead artificial intelligence regulation will result in burdensome inconsistency for businesses dealing in voice assistant products in the United States, as they will be subject to state-specific regulations that will lack uniformity given the cross-boundary nature of commerce today.<sup>96</sup> Leading technology companies have

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94. See POL'Y CIRCLE, *supra* note 25.

95. See Benjamin Lerude & Lawrence Norden, *States Take the Lead on Regulating Artificial Intelligence*, BRENNAN CTR. JUST. (Nov. 1, 2023), <https://www.brennancenter.org/our-work/research-reports/states-take-lead-regulating-artificial-intelligence> [<https://perma.cc/S835-VYVR>]; see also Ian Prasad Philbrick, *The U.S. Regulates Cars, Radio and TV. When Will It Regulate AI?*, N.Y. TIMES (Aug. 24, 2023), <https://www.nytimes.com/2023/08/24/upshot/artificial-intelligence-regulation.html> [<https://perma.cc/ES4F-FNGH>].

96. See Maureen Bensily & Kathy Donovan, *Regulatory Complexity Calls for a Strategic Approach*, WOLTERS KLUWER (Aug. 15, 2023), <https://www.wolterskluwer.com/en/expert-insights/regulatory-complexity-calls-for-a-strategic-approach> [<https://perma.cc/7GLL-QRVC>].

echoed this concern, voicing their support for national regulation rather than a patchwork of state regulation.<sup>97</sup>

Further, the regulation of artificial intelligence, like voice assistants, will stretch beyond national borders and require international cooperation.<sup>98</sup> Accomplishing effective international cooperation will be challenging, but the national government is accustomed to international compromise and partnership, as well as communicating updates to states and cities within the country to keep them in the loop.<sup>99</sup> In order to ensure the effectiveness of any proposed regulations, they should be made at the national level.

Further, the need for a societal shift towards more balanced and equitable gender ideals is at the root of the need for this regulation. If each state takes its own regulatory view on the matter, regulation will be piecemeal and conflicting, thereby thwarting the larger, necessary societal shift. To support that evolution, regulation must be both national and cohesive. The need for national regulation to reinforce accountability measures during times of societal shifts has been illustrated at numerous points in history, specifically in relation to discrimination and civil rights issues.<sup>100</sup> Title VII and the Equal Pay Act of 1963 are two of the foremost examples of this, as the national government confronted and outlawed gender discrimination and aimed to remedy pay disparities for women.<sup>101</sup> These acts served as a powerful force in outlawing discrimination in the workplace and advanced a

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97. See David Zapolsky, *Advancing U.S. Regulatory Leadership for AI in 2024*, AMAZON (Feb. 6, 2024), <https://www.aboutamazon.com/news/policy-news-views/advancing-us-regulatory-leadership-for-ai-in-2024> [<https://perma.cc/34K6-5BB7>]; see also Greg Bensinger, *Big Tech Wants AI to be Regulated. Why do They Oppose a California AI Bill?*, REUTERS (Aug. 27, 2024), <https://www.reuters.com/technology/artificial-intelligence/big-tech-wants-ai-be-regulated-why-do-they-oppose-california-ai-bill-2024-08-21/> [<https://perma.cc/BD87-R5W9>].

98. See Meltzer, *supra* note 25.

99. See Anthonia F. Pipa & Max Bouchet, *Partnership Among Cities, States, and the Federal Government: Creating an Office of Subnational Diplomacy at the U.S. Department of State*, BROOKINGS INST. (Feb. 17, 2021), <https://www.brookings.edu/articles/partnership-among-cities-states-and-the-federal-government-creating-an-office-of-subnational-diplomacy-at-the-us-department-of-state/> [<https://perma.cc/23BT-BNK2>]; see also Bureau of Public Affairs, *Diplomacy: The U.S. Department of State at Work*, U.S. DEP'T STATE (June 2008), <https://2009-2017.state.gov/r/pa/ei/rls/dos/107330.htm> [<https://perma.cc/DUU3-426A>]; see also John Leyden, *EU and US Agree to Chart Common Course on AI Regulation*, CIO (Apr. 4, 2024), <https://www.cio.com/article/2083973/eu-and-us-agree-to-chart-common-course-on-ai-regulation.html> [<https://perma.cc/PR7P-A6EW>].

100. See Mehrunnisa Walli, *8 Key Laws That Advanced Civil Rights*, HISTORY.COM (Jan. 22, 2024), <https://www.history.com/news/civil-rights-legislation> [<https://perma.cc/T96C-FE43>].

101. See *Equal Pay Act of 1963*, U.S. EQUAL EMP. OPPORTUNITY COMM'N., <https://www.eeoc.gov/statutes/equal-pay-act-1963> (last visited Mar. 5, 2025) [<https://perma.cc/V5N2-EHZE>]; see also *Title VII of the Civil Rights Act of 1964*, U.S. EQUAL EMP. OPPORTUNITY COMM'N., <https://www.eeoc.gov/statutes/title-vii-civil-rights-act-1964> (last visited Apr. 9, 2025) [<https://perma.cc/T7TG-VQ5T>].



long overdue change in behavior and understanding.<sup>102</sup> It is time for the government to do the same with gender discrimination in voice assistant technology.

Congress should focus on the regulation of voice assistants specifically, rather than another segment of artificial intelligence technology, because of the unique positioning and attributes of voice assistants that heighten its potential harm to users. Chief among these attributes is the placement of voice assistant technology—voice assistants are on the kitchen counters and in the jean pockets of millions of Congress' constituents.<sup>103</sup> This breadth of adoption has led these technologies to become fully integrated with the day-to-day lives of Americans who are not always cognizant of the ways the technology can exacerbate their own biases and influence their perspectives.<sup>104</sup> This subtle integration comes without any warning message to put its users on notice, leaving its users more vulnerable to its effect, which is the opposite of a more extreme example of artificial intelligence use, such as artificial intelligence weapons, where the public and the technology user understand its high level of risk.<sup>105</sup> This added vulnerability is exactly why Congress should focus first on voice assistants, which have been allowed to fly under the radar. Additionally, Congress' regulation of voice assistants would serve as a necessary and overdue first step in taking on the regulation of artificial intelligence more broadly.<sup>106</sup> Given the scale of voice assistants' integration into the day-to-day lives of Americans, regulating the technology would allow for feedback and iteration as Congress begins to develop its regulation of the novel technology that is artificial intelligence.

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102. See Deborah Vagins & Georgeanne Usova, *The Equal Pay Act: You've Come a Long Way Baby (But Not All The Way)*, ACLU (June 10, 2011), <https://www.aclu.org/news/womens-rights/equal-pay-act-youve-come-long-way-baby-not-all-way> [https://perma.cc/Q29N-D2UR]; see also Tamara Lytle, *Title VII Changed the Face of the American Workplace*, SHRM (May 21, 2014), <https://www.shrm.org/topics-tools/news/hr-magazine/title-vii-changed-face-american-workplace> [https://perma.cc/A4SN-ATT2].

103. See Bergur Thormundsson, *Number of Voice Assistant Users in the U.S. 2022-2026*, STATISTA (Dec. 5, 2023), <https://www.statista.com/statistics/1299985/voice-assistant-users-us/> [https://perma.cc/P4TT-NBYT].

104. See Jesse Jenkins, *Voice Assistants 'Like Us' Affect How Users Process Misinformation, Study Suggests*, N.J. INST. TECH. (Dec. 21, 2023), <https://news.njit.edu/voice-assistants-us-affect-how-users-process-misinformation-study-suggests> [https://perma.cc/9SQ7-PK36].

105. See Chloe Wittenberg, et al., *Labeling AI-Generated Content: Promises, Perils, and Future Directions*, MITOPS (Mar. 27, 2024), <https://mit-genai.pubpub.org/pub/hu71se89/release/1> [https://perma.cc/755L-MHB5]; see also Eric Lipton, *From Land Mines to Drones, Tech Has Driven Fears About Autonomous Arms*, N.Y. TIMES (Nov. 21, 2023), <https://www.nytimes.com/2023/11/21/us/politics/drones-ai-weapons-war.html> [https://perma.cc/F3VU-7SRQ].

106. See Claudia Grisales, *Congress Wants to Regulate AI, but It Has a Lot of Catching Up to Do*, NPR (May 15, 2023), <https://www.npr.org/2023/05/15/1175776384/congress-wants-regulate-ai-artificial-intelligence-lot-of-catching-up-to-do> [https://perma.cc/LN7M-6FGL].

## 2. The Federal Trade Commission Should be Given Responsibility for Leading and Overseeing Regulation of Voice Assistant Technology Regulation

In enacting regulation, the legislature should grant responsibility to an existing government agency, or to a combination of such agencies, to lead the development of regulation on artificial intelligence. National regulation of artificial intelligence voice assistant technology is clearly within the regulatory powers and scope of Congress under the Commerce Clause.<sup>107</sup> Voice assistant technology travels across state borders and has a substantial effect on national commerce given the popularity of the technology in the national market.<sup>108</sup> As artificial intelligence technology expands, its uses and role in the market will only increase.<sup>109</sup> Further, the growing appetite for legislation regulating artificial intelligence has led people to urge that 2024 be deemed the “Year of AI Regulation” in the United States.<sup>110</sup> The need for national regulation is further supported by the fact that the United States stands well behind its peers in regulating national privacy and artificial intelligence law, putting it at a further disadvantage as emerging technologies continue to rapidly expand.<sup>111</sup>

As to which government body should be responsible for the regulation of voice assistant technology, there are several options. So far, the federal government agencies that have discussed or proposed regulation of artificial intelligence include the Federal Trade Commission (“FTC”), the Federal Communications Commission (“FCC”), the Department of Defense (“DoD”), the National Institute of Standards and Technology within the Department of Commerce (“NIST”), and the Executive Branch’s Office of Management and

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107. See U.S. CONST. art. 1, § 8, cl. 3.

108. See *id.*; see also Asa Johnson, *How Congress Can Foster a Digital Single Market in America*, INFO. TECH. & INNOVATION FOUND. (Feb. 20, 2024), <https://itif.org/publications/2024/02/20/how-congress-can-foster-a-digital-single-market-in-america/> [https://perma.cc/8NSW-3TC2].

109. See *Generative AI to Become a \$1.3 Trillion Market by 2032*, BLOOMBERG (June 1, 2023), <https://www.bloomberg.com/company/press/generative-ai-to-become-a-1-3-trillion-market-by-2032-research-finds/> [https://perma.cc/M9C6-6X9W].

110. Natasha Allen & Louis Lehot, *What to Expect in Evolving U.S. Regulation of Artificial Intelligence in 2024*, FOLEY & LARDNER (Dec. 7, 2023), <https://www.foley.com/insights/publications/2023/12/us-regulation-artificial-intelligence-2024/> [https://perma.cc/RK79-L3W5].

111. See Philbrick, *supra* note 95; see also Jane Wiertel, *U.S. Lags Other Nations in Regulating AI*, PULITZER CTR. (June 29, 2023), <https://pulitzercenter.org/stories/us-lags-other-nations-regulating-ai> [https://perma.cc/CEG7-5CBR].

Budget (“OMB”), among others.<sup>112</sup> Governmental agencies, like the Equal Employment Opportunity Commission (“EEOC”) and the FTC, have released joint statements on the discriminatory impacts of artificial intelligence.<sup>113</sup>

Of the potential agencies, the FTC is best positioned to regulate voice assistant technology for discriminatory practices, as they have already focused their artificial intelligence regulation efforts on addressing bias and discrimination, and thus would be well positioned to address the issue of gender bias in virtual assistant technology.<sup>114</sup>

### 3. What Should the Regulations Contain and How Can They Leverage European Models as a Framework for Their Design?

As to the content and standards of the much-needed national regulation on artificial intelligence, the language used by European laws in addressing the gender-discriminatory effects of advertising should be applied in the United States to address that same gender-discriminatory potential of voice assistant technology. Language from Norway’s Marketing Control Act stipulates that marketing and advertising in the country cannot “conflict with the equality of the sexes . . . or convey an offensive or derogatory appraisal of women or men.”<sup>115</sup> The stated purpose of the law is to “promote equality between men and women, and in particular to improve the position of women.”<sup>116</sup> That same language can be used as the standard, and purpose,

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112. See *FTC Authorizes Compulsory Process for AI-related Products and Services*, FED. TRADE COMM’N (Nov. 21, 2023), <https://www.ftc.gov/news-events/news/press-releases/2023/11/ftc-authorizes-compulsory-process-ai-related-products-services> [https://perma.cc/GV5K-2P6J]; see also Joseph Clark, *DOD Committed to Ethical Use of Artificial Intelligence*, DOD NEWS (June 15, 2023), <https://www.defense.gov/News/Stories/Article/Article/3429864/dod-committed-to-ethical-use-of-artificial-intelligence/> [https://perma.cc/D7HU-EJRQ]; see also Press Release, White House, FACT SHEET: President Biden Issues Executive Order on Safe, Secure, and Trustworthy Artificial Intelligence (Oct. 30, 2023) (on file with WH.gov), <https://www.whitehouse.gov/briefing-room/statements-releases/2023/10/30/fact-sheet-president-biden-issues-executive-order-on-safe-secure-and-trustworthy-artificial-intelligence/> [https://perma.cc/BZ9G-6A5V]; see generally Implications of Artificial Intelligence Technologies on Protecting Consumers from Unwanted Robocalls and Robotexts, *Notice of Inquiry*, 38 FCC Rcd 11675 (2023), [https://docs.fcc.gov/public/attachments/FCC-23-101A1\\_Rcd.pdf](https://docs.fcc.gov/public/attachments/FCC-23-101A1_Rcd.pdf) [https://perma.cc/TJ8U-ZZWV]; see also U.S. DEP’T COM. NAT’L INST. STANDARDS & TECH., NIST AI 100-1, ARTIFICIAL INTELLIGENCE RISK MANAGEMENT FRAMEWORK at 1 (2023), <https://nvlpubs.nist.gov/nistpubs/ai/NIST.AI.100-1.pdf> [https://perma.cc/Q3ZR-LGB3]; see also *OMB Releases Requirements for Responsible AI Procurement by Federal Agencies*, COVINGTON (Oct. 24, 2024), <https://www.cov.com/en/news-and-insights/insights/2024/10/omb-releases-requirements-for-responsible-ai-procurement-by-federal-agencies> [https://perma.cc/C8LR-4CEZ].

113. See Rohit Chopra, Kristen Clarke, Charlotte Burrows & Lina Khan, *Joint Statement on Enforcement Efforts Against Discrimination and Bias in Automated Systems*, FED. TRADE COMM’N (Apr. 25, 2023), [https://www.ftc.gov/system/files/ftc\\_gov/pdf/EEOC-CRT-FTC-CFPB-AI-Joint-Statement%28final%29.pdf](https://www.ftc.gov/system/files/ftc_gov/pdf/EEOC-CRT-FTC-CFPB-AI-Joint-Statement%28final%29.pdf) [https://perma.cc/7HUD-PQZQ].

114. See Airlie Hilliard, *How is the FTC Regulating AI?*, HOLISTIC AI (Sept. 22, 2023), <https://www.holisticai.com/blog/ftc-regulating-ai> [https://perma.cc/E392-YVGX].

115. NORWEGIAN CONSUMER AUTH., *supra* note 78.

116. *Id.*

respectively, for laws protecting against gender discrimination by voice assistants. Both examples of problematic instances of gender discrimination by artificial intelligence discussed above, default female-tone settings and problematic responses to objectifying and sexist inquiries, would be found to violate that standard, as they are clearly derogatory and conflict with gender equality.<sup>117</sup> Such clear applicability demonstrates the usefulness of the European regulation language as a framework for domestic regulation in this arena. Further, a broad but clear purpose, such as that put forth by Norwegian regulators above, will perform well with voice assistant regulation in the United States.<sup>118</sup> A purpose to promote gender equality and advance the position of women in society is clear and defensible, while also providing enough flexibility to effectively serve as justification for decisions made under the regulation.

The United Kingdom's CAP Rule 4.9 also serves as a useful model for application to voice assistant technology in the United States, specifically the technology's potential to reinforce problematic gender stereotypes and behaviors.<sup>119</sup> The rule's language stipulates that advertisements must take care to avoid reinforcing the idea that certain traits or behaviors are uniquely associated with, or available to, one gender.<sup>120</sup> Application of this standard to voice assistant technology would also be effective in reducing its tendencies to entrench gender bias. Under the CAP Rule 4.9 standard, both default female-tone settings and problematic responses to sexual inquiries would be unacceptable.<sup>121</sup> Helpfulness, pleasantness, availability and politeness are traits voice assistants portray in answering their customers and they will most frequently be coupled with the female default tone, advancing the idea that they are truly linked. This suggests to users that those traits are uniquely associated with female voices, and thus females in general. This is similar to the Match.com advertisement banned under CAP Rule 4.9, as it portrayed a woman, in an eager and helpful manner, performing household tasks, while the man relaxed on the couch.<sup>122</sup> The advertisement portrayed the same harmful idea that voice assistant settings perpetuate—that females are expected to be pleasant, eager, and the default for helpfulness with small mundane tasks.<sup>123</sup> Rule 4.9's ban of the advertisement demonstrates how its standards can be used to regulate against the same practice and harm in voice assistant technology.

CAP Rule 4.9's stated purpose, which is to regulate advertisers so that they are obligated to take care so as not to cause harm or widespread offense, would be also useful in the context of voice assistants.<sup>124</sup> Regulation in the arenas of emerging technology should not aim to be overly restrictive, but

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117. See Breen & Andrews, *supra* note 62; see also Sweney, *supra* note 64.

118. See NORWEGIAN CONSUMER AUTH., *supra* note 78.

119. See ADVERT. STANDARDS AUTH., *supra* note 26.

120. CAP Executive, *supra* note 52.

121. See *id.*

122. See Sweney, *supra* note 64.

123. See *id.*

124. See CAP Executive, *supra* note 52.

rather force producers of such technology to be more thoughtful in their design to prevent harm in their delivery. Domestic voice assistant regulation should incorporate the prevention of harm or offense into its statement of purpose as it provides useful insight and explanation behind the driving goal of the regulation.

#### 4. Why the United States Should Act to Regulate Voice Assistants: A Reiteration of the Public Policy Factors Urging Regulatory Action

Public policy factors weigh heavily in favor of developing rules for voice assistants, as both normative and economic arguments support the regulation of this technology. From a normative lens, the principle of equality, and gender equality specifically, is a core value of society and key to its progress.<sup>125</sup> Allowing gender discrimination to go unchecked in technology that is becoming more and more ingrained in our everyday lives has the potential to derail and undercut the progress society has made towards gender equality in the last century. Beyond derailing that progress, it could yield harmful consequences that could even worsen the status quo. Those consequences may include an increase in violence and derogatory language directed at women as the influence of voice assistant technology creates unequal gender-based expectations.<sup>126</sup>

Studies have shown that gender equality has a positive effect on economic growth and stability.<sup>127</sup> From an economic lens, allowing gender discrimination to persist in voice assistants could lead to a reversal of the progress women have made in the professional sphere in the last several decades.<sup>128</sup> Given this, it is crucial that the U.S. government acts to regulate technologies exacerbating gender discrimination for the good of the economy, in addition to the normative reasons for doing so.

Lastly, the United States is a leading example for other countries looking to navigate and manage emerging technologies and their side

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125. See *Americans, Deeply Divided, Yet Share Core Values of Equality, Liberty & Progress*, SIENA COLL. RSCH. INST. (Oct. 25, 2021), <https://scri.siena.edu/2021/10/25/americans-deeply-divided-yet-share-core-values-of-equality-liberty-progress/> [<https://perma.cc/7875-M7VL>]; see also Wayne Baker, *United America, Core Value 6: Equal Opportunity*, U. MICH. CTR. POSITIVE ORGS. (Feb. 3, 2014), <https://positiveorgs.bus.umich.edu/news/united-america-core-value-6-equal-opportunity/> [<https://perma.cc/A5UY-W74Y>].

126. See Lai & Banaji, *supra* note 40; see also AM. PSYCH. ASS'N, *supra* note 40.

127. See Gita Gopinath, *Gender Equality Boosts Economic Growth and Stability*, INT'L MONETARY FUND (Sept. 27, 2022), <https://www.imf.org/en/News/Articles/2022/09/27/sp092722-ggopinath-kgef-gender-korea> [<https://perma.cc/6RE6-2GL3>].

128. See OECD, SOCIAL INSTITUTE AND GENDER INDEX 2019 GLOBAL REPORT (2019), <https://www.oecd-ilibrary.org/docserver/bc56d212-en.pdf?> [<https://perma.cc/54NJ-2CGD>] (showing improvements in gender equality over last several decades).

effects.<sup>129</sup> It can leverage that leadership in a positive way by acting to regulate technology for concerning issues like gender discrimination. Leading in the development of voice assistant regulation will further benefit the United States, as it will allow the United States to have full agency over the scope and application of the regulation, rather than having to account for existing laws in the space.<sup>130</sup>

## 5. Responding to Free Speech Concerns About the Regulation of Artificial Intelligence Voice Assistant Technology

Those who oppose regulating sexism in Nordic advertising have pointed to freedom of expression and freedom of the press as the basis for their concerns.<sup>131</sup> These ideas hold great weight in America as well and would likely be leveraged to oppose the implementation of domestic regulation of voice assistant technology.<sup>132</sup> A threat to freedom of speech is not received lightly in the United States, as the First Amendment is perceived to be the bedrock to so many other fundamental rights that America holds dear.<sup>133</sup> Given this, it is likely that efforts to regulate voice assistants for gender-discriminatory content would face First Amendment concerns and lawsuits.

The most apparent weakness in this argument is that First Amendment rights extend to individuals, not artificial intelligence, as artificial intelligence does not hold personhood.<sup>134</sup> Even the most creative legal arguments advanced in the space of First Amendment rights and artificial intelligence have not gone so far as to say that artificial intelligence is generally entitled

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129. See Robert Kagan & Ivo H. Daalder, *The U.S. Can't End its Global Leadership Role*, BROOKINGS (Apr. 25, 2016), <https://www.brookings.edu/articles/the-u-s-cant-afford-to-end-its-global-leadership-role/> [<https://perma.cc/EWD7-9TWE>]; see also David Zopolosky, *Advancing U.S. Regulatory Leadership for AI in 2024*, AMAZON (Feb. 6, 2024), <https://www.aboutamazon.com/news/policy-news-views/advancing-us-regulatory-leadership-for-ai-in-2024> [<https://perma.cc/Y8JC-V4M8>].

130. See Shana Lynch, *Analyzing the European AI Act: What Works, What Needs Improvement*, STAN. UNIV. (July 21, 2023), <https://hai.stanford.edu/news/analyzing-european-union-ai-act-what-works-what-needs-improvement> [<https://perma.cc/A465-59ZJ>].

131. See *Sexist Advertisement in the Nordic Countries*, SWEDISH WOMEN'S LOBBY (2016), <https://sverigeskvinnoorganisationer.se/wp-content/uploads/2020/05/Sexist-advertisement-in-the-Nordic-countries.pdf> [<https://perma.cc/MM3W-LY9F>].

132. See *Freedom of Expression*, ACLU (Mar. 1, 2002), <https://www.aclu.org/documents/freedom-expression> [<https://perma.cc/7VGQ-3PLT>].

133. See Michael Gonchar, *Why is Freedom of Speech an Important Right? When, if Ever, Can It Be Limited?*, N.Y. TIMES (Sept. 12, 2018), <https://www.nytimes.com/2018/09/12/learning/why-is-freedom-of-speech-an-important-right-when-if-ever-can-it-be-limited.html> [<https://perma.cc/3FM5-ATQK>].

134. See Lance Eliot, *AI Legal Personhood Distresses AI Ethicists Since People Could Deviously Scapegoat Machines to Avoid Apt Human Responsibility, Including In The Case Of AI-Based Self-Driving Cars*, FORBES (Mar. 4, 2022), <https://www.forbes.com/sites/lanceeliot/2022/03/04/ai-legal-personhood-distresses-ai-ethicists-since-people-could-deviously-scapegoat-machines-to-avoid-apt-human-responsibility-including-in-the-case-of-ai-based-self-driving-cars/> [<https://perma.cc/3RMU-U3R6>].

to First Amendment rights.<sup>135</sup> In a recent lawsuit, Amazon has claimed that conversations between Amazon Echo products and its users should be protected from a search warrant to the extent that those conversations reflect expressive content.<sup>136</sup> As a secondary argument, Amazon has argued that the conversations should be protected under the extension of its own First Amendment rights.<sup>137</sup> These arguments, however, would not apply to the regulation of voice assistant technology's default settings, as it does not involve any human expression or content. Additionally, regulating programmed responses of these products does not implicate any user conversation records, but rather serves to prevent sexist responses by the technology in the first instance.

When faced with challenging and novel First Amendment issues, courts have regularly considered how compelling the societal and government interest is that is provoking First Amendment opposition.<sup>138</sup> Where there is a compelling interest, courts are much more likely to allow regulation.<sup>139</sup> Here, public policy weighs heavily in favor of enabling regulation in this instance.<sup>140</sup> The public interest at stake here, which is reducing society's exposure to both subliminal and blatant gender discrimination from artificial intelligence technology, is grave. There is serious potential for a significant increase in problems of gender bias and discrimination should these issues go unregulated, as use of artificial intelligence-based voice assistants becomes more and more commonplace in society.<sup>141</sup> In weighing the potential First Amendment rights of an emergent technology against the well-being of public and social progress, particularly in the realm of gender equality, the latter should be more important.<sup>142</sup> On a more general level, courts should be very hesitant to grant First Amendment rights to artificial intelligence technology,

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135. See Eric C. Boughman, Sara Beth Kohut, David E Sella-Villa & Michael V Silvestro, *Alexa Do You Have Rights? Legal Issues Posed by Voice-Controlled Devices and the Data They Create*, AM. BAR ASS'N (July 20, 2017), [https://www.americanbar.org/groups/business\\_law/resources/business-law-today/2017-july/alexa-do-you-have-rights/](https://www.americanbar.org/groups/business_law/resources/business-law-today/2017-july/alexa-do-you-have-rights/) [<https://perma.cc/33RZ-W8LP>].

136. See Silvia Sui, *State v. Bates: Amazon Argues that the First Amendment Protects Its Alexa Voice Service*, HARV. JOLT DIG. (Mar. 25, 2017), <https://jolt.law.harvard.edu/digest/amazon-first-amendment> [<https://perma.cc/3GSS-2L2K>].

137. See Boughman, et al., *supra* note 135.

138. See Ronald Steiner, *Compelling State Interest*, FREE SPEECH CTR. (Aug. 10, 2023), <https://firstamendment.mtsu.edu/article/compelling-state-interest/> [<https://perma.cc/UR76-D7VA>].

139. See *Cent. Hudson Gas & Elec. Corp. v. Pub. Serv. Comm'n of New York*, 447 U.S. 557, 566 (1980) (finding that the governmental may regulate commercial speech if such regulation advances a compelling state interest and is narrowly tailored to serve that interest).

140. See *Gender Equality*, UNITED NATIONS (Mar. 1, 2002), <https://www.un.org/en/global-issues/gender-equality> [<https://perma.cc/258Y-EQML>]; see also Veera Korhonen, *Gender Inequality in the United States – Statistics & Facts*, STATISTA (July 3, 2024), <https://www.statista.com/topics/11801/gender-inequality-in-the-united-states/#topicOverview> [<https://perma.cc/85VU-TDFV>].

141. See Lai & Banaji, *supra* note 40; AM. PSYCH. ASS'N, *supra* note 40.

142. See UNITED NATIONS, *supra* note 140; see also Korhonen, *supra* note 140.

as that will surely create a barrier to regulating an area of technology that is already dangerously unregulated.<sup>143</sup>

#### IV. CONCLUSION

As artificial intelligence continues to grow rapidly, so does its potential for gender discriminatory effects. This is especially evident with artificial intelligence voice assistant technology, as interactions with voice assistants have become a seamless part of our everyday customs and commerce. Public policy factors weigh heavily in favor of acting to regulate voice assistant technology, as default female tones and programmed responses serve to worsen and entrench existing gender biases. The United States government should pass broad legislation to regulate voice assistant technology for gender bias. In passing more specific regulations in accordance with that law, its administering agency should look to European laws as a framework and example for how to do so. The United Kingdom's CAP Rule 4.9 and Norway's Marketing Control Act provide language and cases that are directly applicable to the regulation of voice assistant technology in the United States. The government should leverage these European regulations and their guidelines as a framework for its regulation of voice assistant technology. United States regulation should be enacted at the national level by the federal government and should be administered by the FTC. Failing to do so will allow for the expansion of harmful biases and a reversal of the progress regarding gender equality in society.

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143. See Peter Henderson, *Who Is Liable When Generative AI Says Something Harmful?*, STAN. UNIV. (Oct. 11, 2023), <https://hai.stanford.edu/news/who-liable-when-generative-ai-says-something-harmful> [https://perma.cc/8VQF-4D2N]; see also *Freedom of speech*, LEGAL INFO. INST. (June 2021), [https://www.law.cornell.edu/wex/freedom\\_of\\_speech](https://www.law.cornell.edu/wex/freedom_of_speech) [https://perma.cc/GU4X-8BYF]; see also Daron Acemoglu, *Dangers of Unregulated Artificial Intelligence*, CTR. FOR ECON. POL'Y. RSCH. (Nov. 23, 2021), <https://cepr.org/voxeu/columns/dangers-unregulated-artificial-intelligence> [https://perma.cc/8TB5-R2C5].