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## The Need to Reform Abusive Contracts For Internet Connected Toys

Thomas H. Koenig\*

*“Imagine a profoundly unfair legal world in which businesses redirect consumer lawsuits away from state and federal courts into secret tribunals, in which a privately hired judge decides cases without precedents and with only limited grounds for an appeal. Under secretive forced arbitration, the social media service determines the arbitral provider and selects the rules that govern disputes with consumers. Visualize further that social media providers place legally binding terms of use . . . “agreements” that are seldom, if ever, read. Even if they are read, the [terms of use] are composed of unnecessarily complex terminology, which is drafted at the comprehension level of a typical college graduate. In this dystopian legal world, users are required to waive their constitutional right to a jury trial, the right of liberal discovery, and the right of appeal by agreeing to ‘take-it-or-leave it’ terms of use.*

*This is not a law professor’s far-fetched hypothetical. This legal dystopia is already here.”<sup>1</sup>*

### I. INTRODUCTION

Online consumers commonly acquiesce to mandatory arbitration clauses, “anti-class action waivers, damage caps, shortened statutes of limitations, ‘loser pays’ rules, and choice-of-forum clauses that are buried thousands of words deep in poorly indexed boilerplate.”<sup>2</sup> For example, “a growing number of social media platforms contain predispute mandatory arbitration clauses specifying that hearings be conducted in the provider’s home forum, which shifts the cost of air travel, hotels, and other expenses onto the consumer.”<sup>3</sup> The great majority of social media providers draft one-sided contract terms that give the stronger party “the right to unilaterally change or modify the rules of the game ‘at any time

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1. Thomas H. Koenig & Michael L. Rustad, *Fundamentally Unfair: An Empirical Analysis of Social Media Arbitration Clauses*, 65 CASE W. RES. L. REV. 341, 343-44 (2014).

2. *Id.* at 343-44.

3. *Id.*

without further notice.”<sup>4</sup> Such oppressive contractual clauses historically have been enforced in the United States.<sup>5</sup>

In this Article, I look at the newest frontier in unfair contract terms: the Internet of Connected Toys (IoCT). This new world is where the intersection of contract law, cloud computing, and the Internet of Things (IoT) intersect. Internet connected devices gather, process, store, and transfer data to the cloud. That data is then accessible anywhere and everywhere so that connected device manufacturerers can efficiently commodify it. The functionality of a smart toy is dependent upon this process of constantly monitoring, processing, harvesting, and sharing personally identifiable information.

Part II introduces the rapidly expanding use of Internet-connected “smart” devices and the imbalanced clauses commonly included in IoT standard form contracts.<sup>6</sup> These pro-provider terms of use (ToU) are “take it or leave it” contracts that are presented to the user without any possibility of negotiation.<sup>7</sup> ToU are often difficult to read and contain multiple clauses that foreclose consumer rights. Mandatory predispute arbitration and anticlass action clauses make it cost prohibitive to seek a remedy against the smart toy provider should its product’s negligent design cause harm to the user. In many cases, U.S. courts enforce ToU that purport to bind users who have merely visited the website.<sup>8</sup>

Part III critically examines the standard form contracts of five leading Internet-connected toys in the U.S. marketplace.<sup>9</sup> With respect to European Union law, the contracts of these five toys illustrate the widespread “non-

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4. See *id.* (discussing similar contract terms on social networks websites).

5. See Ramona L. Lampley, “Underdog” Arbitration: A Plan for Transparency, 90 WASH. L. REV. 1727, 1728, 1736-44 (2015) (giving extended discussion of Supreme Court’s upholding of mandatory arbitration clauses against unconscionability claims). “The Supreme Court in *AT&T Mobility LLC v. Concepcion*, and then in *American Express Co. v. Italian Colors Restaurant*, has signaled firmly that mandatory pre-dispute arbitration is here to stay.” *Id.* at 1727. The same is true for individual, low-value claims where one party has almost no bargaining power, typically the consumer or employee. See *id.* (discussing unfair arbitration clauses). Due to the Supreme Court’s view that arbitrating “underdog claims” is fair, the majority of the Court have disregarded numerous proposals to amend the Federal Arbitration Act (FAA) and criticisms of the Court’s jurisprudence have gone unheeded. See *id.* (discussing Supreme Court’s views on arbitration clauses).

6. See *infra* Part II (discussing IoT devices and their contracts).

7. See Michael Rustad & Maria Vittoria Onufrio, *Reconceptualizing Consumer Terms of Use for a Globalized Knowledge Economy*, 14 U. PA. J. BUS. L. 1085, 1085 (2012) (discussing ToU issues).

8. See *Hubbert v. Dell Corp.*, 835 N.E.2d 113, 126 (Ill. App. Ct. 2006) (ruling on enforceability of web contract). The buyers purchased computers from the manufacturer over the Internet. See *id.* at 117. On each of the five Internet Web pages of forms the buyers filled out, there was a blue hyperlink that took a purchaser to the “Terms and Conditions of Sale.” *Id.* at 118. The last three forms stated that all sales were subject to the terms and conditions of sale—those terms included an arbitration clause. *Id.* The trial court ruled that the arbitration clause never became a part of the contract and that even if it did, it was unconscionable and unenforceable. *Id.* On appeal the trial court’s judgment was reversed and remanded with directions for the trial court to either stay or dismiss the proceedings before it and to order the parties to arbitrate their disputes. See *id.* at 126; see also Rustad & Onufrio, *supra* note 7, at 1108 (discussing split between courts on the enforceability of “browsewrap” standard form contracts).

9. See *infra* Part III.

transparent and illegal terms and conditions” that characterize this industry.<sup>10</sup> These one-sided ToU are generally enforceable in the United States, but they are particularly problematic because the toys are marketed to children, who have a limited awareness of the risks involved. IoCT contract terms violate many of the consumer due process principles promulgated by the leading arbitral provider, JAMS (formerly known as Judicial Arbitration and Mediation Services, Inc.).<sup>11</sup> Congress and state legislatures need to enact statutes that give consumers and small businesses a minimum adequate remedy in the event of breach.

## II. THE IOCT

### A. What is the IoT?

The IoT is defined as “the network of physical objects that contain embedded technology to communicate and sense or interact with their internal states or the external environment.”<sup>12</sup> IoT devices “connect ‘things’ like phones, appliances, machinery, and cars to the Internet; share and analyze the data generated by these things; and extract meaningful and actionable insights.”<sup>13</sup> These digital products communicate and interact with the environment and other online devices.<sup>14</sup> Internet connections permit the creation of “interdependencies between products, gathered or generated data[,] and service providers.”<sup>15</sup>

The IoT is expanding exponentially, with the number of IoT devices already outnumbering the world’s population.<sup>16</sup> Manufacturing operation investments in IoT totaled \$102.5 billion in 2016.<sup>17</sup> Manufacturers are deploying IoT “to

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10. See *The Internet of Toys*, CONNECTED LEARNING RES. NETWORK (Mar. 31, 2017), <https://clrn.dmlhub.net/content/the-internet-of-toys> [<https://perma.cc/UV6J-4MUV>] (discussing U.S. consumer association claims filed to Federal Trade Commission). The term “illegal” in this phrase refers to European Union law, which is far more protective of consumer rights and privacy than that of the United States. See Michael Rustad, *Applying Europe’s GDPR to the Internet of Things*, 52 SUFFOLK U. L. REV. (forthcoming MONTH 2019).

11. See *infra* Part III.

12. See *The Internet of Things*, GARTNER, <https://www.gartner.com/it-glossary/internet-of-things> [<https://perma.cc/WXT4-AA7B>] (describing IoT).

13. See *Prepared Statement for the Record of Intel Corp.: Hearing on Internet of Things Before the U.S. H. Energy and Com. Subcomm. on Dig. Com. and Consumer Protection*, 115th Cong. 2 (2018) (statement of Dipti Vachani, Vice President, Internet of Things Group, General Manager, Platform Management and Consumer Engineering, Intel Corp.) [hereinafter *Hearing on IoT*] (defining IoT).

14. See *id.* (explaining network connection through cloud computing).

15. See *Evaluation of the Directive 85/374/EEC on the Liability For Defective Products*, at 2 n.1 (2016), [http://ec.europa.eu/smart-regulation/roadmaps/docs/2016\\_grow\\_027\\_evaluation\\_defective\\_products\\_en.pdf](http://ec.europa.eu/smart-regulation/roadmaps/docs/2016_grow_027_evaluation_defective_products_en.pdf) [<https://perma.cc/ZQZ7-CP3M>].

16. See Liam Tung, *IoT Devices Will Outnumber the World’s Population This Year for the First Time*, ZDNET (Feb. 7, 2017), <https://www.zdnet.com/article/iot-devices-will-outnumber-the-worlds-population-this-year-for-the-first-time/> [<https://perma.cc/NKJ4-GX5U>] (stating one billion more devices than humans).

17. See *Internet of Things Spending Forecast to Grow 17.9% in 2016 Led by Manufacturing, Transportation, and Utilities Investments, According to New IDC Spending Guide*, BUS.WIRE (Jan. 4, 2017), <https://www.businesswire.com/news/home/20170104005270/en/Internet-Things-Spending-Forecast-Grow-17.9-2016> [<https://perma.cc/YB48PVQN>] (tracking spending in IoT industry).

optimize their processes, monitor equipment, and do preventative and predictive maintenance on that equipment.”<sup>18</sup> Internet-enabled cameras, baby monitors, thermostats, health-monitoring bracelets, and security devices increasingly record, send, and receive data. Smart refrigerators, driver assisting vehicles, and other complex products are expected to become commonplace in the foreseeable future.

A House of Representatives Committee cited an empirical study that concluded:

IoT has “a total potential economic impact of \$3.9 trillion to \$11.1 trillion a year by 2025.” Further, by 2025, IoT is projected to create \$1.1 trillion to \$2.5 trillion in value annually in the health sector; \$.9 trillion to \$2.3 trillion in value annually in manufacturing; \$100 billion to \$300 billion in value in urban infrastructure; approximately \$100 billion in value in agriculture; and approximately \$50 billion in value in vehicle use.<sup>19</sup>

Extensive consumer, economic and societal benefits are expected from this rapid technological advance.<sup>20</sup> For example, self-driving cars have the potential of sharply reducing the epidemic of automobile accident deaths.<sup>21</sup> IoT is transforming the health care sector as providers increase their ability to monitor millions of patients remotely.<sup>22</sup> The utilities sector uses IoT as the backbone of

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18. See Alison DeNisco Rayome, *Harnessing IoT in the Enterprise: The Five Industries Leading the IoT Revolution*, ZDNET (Feb. 1, 2017), <https://www.zdnet.com/article/the-five-industries-leading-the-iot-revolution/> [<https://perma.cc/VD5L-SB75>] (discussing evolutionary IoT experience for companies and their customers).

19. See Memorandum from Comm. Majority Staff on Energy and Commerce to the Subcomm. on Dig. Commerce and Consumer Protection (May 19, 2018) (on file with author).

Additionally, analysts are predicting that by 2020, annual revenues for IoT vendors selling hardware, software, and other IoT solutions may exceed \$470 billion and that by 2025, the IoT market will grow to an installed base of 75.4 billion, marking a remarkable 489 percent increase from just 2015. As devices increasingly become connected and companies continue to explore IoT-based solutions, developers contributing to IoT will be needed. As a result, the IoT market is projected to create 4.5 million developer jobs by 2020. Accordingly, the IoT industry is currently having a substantial economic impact and that impact will undoubtedly significantly increase moving forward.

*Id.*

20. See *id.* (discussing benefits IoT provides).

21. See *id.* (providing examples of IoT benefits).

22. See *Hearing on IoT*, *supra* note 13, at 5-6.

The Sickbay IoT platform continuously captures patient data from any medical device or system and transforms that data into web-based clinical applications that make the data actionable. This actionable intelligence enables health care teams to make better and faster decisions and predict patient health deterioration before it occurs to save lives. Sickbay already is implemented at six healthcare institutions, including Texas Children’s Hospital, which pioneered the technology that allows for viewing of real-time data from cardiac monitors and vents. Texas Children’s Hospital used Sickbay to collect data on 302 beds over 4.5 years, which included 2.1 million patients.

its Smart Grid for electricity and gas in both the United States and several European countries.<sup>23</sup> Internet-connected toys are beginning to revolutionize children's playthings, which is raising security concerns.<sup>24</sup>

*B. IoT Devices Continuously Gather, Store, and Share Information in the Cloud*

The term “cloud” is an imperfect metaphor used to describe remote storage of software applications, tools, and data accessed via the Internet.<sup>25</sup> Despite the image that services and software are stored in some nebulous location in the sky, cloud computing always has a physical location.<sup>26</sup> The National Institute of Standards and Technology (NIST) defines cloud computing as a “model for enabling convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction.”<sup>27</sup> For example, consumers use cloud computing whenever they post to a social media site or save data to Dropbox, Microsoft OneDrive, or Google Drive. Cloud computing refers to “a category of sophisticated on-demand computing services,”<sup>28</sup> including Software as a Service (SaaS), Platform as a Service (PaaS), Infrastructure as a Service (IaaS), and related agreements.<sup>29</sup> IBM’s Cloud Data Service, for example, provides “a hybrid, open source-based approach that application developers, data scientists and IT architects use to address [their] data-intensive needs and deliver both immediate and longer-term benefits.”<sup>30</sup> Amazon, Apple, Google, Rackspace,

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*Id.* at 6.

23. See DeNisco Rayome, *supra* note 18 (noting Smart Grid investments totaled over \$57.8 billion in 2016).

24. See FED. BUREAU OF INVESTIGATION, ALERT NO. I-071717(REVISED)-PSA, CONSUMER NOTICE: INTERNET-CONNECTED TOYS COULD PRESENT PRIVACY AND CONTACT CONCERNS FOR CHILDREN (2017), <https://www.ic3.gov/media/2017/170717.aspx> [<https://perma.cc/MT5G-9CRC>] (explaining privacy and security concerns due to rise of Internet-connected toys).

25. See *Cloud*, TECHOPEDIA, <https://www.techopedia.com/definition/26514/cloud> [<https://perma.cc/E9GF-3G5J>] (defining “cloud”).

26. See *id.* (explaining “cloud”).

27. See PETER MELL & TIMOTHY GRANCE, NAT’L INST. OF STANDARDS & TECH., U.S. DEPT. OF COMMERCE, SPECIAL PUB. 800-145, THE NIST DEFINITION OF CLOUD COMPUTING 2 (2011), <https://nvlpubs.nist.gov/nistpubs/Legacy/SP/nistspecialpublication800-145.pdf> [<https://perma.cc/C2JM-Z2FP>].

28. See CLOUD COMPUTING: PRINCIPLES AND PARADIGMS 3 (Rajhumar Buyya et al. eds., 2011) [hereinafter CLOUD COMPUTING] (explaining cloud computing).

29. See Anne Hulecki & Michael L. Rustad, *Introduction to Software as a Service (SaaS)*, in SOFTWARE LICENSING, CLOUD COMPUTING AGREEMENTS, OPEN SOURCE, AND INTERNET TERMS OF USE § 8.01 (2016). “The essential characteristics of SaaS are (1) On-Demand Self-Service, (2) Broad Network Access, (3) Resource Pooling and shared infrastructure (multi-tenancy), (4) Rapid Elasticity (meaning the ability to quickly expand or contract services), and (5) Measured Service (measuring price by use of storage, processing, bandwidth or number of active users).” *Id.* “SaaS is a broad term encompassing [PaaS] and [IaaS], as explained above. Generally, in a Software-as-a-Service model, the user has access to a software application, along with any other required software, operating system, hardware, and network, all provided remotely.” *Id.*

30. See *Leverage Data and Analytics*, IBM (Mar. 23, 2019), <https://www.ibm.com/cloud/garage/services/analytics-offering> [<https://perma.cc/2SNR-97NR>].

and Microsoft are leading companies in the business of renting cloud computing and storage.<sup>31</sup> Cloud computing is replacing the use of stand-alone servers.<sup>32</sup> Users praise the wide variety of benefits created by contracting with a cloud storage provider rather than maintaining their individual computing systems.<sup>33</sup> Cloud computing was prefigured by providers that offered companies “common data processing tasks, such as payroll automation, operated time-shared mainframes as utilities which could serve dozens of applications and often operated close to 100% of their capacity.”<sup>34</sup> It is comparable to “plugging an electric appliance into an outlet,” as “we care neither how electric power is generated nor how it gets to that outlet.”<sup>35</sup> IoT is not limited to cars and appliances—the toys of adults and Internet-connected children’s toys now make extensive use of cloud technology.<sup>36</sup>

### C. IoCT

The IoCT, which consists of online “smart” toys, is still in its infancy. This term refers to a future where toys not only relate to children but are wirelessly

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31. See Scott DeCarlo & Tomio Geron, *America’s Fastest Growing Tech Companies*, FORBES (June 24, 2013), <https://www.forbes.com/sites/tomiogeron/2013/06/05/americas-fastest-growing-tech-companies-2013/#59c86ffc3417> [<https://perma.cc/4C7V-3SAX>].

32. See Hien Timothy M. Nguyen, Note, *Cloud Cover: Privacy Protections and the Stored Communications Act in the Age of Cloud Computing*, 86 NOTRE DAME L. REV. 2189, 2189-90 (2011) (introducing basis for cloud computing concerns). “Cisco . . . predicts that by 2021, 94[%] of workloads and compute instances will be processed by cloud data centers, with just 6% processed by traditional data centers.” Charles McLellan, *Data Centers: The Future is Software-Defined*, ZDNET (Nov. 1, 2018), <https://www.zdnet.com/article/data-centers-the-future-is-software-defined/> [<https://perma.cc/D3UD-RZXD>]. The public cloud market is predicted to reach \$191 billion by 2020, up from \$58 billion in 2013. See Rachel King, *Forrester: Public Cloud Market Will Reach \$191B by 2020*, ZDNET (Apr. 24, 2014), <https://www.zdnet.com/article/forrester-public-cloud-market-will-reach-191b-by-2020/> [<https://perma.cc/H9WW-2TPJ>] (describing growth of cloud computing market).

33. See Nguyen, *supra* note 32, at 2190. Specifically, Hien Timothy M. Nguyen describes the benefits he derives from cloud computing:

For example, a cloud service such as Google Docs allows me to create documents from my home by logging into Google’s website. I, or other authorized users, can then edit that same document while at school, at the airport, or at the library. If someone steals my laptop or if its hard drive crashes, I will still have a copy on the cloud service (and perhaps multiple backups of older versions). Similar services exist for users to purchase computing power or storage space that is accessible on any computer. In the case of computing power, a user developing an application would save on physical space, avoid the cost of buying, maintaining, and operating the servers, and benefit from scalability.

*Id.*

34. See CLOUD COMPUTING, *supra* note 28, at 6 (describing past data processes).

35. See *id.* at 3 (analogizing cloud computing).

36. See FED. BUREAU OF INVESTIGATION, *supra* note 24. Internet-connected toys are vulnerable because “data collected from interactions or conversations between children and toys are typically sent and stored by the manufacturer or developer via server or cloud service.” *Id.* Notably, “it is also collected by third-party companies who manage the voice recognition software used in the toys.” *Id.* The FBI warns “voice recordings, toy Web application (parent app) passwords, home addresses, Wi-Fi information, or sensitive personal data could be exposed” if the the data is not sufficiently protected. *Id.*

connected to each other.<sup>37</sup> “Smart” toys offer new experiences for children consisting of online, connected play.<sup>38</sup> “They also promise educational benefits: from literacy and numeracy skills to digital literacies and coding skills. Further opportunities include collaborative play, creative and rational thinking, and specific knowledge gains such as 3D printing.”<sup>39</sup>

“Existing toy companies and start-ups are eagerly innovating in this area, as this could become the largest market for them with increasing number of customers.”<sup>40</sup> The smart toy market includes a diverse typology of playthings, including: toys based on voice or image recognition (e.g., Hello Barbie or the Hatchimals); app-enabled robots, drones, and other mechanical toys (e.g., Dash and Dot); toys-to-life, which connect action figures to video games (e.g., Skylanders or Lego Dimensions); puzzle and building games (e.g., Lego Fusion).<sup>41</sup> Other popular smart toys include “Talk-to-Me Mikey, SmartToy Monkey, and Kidzoon Smartwatch DX; connected toys, such as SelfieMic and Grush; and other connected smart toys such as Cognitoys’ DINO, and My Friend Cayla.”<sup>42</sup> GPS-enabled wearables enable “parents to monitor and track their child’s movements.”<sup>43</sup>

The IoCT can be broadly categorized into four major categories: “app-enabled mechanical toys, voice [or] image recognition toys, screenless toys, . . . and health tracking toys.”<sup>44</sup> These toys are also classified by their interfacing method, such as smartphone-connected, tablet-connected, console-connected, and app-connected drones.<sup>45</sup> Internet-enabled mechanical toys include voice and image “recognition toys, screenless toys, toys-to-life, puzzles and building games,” health tracking and wearable toys.<sup>46</sup> For example, in 2015, Hello Barbie, an Internet-connected doll, “came equipped with a microphone, voice

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37. Donell Holloway & Lelia Green, *The Internet of Toys*, 2 COMM. RES. & PRAC. 506, 506 (2016) (defining “Internet of Toys”).

38. See *The Internet of Toys*, LONDON SCH. ECON. (Jan. 27, 2017), <https://blogs.lse.ac.uk/parenting4digitalfuture/2017/01/27/the-internet-of-toys/> [<https://perma.cc/S9XK-U3K7>] (discussing impact of Internet of Toys on children).

39. See *id.* (describing sociological research of Giovanna Mascheroni). Mascheroni is a Lecturer in the Department of Sociology, Università Cattolica, Milan, and a visiting fellow in the Department of Media and Communications at LSE on digital toys and concerns surrounding the Internet of Toys. See *id.*

40. *Smart Toys Market to Reach US\$ 69,932.5 Mn by 2026: Transparency Market Research*, TRANSPARENCY MKT. RES. (Sept. 2018), <https://www.transparencymarketresearch.com/pressrelease/smart-toys-market-2018-2026.htm> [<https://perma.cc/XR6M-ABRA>] (describing continual rise of Internet toy market).

41. See *The Internet of Toys*, *supra* note 38.

42. See Sara H. Jodka, *The Internet of Toys: Legal and Privacy Issues with Connected Toys*, LEXOLOGY (Dec. 5, 2017), <https://www.lexology.com/library/detail.aspx?g=73ff6361-5a5e-4511-9a12-95da0e16bd63> [<https://perma.cc/5F6P-KUSB>].

43. See *id.*

44. See *Smart Toys Market—Global Industry Analysis, Size, Share, Growth, Trends, and Forecast 2018-2026*, TRANSPARENCY MKT. RES. (Sept. 2018), <https://www.transparencymarketresearch.com/smart-toys-market-2018-2026.html> [<https://perma.cc/N22D-ZSFN>].

45. See *id.* (noting various segments of smart toy market).

46. See *id.*

recognition software and artificial intelligence that allowed a call-and-response function between the child user and the doll.”<sup>47</sup>

#### *D. Privacy Risks of Cloud-Based Children’s Toys*

Consumer advocacy groups express concerns about the potential dangers of connected toys.<sup>48</sup> A London School of Economics research team identified a series of personal safety,<sup>49</sup> security,<sup>50</sup> and privacy risks<sup>51</sup> attributable to connected toys. Internet-enabled playthings also contain hidden advertising in the form of “pre-installed phrases [that] sponsor specific products and media content, thus advertising brands.”<sup>52</sup> Children are subject to systematic surveillance as toys gather information about the child’s relationship with personal, institutional, and commercial entities such as health, school performance, interactions with adults, and playmates.<sup>53</sup> The researchers accuse the toymakers of requiring parents to accept non-transparent ToU that violate European Union privacy laws.<sup>54</sup>

47. See Jodka, *supra* note 42 (introducing technology and legal implications of smart toys, specifically data privacy).

48. See Press Release, Consumers Reports, Internet-Connected Toys Are Spying on Kids, Threatening Their Privacy and Security (Dec. 6, 2016), <https://consumersunion.org/news/internet-connected-toys-are-spying-on-kids-threatening-their-privacy-and-security/> [https://perma.cc/JKQ4-923K].

The growing popularity of “smart” Internet-connected toys poses significant privacy, security, and other risks to children . . . . My Friend Cayla and I-Que Intelligent Robot, dolls marketed to both young girls and boys, collect and use personal information from children in violation of the [COPPA] and FTC rules prohibiting unfair and deceptive practices. The complaint calls upon the FTC to investigate and take action against Genesis Toys, the maker of My Friend Cayla and I-Que, and Nuance Communications, which provides third-party voice recognition software for the toys.

*Id.*

49. See *id.* “[F]or example, the two Genesis Toy products allow unauthorized Bluetooth access from any smartphone or tablet within 50 metres, thus potentially allowing strangers in the immediate surroundings to talk to children.” See *id.*

50. See *id.* “[T]he toys encourage children to disclose their personal information (the name of their parents, home address and school, etc.) which is later shared with Nuance, a software recognition company, and potentially other third parties without parental consent.” See *id.*

51. See *id.* “[Children’s Privacy Risks] are the most visible and immediate consequences of the datafication of childhood by means of IoT toys, education platforms and apps (read about the privacy concerns posed by ClassDojo on this blog), and other IoT devices (including smart assistants such as Amazon Echo).” *Id.*

52. See Press Release, Consumers Reports, *supra* note 48. “Hidden advertising: pre-installed phrases sponsor specific products and media content, thus advertising brands with which Genesis Toy has developed commercial relations, for example.” *Id.*

53. See *id.* (detailing types of private data toys collect on children).

54. See *The Internet of Toys*, *supra* note 38. Research concludes that:

[P]arents are forced to agree with all the [ToU] in order to fully realise the affordances of Cayla and i-Que, for example. In requiring consent to terms and conditions being changed without further notice, and to personal data being shared with third parties and used for targeted marketing, the terms of the service are openly violating the EU Data Protection Directive.

The data stored in the cloud has been identified as a potential privacy risk for Internet-connected toys.<sup>55</sup> The Norwegian Consumer Council (NCC) reported that some of these toys have practically no embedded security.<sup>56</sup> This means that anyone may gain access to the microphone and speakers within the toys, without requiring physical access to the products.<sup>57</sup> The NCC “found evidence that voice data is being transferred to a company in the [U.S.], who also specialize in collecting biometric data such as voice-fingerprinting.”<sup>58</sup> Two of the toys were “embedded with pre-programmed phrases endorsing different commercial products, which practically constitutes product-placement within the toys themselves.”<sup>59</sup> Such practices are likely to violate the Children’s Online Privacy Protection Act (COPPA), which makes it illegal for companies to harvest personally identifiable information from children aged thirteen and under without their parents’ consent.<sup>60</sup>

### *E. Overview of COPPA*

Congress enacted COPPA in 1998 to protect the safety and privacy of children online by prohibiting the unauthorized or unnecessary collection of children’s personal information online, by operators of Internet Web sites and online services.<sup>61</sup> COPPA directed the Federal Trade Commission (FTC) to promulgate a rule implementing COPPA and it promulgated the COPPA Rule on November 3, 1999.<sup>62</sup>

#### *1. The FTC’s COPPA Rule*

The FTC’s COPPA rules went into effect on April 21, 2000.<sup>63</sup> The FTC initiated a comprehensive review of COPPA in 2010 to “ensure that the COPPA

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*Id.*

55. See Bree Fowler, *Parents Should be Cautious With Connected Toys, CR Testing Shows*, CONSUMER REPS. (Dec. 19, 2018), <https://www.consumerreports.org/privacy/test-of-connected-toys-shows-parents-should-be-cautious/> [<https://perma.cc/GF9R-8PCM>].

56. See Finn Myrstad, *Connected Toys Violate European Consumer Law*, FORBRUKERRÅDET (Dec. 6, 2016), <https://www.forbrukerradet.no/siste-nytt/connected-toys-violate-consumer-laws/> [<https://perma.cc/D98M-2GPV>].

57. FORBRUKERRÅDET, #TOYFAIL: AN ANALYSIS OF CONSUMER AND PRIVACY ISSUES IN THREE INTERNET TOYS 3 (2016), <https://fil.forbrukerradet.no/wp-content/uploads/2016/12/toyfail-report-desember2016.pdf> [<https://perma.cc/Q92T-4A4S>].

58. *Id.* (describing evidence of voice data transferral).

59. *Id.* (listing toys having endorsement messages).

60. See 15 U.S.C. § 6501 (2018) (deining terms of COPPA).

61. See Marsha Cope Huie et al., *The Right to Privacy in Personal Data: The EU Prods the U.S. and Controversy Continues*, 9 TULSA J. COMP. & INT’L L. 391, 421 (2002) (detailing reason behind COPPA enactment).

62. See Omnibus Consolidated and Emergency Supplemental Appropriations Act, Pub. L. 105-277, 112 Stat. 2681 (1998) (directing FTC to promulgate new rule).

63. See Press Release, Fed. Trade Comm’n, *New Rule to Protect Children’s Online Privacy Takes Effect April 21, 2000* (Apr. 20, 2000), <https://www.ftc.gov/news-events/press-releases/2000/04/new-rule-protect-childrens-online-privacy-takes-effect-april-21> [<https://perma.cc/5LBR-XS47>]; see also 16 C.F.R. § 312 (2018).

Rule keeps up with evolving technology and changes in the way children use and access the Internet, including the increased use of mobile devices and social networking.”<sup>64</sup> The FTC issued new regulations, effective July 13, 2013, that expands COPPA to new information technologies such as plug-ins.<sup>65</sup>

## 2. COPPA Enforcement Actions

The FTC’s COPPA Rule applies to operators of commercial Web sites and online services (including mobile apps) directed to children under thirteen that collect, use, or disclose personal information from children.<sup>66</sup> Operators of general audience websites or online services with actual knowledge that they are collecting, using, or disclosing personal information from children under thirteen are also subject to the COPPA Rule.<sup>67</sup> Smart toy makers, because they harvest personal information of children, need to comply with this Rule.<sup>68</sup>

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64. See Press Release, Fed. Trade Comm’n, FTC Strengthens Kids’ Privacy, Gives Parents Greater Control Over Their Information by Amending Children’s Online Privacy Protection Rule Being Modified to Keep Up with Changing Technology (Dec. 19, 2012), <http://www.ftc.gov/opa/2012/12/coppa.shtm> [<https://perma.cc/78TP-66XB>].

65. See *id.* Specifically, the FTC made changes in order to:

[M]odify the list of “personal information” that cannot be collected without parental notice and consent, clarifying that this category includes geolocation information, photographs, and videos; offer companies a streamlined, voluntary and transparent approval process for new ways of getting parental consent; close a loophole that allowed kid-directed apps and websites to permit third parties to collect personal information from children through plug-ins without parental notice and consent; extend coverage in some of those cases so that the third parties doing the additional collection also have to comply with COPPA; extend the COPPA Rule to cover persistent identifiers that can recognize users over time and across different websites or online services, such as IP addresses and mobile device IDs; strengthen data security protections by requiring that covered website operators and online service providers take reasonable steps to release children’s personal information only to companies that are capable of keeping it secure and confidential; require that covered website operators adopt reasonable procedures for data retention and deletion; and strengthen the FTC’s oversight of self-regulatory safe harbor programs.

*Id.*

66. *Complying with COPPA: Frequently Asked Questions*, FED. TRADE COMM’N (Mar. 20, 2015), <https://www.ftc.gov/tips-advice/business-center/guidance/complying-coppa-frequently-asked-questions> [<https://perma.cc/RG2S-GX7R>].

67. See *id.*

The Rule applies to operators of commercial websites and online services (including mobile apps) directed to children under thirteen that collect, use, or disclose personal information from children. It also applies to operators of general audience websites or online services with actual knowledge that they are collecting, using, or disclosing personal information from children under thirteen. The Rule also applies to websites or online services that have actual knowledge that they are collecting personal information directly from users of another website or online service directed to children.

*Id.*

68. See 15 U.S.C. § 6501(8) (2018): “Personal information means individually identifiable information” and includes a first and last name, a physical address, an e-mail address, screen name or other online identifier,

In May of 2008, the Texas attorney general settled the first COPPA action filed by a state attorney general.<sup>69</sup> The government charged DollPalace.com with violating COPPA in unlawfully collecting personal information from children without obtaining parental consent.<sup>70</sup> DollPalace.com, a site for cartoon dolls, conditioned website access on children completing a ten-page questionnaire about themselves and their friends.<sup>71</sup> The Texas attorney general found that COPPA was violated because third parties could easily circumvent the parental consent feature of the sites.<sup>72</sup>

Social media sites such as Facebook must comply with COPPA and must not allow members under the age of thirteen to sign up.<sup>73</sup> Still, children will inevitably misrepresent their age to evade sign-up restriction. In May of 2011, an estimated 7.5 million Facebook users were below the minimum COPPA age thirteen threshold.<sup>74</sup>

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a telephone number, a social security number, or a cookie or other persistent identifier. *See Personal Information*, NAT'L INST. STANDARDS & TECH., <https://csrc.nist.gov/glossary/term/personally-identifiable-information> [<https://perma.cc/3GXN-DU5E>] (defining personally identifiable information).

69. *See Texas Attorney General Settles One of First State COPPA Enforcement Actions*, PROSKAUER ROSE LLP: PRIVACY L. BLOG (May 28, 2008), <https://privacylaw.proskauer.com/2008/05/articles/childrens-online-privacy-prote/texas-attorney-general-settles-one-of-first-state-coppa-enforcement-actions/> [<https://perma.cc/MSV4-HMP7>].

70. *See Jaikumar Vijayan, Texas AG Sues Two Sites for Children's Privacy Violations*, COMPUTERWORLD (Dec. 7, 2007), <https://www.computerworld.com/article/2538156/texas-ag-sues-two-sites-for-children-s-privacy-violations.html> [<https://perma.cc/3CQJ-MU8R>] (describing nature of law suit).

71. *See id.* (explaining information gathered from website questionnaire).

72. *See id.* (discussing issues with websites); *see also* Plaintiff's Original Complaint at 6-8, *Texas v. The Doll Palace Corp.*, No 1:07-cv-00988-SS, 2007 WL 4817946 (describing Doll Palace's failure to obtain parental consent). The Texas Attorney General's complaint charges that TheDollPalace website:

[S]imply asks young users who are attempting to register, "Is a parent with you right now?" Children who click "Yes" are directed to a page that allows them to simply click "OK" to vague disclosures regarding information collection and use. Gamesradar.com similarly fails to properly obtain parental consent. Under COPPA, these Web sites must make a greater effort to ensure that parents' consent to their children providing personal information online. The [FTC] offers several options for Web site operators to obtain verifiable parental consent. Among them, the FTC recommends that Web sites maintain a toll-free telephone number staffed by trained personnel for parents to call in their consent or provide a form for the parent to print, complete, sign, and mail or fax back to Web site operators.

*Id.*

73. *See Larry Magid, FTC Clarifies Children's Online Privacy Law (COPPA)*, FORBES (Apr. 25, 2013), <https://www.forbes.com/sites/larrymagid/2013/04/25/ftc-clarifies-childrens-online-privacy-law-coppa/#1fe3ea494771> [<https://perma.cc/75AH-5UT6>] (noting COPPA age restriction).

74. *See Emil Protalinski, Daughter Posts Sexually Explicit Photos, Dad Sues Facebook*, ZDNET (Sept. 7, 2011), <https://www.zdnet.com/article/daughter-posts-sexually-explicit-photos-dad-sues-facebook/> [<https://perma.cc/TR6U-WQHC>]. (providing statistics on children's use of Facebook).

In March of 2012, the FTC announced that it had settled a COPPA case with RockYou Inc.<sup>75</sup> The FTC's complaint charged the social media site with violating the COPPA Rule by:

[N]ot spelling out its collection, use and disclosure policy for children's information; not obtaining verifiable parental consent before collecting children's personal information; and not maintaining reasonable procedures, such as encryption to protect the confidentiality, security, and integrity of personal information collected from children.<sup>76</sup>

RockYou settled charges that it failed to protect the security of its 32 million users.<sup>77</sup> The FTC charged the social media site with violating COPPA because it collected information from 179,000 children without their parents' consent.<sup>78</sup> "RockYou's knowing collection of and failure to delete children's personal information was also contrary to the representations in its privacy policy, the FTC contended. These false and misleading representations constituted deceptive acts or practices in violation of FTC Act § 5, the agency alleged."<sup>79</sup> RockYou was charged with violating "the COPPA Rule, 16 C.F.R. pt. 312 by failing to: provide adequate notice about how it collects and uses children's information; provide direct notice to parents; obtain parental consent; and establish reasonable procedures to protect children's personal information."<sup>80</sup> The FTC settlement required RockYou to implement and maintain a data security program and pay a \$250,000 civil penalty to settle the COPPA charges.<sup>81</sup>

The FTC also settled a claim against a social media site, Xanga, which registered 1.6 million children under the age of thirteen without obtaining their parents' consent and was the first FTC consent order involving mobile applications.<sup>82</sup> The FTC imposed a \$50,000 civil penalty on Xanga as part of the

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75. See *RockYou And The FTC: Privacy Policies Vs. Practices*, LAW360 (May 10, 2012), <https://www.law360.com/articles/338909/rockyou-and-the-ftc-privacy-policies-vs-practices> [<https://perma.cc/PJJ9-LGT8>].

76. Press Release, Fed. Trade Comm'n, *FTC Charges That Security Flaws in RockYou Game Site Exposed 32 Million E-Mail Addresses and Passwords* (March 27, 2011), <https://www.ftc.gov/news-events/press-releases/2012/03/ftc-charges-security-flaws-rockyou-game-site-exposed-32-million> [<https://perma.cc/J97A-W7B4>].

77. See *id.*

78. See *id.*

79. *RockYou Settles FTC Data Protection Charges, Agrees to COPPA Rule Penalty*, BLOOMBERG BNA: ELECTRONIC COMMUNICATIONS & LAW REPORT (Apr. 19, 2012).

80. See *id.*

81. See *RockYou And The FTC: Privacy Policies Vs. Practices*, *supra* note 75 (providing background leading to settlement).

82. See Press Release, Fed. Trade Comm'n, *Mobile Apps Developer Settles FTC Charges It Violated Children's Privacy Rule* (Aug. 15, 2011), <https://www.ftc.gov/news-events/press-releases/2011/08/mobile-apps-developer-settles-ftc-charges-it-violated-childrens> [<https://perma.cc/KD5H-4PFR>] (describing basis for lawsuit).

settlement agreement.<sup>83</sup> In *United States v. Playdom, Inc.*<sup>84</sup> the virtual world of Playdom was assessed \$3 million for collecting and disclosing personal information from hundreds of thousands of children under age thirteen without their parents' prior consent.<sup>85</sup> In 2012, the FTC filed several enforcement actions against mobile applications for violating COPPA's disclosure requirements.<sup>86</sup> Hong Kong company Vtech was fined \$650,000 for violating COPPA and "failing to take reasonable steps to secure the data it collected," in the FTC's first case against a foreign toy maker.<sup>87</sup> The FTC action against VTech arose out of a major cybersecurity breach that comprised millions of children's personal information.<sup>88</sup>

### 3. Applying COPPA to Internet-Connected Toys

Internet-connected toys record users' data and share this information with company databases in order to provide a stimulating playtime experience. As the Federal Bureau of Investigation (FBI) notes, this acquisition of information inadvertently provided by child users and their parents raises privacy and security issues.<sup>89</sup> Smart toy makers have an affirmative obligation to obtain

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83. *See id.* (describing terms of settlement).

84. *See* No. SACV11-00724 (C.D. Cal. May 11, 2011).

85. *See* Press Release, Fed. Trade Comm'n, Operators Of Online "Virtual Worlds" To Pay \$3 Million To Settle FTC Charges That They Illegally Collected And Disclosed Children's Personal Information (May 12, 2011), <https://www.ftc.gov/news-events/press-releases/2011/05/operators-online-virtual-worlds-pay-3-million-settle-ftc-charges> [<https://perma.cc/HDX2-HJCK>].

86. *See* FED. TRADE COMM'N, PROTECTING CONSUMER PRIVACY IN AN ERA OF RAPID CHANGE: RECOMMENDATIONS FOR BUSINESSES AND POLICYMAKERS ii (2012), <https://www.ftc.gov/sites/default/files/documents/reports/federal-trade-commission-report-protecting-consumer-privacy-era-rapid-change-recommendations/120326privacyreport.pdf> [<https://perma.cc/2L8J-LQ7D>].

87. *See* Melanie Ehrenkranz, *Smart Toy Maker to Pay \$650,000 After Millions of Kids Get Hacked*, GIZMODO (Jan. 8, 2018), <https://gizmodo.com/smart-toy-maker-to-pay-650-000-after-millions-of-kids-1821878827> [<https://perma.cc/L96K-JJCV>].

88. *See id.*

At the end of 2015, details about a massive security breach at VTech emerged, revealing that hackers broke into the company's servers, gaining access to the customer accounts of almost five million parents and over six million children worldwide. The personal information included names, emails, passwords, download histories, and home addresses of parents, and the first names, genders, and birthdays of kids. The hackers were also able to download about 190 GBs of photos from VTech's Kid Connect app—the images were reportedly head shots that the company lets users take and send through the chat app.

*Id.*

89. FED. BUREAU OF INVESTIGATION, *supra* note 24 (discussing risks to vulnerable children). The FBI identifies several potential risks to vulnerable children:

Personal information (e.g., name, date of birth, pictures, address) is typically provided when creating user accounts. In addition, companies collect large amounts of additional data, such as voice messages, conversation recordings, past and real-time physical locations, Internet use history, and Internet addresses/IPs. The exposure of such information could create opportunities for child identity fraud. Additionally, the potential misuse of sensitive data such as GPS location information, visual identifiers

verifiable consent prior to collecting children's personal data.<sup>90</sup> This means making any reasonable effort—taking into consideration available technology—to ensure that before personal information is collected from a child, a parent of the child “[r]eceive[s] notice of the operator’s personal information collection, use, and disclosure practices; and . . . authorizes any collection, use, and/or disclosure of the personal information.”<sup>91</sup> Smart toy makers must comply with COPPA if they collect individually identifiable information about an individual collected online, including:

- (1) A first and last name;
- (2) A home or other physical address including street name and name of a city or town;
- (3) Online contact information as defined in this section [an e-mail address or other online contact information, including but not limited to an instant messaging user identifier, or a screen name that reveals an individual’s e-mail address];
- (4) A screen or user name where it functions in the same manner as online contact information, as defined in this section;
- (5) A telephone number;
- (6) A Social Security number;
- (7) A persistent identifier, such as a customer number held in a cookie or a processor serial number, where such identifier is associated with individually identifiable information; or a combination of a last name or photograph of the individual with other information such that the combination permits physical or online contacting;
- (8) A photograph, video, or audio file where such file contains a child's image or voice;
- (9) Geolocation information sufficient to identify street name and name of a city or town; or

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from pictures or videos, and known interests to garner trust from a child could present exploitation risks

*Id.*

90. See *Children’s Privacy Protection Rule: A Six-Step Compliance Plan for Your Business*, FED. TRADE COMMISSION (June 2017), <https://www.ftc.gov/tips-advice/business-center/guidance/childrens-online-privacy-protection-rule-six-step-compliance> [<https://perma.cc/6THF-2WGB>] (outlining process for companies to comply with COPPA and FTC rules). The FTC requires parental consent before collecting and using a child’s personal information. See *id.* Nevertheless, there are narrow exceptions to this rule. See *id.* (explaining limited circumstances to collect information included to protect child’s safety or to reach parents).

91. See 16 C.F.R. § 312.2 (2018).

- (10) Information concerning the child or the parents of that child that the operator collects online from the child and combines with an identifier described in this definition.<sup>92</sup>

Much of the information-connected toys collect fall under the provisions of COPPA.<sup>93</sup> Part III will illustrate the one-sided ToU of the most popular Internet-connected toys to illustrate the need for legislation to strengthen protections for U.S. children.<sup>94</sup>

### III. TOU FOR FIVE LEADING TOYS

Prior empirical research has focused on children's privacy and the security of the Internet of Toys, while this Article focuses on consumer issues in toy makers' ToU. This Part presents the first critical analysis of smart toy agreements for five popular items in the market to determine whether reforms are needed to enhance protections for the users of the products this rapidly expanding industrial sector produces.<sup>95</sup>

#### A. Sample of Five Leading Smart Toys

This study of the Internet of Toys ToU is based on a sample of four of the five best-selling smart toys on Amazon in 2018.<sup>96</sup> Two of the smart toys were manufactured and marketed by Anki: Overdrive and Cozmo.<sup>97</sup> The second pair

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92. *Id.*; see also FED. BUREAU OF INVESTIGATION, *supra* note 24. The FBI warns that:

Smart toys and entertainment devices for children are increasingly incorporating technologies that learn and tailor their behaviors based on user interactions. These toys typically contain sensors, microphones, cameras, data storage components, and other multimedia capabilities—including speech recognition and GPS options. These features could put the privacy and safety of children at risk due to the large amount of personal information that may be unwittingly disclosed.

FED. BUREAU OF INVESTIGATION, *supra* note 24.

93. See 16 C.F.R. § 312.

Personal information (e.g., name, date of birth, pictures, address) is typically provided when creating user accounts. In addition, companies collect large amounts of additional data, such as voice messages, conversation recordings, past and real-time physical locations, Internet use history, and Internet addresses/IPs. The exposure of such information could create opportunities for child identity fraud. Additionally, the potential misuse of sensitive data such as GPS location information, visual identifiers from pictures or videos, and known interests to garner trust from a child could present exploitation risks.

3 CYBERCRIME & SECURITY § 13A:36 (Pauline C. Reich ed., 2019).

94. See *infra* Part III.

95. See *infra* Section III.A.

96. See Latest Tech, *5 Best Selling Smart Toys on Amazon 2018*, YOUTUBE (Apr. 30, 2018), [https://www.youtube.com/watch?v=VvAGy0O\\_IoI](https://www.youtube.com/watch?v=VvAGy0O_IoI) [<https://perma.cc/V25Y-B9KJ>].

97. See *Top 25 Artificial Intelligence Companies*, 7DATA, <https://www.7data.be/big-data/top-25-artificial-intelligence-companies/> [<https://perma.cc/BTS9-Z22S>] (discussing top five toys in 2018).

of toys in the sample were made by Sphero: Force Band & Sphero Mini.<sup>98</sup> Aura Drone, the fifth Internet-connected toy in our sample, was dropped from the analysis because the ToU were not available online and the company did not respond to my request for a link to their standard form contracts. This product was replaced by Hello Barbie, perhaps the most famous smart toy in history.<sup>99</sup> However, despite the marketing prowess of Mattel and the name recognition of the Barbie doll line of products, a concerted campaign by consumer groups, which focused on the “creepy” aspects of a doll that monitored children, crippled sales.<sup>100</sup>

## B. Anki’s Overdrive & Cozmo

### 1. Anki’s Overdrive

Anki is the third ranked artificial intelligence company in the United States.<sup>101</sup> Anki describes its Overdrive “as a self-aware robot, driven by powerful artificial intelligence (AI) and equipped with deadly strategy.”<sup>102</sup> The race car employs AI to battle the user, becoming more skilled as the driver tactics improve.<sup>103</sup> Reviewers are impressed with Anki Overdrive’s seamless integration with smartphones, letting those devices control the race car.<sup>104</sup> Another reviewer enthusiastically endorses Anki Drive as a mini version of a self-driving car that should not be “dismissed as a toy”.<sup>105</sup>

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Anki is dedicated to bringing consumer robotics into everyday life through its Cozmo and Anki Overdrive products. Cozmo is Anki’s flagship robot. Cozmo has been described as one of the most sophisticated consumer robots to date due to its emotional responses while Overdrive is a car racing game complete with track.

*Id.*

98. See *Products*, SPHERO, <https://www.sphero.com/products> [<https://perma.cc/33TR-VCEU>] (providing description of many Internet-connected products Sphero produces).

99. See *About the Product*, MATTEL, <http://helloworldbarbiefaq.mattel.com/about-hello-barbie/> [<https://perma.cc/S3TJ-LJE3>].

100. See *You Did It! Hello Barbie Is a Flop*, CAMPAIGN FOR COM.-FREE CHILDHOOD, <https://commercialfreechildhood.org/blog/you-did-it-hello-barbie-flop> [<https://perma.cc/2Q47-AXEF>].

101. See Andy Patrizio, *Top 25 Artificial Intelligence Companies*, DATAMATION, <https://www.datamation.com/applications/top-25-artificial-intelligence-companies.html> [<https://perma.cc/SCK5-LB5N>] (listing top artificial intelligence companies).

102. See *Anki-Overdrive*, WELCOMEAI, <https://www.welcome.ai/tech/robotics/anki-overdrive> [<https://perma.cc/K7KR-G9QH>] (detailing Overdrive’s features).

103. See *id.* “Whatever track you build, they’ll learn it. Wherever you drive, they’ll hunt you down. The better you play, the better they become. . . . And with continuous software updates, the gameplay always stays fresh.” *Id.*

104. See Dan Moren, *With Anki Overdrive, You Can Race Toy Cars Anywhere: Modular Tracks Let You Build out More Racing Scenarios*, POPULAR SCI. (Feb. 12, 2015), <https://www.popsci.com/anki-overdrive-kicks-next-gen-race-cars-high-gear/> [<https://perma.cc/68VH-RWYA>].

105. See John Brownlee, *The Clever Hack that Let a Toymaker Bring Robot Cars to Market 20 Years Early*, FAST CO. (Nov. 11, 2013), <https://www.fastcompany.com/3021039/the-clever-hack-that-let-a-toymaker-bring-robot-cars-to-market-20-years> [<https://perma.cc/9YF3-5JZL>].

## 2. Anki's Cozmo

Anki's Cozmo is a toy robot that utilizes artificial intelligence to learn increasingly sophisticated behavioral repertoires as it responds to cues gathered while being used. Anki describes the smart toy as "a playful, intelligent, and seemingly sentient being that is aware of people and its surroundings."<sup>106</sup> Anki advertises this Internet-connected toy as "a gifted little guy with a mind of his own. He's a real-life robot like you've only seen in movies, with a one-of-a-kind personality that evolves the more you hang out."<sup>107</sup> Cozmo's learning abilities are described as promising "a level of emotional engagement far beyond anything we've seen before."<sup>108</sup> The toy's interactive capacity is said to make it behave more like a child's buddy rather than a mere plaything.<sup>109</sup>

### C. Sphero's Force Band and Sphero Mini

#### 1. Force Band

The robotics company, Sphero, produces the Force Band, a "wrist-worn gadget that lets owners use Jedi-style hand gestures to control the adorable ball-shaped droid."<sup>110</sup> This wrist-watch sized device incorporates "movement sensors, a speaker and a light-up button used to power it on and off and select different play modes."<sup>111</sup> The user simply taps the band in order to "sync it to the tiny droid, use a wrist-twisting motion to orient the wee bot's facing, and then send it to and fro with pushing and pulling gestures."<sup>112</sup> The device is "designed to evoke a feeling of using the Force to control the robot, and guiding it from

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The way Anki cars see the road around them may differ, but that's just the input. "Anki cars drive themselves using the same class of algorithms that Google uses for its fleet of driverless cars," says Sofman. Just like GPS, radars, or lasers, Anki's track is just another way of seeing. It's teaching a car to understand what it's seeing that is the hard part, and by going cheap and simple, the holiday season's hottest toy may have just jumped self-driving cars to market by 10 or 20 years. What's cooler than that?

*Id.*

106. See Dean Takahashi, *Anki's Next Smart Toy is an A.I. Robot Named Cozmo*, VENTUREBEAT (June 27, 2016), <https://venturebeat.com/2016/06/27/ankis-next-smart-toy-is-an-a-i-robot-named-cozmo/> [<https://perma.cc/RfZ8-FUEZ>] (introducing capabilities of new smart toy).

107. *Meet Cozmo*, ANKI, <https://www.anki.com/en-us/cozmo> [<https://perma.cc/D9U2-6BU8>] (advertising intelligent smart robot designed for children to trust and befriend).

108. See Dan Jolin, *Would You Want a Robot to be Your Child's Best Friend?*, GUARDIAN (Sept. 10, 2017), <https://www.theguardian.com/technology/2017/sep/10/should-robot-be-your-childs-best-friend> [<https://perma.cc/S3AK-96AL>] (addressing issue of children building relationships with "artificial buddies").

109. See *id.* (explaining real attributes of toy)

110. See Steve Tilley, *Control Your BB-8 Droid with the Star Wars Force Band*, TORONTO SUN (Sept. 1, 2016), <https://torontosun.com/2016/09/01/control-your-bb-8-droid-with-the-star-wars-force-band/wcm/579f2c76-fd62-408e-a6d7-fdcb47b77692> [<https://perma.cc/BQ8L-LGGF>].

111. See *id.* (explaining forceband features).

112. *Id.*

place to place with a simple wave. It works using motion controls via the accelerometer in the watch, which will work with the app via Bluetooth.”<sup>113</sup>

## 2. *Sphero Mini Robot Ball*

Sphero’s Mini Sphere is an app-enabled robotic ball that can “drive, play games, learn to code, and more.”<sup>114</sup> This ping pong ball-sized device controlled by smartphones can be used to encourage children to learn STEM skills.<sup>115</sup> A feature called Face Drive allows the user to control the robot to track facial expressions “and head movements to control the robot.”<sup>116</sup> Like the other advanced Internet-connected toys, this device is designed to behave as if it were an active playmate rather than a passive toy.<sup>117</sup>

### D. *Mattel’s Hello Barbie*

Hello Barbie features a microphone speaker and tri-color LED lights in the doll’s embedded necklace.<sup>118</sup> The child presses and holds down Barbie’s belt buckle to activate speech recognition. This smart doll is the most recent iteration of “one of the most successful children’s toys of all time.”<sup>119</sup> “Produced by the American company Mattel, ‘Hello Barbie’ marked the product line’s first foray into the world of connected toys.”<sup>120</sup> Toytalk, the provider of the software used

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113. See Dieter Bohn, *Sphero’s Force Band Wearable Can Control Nearly Anything Now Thanks to IFTTT*, VERGE (Nov. 14, 2016), <https://www.theverge.com/circuitbreaker/2016/11/24/13741608/sphero-force-band-control-ifttt-bb-8-smart-home> [<https://perma.cc/Y955-5H4P>] (identifying motions to control droid movement).

114. See *Sphero Mini*, SPHERO, <https://www.sphero.com/sphero-mini> [<https://perma.cc/56H4-465K>] (describing robotic app-enabled ball).

115. See Trevor Daugherty, *Sphero Mini Robot Ball Delivers STEM-Focused Activities, Now \$39 (Reg. \$50)*, 9TO5TOYS (Oct. 1, 2018), <https://9to5toys.com/2018/10/01/sphero-mini-robot-ball/> [<https://perma.cc/49DG-9YMY>] (describing benefits of toy to children).

116. See Lance Ulanoff, *Sphero: Adorable, Cheap, and You Can Control it with Your Face*, MASHABLE (Sept. 29, 2017), <https://mashable.com/2017/09/29/sphero-mini-hands-on/#BNe0Cnv7v5q2> [<https://perma.cc/99K4-TRBE>].

117. See *id.* A reviewer reported: “The app immediately locked onto my face and when I smiled, Sphero Mini took off. A frown brought it racing back. I turned [m]y head left and the robot headed left and when I turned it right, the robot when right.” See *id.*

118. See *About the Product*, *supra* note 99 (describing features of toy).

119. See Dominic Basulto, *How Artificial Intelligence is Moving from the Lab to Your Kid’s Playroom*, WASH. POST (Oct. 15, 2015), [https://www.washingtonpost.com/news/innovations/wp/2015/10/15/how-artificial-intelligence-is-moving-from-the-lab-to-your-kids-playroom/?noredirect=on&utm\\_term=.f4f3cb8afa0a](https://www.washingtonpost.com/news/innovations/wp/2015/10/15/how-artificial-intelligence-is-moving-from-the-lab-to-your-kids-playroom/?noredirect=on&utm_term=.f4f3cb8afa0a) [<https://perma.cc/XA6F-TLNQ>].

120. FORBRUKERRÅDET, *supra* note 57, at 7.

by Hello Barbie, claims to meet all COPPA Rule requirements.<sup>121</sup> According to the NCC, this smart toy is more secure than its rival products Cayla and i-Que.<sup>122</sup>

### *E. Analysis of ToU in the IoCT*

The standard form contract analysis consists of a systematic study of the key contractual clauses drafted by the three companies for the consumer marketplace. These contracts purport to bind the end user that purchases smart toys. The five of the best selling smart toys of 2018 are included in the sample, namely Anki, (which produces both Anki Overdrive and Cozmo) Sphero, (which produces both Force Band and Mini Sphere) and Mattel's Hello Barbie.<sup>123</sup>

Chart 1 provides a synoptic sketch of the one-sided nature of the ToU for five of the bestselling Internet of Toys' products.<sup>124</sup> It demonstrates that 100% of the smart toy makers employ arbitration to circumvent damages lawsuits in courts.<sup>125</sup> Three out of five customers of these popular smart toys agree to class action waivers so they cannot join other aggrieved consumers in a collective lawsuit.<sup>126</sup> This is significant because all five providers cap monetary damages at an amount that is far less than the cost of filing a consumer arbitration claim.<sup>127</sup> In short, chart 1 confirms that smart toy makers have what is, in effect, a liability-free zone.

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121. See *ToyTalk Statement About Hello Barbie*, TOYTALK (July 21, 2015), <https://support.toytalk.com/customer/portal/articles/1914510-toytalk-statement-about-hello-barbie> [<https://perma.cc/74S2-8M7E>] (explaining Hello Barbie's emphasis on privacy).

ToyTalk has been leading the field of conversation as entertainment for the whole family since the company was founded almost four years ago. We are very excited to be partnering with Mattel to create Hello Barbie and to fulfill a dream of children everywhere to talk to their toys and have them talk back.

ToyTalk technology was designed from day one with privacy and security in mind. Our products meet or exceed the requirements of the [COPPA] and have been certified as such by the independent verification program kidSAFE+. As parents ourselves, with a career-long commitment to family entertainment, safety is a priority for the company. Conversations recorded through ToyTalk's products are never used for advertising, marketing, or publicity purposes.

*Id.*

122. See FORBRUKERRÅDET, *supra* note 57, at 7 (highlighting differences between Hello Barbie and other toys using recorded voices).

Hello Barbie does not connect to third party websites to find answers to children's questions. Instead, the doll comes exclusively with pre-recorded phrases and conversational tidbits that are supposed to adapt to what children are saying. As will be elaborated upon in the analysis below, ToyTalk also uses the recorded children's voice data in order to improve and research their speech technologies.

*Id.*

123. See Latest Tech, *supra* note 96 (listing top five toys on Amazon).

124. See *infra* Chart 1.

125. See *infra* Chart 1 (highlighting anti-class action steps by smart toys).

126. See *infra* Chart 1.

127. See *infra* Chart 1 (informing caps on damages of smart toys).

<b>Chart 1. Rights Foreclosure Clauses in Smart Toy Agreements</b>			
<b>Smart Toy Products</b>	<b>Arbitration Clause</b>	<b>Class Action Waiver</b>	<b>Caps on Damages</b>
Anki Overdrive and Anki Cozmo <sup>128</sup>	Yes, JAMS. <sup>129</sup>	Yes, arbitration must be conducted as an individual and not as a class. <sup>130</sup>	\$100 cap or amount paid to the exclusion of all other damages. <sup>131</sup>

128. See *Terms of Use*, ANKI ¶ 17 (Oct. 5, 2018), <https://www.anki.com/en-us/company/terms-and-conditions> [<https://perma.cc/3YUG-HGT2>] [hereinafter *Anki Terms of Use*].

This is a binding contract between you and Anki, Inc. (with its affiliates, “Anki”, “we” and “us”) and describes the rules and restrictions that apply to our websites, products, and services, including the Anki OVERDRIVE, Cozmo, and Vector devices and their associated applications (the “Services”). **Please read these Terms carefully. These Terms include information about future changes to these Terms, limitations of liability, a class action waiver, and resolution of disputes by arbitration instead of by litigation in court.**

*Id.*

129. See *id.* ¶ 17 (binding parties and describing terms).

PLEASE READ THE FOLLOWING SECTION CAREFULLY BECAUSE IT REQUIRES YOU TO ARBITRATE CERTAIN DISPUTES AND CLAIMS WITH ANKI AND LIMITS THE MANNER IN WHICH YOU CAN SEEK RELIEF FROM US.

Any dispute arising out of or relating to the subject matter of these Terms shall be finally settled by binding arbitration in San Francisco County, California. The arbitration will proceed in the English language, in accordance with the Streamlined Arbitration Rules and Procedures of Judicial Arbitration and Mediation Services, Inc. (“JAMS”) then in effect, by one commercial arbitrator with substantial experience in resolving intellectual property and commercial contract disputes, who shall be selected from the appropriate list of JAMS arbitrators in accordance with such Rules. Judgment upon the award rendered by such arbitrator may be entered in any court of competent jurisdiction. Notwithstanding the foregoing obligation to arbitrate disputes, each party shall have the right to pursue injunctive or other equitable relief at any time, from any court of competent jurisdiction. Furthermore, either you or Anki may assert claims, if they qualify, in small claims court in San Francisco County, California or any United States county where you live or work.

*Id.*

130. See *id.*

**Any arbitration under these Terms will take place on an individual basis: class arbitrations and class actions are not permitted. YOU ACKNOWLEDGE AND AGREE THAT BY ENTERING INTO THESE TERMS, YOU AND ANKI ARE EACH WAIVING THE RIGHT TO TRIAL BY JURY OR TO PARTICIPATE IN A CLASS ACTION TO THE FULLEST EXTENT ALLOWED BY APPLICABLE LAW.**

*Id.*

131. See *id.* ¶ 13.

Force Band <sup>132</sup> and Mini Sphere <sup>133</sup>	If claimant is seeking less than \$10,000, claimant may choose binding nonappearance arbitration. <sup>134</sup>	None.	\$50 cap or amount paid by claimant to Sphero for the past 12 months. <sup>135</sup>
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TO THE FULLEST EXTENT ALLOWED BY APPLICABLE LAW, UNDER NO CIRCUMSTANCES AND UNDER NO LEGAL THEORY (INCLUDING, WITHOUT LIMITATION, TORT, CONTRACT, STRICT LIABILITY, OR OTHERWISE) SHALL ANKI (OR ITS LICENSORS OR SUPPLIERS) BE LIABLE TO YOU OR TO ANY OTHER PERSON FOR (A) ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY KIND, INCLUDING DAMAGES FOR LOST PROFITS, LOSS OF GOODWILL, WORK STOPPAGE, ACCURACY OF DATA OR RESULTS, OR COMPUTER FAILURE OR MALFUNCTION, (B) PERSONAL INJURY OR PROPERTY DAMAGE, OF ANY NATURE WHATSOEVER, RESULTING FROM YOUR ACCESS TO AND USE OF THE SERVICES OR THE RESULTS THAT MAY BE OBTAINED FROM USE OF THE SERVICES, OR (C) ANY AMOUNT, IN THE AGGREGATE, IN EXCESS OF THE GREATER OF (I) \$100 OR (II) THE AMOUNTS PAID BY YOU TO ANKI IN CONNECTION WITH THE SERVICES IN THE TWELVE (12) MONTH PERIOD PRECEDING THIS APPLICABLE CLAIM, OR (C) ANY MATTER BEYOND OUR REASONABLE CONTROL. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF CERTAIN DAMAGES, SO THE ABOVE LIMITATION AND EXCLUSIONS MAY NOT APPLY TO YOU.

*Id.*

132. *See Terms of Use*, SPHERO (Nov. 16, 2017), <https://www.sphero.com/about/terms-of-use/> [<https://perma.cc/BD6X-JVQB>] [hereinafter *Sphero Terms of Use*] (detailing legally binding terms).

133. *See id.*

134. *See id.* (describing when claimant can choose arbitration).

For any claim where the total amount of the award sought is less than \$10,000 USD, the party requesting relief may choose to resolve the dispute through binding non-appearance-based arbitration in accordance with the following: (i) the arbitration will be provided through a nationally-recognized alternative dispute resolution provider mutually agreed upon by the parties; (ii) the arbitration will be conducted in one or more of the following manners at the option of the party initiating arbitration: telephone, online, or written submissions; (iii) the arbitration will not involve any personal appearances by the parties or witnesses unless otherwise agreed by the parties; and (iv) any judgment on the award rendered by the arbitrator may be entered in any court of competent jurisdiction.

*Id.*

135. *See id.* ¶ 8.

IN NO EVENT SHALL WE (OR OUR SUPPLIERS) BE LIABLE TO YOU OR ANY THIRD PARTY FOR ANY LOST PROFIT OR ANY INDIRECT, CONSEQUENTIAL, EXEMPLARY, INCIDENTAL, SPECIAL OR PUNITIVE DAMAGES ARISING FROM OR RELATING TO THIS AGREEMENT OR YOUR USE OF, OR INABILITY TO USE, THE SITE OR SERVICES, EVEN IF WE HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. ACCESS TO, AND USE OF, THE SITE AND SERVICES ARE AT YOUR OWN DISCRETION AND RISK, AND YOU WILL BE SOLELY RESPONSIBLE FOR ANY DAMAGE TO YOUR COMPUTER SYSTEM OR LOSS OF DATA RESULTING THEREFROM.

NOTWITHSTANDING ANYTHING TO THE CONTRARY CONTAINED HEREIN, OUR LIABILITY TO YOU FOR ANY DAMAGES ARISING FROM OR RELATED TO THIS

Hello Barbie <sup>136</sup>	Yes, Predispute mandatory arbitration <sup>137</sup>	Yes <sup>138</sup>	Total cap on damages of \$0; Elimination of every category of monetary damages. <sup>139</sup>
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AGREEMENT (FOR ANY CAUSE WHATSOEVER AND REGARDLESS OF THE FORM OF THE ACTION), WILL AT ALL TIMES BE LIMITED TO THE GREATER OF (A) FIFTY US DOLLARS (\$50); OR (B) AMOUNTS YOU HAVE PAID SPHERO IN THE PRIOR 12 MONTHS (IF ANY). THE EXISTENCE OF MORE THAN ONE CLAIM WILL NOT ENLARGE THIS LIMIT. YOU AGREE THAT OUR SUPPLIERS WILL HAVE NO LIABILITY OF ANY KIND ARISING FROM OR RELATING TO THIS AGREEMENT.

SOME JURISDICTIONS DO NOT ALLOW THE LIMITATION OR EXCLUSION OF LIABILITY FOR INCIDENTAL OF CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

*Id.*

136. See *Hello Barbie™/Barbie Hello Dreamhouse™ Companion App Terms of Use*, TOYTALK (Sept. 9, 2016), <https://www.toytalk.com/hellobarbie/terms/> [<https://perma.cc/N3V3-JZLD>] [hereinafter *Hello Barbie Terms of Use*].

137. See *id.* (mandating arbitration except in certain specific circumstances).

PLEASE READ THE FOLLOWING PARAGRAPH CAREFULLY BECAUSE IT REQUIRES YOU TO ARBITRATE DISPUTES WITH TOYTALK AND IT LIMITS THE MANNER IN WHICH YOU CAN SEEK RELIEF FROM TOYTALK.

You and ToyTalk agree to arbitrate any dispute arising from the Terms or relating to the Services, the Companion Apps or the Barbie Products, except that You and ToyTalk are not required to arbitrate any dispute in which either party seeks equitable or other relief for the alleged unlawful use of copyrights, trademarks, trade names, logos, trade secrets or patents. ARBITRATION PREVENTS YOU FROM SUING IN COURT OR FROM HAVING A JURY TRIAL.

You and ToyTalk agree that You will notify each other of any dispute within 30 days of when it arises, that You will attempt informal resolution prior to any demand for arbitration, that any arbitration will occur in San Francisco, California and that arbitration will be conducted confidentially by a single arbitrator in accordance with the Rules of the American Arbitration Association. You and ToyTalk also agree that the state or federal courts in San Francisco County, California have exclusive jurisdiction over any appeals of an arbitration award and over any suit between the parties not subject to arbitration. Other than class procedures and remedies discussed below, the arbitrator has the authority to grant any remedy that would otherwise be available in court.

*Id.*

138. See *id.* “WHETHER THE DISPUTE IS HEARD IN ARBITRATION OR IN COURT, YOU AND TOYTALK WILL NOT COMMENCE AGAINST THE OTHER A CLASS ACTION, CLASS ARBITRATION OR OTHER REPRESENTATIVE ACTION OR PROCEEDING.” *Id.*

139. See *id.* (prohibiting all class actions, class arbitrations, and other representative actions or proceedings).

TO THE EXTENT NOT PROHIBITED BY LAW, IN NO EVENT WILL TOYTALK BE LIABLE TO YOU OR ANY THIRD PARTY FOR ANY DIRECT, INCIDENTAL, SPECIAL, INDIRECT, CONSEQUENTIAL, EXEMPLARY, OR PUNITIVE DAMAGES WHATSOEVER, ARISING OUT OF OR RELATED TO THE SERVICES, THE COMPANION APPS, THE BARBIE PRODUCTS, THE TOYTALK MATERIAL, ANY TOYTALK PRODUCTS OR SERVICES, THE RECORDINGS, THIRD PARTY SITES OR THIRD PARTY TRADEMARKS, HOWEVER CAUSED, REGARDLESS OF THE THEORY OF LIABILITY (CONTRACT, WARRANTY, TORT

### F. Bad Wrappers: Imbalanced ToU

The term “wrap contract” describes Internet-related contracting forms such as browsewrap,<sup>140</sup> clickwrap,<sup>141</sup> or shrinkwrap.<sup>142</sup> Nancy Kim describes the term “wrap contract” to mean “a blanket term to refer to a unilaterally imposed set of terms which the drafter purports to be legally binding and which is presented to the nondrafting party in a nontraditional format.”<sup>143</sup> By contrast, a “browsewrap” agreement is one where “website terms and conditions of use are posted on the website or web page . . . indicated as a hyperlink at the bottom of the page.”<sup>144</sup> The term “browsewrap” signifies a form of contracting that purports to bind website visitors even if they do not perform affirmative acts such as clicking “yes” to agree.<sup>145</sup>

#### 1. Anki’s Browsewrap

The term “browsewrap” signifies a form of contracting that purports to bind website visitors even if they do not perform affirmative acts such as clicking “yes” to agree.<sup>146</sup> Anki purports to bind the user to three contracts that appear on the smart toy’s website by simply accessing the provider’s services: the product’s ToU, Privacy Policy, and Copyright Dispute Policy are all presented as browsewrap, rather than requiring the users to click “I agree” to the terms of the

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(INCLUDING NEGLIGENCE, WHETHER ACTIVE, PASSIVE OR IMPUTED), PRODUCT LIABILITY, STRICT LIABILITY OR OTHER THEORY) AND EVEN IF TOYTALK HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THIS LIMITATION MAY NOT APPLY TO YOU.

*Id.*

140. See THOMAS KOENIG & MICHAEL RUSTAD, GLOBAL INFORMATION TECHNOLOGIES: ETHICS AND THE LAW 263-64 (2018). “A ‘browsewrap’ agreement is a standard form agreement, where website terms and conditions of use are posted on the website. Browsewrap terms . . . the user to manifest assent but contract formation is based on using the site.” *Id.*

141. See *Liberty Syndicates at Lloyd’s v. Walnut Advisory Corp.*, No. 09-1343, 2011 WL 5825777, at \*1 (D. N.J. Nov. 16, 2011). Clickwrap “collects all of the terms of the agreement into a single dialog box and then requires the user to affirmatively accept the agreement before proceeding, makes every term equally visible.” *Id.* at \*4.

142. See KOENIG & RUSTAD, *supra* note 140, at 259. “Shrinkwrap contracts are license agreements or other terms and conditions, which can only be read and accepted by the consumer after breaking open the shrinkwrap, the plastic or cellophane tightly wrapped around the software package.” *Id.*

143. See NANCY S. KIM, WRAP CONTRACTS: FOUNDATIONS AND RAMIFICATIONS 2 (2013).

144. See *id.* at 41 (defining browsewrap agreements).

145. See *Terms of Service*, FACEBOOK, <http://www.facebook.com/terms.php?ref=pf> [<https://perma.cc/FFA6-VJM9>]; see also *Fteja v. Facebook, Inc.*, 841 F. Supp. 2d 829, 835-36, 838-39 (S.D.N.Y. 2012) (enforcing forum selection clause in terms of service linked to webpage). Facebook, by far the largest social network site, structures its ToU as a browsewrap with the following introductory clause: “By using or accessing Facebook, you agree to this Statement.” See *Terms of Service*, *supra*; see also *Fteja*, 841 F. Supp. 2d at 838.

146. See *Copyright and IP Policy*, ANKI, <https://www.anki.com/en-us/company/copyright-and-ip-policy> [<https://perma.cc/PT2B-SJ7Y>]; *Anki Terms of Use*, *supra* note 128.

three contracts.<sup>147</sup> This “browsewrap” agreement is premised on a questionable manifestation of assent. Browsewrap terms do “not require the user to manifest assent to the terms and conditions expressly.” “Indeed, in a pure—form browsewrap agreement, ‘the website will contain a notice that—by merely using the services of, obtaining information from, or initiating applications within the website—the user is agreeing to and is bound by the site’s terms of service.’”<sup>148</sup>

Anki states that its ToU is a binding contract between the user and Anki and applies to all its products including Overdrive, Cozmo, Vector, and its other consumer products.<sup>149</sup> It is unlikely Anki’s consumer users would read any of the clauses in the browsewrap. A New York University Law School research team concluded that only one or two in a thousand consumers who accessed similar standard form contracts actually read any of its clauses.<sup>150</sup>

## 2. *Sphero’s Browsewrap*

Sphero also structures its ToU as a browsewrap, stating it is an enforceable contract if the consumer merely accesses their content:

These [ToU] (“Agreement”) set forth the legally binding terms for your use of the Site and Services. By accessing or using the Site or Services, you are accepting this Agreement (on behalf of yourself or the entity that you represent) and you represent and warrant that you have the right, authority, and capacity to enter into this Agreement (on behalf of yourself or the entity that you represent). IF YOU DO NOT AGREE WITH ALL OF THE PROVISIONS OF THIS AGREEMENT, DO NOT ACCESS AND/OR USE THE SITE OR SERVICES. Each of our products’ applications has its own [ToU], available in the respective application. In the event of any conflict between this Agreement and the terms of a product and/or application, the latter shall govern.<sup>151</sup>

Courts will generally determine whether a user has notice depending upon “the design and content of the website and the browsewrap agreement’s webpage.”<sup>152</sup> In both the Anki and Sphero agreements, the user is given notice early in the ToU, but the text is not conspicuous.

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147. See *Fteja*, 841 F. Supp. 2d at 837-38 (explaining browsewrap doctrine and providing general definition of browsewrap contracts).

148. See *id.* at 837 (quoting *United States v. Drew*, 259 F.R.D. 449, 462 n.22 (C.D. Cal. 2009)).

149. See *Anki Terms of Use*, *supra* note 128; *supra* Chart 1.

150. See *Aggressive Sales Tactics on the Internet and Their Impact on American Consumers: Hearing Before the Comm. on Commerce, Sci., & Transp.*, 111th Cong. 24 (2009) (statement of Florencia Marotta-Wurgler, Associate Professor, New York University School of Law) [hereinafter *Aggressive Sales Tactics Hearing*] (stating study examined behavior of 45,000 households with respect to sixty-six websites).

151. See *Sphero Terms of Use*, *supra* note 132.

152. See *Fteja v. Facebook, Inc.*, 841 F. Supp. 2d 829, 837 (S.D.N.Y. 2012) (describing factors taken into account when determining whether notice given).

### 3. *Hello Barbie's Browsewrap*

Hello Barbie's ToU is structured as a browsewrap hybrid because a user could be bound by merely using the site or doing an affirmative act such as downloading content:

THESE [ToU] (THE "TERMS") APPLY TO YOUR (AND YOUR CHILDREN'S) USE OF THE COMPANION APPS AND THE SERVICES.

PLEASE READ THE TERMS AND CONDITIONS OF THE TERMS CAREFULLY.

BY DOWNLOADING THE COMPANION APPS OR USING THE SERVICES, YOU ACKNOWLEDGE AND AGREE THAT: (I) YOU HAVE READ ALL OF THE TERMS AND CONDITIONS OF THE TERMS; (II) YOU UNDERSTAND ALL OF THE TERMS AND CONDITIONS OF THE TERMS; AND (III) YOU AGREE TO BE BOUND BY ALL OF THE TERMS AND CONDITIONS OF THE TERMS AND ALL APPLICABLE LAWS.

IF YOU DO NOT AGREE TO ALL OF THE TERMS AND CONDITIONS OF THE TERMS, TOYTALK IS UNWILLING TO GRANT YOU (OR YOUR CHILDREN) THE RIGHT TO USE THE COMPANION APPS AND THE SERVICES.

THE TERMS CONSTITUTE AN ENFORCEABLE AGREEMENT BY AND BETWEEN YOU AND TOYTALK.<sup>153</sup>

The browsewraps used by these smart toy makers is part of the creation of a "coercive contracting environment."<sup>154</sup> Such "wrap contracts" are known for "their aggressive terms."<sup>155</sup>

### 4. *The Rolling Contract*

The Internet-connected toys makers in this sample use the questionable technique of modifying or changing their service agreements after the contract has already been formed. U.S. courts have validated a "rolling" method of electronic contract formation, which is derived from the layered contract formation<sup>156</sup> where the provider receives payment before disclosing the terms.<sup>157</sup> With a rolling contract, a binding agreement may not occur at a single point in time. The recent trend in judicial decisions is that courts enforce "cash now, terms later" licenses so long as the licensor gives reasonable notice to the user

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153. See *Hello Barbie Terms of Use*, *supra* note 136.

154. See KIM, *supra* note 143, at 4.

155. See *id.*

156. See CLAYTON P. GILLETTE & STEVEN D. WALT, SALES LAW: DOMESTIC & INTERNATIONAL 93-94 (rev. ed. 2009) (describing rolling contracts as layered).

157. See BRIAN W. SMITH, FINANCIAL PRODUCTS & SERVICES 2-16 (2001); see also, Robert A. Hillman, *Rolling Contracts*, 71 *FORDHAM L. REV.* 743, 744 (2002).

and an opportunity to decline the terms. Cloud computing providers frequently use “rolling contract formation” clauses such as asserting the right to change the contract at any time without notice.<sup>158</sup>

Each of the smart toy providers, and Anki in particular, reserve the right to change terms at their sole discretion:

1. Changes. We may introduce new features, change or limit features (including by automatic update), update or remove Content, or restrict access to parts or all of the Services, without notice to you. We reserve the right to change the Terms by displaying the updated Terms at Anki.com or within the Services. By using the Services after a change to the Terms, you agree to all of the changes. This agreement, and any disclosures we make to you through the Services or via your registered email or other communications, are considered for legal purposes to be in writing.<sup>159</sup>

Sphero also structures its standard form as a rolling contract when it reserves the right, at any time, to modify, suspend, or discontinue the Site or Services or any part thereof with or without notice.<sup>160</sup> In doing so, the contract releases Sphero from liability to the user or any third party. Hello Barbie’s Modification of Terms clause also takes the form of a rolling contract:

ToyTalk reserves the right to change or modify any of the terms and conditions contained in the Terms, or any policy or guideline of the Services or the Companion Apps, at any time and in its sole discretion by posting the changes/modifications to these Terms, which will be accessible from the Hello Barbie and Hello Dreamhouse pages of the ToyTalk website . . . and it will also be accessible from the Companion Apps . . . . Your use of the Companion Apps after receipt of notice will constitute Your acceptance of the changes/modifications.<sup>161</sup>

The Uniform Computing Information Transactions Act (UCITA) validates “rolling contracts” if the person had reason to know that terms would come later, had a right to refund if he declined the terms, and manifested assent after an opportunity to review them.<sup>162</sup> UCITA gives consumers a right to a refund if they have not had an opportunity to review the terms.<sup>163</sup> None of the smart toy makers offer consumers a refund if they disagree with changes to their

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158. See Hillman, *supra* note 157, at 743-44 (explaining rolling contracts).

159. See Anki *Terms of Use*, *supra* note 128, ¶ 1, (listing changes terms).

160. See Sphero *Terms of Use*, *supra* note 132, ¶ 3.3.

161. See Hello Barbie *Terms of Use*, *supra* note 136.

162. See 2 RAYMOND T. NIMMER, INFORMATION LAW §11:147 (2018).

163. See *id.* (explaining conditions of consumers’ right to refund).

services.<sup>164</sup> One commentator dubs rolling contracts as “sneak wrap” because surprising terms are added after contract formation.<sup>165</sup>

*G. Substantively Unfair Terms in Smart Toy Standard Forms Contracts*

*1. Warranty Disclaimers*

Anki’s Overdrive and Cozmo completely disclaim all warranties of quality in the following clause of the October 5, 2018 ToU standard form contract:

Warranty Disclaimer. Neither Anki nor its licensors or suppliers makes any representations or warranties concerning any content contained in or accessed through the Services, and we will not be responsible or liable for the accuracy, copyright compliance, legality, or decency of material contained in or accessed through the Services. Use of the Services is at your own risk. EXCEPT AS OTHERWISE PROVIDED IN THE PRODUCTS WARRANTY SECTION ABOVE, THE SERVICES AND CONTENT ARE PROVIDED BY ANKI (AND ITS LICENSORS AND SUPPLIERS) ON AN “AS-IS” BASIS, WITHOUT WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, PERFORMANCE, RELIABILITY NONINFRINGEMENT, OR THAT USE OF THE SERVICES WILL BE UNINTERRUPTED OR ERROR-FREE. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.<sup>166</sup>

Anki uses a blanket disclaimer of all implied warranties when it offers its services “as is.”<sup>167</sup> Anki also claims to eliminate express warranties in the following subclause: “THE SERVICES AND CONTENT ARE PROVIDED BY ANKI (AND ITS LICENSORS AND SUPPLIERS) ON AN “AS-IS” BASIS,

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164. *See id.* (indicating consumers’ right to refund when unable to review contract).

165. *See* Ed Foster, “Sneak Wrap” May Be a Good Way of Defining the Maze of Online Policies, INFOWORLD, July 26, 1999, at 73, 73 (explaining “sneak wrap” allows vendor to change terms and “sneak” changes past consumer). The term “sneak wrap” refers to online ToU agreements. *See id.*

166. *See Anki Terms of Use, supra* note 128.

167. *See* U.C.C. § 2-316(3)(a) (AM. LAW INST. & UNIF. LAW COMM’N 2018).

(3) Notwithstanding subsection (2)[:] (a) unless the circumstances indicate otherwise, all implied warranties are excluded by expressions like “as is”, “with all faults” or other language which in common understanding calls the buyer’s attention to the exclusion of warranties and makes plain that there is no implied warranty . . . .

WITHOUT WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED.”<sup>168</sup>

## 2. *Express Warranties*

Express warranties about smart toys are any affirmation of fact or promise made by the device manufacturer relating to the toy’s functions.<sup>169</sup> Such warranties are analyzed using the “basis of the bargain” test.<sup>170</sup> Express warranties are not disclaimable because it would be fraudulent to make a statement about a digital product’s performance and then later disclaim it.<sup>171</sup> Anki attempts to disclaim express warranties made in the product literature, advertisements, and other marketing literature associated with the sales of these smart devices. Smart toy manufacturers create express warranties about their devices whenever they make definite statements about the toy’s performance in product packaging, banner advertisements, pop-up advertisements, and sales representations or demonstrations.

Website promotional materials, product descriptions, samples, or advertisements will also create express warranties and liability for smart toy makers. Anki acknowledges that their blanket disclaimer may not be enforceable in all jurisdictions. In Massachusetts, for example, any language used by a seller or manufacturer of consumer goods that attempts to disclaim the implied warranties of merchantability.<sup>172</sup> Massachusetts strictly prohibits attempts to eliminate implied warranties in consumer sales.<sup>173</sup> IoT makers that attempt to disclaim implied warranties entirely may be subject to liability under a state legislation prohibiting unfair and deceptive trade practices. Most states have enacted deceptive trade practices acts, sometimes referred to as “little FTC acts.” For example, Massachusetts’ Chapter 93A makes it is unlawful to engage in “unfair methods of competition and unfair or deceptive acts or practices.”<sup>174</sup> The statute provides double or treble damages and attorneys’ fees for unfair and deceptive trade practices.<sup>175</sup>

As with Anki, Sphero disclaims warranties, acknowledging that some jurisdictions do not permit complete disclaimers.<sup>176</sup> Hello Barbie’s disclaimer of

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168. See *Anki Terms of Use*, *supra* note 128, ¶ 12.

169. See MICHAEL L. RUSTAD, *GLOBAL INTERNET LAW* 273-74 (2d ed. 2016).

170. See *id.*

171. See *id.*

172. See MASS. GEN. LAWS ch. 106 § 2-316A(2) (2019). Noting that the provisions of section 2-316 shall not apply to the extent provided in this section but “[a]ny language, oral or written, used by a seller or manufacturer of consumer goods and services, which attempts to exclude or modify any implied warranties of merchantability and fitness for a particular purpose or to exclude or modify the consumer’s remedies for breach of those warranties, shall be unenforceable.” *Id.*

173. See *id.*

174. MASS. GEN. LAWS ch. 93A § 2.

175. See *id.* § 9.

176. See *Returns and Warranty*, SPHERO, <https://www.sphero.com/about/returns-and-warranty/> [https://pe

warranty clause is very difficult to read and requires an even slightly higher grade level.<sup>177</sup> The Hello Barbie's disclaimer clause states:

YOU EXPRESSLY ACKNOWLEDGE AND AGREE THAT YOUR USE OF THE COMPANION APPS, THE SERVICES AND THE BARBIE PRODUCTS ARE AT YOUR SOLE RISK. THE COMPANION APPS AND THE SERVICES ARE PROVIDED ON AN "AS IS" AND "AS AVAILABLE" BASIS. IN ADDITION, YOU ACKNOWLEDGE THAT THE BARBIE PRODUCTS THEMSELVES (EXCLUDING THE COMPANION APPS AND THE SERVICES) ARE NOT PROVIDED BY TOYTALK. TOYTALK DISCLAIMS ANY AND ALL WARRANTIES AND REPRESENTATIONS (EXPRESS OR IMPLIED, ORAL OR WRITTEN) WITH RESPECT TO THE TERMS, THE SERVICES, THE COMPANION APPS, THE BARBIE PRODUCTS, THE TOYTALK MATERIAL, ANY TOYTALK PRODUCTS AND SERVICES, THE RECORDINGS, THIRD PARTY SITES AND THIRD PARTY TRADEMARKS WHETHER ALLEGED TO ARISE BY OPERATION OF LAW, BY REASON OF CUSTOM OR USAGE IN THE TRADE, BY COURSE OF DEALING OR OTHERWISE, INCLUDING ANY AND ALL: (I) WARRANTIES OF MERCHANTABILITY; (II) WARRANTIES OF FITNESS OR SUITABILITY FOR ANY PURPOSE (WHETHER OR NOT TOYTALK KNOWS, HAS REASON TO KNOW, HAS BEEN ADVISED OR IS OTHERWISE AWARE OF ANY SUCH PURPOSE); AND (III) WARRANTIES OF NON-INFRINGEMENT OR CONDITION OF TITLE. TOYTALK DOES NOT WARRANT THAT: (A) THE FUNCTIONS CONTAINED IN THE SERVICES, THE COMPANION APPS OR THE BARBIE PRODUCTS WILL BE ACCURATE OR MEET YOUR REQUIREMENTS; (B) THE OPERATION OF THE SERVICES, THE COMPANION APPS OR THE BARBIE PRODUCTS WILL BE UNINTERRUPTED, ERROR-FREE OR ALWAYS AVAILABLE; OR (C) ANY DEFECTS IN THE SERVICES, THE COMPANION APPS OR THE BARBIE PRODUCTS WILL BE CORRECTED. NO ORAL OR WRITTEN INFORMATION, GUIDELINES OR ADVICE GIVEN BY TOYTALK OR ITS AUTHORIZED REPRESENTATIVE WILL CREATE A WARRANTY.<sup>178</sup>

The Hello Barbie warranty disclaimer eliminates every possible implied and express warranty leaving the child without any remedy for damages caused by their defective smart toy.<sup>179</sup> Unlike Anki and Sphero, this warranty disclaimer does not acknowledge that certain jurisdictions will not enforce complete disclaimers.<sup>180</sup>

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rma.cc/9ULX-TWWF] (indicating disclaimer policy of Sphero).

177. Hello Barbie's warranty disclaimer clause had a Flesch Reading Ease Score of 23.8, meaning it is "very confusing." The Kincaid Grade Level required to understand the warranty disclaimer clause in Hello Barbie's ToU was beyond that of a college graduate (20.6 years of education).

178. See *Hello Barbie Terms of Use*, *supra* note 136.

179. See *id.*

180. See *id.*

### 3. Readability of Warranty Disclaimers

The Flesch Reading Ease Score is a widely used method of assessing the readability of a document, utilized by several government agencies, including the Department of Defense.<sup>181</sup> The smart toy disclaimers are “very difficult to read” according to this measure, presumably making them incomprehensible to a child.<sup>182</sup> Anki’s warranty disclaimer clause had a Flesch Reading Ease score of 29.7, which indicates that this clause is “difficult to read.”<sup>183</sup> The Flesch-Kincaid grade-level indicated that, to understand the warranty disclaimer clause, a reader would need 15.1 years of schooling, which is inappropriate for consumer goods marketed to children.<sup>184</sup> Like Anki, Sphero’s ToU were also “very confusing.”<sup>185</sup> In fact, it would take a college graduate to read this clause. Under the Flesch grade level test, it is significantly less readable than Anki’s ToU.<sup>186</sup> This linguistic complexity will conceal from many users the fact that none of the toy manufacturers stand behind their smart devices should they fail, cause personal injury, or invade a child’s privacy.

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181. See *The Flesch Reading Ease Readability Formula*, READABILITY FORMULAS, <http://www.readabilityformulas.com/flesch-reading-ease-readability-formula.php> [<https://perma.cc/Q2DL-99GB>].

The Flesch Reading Ease Formula is a simple approach to assess the grade-level of the reader. It’s also one of the few accurate measures around that we can rely on without too much scrutiny. This formula is best used on school text. It has since become a standard readability formula used by many US Government Agencies, including the US Department of Defense. However, primarily, we use the formula to assess the difficulty of a reading passage written in English.

*Id.*

182. See *id.*

183. See Michael L. Rustad & Thomas H. Koenig, *Wolves of the World Wide Web: Reforming Social Networks’ Contracting Practices*, 49 WAKE FOREST L. REV. 1431, 1460 n.154 (2014).

The Flesch Readability Ease Scale ranges from zero (practically unreadable) to 100 (easy for any literate person). The higher the score the easier the text is to read. ‘Designations for easily understood material include 71-80 (‘fairly easy;’ 80% of adults), 81-90 (‘easy;’ 86% of adults), and 91-100 (‘very easy;’ 90% of adults).’ Higher scores indicate greater readability. A score of 60-69 is the standard score, while a score of 50-59 is difficult. A score of 30-49 is very difficult. Scores of 29 and below are very confusing.

*Id.* at 1460 tbl.3.

184. See *id.* “The Flesch-Kincaid test is a reformulation of the Flesch Reading Ease Score test that expresses its result in terms of the grade level a hypothetical reader should have achieved before the selected passage would be readable.” *Id.* at 1459 n.151 (quoting Ian Gallacher, “*When Numbers Get Serious*”: A Study of Plain English Usage in Briefs Filed Before the New York Court of Appeals, 46 SUFFOLK U. L. REV. 451, 458 (2013)).

185. See *id.* at 1460 tbl.3 (detailing categories of readability).

186. The Flesch Reading Ease score was 19.8, making it “very confusing.” The warranty disclaimer was written at a college graduate and above level, as the Flesch-Kincaid Grade Level was nearly 20 years of education (19.9).

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## H. Predispute Mandatory Arbitration Clauses in Smart Toy's ToU

### I. Anki's Arbitration Clause

Anki's Overdrive and Cozmo products are subject to a predispute mandatory arbitration clause that requires a consumer to arbitrate their claims according to JAMS rules and procedures:

Arbitration. PLEASE READ THE FOLLOWING SECTION CAREFULLY BECAUSE IT REQUIRES YOU TO ARBITRATE CERTAIN DISPUTES AND CLAIMS WITH ANKI AND LIMITS THE MANNER IN WHICH YOU CAN SEEK RELIEF FROM US.

Any dispute arising out of or relating to the subject matter of these Terms shall be finally settled by binding arbitration in San Francisco County, California. The arbitration will proceed in the English language, in accordance with the Streamlined Arbitration Rules and Procedures of Judicial Arbitration and Mediation Services, Inc. ("JAMS") then in effect, by one commercial arbitrator with substantial experience in resolving intellectual property and commercial contract disputes, who shall be selected from the appropriate list of JAMS arbitrators in accordance with such Rules. Anki has selected commercial arbitration as opposed to consumer arbitration rules, which have built-in protections.<sup>187</sup>

JAMS consumer due process protocols include:

1. The arbitration agreement must be reciprocally binding on all parties such that[:] (a) if a consumer is required to arbitrate his or her claims or all claims of a certain type, the company is so bound; and, (b) no party shall be precluded from seeking remedies in small claims court for disputes or claims within the scope of its jurisdiction.
2. The consumer must be given notice of the arbitration clause. Its existence, terms, conditions and implications must be clear.
3. Remedies that would otherwise be available to the consumer under applicable federal, state or local laws must remain available under the arbitration clause, unless the consumer retains the right to pursue the unavailable remedies in court.
4. The arbitrator(s) must be neutral and the consumer must have a reasonable opportunity to participate in the process of choosing the arbitrator(s).
5. The consumer must have a right to an in-person hearing in his or her hometown area.
6. The clause or procedures must not discourage the use of counsel.

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187. See *Anki Terms of Use*, *supra* note 128, ¶ 17 (detailing Anki's Arbitration Clause).

7. With respect to the cost of the arbitration, when a consumer initiates arbitration against the company, the only fee required to be paid by the consumer is \$250, which is approximately equivalent to current Court filing fees. All other costs must be borne by the company including any remaining JAMS Case Management Fee and all professional fees for the arbitrator's services. When the company is the claiming party initiating arbitration against the consumer, the company will be required to pay all costs associated with the arbitration.
8. In California, the arbitration provision may not require the consumer to pay the fees and costs incurred by the opposing party if the consumer does not prevail.
9. The arbitration provision must allow for the discovery or exchange of non-privileged information relevant to the dispute.
10. An Arbitrator's Award will consist of a written statement stating the disposition of each claim. The award will also provide a concise written statement of the essential findings and conclusions on which the award is based.<sup>188</sup>

Under JAMS consumer arbitration standards, smart toys maker would be responsible for arbitration costs.<sup>189</sup> JAMS makes it clear in point seven of its due process protocols that consumers are not responsible for paying the cost of the arbitrator or the hearing room.

The right to a fair and open hearing in which each party has reciprocal obligations is one of the rudiments of fair play in consumer arbitration proceedings. "The JAMS Minimum Standards (for both consumer arbitrations and employment arbitrations) contain an additional limitation on the scope of arbitration agreements, providing that arbitration agreements must be 'reciprocally binding.'"<sup>190</sup>

The Anki arbitration clauses do not specify the ground rules for arbitration.<sup>191</sup> The company does not include a hyperlink to the JAMS website where users could obtain basic information about costs and how arbitration works. JAMS asserts that it will administer consumer-to-business arbitrations only if the contract arbitration clause and specified applicable rules comport with the ten minimum principles of due process, making it unclear whether the designated arbiter would accept a dispute involving these products.<sup>192</sup>

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188. See *Consumer Arbitration Minimum Standards*, JAMS (July, 15, 2009), <https://www.jamsadr.com/consumer-minimum-standards/> [<https://perma.cc/2RTH-353X>] (listing ten arbitration standards of fairness).

189. See *id.* ¶ 7 (limiting consumer fees to \$250, approximate court filing fees).

190. See Christopher R. Drahozal & Samantha Zyontz, *Private Regulation of Consumer Arbitration*, 79 TENN. L. REV. 289, 306 (2012) (stating agreements must be reciprocally binding).

191. See generally *Anki Terms of Use*, *supra* note 128.

192. See *Consumer Arbitration Minimum Standards*, *supra* note 188 (discussing when JAMS will administer arbitrations).

Anki's arbitration clause has a Flesch Reading Ease score of 34.6, making it "difficult to read."<sup>193</sup> This clause is written at college graduate level, which makes it impossible for children—or many of their parents—to comprehend.<sup>194</sup> By incorporating predispute mandatory arbitration clauses into their terms of service, these toy makers systematically deprive consumers of their rights to discovery, jury trials, and appeals. Unbeknownst to them, consumers of smart devices that enter into clickwrap or browsewrap terms of service agreements similarly waive those same rights.

Anki's arbitration agreement does not give consumers minimal notice of these waived rights, nor does it provide a link to JAMS so that consumers can understand the basic ground rules for conducting arbitration.<sup>195</sup> Anki's arbitration clause is buried seventeen clauses deep within their ToU agreement labeled "Arbitration."<sup>196</sup> The clause employs commercial arbitrators rather than arbitrators experienced in consumer transactions.<sup>197</sup> The clearest example of due process fundamental unfairness is deciding a consumer arbitration case under commercial arbitration rules. Commercial rules place smart toy users at a significant disadvantage. In addition, Anki's arbitration clause creates the false impression that the consumer has a workable opt-out right:

Arbitration Opt-Out: You have the right to opt out of the foregoing arbitration provision by sending written notice of your decision to opt out to Anki, Inc., 55 2nd St., 15th Floor, San Francisco, CA 94105 postmarked within 30 days of first accepting these Terms. You must include (1) your name and residence address; (2) the email address and/or telephone number associated with your account; and (3) a clear statement that you want to opt out of this Section's arbitration agreement. If you send this notice, and/or in any circumstances where the foregoing arbitration provision permits either you or Anki to litigate any dispute arising out of or relating to the subject matter of these Terms in court, then the foregoing arbitration provision will not apply to either party and both you and Anki agree that any judicial proceeding (other than small claims actions) will be brought in the state or federal courts located in, respectively San Francisco County, California.<sup>198</sup>

It is highly unlikely that a smart toy user would review this clause within thirty days of being subject to its terms. One study concluded that between 0.05% and

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193. See *The Flesch Reading Ease Readability Formula*, *supra* note 181 (detailing readability formula).

194. See *id.* (explaining difficulty of arbitration clause language).

195. See *JAMS Celebrates 40th Anniversary While Opening New Orange County Resolution Center*, JAMS (Mar. 26, 2019), <https://www.jamsadr.com/news/2019/jams-celebrates-40th-anniversary-while-opening-new-orange-county-resolution-center> [<https://perma.cc/7LUJ-MEM4>] (describing JAMS as largest ADR provider). JAMS is "the largest private provider of alternative dispute resolution . . . services." *Id.*

196. See *Anki Terms of Use*, *supra* note 128, ¶ 17 (requiring arbitration).

197. See *id.* (mandating commercial arbitrator).

198. See *id.* (setting terms for opting out of arbitration).

0.22% of online shoppers accessed online agreements.<sup>199</sup> Even if they accessed these smart toy contracts, the readability is graded as either difficult or very difficult, so it is highly unlikely that the consumer would opt out of the arbitration agreement.

## 2. *Sphero's Illusionary Alternative Dispute Resolution*

Sphero, the maker of Force Band and Mini-Sphere, also imposes a harsh arbitration clause that deprives users of the right to a court hearing, discovery, and an appeal:

### (c) Alternative Dispute Resolution

For any claim where the total amount of the award sought is less than \$10,000 USD, the party requesting relief may choose to resolve the dispute through binding non-appearance-based arbitration in accordance with the following: (i) the arbitration will be provided through a nationally-recognized alternative dispute resolution provider mutually agreed upon by the parties; (ii) the arbitration will be conducted in one or more of the following manners at the option of the party initiating arbitration: telephone, online, or written submissions; (iii) the arbitration will not involve any personal appearances by the parties or witnesses unless otherwise agreed by the parties; and (iv) any judgment on the award rendered by the arbitrator may be entered in any court of competent jurisdiction.

### (d) Improperly Filed Claims

All claims between you and Sphero must be resolved in accordance with this Section 11.2. All claims filed or brought contrary to this Section shall be considered improperly filed. Should you file a claim contrary to this Section, Sphero may recover attorneys' fees and costs up to \$1,000, provided that Sphero has notified you in writing of the improperly filed claim and you fail to promptly withdraw the claim. Similarly, should Sphero file a claim contrary to this Section, you may recover attorneys' fees and costs up to \$1,000, provided that you have notified Sphero in writing of the improperly filed claim and Sphero fails to promptly withdraw the claim. The remedies in this subsection will not limit any other remedies that either party may have in law or in equity.<sup>200</sup>

Sphero's arbitration clause has a Flesch Reading Ease score of thirty-one, making it difficult to read.<sup>201</sup> The arbitration clause is written at a Flesch-Kincaid grade-level of seventeen years, making it comprehensible to those who have

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199. See Yannis Bakos et al., *Does Anyone Read the Fine Print? Consumer Attention to Standard Form Contracts*, 43 J. LEGAL STUD. 1, 32 (2014).

200. See *Sphero Terms of Use*, *supra* note 132, ¶ 11.2(c)-(d) (setting forth arbitration terms).

201. See *The Flesch Reading Ease Readability Formula*, *supra* note 181 (applying formula to Hello Barbie arbitration clause to determine readability).

studied beyond the college level.<sup>202</sup> Sphero's agreement is structured as if the consumer has a choice for how to resolve claims when the total amount of the award sought is less than \$10,000.<sup>203</sup> However, Sphero can also unilaterally demand arbitration.<sup>204</sup> On the surface, it appears to be a choice by the consumer, but the clause gives the stronger party a right to demand arbitration. Sphero imposes a \$1,000 fine and requires the consumer to pay their attorneys fee for improperly filed court claims. Moreover, Sphero's arbitration clause provides no information about what arbitration is, what rights are foreclosed, who the provider will be, and what expenses will be incurred. The title "alternative dispute resolution" is misleading because it gives the stronger party an option of mandating arbitration.<sup>205</sup>

### 3. Hello Barbie's Arbitration Clause

The Hello Barbie arbitration provision, consisting of 257 words, has a Flesch Reading Ease score of 20.1, making it "very confusing."<sup>206</sup> Such a grade score indicates that only college graduates would easily understand the language. The Hello Barbie Arbitration clause states:

#### Governing Law; Arbitration

PLEASE READ THE FOLLOWING PARAGRAPH CAREFULLY BECAUSE IT REQUIRES YOU TO ARBITRATE DISPUTES WITH TOYTALK AND IT LIMITS THE MANNER IN WHICH YOU CAN SEEK RELIEF FROM TOYTALK.

You and ToyTalk agree to arbitrate any dispute arising from the Terms or relating to the Services, the Companion Apps or the Barbie Products, except that You and ToyTalk are not required to arbitrate any dispute in which either party seeks equitable or other relief for the alleged unlawful use of copyrights, trademarks, trade names, logos, trade secrets or patents. ARBITRATION PREVENTS YOU FROM SUING IN COURT OR FROM HAVING A JURY TRIAL.

You and ToyTalk agree that You will notify each other of any dispute within 30 days of when it arises, that You will attempt informal resolution prior to any demand for arbitration, that any arbitration will occur in San Francisco, California and that arbitration will be conducted confidentially by a single arbitrator in accordance with the Rules of the American Arbitration Association. You and ToyTalk also agree that the state or federal courts in San Francisco

202. See *id.* (explaining significance of Reading Ease Scores).

203. See *Sphero Terms of Use*, *supra* note 132, ¶ 11.2(c) (listing four requirements for arbitration for claims of less than \$10,000).

204. See *Returns and Warranty*, SPHERO, <https://www.sphero.com/about/returns-and-warranty/> [<https://perma.cc/GAM6-PZVP>].

205. See *The Flesch Reading Ease Readability Formula*, *supra* note 181.

206. See *id.*

County, California have exclusive jurisdiction over any appeals of an arbitration award and over any suit between the parties not subject to arbitration. Other than class procedures and remedies discussed below, the arbitrator has the authority to grant any remedy that would otherwise be available in court.<sup>207</sup>

The first clause advises the consumer that it restricts the manner in which the consumer can seek relief, but makes no mention that the user waives its right to a court hearing, discovery, jury trial, or an appeal.<sup>208</sup> By requiring every consumer to appear in San Francisco, it ensures that the cost of arbitrating will often exceed what is at stake.<sup>209</sup> Unlike the Sphero's arbitration clause, which is nonappearance arbitration, the consumer is responsible for transportation, hotel and other travel expenses.<sup>210</sup> The Hello Barbie clause does not specify who the arbitral provider is, whether the consumer must share the cost of hiring the arbitrator, or any other relevant information needed to make an informed consent.<sup>211</sup>

The analyzed smart toy arbitration clauses provided almost no basic information about the rules under which arbitration would be conducted. None of the agreements provide the consumer with a link to where they could get additional information about the provider and how it conducts arbitrations. Smart toy standard contracts deceptively appear to give consumers arbitral choices despite the fact that the stronger party, the manufacturer, can order claims to be arbitrated.<sup>212</sup> "In many cases, mandatory arbitration clauses have the effect of immunizing corporations from any liability or accountability even when they have blatantly violated consumer protection or civil rights laws."<sup>213</sup>

Smart toy makers are creating a de facto liability-free zone through arbitration clauses that are coupled with classaction waivers. Numerous U.S. courts have upheld consumer arbitration clauses.<sup>214</sup> While there are advantages to the use of mandatory arbitration for makers of smart toys, those advantages always favor the dominant party—the toy maker. Consumers will accrue greater savings by

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207. See *Hello Barbie Terms of Use*, *supra* note 136.

208. See *id.*

209. See *id.*

210. See *Hello Barbie Terms of Use*, *supra* note 136; *Sphero Terms of Use*, *supra* note 132 (comparing arbitration clauses).

211. See *Hello Barbie Terms of Use*, *supra* note 136.

212. See *id.*

213. *Arbitration: Is It Fair When Forced: Hearing on S. 987 and S. 1652 Before the S. Comm. on the Judiciary*, 112th Cong. 60 (2011) (statement of F. Paul Bland, Senior Att'y, Public Justice), <http://www.gpo.gov/fdsys/pkg/CHRG-112shrg71582/pdf/CHRG-112shrg71582.pdf> [<https://perma.cc/ETA9-27VQ>].

214. See, e.g., *Chandler v. AT&T Wireless Servs., Inc.*, 358 F. Supp. 2d 701, 706 (S.D. Ill. 2005) (ordering arbitration in case where company added predispute arbitration clause to consumer's wireless services contract); *Lieschke v. RealNetworks, Inc.*, No. 99 C7274, 2000 WL 198424, at \*3 (N.D. Ill. Feb. 10, 2000) (enforcing arbitration clauses in terms of service agreement); *Westendorff v. Gateway 2000, Inc.*, No. 16913, 2000 WL 307369, at \*5 (Del. Ch. Mar. 16, 2000) (validating forum selection clause where online software subscriber reviewed license terms and clicked to agree), *aff'd*, 763 A.2d 92 (Del. 2000).

pursuing their claims in our judicial system, not expensive and secretive rent-a-judge proceedings.

### *I. Class Action Waivers in Smart Toy Contracts*

Class action waivers preclude smart toy users from filing a class action, or even joining an existing one, in arbitration. Anti-class action waivers make it impossible for smart toy users to join together with other aggrieved users where the individual has damages that may be less than the filing fee. The arbitral clauses employed by toy manufacturers take away the consumers' key to the courthouse but also preclude the possibility of redress for small dollar claims such as an invasion of privacy or an action for recouping the cost of smart toy. Users of smart toys will have no remedy where they are not permitted to enter into class actions.

The Supreme Court validated the use of class action waivers in consumer standard form agreements in *AT&T Mobility L.L.C. v. Concepcion*.<sup>215</sup> In *Concepcion*, the Court held that the FAA preempted California state case law that held class action waivers as unconscionable and void.<sup>216</sup> The Court's takeover of state law is evident by its prohibition against California courts refusing to enforce mandatory consumer arbitration clauses that contain class action waivers.<sup>217</sup> The *Concepcion* Court reasoned it is important that "arbitration agreements [be] on an equal footing with other contracts and [that they be] enforce[d] . . . according to their terms."<sup>218</sup> The Court's validation of class action waivers makes it difficult for smart device owners to challenge one-sided ToU provisions. The empirical reality after *Concepcion* is that consumers have almost no basis for challenging class action prohibitions in smart toy or other consumer contracts. Anki's class action prohibition states:

**Any arbitration under these Terms will take place on an individual basis: class arbitrations and class actions are not permitted. YOU ACKNOWLEDGE AND AGREE THAT BY ENTERING INTO THESE TERMS, YOU AND ANKI ARE EACH WAIVING THE RIGHT TO TRIAL BY JURY OR TO PARTICIPATE IN A CLASS ACTION TO THE FULLEST EXTENT ALLOWED BY APPLICABLE LAW.**<sup>219</sup>

Anki's class action waiver provides some information as to what rights are foreclosed when a user agrees to this clause. Hello Barbie's arbitration clause requires users to waive their right to a class action: "WHETHER THE DISPUTE

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215. 563 U.S. 333, 340 (2011) (holding Supreme Court of California's rule preempted by FAA).

216. *Id.* at 340, 352 (citing *Discover Bank v. Super. Ct.*, 113 P.3d 1100 (Cal. 2005)).

217. *See id.* at 338 (citations omitted).

218. *See id.* (citation omitted).

219. *See Anki Terms of Use*, *supra* note 128, ¶ 17.

IS HEARD IN ARBITRATION OR IN COURT, YOU AND TOYTALK WILL NOT COMMENCE AGAINST THE OTHER A CLASS ACTION, CLASS ARBITRATION OR OTHER REPRESENTATIVE ACTION OR PROCEEDING.”<sup>220</sup> Sphero’s mandatory nonappearance arbitration clause does not address whether users can join together in class arbitration.<sup>221</sup> Absent a class action waiver, individuals with equivalent complaints against a toy maker would be able to initiate or join in a class suit or representative action where a federal court consolidates the complaints into a single proceeding. Class actions in court have radically different procedural and substantive rights than so-called class action arbitrations.

#### IV. CONCLUSION

Cloud computing, the IoT, and Big Data are converging to create a new era where physical devices, information storage, and the iterative flow of personal data are commodified on a scale unique in human history. New risks emerge from the gathering and harvesting of vast amounts of personally identifiable information. Cloud providers use contract law to limit their liability and foreclose on the rights of small businesses and consumers that use their services. Mass-market agreements are form contracts that may be entered into through browsewrap standard forms without users appreciating the consequences.<sup>222</sup>

This study finds that smart toy makers attempt to eliminate consumer remedies when their products fail or infringe on a user’s privacy. All the smart toy makers in this sample impose arbitration through their standard form contracts. Since arbitration is a matter of contract law, the ToU must reveal that the consumer entered into an agreement to arbitrate in order for a court to order arbitration. Consumers of these smart products often waive their right to a jury trial, discovery, and appeal, without reasonable notice that they are waiving important rights.

All of the ToU required users to accede to predispute mandatory arbitration without the minimum information consumers need to weigh advantages versus disadvantages. The majority of providers required users to waive their right to enter a class action, which will have the effect of deterring small dollar amount claims. One toy maker went so far as to create an *in terrorem* clause that threatens a penalty of up to \$1,000 for filing a court action challenging arbitration for violating their dispute resolution clause.<sup>223</sup>

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220. See *Hello Barbie Terms of Use*, *supra* note 136.

221. See *Sphero Terms of Use*, *supra* note 132, ¶ 11.2.

222. See *Amazon Cloud Cam Terms of Service*, <https://www.amazon.com/gp/help/customer/display.html?no-deId=202201080> [<https://perma.cc/W8ND-CV8Z>]. “By using Cloud Cam, or signing up for a Cloud Cam Service Plan, you agree to be bound by the terms of this Agreement. If you do not accept the terms of this Agreement, then you may not use Cloud Cam.” *Id.*

223. See *Sphero Terms of Use*, *supra* note 132, ¶ 11.2.

A case can be made that these toy makers' terms are inconspicuous and over-complicate the arbitral process, preventing consumers from making a rational choice about whether to waive their right to a court hearing. Toy makers placed arbitration clauses obscurely, toward the end of long boilerplate documents, which are sometimes misleadingly labeled. Not a single one of these ToU had an index or a link to where consumers could learn more about arbitrating their claims.

None of the providers mentioned consumer arbitration rules. No toy maker gave a simple link to where users could get further information about arbitration. None of the providers made any attempt to explain what arbitration involves and one provider mentioned that user waived the right to a court disposition. No provider disclosed that arbitrators may not order liberal discovery available on a court trial. These ToU are "take it or leave it" waivers, masquerading in the clothing of contract. More balanced and more transparent ToU are necessary to protect the rights of users of Internet-connected toys and other IoT products.