

12 JUNE 2025 14.00 - 17.00

Panel 30. The Intersection of STS and Video Game Studies: Exploring Recuperation, Reconfiguration, and Regeneration within and beyond the Social through video games

Convenors:

José David Gómez-Urrego, Abertay University

Stefano De Paoli, Abertay University

Keywords: Video games, digital media, making kin, new sociotechnical imaginaries

This panel seeks to explore the interactions between STS and video game studies, focusing on case studies of recuperation, reconfiguration, and regeneration that may encompass socioeconomic, ecological, cultural, organisational and spiritual dimensions. As a form of digital media and technoscientific practice, video games and their arenas of creation offer rich sites for examining how complex socio-technical systems can be reshaped, reimagined, and even resisted by players, developers, and wider assemblages alike (Gray, 2020; Jensen & DeWinter, 2021). While traditionally viewed as a form of entertainment, video games are also powerful tools for social and political critical engagement, raising questions about who defines 'good' technoscience, why video games should be reduced to entertainment, and how video games can serve as a medium for imagining and triggering processes of social and ecological transformation (Tudor, 2017; Voorhees, 2018; Shaw, 2014).

This panel invites papers that consider the following questions, or other questions that explore the intersection of video games and STS:

- How do video games and their arenas of creation open opportunities for social recuperation, where marginalized or excluded groups use digital spaces for healing, resistance, and reasserting agency?
- In what ways do video games and game development practices facilitate or resist the reconfiguration of technoscientific norms and values, especially in terms of ethics, fairness, and inclusivity?
- How do games contribute to social and cultural regeneration, not only by imagining new worlds but by offering frameworks for rebuilding societal relations and infrastructures in the face of socioecological crisis?
- How do organisations appropriate video games and how do video games influence organisations and organisational change?

By linking STS with video game studies, this panel aims to uncover the technoscientific potentials and challenges posed by gaming practices and technology. It will engage with concepts of epistemic justice, making kin, care, practice, repair, and the politics of artifacts, asking how video games might offer alternative visions of technoscience, and sociotechnical imaginaries, or expose the limitations of technoscientific developments that fail to serve diverse communities (Haraway, 2017; Ruberg & Shaw, 2017; Wagner & Gatuszka, 2020). This interdisciplinary conversation will draw on both theoretical and empirical studies of gaming, video game communities, and historical studies of video game clusters, to rethink the role of digital media in human and non-human processes of recuperation, reconfiguration, and regeneration.

This panel will consist of traditional paper presentations followed by an open discussion. However, we encourage experimental contributions, such as interactive demos, short gaming sessions, or collective discussions.



ID 221 - Antiquity for Sale: Game Engines, Asset Stores, and the Platformization of the Classical Imagination

Kevin Wong, Harvard University

Keywords: Game Engines, Asset Stores, Platformization, Classical Antiquity, Game Development

Ancient Greece and Rome offer an influential imaginative frame for the videogame industry. Games that explicitly adapt the classical world and its mythology—including well-known titles like Assassin's Creed Odyssey, Hades, and God of War—continue to attain widespread acclaim and commercial success. Besides these more direct examples, classical antiquity is constantly adapted, in tandem with other cultures and histories, into source material for more generic fantasy worldbuilding—for instance, throughout the long-running Final Fantasy franchise. Encountering antiquity as it is reflected in its visual and narrative in-game representations (as classicists who work on games have tended to do—see Lowe 2009; Rollinger 2020; Clare 2021), however, brings us face-to-face only with the end products of a long and often opaque process of creation. This presentation ventures a glimpse behind the curtain—to examine the sociotechnical processes by which these visions of antiquity are integrated into the commercial realities and creative possibilities of modern game development.

To this end, I examine the production and sale of game assets in the Unity Asset Store and Unreal Engine Marketplace, where representations of the ancient world take form as neatly packaged commodities for business-to-business transactions, sold by asset artists to game studios as tools for efficient game development. The commodification of antiquity within what is, in effect, an online marketplace has transformed asset stores into important sites where culture and history undergo commercialization. I argue that the sociotechnical processes underlying asset stores (i.e. modes of asset classification, search algorithms) lead them to generate selective visions of 'the classical' within contemporary videogame development. Accordingly, they do much more than mechanically facilitate the sale of classically-inspired game assets; they actively mediate the flow of historical material, trafficking in cultural signals of demand, availability, and imaginative possibility.

This paper engages, on one hand, with the active field of research exploring how commercial path dependencies have channeled creative production onto dominant and hegemonic platforms like Unity and Unreal Engine (Foxman (2019) 2; Nieborg and Poell (2018); Nicoll and Keogh (2019); Chia et al. (2020); Young (2021)). Conversely, it also explores how game developers challenge and reconfigure those prevailing technological affordances through an intentionality about representing lesser-known aspects of the classical world.

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ID 345 - The Reappropriation of Arcade Video Games in Italy: A Platformisation from Below?

Sergio Minniti, Universitas Mercatorum

Keywords: platformisation, user innovation, retrogaming, arcade video games

The presentation explores the intersection of Science and Technology Studies (STS) and Game Studies by analysing the reappropriation of arcade video games in Italy. It conceptualises the practices developed by arcade video game enthusiasts over time as "platformisation from below," emphasising user-driven transformations of (obsolete) gaming technologies beyond institutional platformisation. By critically linking STS and Game Studies, the presentation offers insights into the role of users in (retro)gaming and (retro) innovation, providing an alternative perspective on platformisation that foregrounds grassroots technological engagement. It argues that bottom-up initiatives can drive alternative processes of platformisation, reshaping gaming ecologies and socio-technical infrastructures. Drawing on STS perspectives that focus on user innovation, it shows how arcade video game enthusiasts are reappropriating and reinventing past technologies to construct new social worlds. By doing so, the presentation aims at extending the discourse on the platformisation of gaming beyond its original institutional dimension. Drawing on qualitative data and analysis, the presentation identifies three phases of reappropriation of arcade video games, which together contribute to a complex platformisation process: (1) software adaptation through emulation and preservation; (2) material reappropriation of arcade cabinets; and (3) reconstruction of arcades as community spaces. These practices illustrate how users generate new socio-technical configurations and develop complex, multi-layered platforms from below, fostering both continuity and discontinuity in gaming cultures and technologies.

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ID 438 - Defusing toxicity by disclosing vulnerability: the role of Twitch communities in changing gaming culture

Roberto Carradore, Università degli Studi di Milano - Bicocca

Tiziana Pirola, Università degli Studi di Milano - Bicocca

Keywords: gaming culture, toxicity, vulnerability, Twitch.tv, online multiplayer gaming, sociology of knowledge, cyberspace, cyberplace

Gaming is an embodied activity that takes place across a variety of sociotechnical assemblages, characterized by specific cultural codes that are the result of complex interactions between technological affordances and an emergent, collectively produced, ethos. In our contribution, we examine online multiplayer gaming and Twitch.tv as cyberspaces (digital contexts made of artifacts, interfaces, affordances and infrastructures) and cyberplaces (relational and semiotic contexts made of actors, discourses, values) (Galimberti et al. 2011). Together, they represent the key sites where current gaming culture is produced and transformed: online multiplayer games are the main arena for experiencing the social dimension of play and competition, and the lattice on which eSports are built, while Twitch is where gaming becomes a spectator activity and communities form around the experience of watching someone live-streaming their gaming.

Many studies showed that online multiplayer games can feed a toxic environment characterized by harsh competition, trash talking and even harassment (Kim & Ortiz 2024; Zhang et al. 2024; Beres et al. 2021). On the other hand, despite the presence of toxicity on Twitch (Han et al. 2023; Kim et al. 2022), it represents a space that nurtures the formation of social ties between viewers and the development of communities (Taylor & Romine 2018). We previously analyzed female streamers' strategies to deal with sexism and create healthy communities (Authors 2022), described how streamers face uncertainty and precariousness in



building a career within a platform they have no control over (Authors 2024a) and discussed how Twitch represents the new battleground for long-standing conflicts in gaming culture (Authors 2024b).

Here, we argue that there is a change in attitudes towards toxicity in gaming culture that can be read, from the perspective of the sociology of knowledge, as a shift from "negative knowledge", where certain topics are treated as illegitimate and rejected, to "non-knowledge", where unknowable topics become legitimized as worthy of being discussed (Gross 2010).

We contend that Twitch has become a place where vulnerability and disclosure on the part of streamers carve out pockets of agency and resistance against the toxic traits of gaming culture, giving voice and visibility to issues such as sexism, mental health and LGBTQ+ identities, that in turn transform the conversations around these issues in the wider gaming community. Self-reflexive conversations foster inclusive communities that question the dominant ethos in gaming culture, which frames toxic behaviours as harmless and immaterial and as an individual problem.

Bringing together insights from the literature on toxicity in online multiplayer gaming and Twitch, we propose a theoretical framework to shed light on this process of change and suggest new avenues for research on the perception of well-being and self-care and the acceptance of discourses on mental health issues in gaming communities.

All of these relational and discursive transformations can be thought of as a step towards embracing the materiality of the body, beyond the dream of escaping its constraints that characterized the techno-utopian ethos of geek culture.

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ID 476 - Reconfiguring the Ecological Science of Videogames Beyond (Photo)realism

David Harold Ten Cate, Queensland University of Technology

Keywords: ecological science, photorealism, mesocosm, compositionist manifesto, Latour

In increasingly pernicious times of the climate crisis, the ecological reimagination of society is more urgent than ever. Videogames have a marginal yet profound impact on global carbon emissions – 0.04% according to estimates (Abraham 2022) – but, perhaps as importantly, communicate to billions of gamers around the world. Games are, in this sense, for better or worse, important mediators of encounters with ecological issues.

According to Alenda Chang (2019), games are innately ecological artifacts. Chang calls games mesocosms, or "mini-ecosystems" – functional arenas of a size usefully intermediate between field experiments and laboratory conditions, which replicate select aspects of the surrounding world" (Chang 2019, 19-20). Chang's definition reveals that games' established technoscientific potential (Harvey 2011; Dudo et al. 2014) naturally extends to ecological science. By modelling the physical world, games can engage players in thinking about physical processes, particularly those associated with the climate crisis.

Yet, with Chang's approach comes the question: what kind of games may negotiate the ecological crisis effectively? The recent history of videogames tells a pessimistic story, with games generally objectifying the environment (Abraham and Jayemanne 2017), and incorporating natural processes according to ideologies of colonialism (Mukherjee 2024) or extractive capitalism (Op de Beke 2024). What's more, the regressive politics custom to many mainstream games are exacerbated by their representational properties, which continue to portray the environment as inert. These forms of representation have become widespread due to standardized game development practices, and tend to prefer realistic look over realistic interaction (Chang 2024).

This paper explores the regimes of representation in mainstream games as constitutive of their potential for (re)configuring ecological science. Particularly, the representational ideal of (photo)realism in games is considered central to regressive ecological politics. By pursuing realistic representation in game design,



games fall into normative models of representation that are wont to both increase environmental cost – due to increased graphical prowess – and objectify natural processes in games. Bruno Latour's (2004) analysis of 'nature' as an objective category of science should be invoked here, as according to photorealism, 'nature' is encountered insofar it is measured in detail. Therefore, the question of games as ecological science should be to politicize natural processes rather than take them for an increasingly detailed objective fact.

To do so, games must politicize scientific representation itself. Following Latour's compositionist manifesto (2010), which provides an alternative approach to science that embraces its subjective construction and inherent instability, games should embrace the subjective construction of themselves as mesocosms. A straightforward path to pursue this purpose is to renounce purely photorealist drives and make the game's contents correspond to a more idiosyncratic interpretation of visual representation (cf. Hemraj 2024). This paper exemplifies how a 'compositionist drive' in game design has the potential to reconfigure science ecologically, through case studies of *Untitled Goose Game* (2019), *Alba: A Wildlife Adventure* (2020) and *The Legend of Zelda: Tears of the Kingdom* (2023).

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ID 521 - Gamification and Citizen Participation: A Reconfiguration of Engagement Dynamics Inspired by Games?

Tisserand Carole-anne, Mines Paris – PSL

Keywords: gamification , role play , video game , participation , public innovation

This presentation, based on my doctoral research, explores how gamification transforms citizen participation practices by drawing on game mechanics. Through the study of the Smart team of the regional council, which develops a collaborative innovation approach called co-construction, I analyze how the gamification of learning and participation shapes the engagement of both citizens and innovators. The use of persona sheets (fictional characters designed, in this case, to represent different types of citizens in participatory processes), role-playing-inspired simulations, and experiments with digital participatory platforms illustrate the influence of games—both video and non-video—on the structuring of co-construction as a collaborative type of innovation. Drawing on Science and Technology Studies (STS) and game studies, we will discuss how these participatory practices reconfigure interactions between institutional actors and citizens, while also questioning the effects and limitations of gamification. By combining empirical and theoretical perspectives, this contribution seeks to examine the role of play in contemporary participatory mechanisms and the sociotechnical imaginaries they convey.

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ID 583 - Fighting over the past in the digital realm: between transnational reconciliation and weaponized exclusion in publicly supported historical digital games

Olga Kalashnikova (University of Turin), Jakub Šindelář (Univerzita Karlova)

Keywords: historical games studies, digital public history, technopolitics of memory, national histories

Video games can be part of reactionary exclusionary rhetoric and politics, as shown by the misogyny-ridden phenomenon and harassment campaign of #Gamergate (Mortensen, 2018). Moreover, due to its interactive nature, this medium can also function as a powerful tool for historical storytelling, shaping public perceptions of the past through digital experiences. At the same time, digital games reflect certain societal expectations and stereotypes about the past and inevitably bear traces of socio-political and economic contexts they are produced in. Drawing on the technosocial perspective of the STS (Winner, 1993), historical games studies (Chapman, Foka, and Westin, 2017), and public history approaches to digital games (Nolden, 2019), this paper explores how democratic and autocratic contexts shape game development,



influencing the recuperation of history either as a means of inclusive negotiation of the difficult past or revisionist remediation of history.

We compare two contrasting approaches to historical recuperation in video games produced in democratic and autocratic milieus: the inclusive, anti-war, human-centered narrative of *Valiant Hearts: The Great War* (Ubisoft, 2014) and the exclusionary, state-driven historical narratives in *The Russian Counterintelligence Service – The Beginning* (Tekhnologii Replikatsii, 2022) and *Smuta* (Ciberia Nova, 2024). To do so, we examine game design choices, narrative structures, and player reception, highlighting how games can encourage critical engagement and the processing of (difficult) pasts or serve as ideological instruments to manufacture patriotic loyalty and civilizational antagonism.

We demonstrate that while *Valiant Hearts*, developed in cooperation with the French centenary umbrella organization *Mission Centenaire*, fosters historical empathy and transnational solidarity by centering diverse perspectives on World War I, Russian state-funded historical games weaponize the past to reinforce nationalist and discriminatory rhetoric, depicting a besieged nation that defends its traditional values and sovereignty against external spiritually corrupted enemies. By contrasting these two cases, our contribution argues that video games not only reflect existing political structures but actively shape historical consciousness, either expanding or constraining the possibilities of social recuperation through digital media. The government support for all of the examined cases indicates that their potential is also recognized and utilized by the national authorities.

References:

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ID 666 - Playing with Futures: Using Game Jams to Critically Think Through Socio-ecological Transformations

Clara Valdés Stauber, Technische Universität München

Dominic Lammar, Technische Universität München

Amy Clare, Technische Universität München

Keywords: game jam, science-fiction, critical futures, pedagogy

When thinking through the grand challenges and socio-ecological crises we face today, turning to the intersection between art and science can be one productive avenue of critical engagement and pedagogy. As lecturers at the Technical University of Munich (TUM), we have turned to video games and science fiction as tools to think through the complexities of the 21st century with our students. The course „A Different Kind of Game Jam: Reflecting Science, Technology and Society through Game Design” is a recurring project week at the TUM Center for Culture and Arts. It is open to all study programs and brings together students from fields as diverse as Games Engineering and Science and Technology Studies. Students receive input on Science and Technology Studies perspectives, highlighting the possibilities for using the medium of video games as a creative means for reflexivity. The students develop a video game concept in interdisciplinary teams, supported by ongoing mentoring to additionally provide organically emerging input from STS and the arts.

In this talk, we foreground our experiences using dystopian science-fiction narratives as a starting point for students to critically reflect on - and play around with - the design choices behind science-fiction narratives they are familiar with – be it from movies, games or literature. Science fiction, long a site for speculative



engagements with technoscience, provided a shared framework for participants to explore how dystopian and utopian imaginaries shape understandings of the present and possible futures.

Using specific examples, we traced the narrative decisions shaping these worlds, identifying the contemporary developments they extrapolate and the social, political, and ethical values they inscribe. Drawing on these sensitizing exercises, we then asked students to develop their game ideas featuring a dystopian world of their own making.

Our experience highlights the potential of video games as a heuristic for engaging interdisciplinary groups of students in critical discussions about the future. As sites where technoscientific possibilities are imagined, negotiated, and contested, video games offer a dynamic space for questioning dominant narratives of progress, innovation, and crisis. By making game mechanics and world-building decisions explicit, students can reflect on the values, assumptions, and exclusions shaping technological imaginaries and experiment with alternative trajectories. This approach fosters critical engagement with science and technology and creates a collaborative, creative environment where diverse disciplinary perspectives can intersect—encouraging students to collectively explore more just and inclusive futures.

In this talk, we describe what happened when we used video games in a practical context where an interdisciplinary group of students could develop ideas (world-building) to critically engage with the values, norms, and socio-ecological dimensions of contemporary technoscience. From this experience, we want to raise broader questions relating to how to combine theory and practice with video games, how formats of game jams can be used as a format of public participation (e.g. for vision modulation and technology assessments), and how can these efforts be sustained beyond the classroom?

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ID 708 - The house that Yellow and BoxeR built: Gaming houses as organisational spaces and their role inside the esports ecosystem

Alessandro Franzó, Università degli Studi di Milano Statale

Keywords: esports, organisation spaces, digital ecosystems, playbour

We live in a "ludic century" (Arlt & Arlt, 2023; Zimmerman & Chaplin, 2013), where video games influence our thinking, relationships, and working patterns (e.g., Abend et al., 2019, 2021). While this impact has often been examined through "gamification" (Deterding, 2012), this work focuses on competitive gaming or esports. We aim to demonstrate how gaming has become "workified" (Ahlström & Fors, forthcoming) alongside other leisure activities (Duffy, 2017; Ferrer-Conill, 2018; Yuan & Xie, 2024). Our analysis gets underway from the empirical ground of gaming houses, which exemplify how these environments operate as organisational spaces interwoven with digital ecosystems (franzó & Bruni, 2023). They represent complex socio-material assemblages where human and non-human actors collaborate, transforming "play" into "work" (Taylor, 2012). Gaming houses now play a pivotal role in the professional esports landscape, fostering competitive gaming (Can, 2018; Johnson & Woodcock, 2021; Skubida, 2016). These structures provide living and training spaces for professional gamers and embody organisational frameworks that cultivate their "playbouring" careers (Can, 2018; Johnson & Woodcock, 2021). By integrating digital infrastructure with physical and social elements, gaming houses evolve into sophisticated units that shape gaming practices into formal professional roles, such as pro players. This professionalisation has redefined e-athletes' engagement with their craft, blending entertainment with competition. However, many find themselves in exploitative conditions, caught between being "infrastructured" as prosumers (Bruni & Esposito, 2019; Ritzer & Jurgenson, 2010) or treated as depleting resources (Johnson & Woodcock, 2021; Scholz, 2019). Moreover, gaming houses act as hubs for diverse stakeholders, incorporating human resources like physiotherapists and brand managers to sustain business models that drive esports organisations (Alaimo & Kallinikos, 2019; franzó & Bruni, 2023). The esports ecosystem benefits from the networking and diversification facilitated by gaming houses, providing pro players with essential support and resources for career advancement. The unique characteristics of these houses hinge on their dependence on vital



infrastructures, including stable power supplies and high-speed internet, necessary for optimising player performance. The materiality of gaming houses also significantly impacts their function; they are equipped with spaces designed for work and leisure, enhancing player capabilities while positioning these environments as key hubs for attracting success-oriented content creators. Thus, gaming houses illustrate a dynamic intersection of material and social aspects, continuously balancing work and play. They not only serve as organisational "containers" (Wilhoit, 2018a, 2018b) but can be seen as lively spaces contributing significantly to the broader gaming ecosystem through their role in organising competitive and lucrative gaming activities. In other words, their evolving nature highlights the complex interactions between virtual and physical realms, underscoring their role as influential actors within the esports industry.

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ID 896 - Queer Trauma, Temporal Collapse and the Politics of the Digital

Diana Cage, University of California, Davis

Keywords: The Tearoom

This article examines the role of police surveillance in shaping queer temporalities through an analysis of Robert Yang's *The Tearoom*, a game that reenacts mid-20th-century restroom surveillance and arrests in the U.S.. Situating *The Tearoom* alongside the historical and affective aftermath of the 2009 Eagle raid in Atlanta, I explore how the game collapses past and present forms of surveillance, demonstrating how queer trauma is retriggered by contemporary policing practices. Drawing on Katherine Hayles' concept of the "cognitive nonconscious," I analyze how *The Tearoom* represents surveillance not only as a visible force—through police presence and arrests—but also as an embedded, automated process that alters behavior on a nonconscious level. The game's procedural design mimics the ways surveillance infrastructures function hegemonically to normalize the regulation of queer bodies.

Ultimately, this article argues that *The Tearoom* foregrounds the mechanics of queer temporality and surveillance in digital play, illustrating how games can serve as critical interventions in histories of oppression while also imagining alternative queer futures through subversive gameplay and historical reenactment.

