Assembling Auras
Preserving and Exhibiting Video Games with Online Play Components

Alexander Hurezeanu and
Christopher Hurezeanu

Hoping to protect the cultural experience of playing online games such as the critically acclaimed Soulsborne series, including *Dark Souls II*, the authors explore the possibilities of preserving the unique online interactions of dead and dying software servers using Dany Guay-Bélanger's game preservation framework. They review the collection, curation, and exhibition of diverse paratexts for the purpose of maintaining the cultural and storytelling significance of online encounters within such games and games series. **Key words:** aura assemblage and exhibition; game preservation; online play; paratexts; server shutdowns; Soulsborne games; video games

Introduction

In late December 2023, FromSoftware's official *Dark Souls* account on Twitter/X made the announcement that "The *Dark Souls II* PlayStation 3 (PS3) and Xbox 360 servers will shut down on March 31, 2024 at 5:00 PDT."[1] This came as something of a shock to the *Dark Souls* player community because the message was so sudden and abrupt, though not entirely surprising. With FromSoftware's first Soulsborne hit, 2009's *Demon's Souls*, shutting down its PlayStation 3 multiplayer servers on February 28, 2018,[2] the community has come to anticipate the ephemeral nature of the Soulsborne games' online servers, and as a result they have organized special "return" events that collectively celebrate the games' online functionalities before they are gone forever. Despite the loss of Soulsborne games' multiplayer functionalities, the games themselves are still playable as single-player experiences in offline mode, which helped justify the eventual server shutdowns. That said, with *Demon's Souls*' "Return to Boletaria"[3] event in 2018 and the most recent "Return to Drangleic"[4] event for *Dark Souls II*'s 2024 server shutdown, fans united to eulogize the loss of these specific online

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Contact Alexander Hurezeanu at alexander.hurezeanu@torontomu.ca

experiences. In one example, game journalist Julie Muncy evocatively describes her online experience before *Demon's Souls*' server shut down forever.

> The foggy air is still, and quiet. I cut through undead soldiers with a short sword, ascending toward an abandoned castle. Ghosts of fellow [players] go on beside me, dancing to dodge invisible enemies. I see some of them fall, and die. Messages, glowing text on the ground, warn me of ambushes around nearly every corner. . . . The messages on the ground take on the candor of a distinct set of other players, making this journey with me. There's a sense of personality to them. . . . They celebrate successes and lament repeated defeats. A few simply ask for other players to rate the message positively, as doing so confers healing, a much-needed boon in nasty fights. Even though I'm playing alone, I can sense this person beside me. In a cold world, it's a warming feeling. It keeps me going. I figure this player, like me, is playing through this game. We're newcomers at the end of the world, together.[5]

In essence, the shutdown of such a server must be understood as a tremendous loss to the breadth and depth of the Soulsborne games' richness of experience and the games' capacities to encourage completely novel forms of cooperative and competitive play. This is not to say the Soulsborne games are unique or that their multiplayer server shutdowns are unjustified given the continued existence of their single-player experiences. Other high-profile, single-player games with online components, including Nintendo's *Splatoon*[6] and Sony's *LittleBigPlanet 3*,[7] also had their servers shut down in 2024, thereby completely diminishing any possibility of experiencing these games as they were originally intended.

Despite the best efforts of museums, nonprofit organizations, and gaming enthusiasts dedicated to the collection, preservation, and archival work of single-player video games with unique multiplayer servers, the Entertainment Software Association (ESA) has continued to side with the U.S. Copyright Office in its attempt to prevent shutdown exemptions or re-creations of such servers. With some of the highest profile challenges coming from the Museum of Art and Digital Entertainment,[8] the Software Preservation Network (SPN), and the Video Game History Foundation,[9] the ESA has as recently as April 2024 opposed efforts to preserve and archive online games. According to Justin Carter, a contributing editor at in GameDeveloper.com: "The industry's creative and

economic vitality depends on strong copyright protections. The ESA and its member companies . . . actively support professional efforts to preserve video games, and do so in ways that do not jeopardize future economic opportunity for their creative works."[10]

Furthermore, in October 2024, the U.S. Copyright Office definitively "announced that they would not grant a new exemption in the Digital Millennium Copyright Act (DMCA) in support of video game preservation."[11] Although this decision concerned access rather than preservation itself, it highlights the limits of exemptions even if previous DMCA cycles had at times broadened permissions for libraries, archives, and individual researchers to bypass digital rights management (DRM) for legitimate preservation. Although these rulings have created narrow but meaningful pathways for institutions to maintain offline or defunct titles, they also underscore the structural fragility of preservation work when legal access to server code, authentication systems, or proprietary online components is not guaranteed. This 2024 ruling illuminates the tension between what preservationists are allowed to do in principle and what they can practically achieve without cooperation from rights holders.

For one thing, the copyright office's holding places the primary responsibility for preservation on game publishers, which may be challenging, given research from the Video Game History Foundation (VGHF). A 2023 study by the VGHF revealed that "87 percent of games released pre-2010 were currently not preserved in any capacity. Attempts previously made by the Library of Congress were [all] halted by the ESA, which said it would [continue to] rely on publishers to take care of those efforts themselves."[12] While the study's core argument centers on commercial availability rather than on a complete absence of preservation, it nevertheless fundamentally demonstrates that many titles are preserved privately or institutionally but remain inaccessible to the public because rights holders have not rereleased them or made them otherwise commercially obtainable. This distinction proves critical. The problem is not only that games risk being lost but that they are often effectively inaccessible even when preserved because they do not meet the legal and market conditions for access. This serves to embolden the ESA in insisting that publishers continue to handle preservation efforts themselves despite evidence that commercial re-releases are highly selective and rarely designed with long-term preservation or access in mind.

As a result, the future of game preservation remains precarious, particularly for experiences that rely on server infrastructures, social systems, or ephemeral online interactions. When such features are shut down, they persist primarily

in the embodied and affective memories of those who lived and played within them. This heightens the importance of developing methods to document the communal and contextual dimensions of play, methods including oral histories, player ethnographies, and recordings of live environments that can supplement traditional archival practices. Thus, the question of how such memories and embodied experiences get recorded and represented becomes critical to the larger challenge of ensuring that video games remain available and comprehensible to future generations.

It is necessary then to reaffirm support for the preservation of these games and gaming experiences so that they may endure for historical, artistic, and cultural purposes. Since the early 2000s, scholars, archivists, curators, and gamers have made concentrated efforts to collect and present video games as "important and significant cultural artifacts . . . worthy of meticulous and robust collection, representation, and preservation."[13]

In an evolving field with an increasing number of institutions uniting to collect and preserve video games, institutions such as the Digital Preservation Coalition (DPC) have begun to assess and determine some of the major obstacles present in what they identify as "critically endangered digital species."[14] In its assessments, the DPC identifies "games with online play components" as a particular category of games trending toward an even greater risk of extinction.[15] This is particularly worrisome when one takes into account that many multiplayer servers alongside FromSoftware's critically acclaimed Soulsborne series of games are slowly but surely being shut down.

In this article, we explore the possibilities for preserving the unique cooperative and player versus player interactions of these dead or dying servers using Dany Guay-Bélanger's game preservation framework in his 2022 article "Aura, Assemblages, and Articulations."[16] Although *Dark Souls II* remains fully playable with online features on most current-generation gaming consoles and personal computers, these servers will also eventually go dark. But the cultural experience of their online encounters can be preserved by encouraging more institutions to collect and curate paratexts, such as forum posts, fan recollections, and digital reenactments, to safeguard their narrative and cultural significance.

The Current State of Video Game Preservation

In 2012 game studies scholar James Newman published his prescient text, *Best*

Before: Videogames, Suppression, and Obsolescence, as both a review and a warning about the impending challenges and difficulties he sees facing the efforts to preserve video games. Regardless of the ESA and the U.S. Copyright Office, Newman understands the global video game industry itself as "diametrically opposed to the project of game history, heritage, and preservation."[17] Through the twin pursuits of profit and accelerationist technological innovation that forces older hardware and software into obsolescence, Newman identifies:

> A range of diverse but concerted practices that contribute to the systematic discarding of gaming's past as playable and accessible and which selectively (re)construct some "old games" in ways that seem less motivated by a desire to celebrate, interrogate or understand historic design and development achievement, or to position and critique the contribution of games to a popular cultural heritage comprising practices of play, use, and consumption, than they are inspired to drive forward the games industry and games markets along its teleological journey of continual innovation and reinvention.[18]

He posits that the rulings regarding the legalities of video game preservation directly align with the overall interests and intentions of the global video game industry in order to prevent any legal hardware or software access to games that are obsolete. Broadly speaking, our opinion—along with many game studies historians, scholars, and enthusiasts—is that video game preservation has become an essential endeavor needed to safeguard video games as cultural and historical artifacts.[19]

As Annet Dekker emphasizes in her work on internet art, the inherently transient and performative nature of online experiences poses major challenges for preservation.[20] In particular, the disappearance of digital platforms and communities highlights the risk of loss and underscores the need to capture both the material and immaterial traces of digital culture. Thus, as video games become an increasingly recognized, significant part of cultural heritage, preserving them for future generations also becomes crucial. However, video game preservation faces numerous legal, technical, and ethical challenges that severely complicate efforts to protect and maintain games over time. The most significant barriers to preservation are rooted in copyright law, intellectual property (IP) concerns, licensing agreements, and the rapid obsolescence of gaming technologies.

Video games, like other forms of creative works, are protected by copyrights

that grant developers and publishers exclusive license to reproduce, distribute, and display their work. Such protection covers not just the game code but also in-game music, art, and other creative elements, making it difficult for preservationists legally to duplicate and store games for future use.[21] The restrictions imposed by copyright prevent individuals from archiving games without explicit permission from the copyright holders. Although there is some provision for fair use in copyright law, it is often insufficient when it comes to preservation activities. Fair use generally allows for the use of copyrighted works without permission for purposes such as research, critique, and commentary, but the application of fair use to video game preservation remains unclear. For instance, copying games for archival purposes may not qualify as fair use in every case, particularly when it involves distributing the copies or making them publicly accessible. Therefore, preservationists often face legal uncertainty when they attempt to safeguard games.[22]

The issue of licensing further complicates video game preservation. Many games contain third-party licensed content, such as music, characters, or other intellectual property that is crucial to the game's identity. These licenses are often time bound, meaning that even if a game is no longer commercially available, the licenses for this content may have expired or may need to be renegotiated. Without the ability to extend or renew these licenses, preservationists may be unable to release or distribute games in their original form.[23] For instance, sports games and licensed adaptations (e.g., games based on movies or television shows) often feature third-party characters or real-world athletes. If the license for these characters expires or the company that owns the rights ceases to operate, preserving and distributing these games legally becomes a complex issue.

Digital rights management software constitutes another crucial impediment that presents a serious challenge to the efforts of video game preservation. DRM is a technology used to protect digital content, including video games, from piracy and unauthorized distribution. It often prevents users from making copies of games or altering them in any way. DRM specifically presents a challenge to preservationists because it can impede the creation of archival copies or emulations of games. For example, the U.S. Digital Millennium Copyright Act prohibits the circumvention of DRM technologies even for the purpose of preservation.[24] This means that circumventing DRM to archive a game can potentially result in legal action even if the game is no longer commercially available. An amendment to Section 1201 of the Digital Millennium Copyright Act sought to expand DMCA exemption for video game preservation in 2018.[25] As

previously mentioned, however, this was rejected by the U.S. Copyright Office in 2024, making DRM one of the most significant and fundamental barriers to comprehensive preservation efforts.

Video game preservationists also face technical challenges from the obsolescence of gaming hardware and software. As gaming technology evolves, older hardware and software platforms become obsolete. Many classic video games were developed for now-defunct consoles or hardware systems, and preserving these games requires access to the original hardware or the creation of emulators that can mimic the original environment. However, even when emulators are available, they often struggle to replicate the precise experience of playing the original game due to differences in the underlying technology or the inability to match specific hardware features.[26] Like hardware, software used to create and run early video games may no longer be compatible with modern systems. As platforms evolve, games developed on older systems may face technical challenges in running on newer operating systems or devices. The deterioration of physical media, such as cartridges or compact discs (CDs), also adds to the problems of preserving games, as does the decay of digital data, known as "bit rot," which causes data stored on these media to degrade over time.[27]

Furthermore, many video game developers did not prioritize the long-term storage of their games' source code, assets, or development documentation. As Samantha Brown and her colleagues note, "Since videogame archiving does not have a set of standards, the videogame industry does not know what to preserve or how to preserve it."[28] As a result, some older games have been lost forever due to the unavailability of original materials.

In other cases, even if the games themselves can be preserved, crucial elements such as original art, music, and game code may be missing. Without access to the source code, game preservationists can find it difficult if not impossible to re-create the original game in its entirety, leading to incomplete or inaccurate preservation efforts. The loss of original game assets and source code also relates to our main arguments surrounding the challenges with online multiplayer games, because many modern games include online-only modes or multiplayer features that rely on the developer's servers. When these servers are shut down, the games become unplayable. Preserving these types of games requires capturing not only the source code but also server data and infrastructure, which is often not readily available or may require reverse engineering. Even if preservationists and archivists can preserve a game's single-player mode, the multiplayer

experience is lost forever, depriving future players of an important part of the original game experience.

Nevertheless, we think it important also to acknowledge one of the major ethical challenges in video game preservation, which concerns determining how to make preserved games accessible. Although some argue that archived games should be made accessible to the public in order to preserve a game's cultural significance and heritage,[29] others maintain that copyright holders should control the distribution of their games, especially if they still hold commercial value.[30] Moreover, selective preservation can lead to the exclusion of some games or groups. For example, marginalized creators or diverse cultural representations in video games may be underrepresented in preservation efforts, thereby limiting access to the full spectrum of gaming history.

As we have indicated, many advocates and organizations dedicated to video game preservation are calling for reforms to copyright law to facilitate the preservation of games without violating copyright. Some have pushed for specific exceptions to copyright law that would allow for the legal emulation and distribution of games for preservation purposes, particularly when these games are no longer commercially available.[31] The most recent and notable efforts to lobby for significant legal changes include the "stop killing games" petition and the "stop destroying games" citizens' initiative based in the United Kingdom, Canada, Australia, and the European Union. These organizations seek to "prevent the remote disabling of video games by the publishers, before providing reasonable means to continue functioning of said video games without the involvement from the side of the publisher."[32]

This finally brings us to the endangered category identified as "games with online play components" and the preservation challenges that they create. Single-player games with online components create layered experiences that complicate both how players understand the game and how institutions attempt to preserve it. *Dark Souls II* illustrates this complexity because its core experience is a self-contained single-player journey, but its larger meaning and a player's moment-to-moment experiences are continually reshaped by online messages, player bloodstains, phantoms, summons, and invasions. To clarify, *Dark Souls II* fosters very specific forms of online interactions. Players communicate through cryptic ground messages and glimpse at one another's past deaths through their "bloodstains." Other players, usually complete strangers, can be briefly encountered through cooperative summons or antagonistic invasions. These interactions are largely ephemeral and unpredictable and serve to create

a sense of a shared world. More specifically, these features produce a sense of inhabiting a world populated by the traces of others, even when playing alone. They also generate forms of emergent narrative and communal authorship that cannot be separated from the game's offline systems. The result is an experience simultaneously solitary and social, because each player encounters a world that is partly coconstructed by the unpredictable actions of a dispersed community.

The preservation challenges that follow from these complex experiences multiply across technical, legal, and cultural dimensions. A static software archives can safeguard the single-player code and assets of *Dark Souls II*, but such an archives cannot independently reproduce server-mediated communication, matchmaking behaviors, balancing patches, or shifting community practices. Capturing player-generated content, such as the distribution of bloodstains or the content of messages, would require sustained access to server logs and proprietary databases that studios rarely release. Even when server code can be technically replicated, it may be legally protected or undocumented, and the online experience itself depends on a living population of players whose behavior cannot be conserved in any traditional sense. These difficulties grow when considering other games like the 2008 *Spore*, which relies on a vast ecosystem of shared creations, or the 2016 *No Man's Sky*, the procedural universe of which is continually reshaped by updates and networked discovery. Their identities unfold across updates, patches, online infrastructure, and emergent user activity, thereby making any attempt at preservation an enormous effort to capture multiple shifting versions rather than a singular stable object.

Studio preservation becomes essential in this context because the original game design studios hold the server software, development documentation, debugging tools, and design records that can meaningfully support future reconstruction or emulation. When such materials are inaccessible or legally withheld, preservationists must rely on partial reconstructions or speculative emulation. The significance of studio preservation becomes clear when we consider community-driven efforts to restore inaccessible online features. For example, the "Archstones," a private server project for *Demon's Souls*, revived online functionality only months after the official server shutdown, demonstrating how central these features are to the game's identity. But the Archstones also illustrates the limits and risks of such initiatives, as the server entirely depends on emulation of the PS3 version of *Demon's Souls,* making its legal status uncertain and its actual implementation an approximation of the original server logic without access to FromSoftware's internal resources. Similarly, the "Dark Souls—Open

Server" project supports only the Steam/PC versions of *Dark Souls II* and *Dark Souls III* by offering alternative multiplayer infrastructures, yet it faces comparable issues of legal ambiguity and incomplete fidelity. These projects highlight both the cultural demand for preserved online experiences and the structural barriers imposed by proprietary architectures and copyright law.

Traditional Digital Preservation Methods and Assembling the Aura

With the goal of preserving online experiences in games with online play components, we must assess the potential for using traditional preservation frameworks in order to situate the "aura" as a radical and accessible preservation and exhibition method. Using *Dark Souls II*'s online experiences as our main case study, we establish the aura of the game as a set of tangible and intangible features built through the assemblage and exhibition of the paratexts that construct and contextualize the intertextual and intermedial elements of the overall game experience. To understand Guay-Bélanger's notion of aura as a preservation structure, we define digital preservation frameworks in a museum context, then we review some of the possible challenges that can occur even as we establish the meaning of aura and the assemblage for a game. Finally, we examine both the theories and methods of games preservation to understand how this aura can help us develop a clear digital preservation framework.

The work of preserving video games in museums is still developing, in part because traditional methods of conservation and exhibition change when a conservator faces video games as artifacts. The preservation of a video game lies beyond the fairly robust and well-documented methods of conservation in relation to the physical hardware, including the plastics and metals involved. But preserving a game's software, its digital format through its code, may be arguably more important, because if there is no code, there is no game with which people can interact. This presents its own set of unique preservation challenges. Yet it still concerns just the presentation of the video game, not necessarily the contextualization of the game's importance. Such concerns are common for many museum objects as well, because for centuries it has always been the physical that is preserved for exhibition. Although it is true that many museum objects may not have software, they are nevertheless meaningless without the stories, the history, and the other intangible elements attached to them, which are all

key to an exhibit. Considering these elements, we can begin to see the notion of the aura of museum objects and games.

When we engage in digital preservation, we must acknowledge the core elements of traditional digital preservation frameworks. The framework described by Adrian Brown, who uses the "sustainable development goals" of UNESCO in order to develop uniform preservation approaches for museums across the world, significantly helps us establish some baseline digital preservation standards.[33] As a first step, we note the three characteristics for archiving digital artifacts: reliability, integrity, and usability.[34] Reliability dictates that the digital record must be a "full and accurate representation of the cultural or business activity to which it attests."[35] Integrity requires "the record to be protected against unauthorized or accidental alteration."[36] And usability refers to the notion that the record can be accessed in a meaningful form through time.[37]

The foundation for the preservation of video games consists of two central concepts. First, bitstream preservation involves the series of activities required to maintain the integrity of the respective bitstreams. And second, we need the logical preservation of the bitstreams so the information can be rendered in meaningful ways throughout time.[38] Given this foundation, how then is the aura established? Much like when we label a fossil a "dinosaur" or an ancient ceramic a "pot," the final piece of this digital preservation framework involves its "organization viability, stakeholder management, legal basis, policy framework, acquisition and ingest, metadata management, dissemination, and infrastructure."[39] It is with these elements that the aura of a video game—and the online presence of *Dark Souls II*—can fulfill the criteria that we have laid out and can develop more fully into its own unique preservation framework.

When looking at The Strong National Museum of Play's *Digital Preservation Handbook*, one can see that, in accordance with the "chronology of technology," the focus should be on the preservation of bitstreams and metadata from everything between floppy discs to digital media platforms, including video formats such as laserdisc and VHS as well as field-programmable gate array (FPGA) emulation.[40] The Strong's methods of preservation fall within one or more of the technical aspects of video game preservation, including: "The upgrade of storage mechanisms, migration, the premeditated upgrade of file formats, emulation and re-interpretation through the lens of presentation, exhibition, and performance of an interactive variable media art object."[41]

In a 2024 interview, Frank Cifaldi, founder of the Video Game History Foundation, laments, "The big problem I had in my own research is . . . we don't

have a complete snapshot of how people responded to games in their time."[42] In this context, games resemble the artifacts and objects exhibited at any museum, because many museums look past the preservation and conservation of exclusively physical objects. We believe that when people go to museums and exhibits, they are ultimately looking for snapshots and representations of authentic lived experiences. This has led conservators and museum professionals to consider the preservation of objects not just as a process of preserving the tangible but the intangible as well. Consider UNESCO's definition of intangible cultural heritage in the 2003 "Convention for the Safeguarding of Intangible Cultural Heritage"[43] and ask: How might video games like *Dark Souls II* fall under this definition?

> Intangible Cultural Heritage
> (a) oral traditions and expressions, including language as a vehicle of the intangible cultural heritage;
> (b) performing arts;
> (c) social practices, rituals, and festive events;
> (d) knowledge and practices concerning nature and the universe;
> (e) traditional craftsmanship.[44]

With this in mind, we may finally discuss the concept of the aura and how it can be developed and realized more fully as a framework for exhibits that capture an intangible cultural heritage.

Guay-Bélanger largely defines the aura of games as an assemblage of sources that surround and characterize both the individual game itself and personal, subjective gaming experiences. Citing Melanie Swalwell, Bruno Latour, and Adam Lowe, Guay-Bélanger explains that a game's aura arises from the varied material conditions of play and gains further meaning through the networks of its reproductions. By using the term aura, he means to capture the multivalency of video game experiences because it describes authenticity as something produced through many versions and surrounding paraphernalia rather than being housed in a single original, thereby demonstrating that a game's identity is fluid, distributed, and ultimately sustained by the continual interplay of changing contexts of use.

> Video games are assemblages of many different origins and the combination of art forms, culture, and technologies. They are also social and, as a result, defined by their users. . . . Indeed, the articulations,

> intertext, and paratext of a game all hold a game's aura and are all part of the game-assemblage. They are fragments of that game's history and therefore also hold the aura of a game's history, and seeing them as such has potential to move the field of video game preservation forward.[45]

In other words, a game's aura can be discerned through the methods by which it is proliferated, distributed, copied, and played, alongside the subsequent materials that are derived and developed from it.

This perspective broadly aligns with the findings from the important *Preserving Virtual Worlds Final Report* from 2010, which specifically emphasizes the importance of archival collections, preservation strategies, and the issues surrounding broader data ecosystems and software artifacts such as video games.[46] It is here that concepts such as intertextuality and paratextuality are necessary components that form the assemblage of a game, because the assemblage further gestures toward media derived from the game that include films, comics, online fan forums, online videos, and streams. Thus, the aura ultimately seeks to capture how a game's intangible history has been preserved as a representation of authentic experience. This is all to say that by examining the ever-growing intermedial nature of video games, the preservation of a game's aura bears remarkable similarities to the preservation of the intangible histories and stories of cultures that museums have attempted to preserve, represent, and retell for centuries.

What then, can be assembled? To answer this question the aura of a game must be broken down into concepts, media types, and further contextualization. We must establish the types of intertextuality, intermediality, and paratexts that exist for a game such as *Dark Souls II*. First, we have to acknowledge the existing challenges of preserving the aura of *Dark Souls II*. "According to the Digital Preservation Coalition (DPC), games that have online elements for interactive play through online multiplayer components are in a state that they define as "practically extinct in the presence of aggravating conditions." This involves, the DPC continues, a "lack of skills, commitment or policy from corporate owners; always online DRM; controversies around intellectual property rights (IPR); lack of offline backup; changing business model of providers; limited recognition of value of game play; over dependence on goodwill of ad-hoc community; lack of preservation know-how at service providers; dependency on bespoke hardware or interfaces; complex hardware dependencies or bespoke hardware."[47]

Viewing the preservation of *Dark Souls II*'s online experience through the

elements of viability, stakeholder management, legality, policy, acquisition and ingest, metadata management, and dissemination and infrastructure makes preserving the online experience more difficult. Thus, we must consider what constitutes the aura of *Dark Souls II*, including all of its intangibles. Thankfully, we have access to a variety of documents and materials for most games. These include documents relating to the conception, development, planning, management, marketing, scripting, technology, and design of computer and console games; art (in the form of drawings, paintings, sketches, diagrams, block diagrams, play charts, environments, and other forms involved in game development projects); digital files (including development documents, art, programs, source code, images, e-mail correspondence, planning data, contracts, and business plans); physical game platforms (including computers, consoles, cartridges, diskettes, controllers, sound boards, speakers, and especially early models that are no longer available for play); collateral materials used in marketing or developing games (such as posters, cutout figures, play weapons, photos, costumes, and vehicles used to convey the sense of the games); business documents related to the operation of the game business; and player material (such as e-mail correspondence, websites, and game magazines.) [48]

With the potential from this vast and accessible documentation, surely the aura of a game may be captured and exhibited. However, even with all of these sources, we have not adequately addressed how to preserve the aura of *Dark Souls II*'s online experience. Simply put, a central or official document that explains how *Dark Souls II*'s online experience was constructed and experienced does not exist, and even if it did, it is not the same as the personal stories, moments, and experiences of the various individuals who actually played the game online. To that end, we argue that the aura must include new possibilities. In order to capture the aura of *Dark Souls II*'s online experiences, we must expand our definition to include actual play experiences and the personal stories that players have created. We are discussing an enormous assemblage of intertextual, intermedial, and paratextual materials constituting the various stories that emerge from the online spaces of YouTube, Twitch, GameFAQs, Reddit, and other platforms.

The sources for establishing the collective experiences of engaging with *Dark Souls II* number in the hundreds of thousands, because these stories emerged across countless media platforms and were reexperienced in many forms over time. Such records encompass both prominent community narratives and everyday player interactions that together provide insight into participat-

ing in the shared, contemporaneous online experience of the game. But these moments cannot be easily re-created, if at all, thanks to the numerous obstacles the DPC has outlined.

This is especially true for the PS3/Xbox 360 versions of *Dark Souls II*, whose online environment was a distinct, largely isolated, ecosystem. It ran on the original pre-*Scholar of the First Sin* (*Dark Souls II*'s remastered "complete" edition) rule set, used older netcode and matchmaking behavior, and hosted a much smaller legacy community. Together, these factors mean that the social and experiential textures of online play on such legacy platforms are fundamentally different from newer online-enabled systems, making the re-creation of those original shared moments even more elusive. That said, we are able access and interact with the people who recorded, commented on, and released their experiences to the public while playing the original game, and this allows the aura of *Dark Souls II*'s online PS3/Xbox 360 experience to be contextualized and, potentially, displayed so that it may preserve not just the data of the game but the intangible spirit of authentic experience.

Exhibiting the Aura

To conceptualize how an aura exhibit of *Dark Souls II* might capture its original online experience after its servers have died, we must seek other exemplars to serve as blueprints. One of the more striking and recent examples comes from a 2018 exhibition at the Victoria and Albert Museum in London, England, titled *Design/Play/Disrupt*.[49]

The exhibit showcased both games from major publishers and indie video games and sought to explore and celebrate "the cultural impact, diverse innovation, and forward-thinking ideas of [video games as an] evolving interactive medium, with a special focus on its creators."[50] Of particular note was the *Bloodborne* exhibit which focused on "The Art of Combat" (see figure 1). *Bloodborne* belongs to what players and critics commonly call the "Soulsborne series," a portmanteau used to describe a group of action role-playing games developed by FromSoftware. These share a distinct design philosophy characterized by high difficulty, environmental storytelling, asynchronous online interaction, and an emphasis on dark fantasy aesthetics. For most, the term basically signifies a recognizable art style and mode of play. *Dark Souls II*, as part of this lineage, features online functionalities that produce a persistent sense of shared presence (i.e.,

the aforementioned apparitions, messages, summons, and invasions) despite limited direct communication. These functionalties embed social interaction into the fabric of the game itself in ways that parallel *Bloodborne*'s multiplayer design and make it a particularly apt point of comparison for imagining how such experiences might be exhibited. As a critically acclaimed video game developed by FromSoftware and released in 2015, *Bloodborne* also features many of the same mechanics and aesthetics as its Soulsborne brethren.

Still, *The Art of Combat* was not a playable exhibit. As games writer and critic Alan Wen wrote in his personal blog in 2018.

> Instead, an installation from YouTuber Matt Lees, gives a wonderful breakdown of just the fight with the game's first boss, the Cleric Beast. With his narration of the fight on the big screen, while another screen below captures his hands wrestling with the DualShock controller, and another screen shows all of his countless deaths, it's a clever and riveting distillation of just what makes combat so exciting and terrifying in *Bloodborne*, as the game's mechanics balances a tightrope of pushing you to take risks as well as make you panic and make a fatal mistake.[51]

Echoing the arguments of James Newman[52] and Henry Lowood,[53] we hold

Figure 1. *Bloodborne Exhibition: The Art of Combat.* Courtesy of the Victoria and Albert Museum.

that this exact process of recollection, recounting, and representation best captures the aura of an individual's subjective yet authentic experience regarding the actual feel of playing the game. The audiovisual storytelling allows the re-creation of the embodied and affective firsthand experiences with the game's world and mechanics while carefully eliding the difficulties we discussed in preserving the actual code, servers, software, and hardware that compose the game itself.

If we return to Muncy's vivid description, we see that players through their own recollections may invoke the aura of a game by recording their experiences now lost to time and server death. The conservator thus becomes a gatherer of aural, written, and visually recorded stories and a permission seeker of those individuals willing to share their stories in a large collectivity that represents the aura of a now dead server. Using Lowood's "Computer Game Archive of the Future"[54] as a thought experiment, we find that an aura exhibit of *Dark Souls II*'s dead servers may include YouTube videos, archived Twitch streams, evocative and detailed forum posts and transcripts from fan sites and fan wikis, screenshots, and vivid recollections of famous (or famously forgotten) community members, such as the YouTuber PVPSkillz[55] who saw the height of his popularity as a competitive multiplayer dualist during *Dark Souls II*'s initial release. An aura exhibit of *Dark Souls II*'s deceased multiplayer features might ask the attendees to immerse themselves willingly in a collection of voices and experiences seeking to preserve the memories and emotions that made the game's multiplayer experience so meaningful to all those involved.

To illustrate, we might include such suitable paratextual materials for *Dark Souls II* as archived YouTube videos and Twitch streams that document invasions, duels, cooperative boss encounters, and emergent player rituals. For example, *Dark Souls II*'s Bell Keepers "covenant" (a term describing in-game multiplayer organizations) embodied a uniquely chaotic and wildly popular multiplayer phenomenon marked by incessant invasions and emergent player rivalries whose scale, spontaneity, and intensity are now practically impossible to replicate in modern iterations and servers due to the significantly smaller player base. Forum threads and fan wiki discussions that capture strategies, etiquette debates, and community memes and humor could be archived alongside screenshots and short clips once shared on social media for the purpose of reflecting on feelings of tension, camaraderie, frustration, or triumph through fleeting multiplayer moments and personal written recollections. Such materials preserve significant experiential aspects of play that cannot be recovered from

the game itself, including the rhythms of matchmaking, the social norms that governed player interaction, and the sense of simultaneity produced by playing alongside thousands of others at a particular historical moment that further illustrates the emotional stakes of loss and victory. Together, these paratexts can specifically document the original PS3/Xbox 360 iteration of *Dark Souls II* as actually played, affectively felt, discussed, and ultimately remembered.

An aura-focused exhibit of *Dark Souls II*'s now-defunct PS3/Xbox 360 multiplayer servers therefore presents an immersive assemblage of voices and traces that foreground the lived experiences of players rather than a single authoritative narrative. By integrating the standards and regulations of museum curation with the selection and contextualization of preserving paratextual materials, such an exhibit would acknowledge the urgency for museums to collect community-generated work right now. Doing so would offer future audiences a powerful understanding of *Dark Souls II*'s original multiplayer environment and could further reveal the game's aura that persists in the memories and records left behind by its players even after the servers themselves have gone dark.

Creating and Evaluating Assembled Aura Exhibits

The purpose of exhibiting the assembled aura of a game is to understand the collective emotions and forms of human engagement for particular games in gaming history. To do so effectively, new methods for fostering exhibit engagement must be explored. Just as with the *Bloodborne* exhibit, which experimented using media and footage focused on the assemblage of its aura, hybrid approaches for museum exhibits have been in development for some time. As a theoretical exhibit, we might consider an immersion room for *Dark Souls II*'s assembled aura and draw inspiration from Luigina Ciolfi's design for hybrid exhibitions. Ciolfi holds that there are "four broad approaches to designing hybrid interactivity: virtual-physical overlay; hybrid objects; virtual-physical assembly; and hybrid takeaways."[56]

For the assemblage of *Dark Souls II*'s aura, we will only focus on the virtual-physical overlay over the other approaches because we are mainly interested in the portrayal of the aura through audiovisual mediums. This is not to say that the other approaches should not be considered but rather that the virtual-physical overlay focuses more on the virtual aspects than the others, which require clear material components. Hybrid objects, virtual-physical assembly, and hybrid takeaways require more physical aspects and tangible forms of materiality for

them to function properly, which in turn makes every problem and issue we have outlined a challenge. Good examples of virtual-physical overlays can be as simple as the immersion rooms displayed at institutions such as the Cooper Hewitt, Smithsonian Design Museum (see figure 2), which allow physical structures to be designed and displayed as a projection surface for virtual content.[57]

This approach translates particularly well to *Dark Souls II* because the game's online experience is already structured as a layered interaction between solitary play and persistent encounters with other players. Because online interactions in *Dark Souls II* are mainly mediated through audiovisual traces and brief moments of contact, an immersion room could be used to convey the aura of *Dark Souls II*'s online play by translating these ephemeral interactions into an enveloping virtual-physical environment. Large-scale projections might re-create key in-game locations, such as Drangleic Castle or the Belfries, onto physical surfaces while layered audio captures the ambient sounds of the world interwoven with moments of multiplayer activity (e.g., the subtle audio cues associated with player summons and invasions). Overlaid projections of translucent player phantoms that appear and disappear in real time would mirror the game's asynchronous online presence and reinforce the sensation of coexisting with unseen others.

Recorded paratextual material, including archived game play footage,

Figure 2. The immersion room. Courtesy of the Cooper Hewitt, Smithsonian Design Museum.

curated clips of invasions or cooperative encounters, and anonymized player messages drawn from forums or in-game text, could be dynamically integrated into the space and appear as projections or sound bites triggered by visitor movement. In this way, the immersion room would attempt to preserve and communicate *Dark Souls II*'s experiential qualities—unpredictability, tension, solidarity, and communal simultaneity.

By using a virtual-physical overlay, the exhibit could illustrate how *Dark Souls II*'s online interactions operated and why they mattered by presenting the game's lost multiplayer aura as something that can still be felt and understood even in the absence of live servers. The assemblage of a game's aura through a virtual-physical formation ultimately provides a new and unique interaction with an exhibit, allowing exhibitors to focus on digital elements alongside specifically curated material components. The ultimate goal would be to allow visitors to interact with an exhibit in ways headsets, handheld tablets, and phones cannot easily replicate, thus providing an experience as unique as the fantasy world of *Dark Souls II* itself.

Conclusion

The immediate challenges surrounding the preservation of games with dead servers will be the legality, acquisition, and metadata management associated with it—and the time needed to deal with them. Considering the fact that there are unique aura-based alternatives, such as the *Bloodborne* exhibit, the legalities of acquiring media from community members who have participated, created, and developed their interpretations of these online experiences will be far easier to handle. The hope for future exhibitions that feature the preserved auras of games is that they allow audiences not only to understand a specific game's influence on gaming culture, but also to understand exactly what made that game's experience particularly unique or influential. We may never be able to directly embody and walk in another's shoes, but bearing witness to a community and being exposed to its collective aura is a close second. The emotions that these future exhibits could evoke will allow any viewer or audience member, like the ghosts and players that inhabit the world of the Soulsborne games, to learn and experience the game through the experiential aura of past shades.

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