

February 2, 2024

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Alicia Chambers  
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National Institute of Standards and Technology  
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**Re: Request for Information Related to NIST’s Assignments Under Sections 4.1, 4.5 and 11 of the Executive Order Concerning Artificial Intelligence, Docket No. 231218-0309, 88 Fed. Reg. 88368, pp. 88368-70 (February 2, 2024)**

Dear Ms. Chambers:

The Entertainment Software Association<sup>1</sup> (“ESA”) welcomes the opportunity to respond to the National Institute of Standards and Technology’s (“NIST”) request for information (“RFI”) from stakeholders on their perspectives on the creation, detection, labeling and auditing of synthetic content.<sup>2</sup>

As NIST gathers public input to prepare its report, and because the agency plays a critical role in implementing key objectives in the White House’s Executive Order on *Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence*, ESA members encourage the agency to narrow its focus to high-risk settings in which synthetic content may cause substantial harm. Doing

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<sup>1</sup> ESA is the U.S. trade association for companies that publish interactive entertainment software for video game consoles, handheld devices, personal computers, and the internet. Our members not only create some of the world’s most engaging interactive experiences for consumers, but also develop novel technologies that are at the cutting edge, such as virtual, augmented, and mixed reality hardware and software as well as the latest consoles and handheld video game devices.

<sup>2</sup> In accordance with the White House’s Executive Order on *Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence*, NIST intends to draft a report identifying existing and potential standards, tools, methods, and practices related to synthetic content. NIST will also work to establish a plan for global engagement to promote and develop standards on artificial intelligence. Exec. Order No. 14110, “The Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence,” 88 Fed. Reg. 75191 (2023) *available at* <https://www.whitehouse.gov/briefing-room/presidential-actions/2023/10/30/executive-order-on-the-safe-secure-and-trustworthy-development-and-use-of-artificial-intelligence/>.

so will help the agency avoid drawing into the discussion beneficial and benign content, creative content entitled to copyright protection and long-standing practices of self-regulation. For that reason, we ask that NIST:

- Recognize that the video game industry has a long and successful history of using artificial intelligence in game development and that those uses are low- to no-risk;
- Consider formulating a precise definition of synthetic content before embarking on the evaluation of the content landscape;
- Not undertake any action that would negatively impact existing legal rights and responsibilities of video game companies or disturb long-standing self-regulation of game content;
- Be aware that concerns over fraud, misinformation and other harms are generally not present in expressive works for entertainment, such as video games, where consumers expect to be interacting with fictional and/or creative worlds and characters. Different creative industries must be permitted to take an approach to labeling or watermarking that works best for their stakeholders; and
- Be mindful that the type of media and industry matters in the standards development process and that the process must continue to involve multiple stakeholders and must remain voluntary.

## About the Industry

Every day, millions of Americans play video games. Research has shown that more than 212 million players in the United States drove industry growth to the tune of \$56.6 billion in 2022 with \$47.5 billion spent on content, \$6.57 billion on hardware and an additional \$2.5 billion on accessories.<sup>3</sup> The industry is fast-growing and leaves a deep economic footprint. In 2019, the industry generated direct economic output of more than \$90 billion, added more than \$59 billion in GDP to the U.S. economy and created over 143,000 direct jobs and 428,000 indirect jobs.<sup>4</sup> Video game companies distribute their games, hardware, and services globally. Through innovative subscription business models, some companies have been able to achieve monthly totals of tens of millions of active users in ongoing engagement with new and extra content, as well as live services. In tandem with the evolution of games, the industry’s self-regulatory body, the

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<sup>3</sup> ENTERTAINMENT SOFTWARE ASSOCIATION, “U.S. Consumer Video Game Spending Totaled \$56.6 Billion in 2022,” Jan. 17, 2023 at <https://www.theesa.com/news/u-s-consumer-video-game-spending-totaled-56-6-billion-in-2022/>.

<sup>4</sup> Simon Tripp, Martin Grueber, Joseph Simkins and Dylan Yetter, *Video Games in the 21<sup>st</sup> Century: The 2020 Economic Impact Report* available at <https://www.theesa.com/video-game-impact-map/wp-content/uploads/sites/2/2020/12/Video-Games-in-the-21st-Century-2020-Economic-Impact-Report-Final.pdf>.

Entertainment Software Rating Board (“ESRB”) provides information to parents to help them decide what types of games are appropriate for their families.<sup>5</sup>

## **The Use of Artificial Intelligence in Video Game is Long-Established**

The video game industry has a long and successful history of utilizing artificial intelligence (“AI”) in game development.<sup>6</sup> Various forms and iterations of AI technology, including machine learning, have been deployed in games for over two decades as useful tools for a variety of purposes, such as background and terrain generation,<sup>7</sup> processing or analysis of data within the game, and quality control.<sup>8</sup>

Video game companies routinely adopt and develop new technologies to improve game development processes. Although new to the industry, ESA members consider generative AI to be another emerging technology that will be helpful for developing and operating the next generation of video games in areas such as content creation, art generation, animation, sound, natural language processing (for example, natural speech and responses from non-player characters within the game), and localization.

Our members believe that the regulation of generative AI and AI-generated synthetic content should take a risk-based approach, recognizing that the sort of uses of AI in video games, which are not designed to deceive or harm, are low- or no-risk. As evidently artistic, creative, or fictional works, video games should not be subject to burdensome AI transparency, disclosure, and labeling requirements. This is a crucial issue for the video game industry because players look to games for entertainment and are accustomed to interacting with advanced technology, which may include AI and/or generative AI. Transparency and labeling obligations need to be proportional to the risk level and align with consumer expectations.

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<sup>5</sup> ENTERTAINMENT SOFTWARE RATING BOARD, “About ESRB: What We Do and Why,” *available at* <https://www.esrb.org/about/>.

<sup>6</sup> *See* Pac-Man’s ghosts, which move about according to an AI-like algorithm. Jacopo Prisco, “Pac-Man at 40: The eating icon that changed gaming history,” CNN, May 21, 2020 *at* <https://www.cnn.com/style/article/pac-man-40-anniversary-history/index.html>.

<sup>7</sup> Electronic Arts, “How Procedural Tools are Reshaping Terrain Workflows,” *available at* <https://www.ea.com/frostbite/news/procedural-terrain-in-ea-sports-pga-tour>.

<sup>8</sup> Electronic Arts, “SEED Applies Machine Learning Research to the Growing Demands of AAA Game Testing,” *available at* <https://www.ea.com/seed/news/seed-ml-research-aaa-game-testing>. Accessed Oct. 20, 2023.

## The Definition of Synthetic Content Must be Narrowed to Avoid Inclusion and Potential Regulation of Benign, Long-Standing Uses Like Those in Video Games

In its RFI, NIST frames its request with respect to synthetic content as aimed at reducing risk. No definition of synthetic content is provided but the overall setting for discussion pre-supposes that all synthetic content carries with it the same risk and degree of potential harm. We urge NIST to narrow its focus to the types of synthetic content in high-risk settings that has a significant likelihood of causing substantial harm. We also ask that NIST be targeted and precise in the definition it creates, as it formulates its report, in order to avoid inadvertently damaging the ecosystem for beneficial and benign content. Although the concerns surrounding synthetic content in the RFI appear to be directed to those that are generated by generative artificial intelligence, it is unclear whether the RFI would also encompass older AI technologies or computer-generated content, which could also be considered “synthetic” in a colloquial sense. Because the definition of harmful synthetic content is ambiguous, the development and adoption of standards in this space combined with calls to label and authenticate synthetic content could unnecessarily implicate video games.

Video games are largely, if not entirely, “synthetic” content. In games, worlds, landscapes, characters, clothing, vehicles, implements, accessories, dialogue, and sound effects can be computer-generated and in some circumstances are created, in whole or in part, by use of generative AI software tools. Generative AI tools may also be used to generate elements of a game such as, for example, a greater variety of in-game dialogue called “barks,”<sup>9</sup> a term for non-player character (“NPC”) dialogue. Generative AI tools also allow game developers to create characters with unique personalities as well as accurate facial animation and expression that match to the NPC’s speech.<sup>10</sup> Original, intelligent barks by dynamic NPCs foster player immersion within a game because the more responsive NPCs are to players, the better and more realistic the gameplay experience. Generative AI can also enable personalized quests and new, dynamic narratives for players to experience in, for example, open world games.<sup>11</sup> The government should therefore concentrate its efforts on synthetic content where the

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<sup>9</sup> Roxane Barth, “The Convergence of AI and Creativity: Introducing Ghostwriter,” Mar. 21, 2023, available at <https://news.ubisoft.com/en-us/article/7Cm07zbBGy4Xm16WgYi25d/the-convergence-of-ai-and-creativity-introducing-ghostwriter>. Ghostwriter was developed in close collaboration with game narrative designers and could eventually allow them to “create their own AI system [ . . . ] tailored to their own design needs.”

<sup>10</sup> Andrew Burnes, “Introducing Nvidia ACE for Games: Spark Life into Virtual Characters with Generative AI,” May 28, 2023 available at <https://www.nvidia.com/en-us/geforce/news/nvidia-ace-for-games-generative-ai-npcs/>.

<sup>11</sup> Haiyan Zhang, “Xbox and Inworld AI Partner to Empower Game Creators with the Potential of Generative AI,” *Microsoft Game Developer Blog*, Nov. 6, 2023 available at <https://developer.microsoft.com/en-us/games/articles/2023/11/xbox-and-inworld-ai-partnership-announcement/>.

element of deception is present, or on content that causes harm and/or impacts a person's fundamental rights. This will ensure that benign and beneficial uses of AI, generative AI and other emerging technologies will not be stifled.

The application of the concepts of harm and fundamental rights will depend on context. In determining context, one has to look at the expectations of the user. A user's expectations of what is real or not can potentially change over time along with advances in technology. In the context of video games, when players download or log into the game, they know they are interacting with a computer-generated world and characters. As a result, deception is not an issue. That is a different scenario from watching a video on social media that has been deliberately and deceptively manipulated and wondering if it is real. Moreover, video games do not impact the fundamental rights of players such as, for example, housing, finance, employment, health or voting rights or access. Because players are unlikely to be confused or deceived by content in video games and because video games do not pose a significant likelihood of substantial harm or implicate a user's fundamental rights as would be the case in high-risk contexts, government mandates on labeling, content authentication, or tracking are unnecessary. They should not apply to computer- and AI-generated content in video games or to synthetic content that is evidently artistic or fictional.

A labeling obligation imposed on expressive works, such as video games, represents a redundant and unnecessary imposition: if content is evidently fictional, or artistic (like sports games that replicate authentic real-world experiences and events), there is no reason to demand a disclosure of the game's fictional nature or that it contains AI-generated content. Creative works should not be burdened with labeling obligations in contexts where players are already expecting to interact with AI-assisted and AI-generated content, such as in video games. To demand and implement otherwise would be highly disruptive to the user's in-game experience. The concerns over fraud, misinformation, invasion of privacy and other harms are not generally present in expressive works for entertainment, such as video games, where consumers expect to be interacting with fictional and/or creative worlds and characters. Different creative industries must be permitted to take an approach to labeling or watermarking that works best for their stakeholders.

To the extent that any labeling or watermarking is required, purpose and proportionality with respect to expressive content is crucial. What may work for an image-generation or image licensing platform may not work for a computer program like a video game. Not only is such a requirement cost-prohibitive for video game companies, especially small- to medium-sized companies, overuse of disclosure and labeling can also desensitize and create user fatigue (for example, if every non-player character, scene—including background—or level in a game is labeled) and may become meaningless as an indicator of deception, especially as more and more content will either be created or modified with a generative AI tool in the near future.

## **Existing Legal and Self-Regulatory Frameworks Should be Considered Before Any New Recommendations or Guidelines on Synthetic Content are Made**

Rights to, uses of and potential liability for computer- or AI-generated content are governed by existing legal and self-regulatory frameworks, both in the United States and in other jurisdictions. We believe that existing legal and self-regulatory framework are adequate to address issues with synthetic content in video games. By narrowing NIST’s focus to synthetic content with a significant likelihood of substantial harm in high-risk contexts, the government can avoid disturbing the creative content ecosystem and the legal expectations of various actors within it.

Video game publishers are themselves the creators of synthetic content and are experimenting with generative AI to improve different aspects of games, as noted above. In games where the publisher chooses to do so, it may provide tools, possibly generative AI tools, to players to create their own synthetic content, including characters, avatars, families, homes, or islands, so players can express themselves and better enjoy the interactive experience of the game. ESA member companies do not think that a change in the technology or tools used to create content—in this case, generative AI, which is the next iteration in long-standing AI technological tools—should change their ability to create, protect or moderate synthetic content using existing legal and regulatory frameworks in ways that best suit the game, the company’s business model and associated community of fans.

### ***A. Existing Legal Frameworks That Govern Synthetic Content***

Following is a brief overview of some of the laws that may regulate the creation and use of synthetic content that are of great importance to ESA members. Intellectual property (“IP”) laws apply to synthetic content that is an artistic, expressive work, such as video games. For example, synthetic content in video games like popular characters, art, or music are economically valuable assets and are protected by copyright law.<sup>12</sup> In some games, ESA members may use the licensed likenesses of real people for the creation of characters in the game. Those rights are usually protected by state rights of publicity laws which may require compensation for licensed uses and damages for commercial misuse. Because expressive works like video games are also protected by the First Amendment, their creators and owners may be entitled to the right to decide how

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<sup>12</sup> While there remains a question about whether AI-generated content is protected by copyright, non-AI-generated synthetic content remains protected if it meets current legal standards for copyrightability.

and whether to place a label on their works, especially a label that may have a pejorative connotation.<sup>13</sup>

In circumstances where users misuse content-creation tools to infringe IP, create objectionable or harmful content or introduce foreign or inauthentic content into the game, video game publishers will remove that content pursuant to the Digital Millennium Copyright Act<sup>14</sup>, other applicable laws<sup>15</sup> or the game’s terms of service. ESA members may also be required to comply with laws in other jurisdictions on content removal such as the European Union’s Digital Services Act, which regulates online intermediaries and platforms such as marketplaces, social networks, and content-sharing platforms among others to prevent illegal and harmful activities online and the spread of disinformation.

### **B. *A Self-Regulatory Approach to the Moderation of Content***

The video game industry is a leader in accounting for user expectations and empowering users through self-regulation. For thirty years, the industry has worked to ensure that consumers—especially parents and caregivers—have the most comprehensive information and tools needed to make informed decisions about video games. As noted above, since 1994, ESRB has provided parents with age and content ratings for video games and apps to help them make informed decisions about which products are appropriate for their family.<sup>16</sup>

In its RFI, NIST had asked about detection and tracking of synthetic content. In response, some ESA members employ AI tools to moderate harmful content in games. Some use communication-filtering technology to prevent harm before it happens by detecting inappropriate content and preventing other players from seeing it. Others utilize image-hashing technology to combat child exploitation by creating digital signatures of known images of child exploitation, which are then used with filtering or matching tools to identify and detect such images on online platforms. The industry works with the National Center for Missing and Exploited Children and law enforcement to ensure these images are properly investigated. Other members deploy AI server-side tools that monitor

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<sup>13</sup> Generally, the “freedom of speech prohibits the government from telling people what they must say.” *Rumsfeld v. Forum for Academic and Institutional Rights, Inc.*, 547 U.S. 47, 61 (2006). The First Amendment allows individuals or companies not only the right to communicate freely but creates the complementary right “to refrain from speaking at all,” *Wooley v. Maynard*, 430 U.S. 705, 714 (1977). In addition, the U.S. Supreme Court has held that for speech to be penalized (by requiring disclosure that content is AI-generated), the speaker must know or intend that his or her speech causes harm.

<sup>14</sup> 17 U.S.C. § 512 (2010).

<sup>15</sup> Communications Decency Act, 47 U.S.C § 230 (2018).

<sup>16</sup> ENTERTAINMENT SOFTWARE ASSOCIATION, “Trust and Safety,” *available at* <https://www.theesa.com/wp-content/uploads/2021/01/Trust-Safety.pdf>. Accessed Jan. 23, 2024.

analytics in the game to identify cheating,<sup>17</sup> along with enhanced investigation processes to stamp out cheaters in order to ensure and maintain fair play in online games.<sup>18</sup>

Self-regulatory approaches to moderation of video game content should be encouraged. Video game publishers should retain the right and ability to employ moderation tools that work best for each game and its associated player communities. In creating guidelines and best practices, NIST should consider that government intervention may be needed only under certain limited circumstances, such as for example, where a market failure can be identified and even then, it should be thoughtful and restrained.

### **Standards Development Should Involve Multiple Stakeholders and Should Remain a Voluntary Process**

NIST already recognizes in its RFI that a multistakeholder approach to standards development is crucial. Nowhere is this approach more important than when it comes to content, especially in an ecosystem with many and varied parties such as platforms hosting user-generated content, video games, foundational AI models, news media, or film studios. Private sector coalitions<sup>19</sup> already working on the development of open standards for provenance and authentication understand the importance of collaboration but also that any standards that are developed in this space will depend on the type of industry and type of media.<sup>20</sup>

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<sup>17</sup> Cheat software is specifically designed to defeat security measures meant to prevent unfair player advantages within the game. Examples of cheats include: aimbots (which help a player aim in a first-person action game); trainers (which allow a player to turn on or off features to make the game easier or more difficult); and one-button maneuvers that allow a player to complete a task in-game with a single click that normally would take extended gameplay (like “Instant Build,” “Always Run”). The unchecked sales of cheat software can threaten the integrity of game play, alienating and frustrating legitimate players, who may decide to stop playing the game altogether; and can also divert revenue away from video game developers and publishers.

<sup>18</sup> ENTERTAINMENT SOFTWARE ASSOCIATION, “Trust and Safety Solutions: Leading Technologies,” available at <https://www.theesa.com/trust-and-safety/leading-technologies/activisionblizzard/>.

<sup>19</sup> The Coalition for Content Provenance and Authenticity (“C2PA”) and the Content Authenticity Initiative (“CAI”). C2PA is working on an end-to-end open standard that can be adopted by any platform for tracing the origin and development of digital content while CAI is building a system that provides provenance and history for digital media, giving creators a tool to claim authorship and empowering consumers to evaluate if what they are seeing is real. See “Overview for Coalition for Content Provenance and Authenticity,” available at [c2pa.org](https://c2pa.org).

<sup>20</sup> C2PA and CAI have stated that collaboration with chip makers, media organizations, software companies and platforms is crucial to develop effective content provenance specifications for different media types and formats. MICROSOFT, “Technology and media entities join forces to create standards group aimed at building trust in online content,” Feb. 22, 2021, available at <https://news.microsoft.com/2021/02/22/technology-and-media-entities-join-forces-to-create-standards-group-aimed-at-building-trust-in-online-content/>.



NIST should encourage these efforts and resist calls to impose mandates or broad rules for content standards adoption, tracking or labeling. Context matters. What may be best practices for images, video or audio may not work for video games. A one-size-fits-all approach that requires mandates, as is being considered in other countries, will only chill both creativity and innovation. The path to maintaining U.S. technological competitiveness, both domestically and globally, will be through an understanding of context and that all content is not the same nor should they all be treated the same.

### **Conclusion**

In sum, we would like to express our appreciation to NIST for seeking input from stakeholders as it carries out the executive order's directives on safe, secure, and trustworthy AI. A regulatory framework that supports collaboration in standards development, voluntary adoption of standards, recognition that the content ecosystem is varied will encourage both creativity and innovation because it will be resilient and flexible, which is necessary in the face of technological change. We recommend that NIST continue to work together with industry stakeholders in these and other matters involving emerging technologies, particularly on generative AI and we remain available to answer any additional questions you may have.

Respectfully submitted,



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