ERC Consolidator Grant 2024 Research proposal [Part B1]

# Politics and aesthetics of indexical representation in digital games and VR

### GAMEINDEX

Panel: SH8 Studies of Cultures and Arts
Principal Investigator (PI): Jaroslav Švelch
PI's host institution for the project: Charles University, Prague, CZ
Proposal duration in months: 60 months

Many contemporary digital games and VR experiences – including the *Assassin's Creed* series of historical games – claim to provide realistic representations of places or people. But how is this realism achieved and which places and people get included?

To answer this question, GAMEINDEX focuses on *indexical* representations – traces of real-life objects or people in the simulated worlds of digital games and VR. Such indices include 3D scans of buildings or the likenesses and performances of actors who provide motion capture data. GAMEINDEX will investigate indexical representation in digital games and VR using the following methods: 1) ethnographic on-site research of indexical techniques, such as motion capture and photogrammetry, 2) qualitative analyses of selected games that represent peripheral locations or groups of people, 3) analysis of the public discourse about indexical techniques. In the final step, the project will synthesize empirical findings into a theory that will chart the relationships between production practices, game content, and public discourse, elucidating political and aesthetic dimensions of indexicality.

Due to the pressures to succeed on the globalized market, games have underrepresented and misrepresented peripheral locations and underprivileged groups of people. So far, studies of representation in games have focused on tropes and stereotypes within the games' content. Thanks to its focus on indexicality, GAMEINDEX will provide a breakthrough in the study of media representations by transcending close readings and content analysis and studying how representation arises in the production process. The resulting theory will serve as a tool for critique, helping us understand how real locations and people are being exploited and reconfigured into entertainment products. At the same time, it will provide inspiration for developers to create more diverse and just representations of real-world phenomena.

No secondary panel has been selected.

#### Section a: Extended Synopsis of the scientific proposal

#### Introduction

The appeal of digital games, and by extension VR, has often been connected to the virtual nature of game worlds, allowing for escapism and power fantasy (Calleja 2010; Hussain et al. 2021; Bailes 2019). But games also refer to real-life people and locations; in fact, they have become one of the primary media of virtual tourism through which users, and especially young people, gain experience with distant or otherwise inaccessible spaces (Salmond and Salmond 2016; Lamerichs 2018). They may, for example, roam the American West in Red Dead Redemption (Rockstar San Diego 2010), walk round 18th century Paris in Assassin's Creed: Unity (Ubisoft Montréal 2014), or immerse themselves in various historical locations in Assassin's Creed Nexus VR (Ubisoft Red Storm 2023). In effect, digital games and VR are considered suitable media for the representation of cultural heritage, including both material culture (buildings, crafts) and intangible heritage (including language and folklore) (Chapman 2018; Mochocki 2021; Šisler et al. 2022). Both virtual tourism and heritage representation presume a "realistic" or "authentic" experience of such spaces. But how is this realism and authenticity constructed? Game developers recreate famous landmarks and tend to boast that they gather enormous quantities of reference material (Poiron 2021). To achieve photorealistic graphics, they use techniques such as photogrammetry (the technology of constructing 3D models out of photographic images) or motion capture (recording animation data using motion sensors placed on real-life actors). These techniques can be called *indexical*, based on the concept of index, which originates in Peirce's semiotic theory (Peirce 1991).

In simplified terms, *index* is a sign that establishes a reference through causal or physical connection. Smoke, for instance, can be understood as an index of a fire. In contrast, an *icon* does the work of signification based on an outward resemblance – a pictogram of a fire would then be an icon of fire. Finally, a *symbol* establishes a reference based on a social convention such as natural language – the word "fire" would then be a symbol of fire. In Peirce's theory, an index can be both a *trace* (like a track in the snow) and a *pointer* (a pointing index finger or indexical word such as "here" or "there") (Peirce 1991). Digital games (and other virtual spaces) may be indexical both in terms of traces (by using indexical techniques such a photogrammetry) and pointers (by reference to particular real-world people or locations).

Indexicality has strong **aesthetic and political implications** for the content of digital games. As the game industry has been dominated by U.S. and Japanese companies (Kerr 2017), the **representation of various places and regions has been significantly inequal** (Ash and Gallacher 2011). If they have a real counterpart, video game spaces are often based on locations central to Anglo-Saxon or Japanese culture, and peripheral locations and cultural heritage sites are missing or misrepresented. This has been documented in the cases of the Middle East (Šisler 2008), Latin America (Penix-Tadsen 2016), and India (Mukherjee 2017; 2022), but it also applies to the former Soviet bloc.

In 2014, the Polish company The Astronauts released the horror game *The Vanishing of Ethan Carter*, whose story takes place in the rural United States, a typical setting of Western horror fiction. However, the landscape in the game – modelled using photogrammetry (Statham 2020) – was a close facsimile of a part of the Karkonosze mountains in Poland, complete with local landmarks, such as the Vang church in the town of Karpacz (see Fig.1).



Fig. 1. The Vang Church in the Polish town of Karpacz as photographed in real life (left, source: Wikimedia Commons) and in *The Vanishing of Ethan Carter* (The Astronauts 2014), where it is narratively "relocated" into the United States.

On the other hand, there has been an observable trend of **games made in (semi)peripheral locations that are also set in those locations** (Majkowski 2018; Fousek Krobová, Janik, and Švelch 2022). A case in point might be the Swiss horror game *Mundaun* (Hidden Fields 2021), which takes place in the Swiss Alps and features voiceovers in the Romansch language. Likewise, the successful Czech independent game *Hobo: Tough Life* (Perun Creative 2017) takes place in a composite Czech city and renders its graphics using material photographed in real-life locations throughout the country.

#### Main objectives

So far, **studies of representation** in games have focused almost exclusively on the analysis of **tropes and stereotypes** related to general demographic categories such as gender, race, ethnicity, or age (Williams et al. 2009; Burgess et al. 2011; Malkowski and Russworm 2017). Tropes and stereotypes are symbolic rather than indexical because they are based on established conventions – conventional ways of representing a specific social phenomenon or a social group. In the research of games as well as other media, such research employs methods such as close reading (Bizzocchi and Tanenbaum 2011) or content analysis (Williams et al. 2009; Valeriano and Habel 2016) that primarily center on the representational *content* of games. Recently, **materialist media theory** has pointed out the limitations of this approach, and suggested to consider representation "a material practice with material effects." (Bollmer 2019a, 39; see also Flusser 2011). A similar direction has been suggested by Winston (1985), who showed that the chemical properties of early colour film stock were designed to best reproduce the skin tones of white people – meaning that the material and technical aspects of the medium must be taken into account when studying ideologies in the media.

GAMEINDEX will **shift the focus of representation studies from the symbolic and the iconic to the indexical**, which necessarily entails a relationship between an individual real-world object or person and its trace or pointer. This approach can provide a much-needed breakthrough in the study of representation in digital games (and other digital media) by enriching the examination of artifacts with an analysis and critique of the **production processes**. An approach that combines artifact-oriented and production-oriented research will allow us to ask new questions and trace more complex relationships, for example between the lack of representation of diverse body types and both the availability of stock 3D models and the choices made during the casting of motion capture performers – or between the lack of many peripheral locations in digital games and the costs and complexity of 3D scanning and photogrammetry.

GAMEINDEX will be **the first project to systematically study indexicality in digital games and virtual spaces**. The project will entail a range of **empirical studies** of indexical production practices and indexical representation in games and VR. These will be presented in the form of traditional academic genres such as articles and conference papers, as well as in formats that enable participatory research and application of findings – namely a database and an interactive map of locations and landmarks featured in a sample of digital games. The empirical research will inform a new **theory of indexicality** in games and virtual spaces. Besides this theoretical intervention, it will offer tools for analysis and critique, allowing us to see how reality is being **exploited and reconfigured** into entertainment products viable on the global market. Following the latest developments in the game industry, it will also examine the potential of games to portray a wider range of places and spaces, allowing for more **just and diverse representations** of various locations.

The goals of GAMEINDEX			
	Basic research goals	Application-oriented goals	
Empirical	Produce <b>empirical knowledge</b> of indexical techniques and representations.	Build <b>a database and a map</b> of the representation of selected locations in games.	
	Understand <b>why and how</b> indexical representation is included in games.	Facilitate a broader discussion and a <b>participatory engagement</b> in mapping of indexicality in games.	
Theoretical	al Create a theory of indexicality for games and VR. Create a toolkit for analysis and c indexical representation.		
	Understand <b>political and aesthetic</b> aspects of indexicality.	Explore the potential of indexical representation for more <b>just and diverse</b> representation.	

Thanks to its interdisciplinary nature, the results of GAMEINDEX will not only advance the research on digital games but also **scholarship in other related media and applications**. Thanks to technological convergence between all media that uses 3D graphics, the results of the project will also be applicable to **virtual reality** works, spatial simulations for presenting **cultural heritage**, as well as to **animated film** and **CGI** in feature film or television.

#### **Theoretical background**

GAMEINDEX will encompass the **ontological**, **aesthetic**, and **political** aspects of indexicality in games and other virtual spaces. It will therefore draw theoretical inspiration from a wide range of disciplines including semiotics, film studies, media production studies, game studies, as well as from scholarship on creative industries and political economy of media; due to its focus on the political nature of the index, it will also draw from postcolonial scholarship and gender studies.

Film theory has long discussed the **indexicality of film and photography** (Wollen 2013). The photographic image is usually believed to be both iconic, since it bears visual resemblance to the original scene, and indexical, since it is constituted from traces of rays of light reflecting from the photographed surfaces (Geimer 2007; Seppänen 2017). This *indexicality* gives film a claim to **authenticity and realism** (Bazin 1960; 1967) and a "privileged relation to the real" (Doane 2007, 132), utilized prominently in documentary film (see Koutras 2023). Digital film technology including digital cameras, post-processing, and CGI has left the indexicality of the film weakened (Rubinstein and Sluis 2013; Soderman 2007), although not eliminated (Gunning 2008).

When compared to film, digital games might seem to lack indexicality altogether – they construct (or "render") an image from artificially created components rather than reflect (real or staged) events taking place in front of a camera (see Doane 2007). Nevertheless, **games have been using indexical techniques for decades to boost photorealism,** starting with rotoscoping (an animation technique based on tracing photographs by hand) or using digitized photography in as background graphics (Bollmer 2019b).

Some of the indexical techniques used in digital games have been explored in film and radio studies, although only very briefly. As pointed out by film scholar Tanine Allison, **motion capture** is a "fascinating hybrid between indexical forms of representation and digital technologies." (Allison 2011, 334) In the Peter Jackson film *King Kong*, the Kong is animated using motion capture data of a performance by the actor Andy Serkis, becoming "an instantiation of the indexical that takes the form of animation." (Allison 2011, 335). Contemporary big-budget video games use motion capture for a majority of animation (see Fig. 2); some games such as the *God of War* or *Monster Hunter* series, even use performances by human actors to animate monsters and reptiles (Jaroslav Švelch 2023). The indexical nature of **sound effects**, discussed in the case of radio plays (White 2005), is also important in digital games that use ambient sounds or sound effects to increase immersion and a sense of place.



Fig. 2. Motion capture of actors Shannon Woodward and Ashley Johnson for the *Last of Us Part II* (Naughty Dog 2020). The actors provided both motion data and voice work for the characters. Source: (GameSpot 2022).

Unlike in film and photography, **indexicality has not been studied in digital games**, save for several scattered works. Existing research has shown the important role of indices within digital game storytelling, such as the inclusion of tracks and traces in detective games (Fernández-Vara 2011); indices have also been discussed as a part of a larger semiotics of games (Grabarczyk 2021). There is some, mostly technical, literature on individual indexical techniques (Menache 2011; Statham 2020). Several isolated works have focused on "documentary" games that attempt to reconstruct real-life events (Raessens 2006; Bogost and Poremba 2008), and on **realism** in games (Dormans 2011). Studies of historical games have discussed the

**accuracy and authenticity of historical representations** and gauged the potential of games to present various forms of **cultural heritage** (Chapman 2018; Mochocki 2021; Šisler et al. 2022). The **production processes**, **labor issues**, and power dynamics within the game industry have been studied by the emerging subfield of game production studies, which inspire GAMEINDEX's methodology (Sotamaa and Švelch 2021; Keogh 2023; Cote and Harris 2023). In the cases of motion capture and voice acting, indexicality is also connected to **labor issues** – often, performers receive inadequate credit or remuneration for their work on games (Mihailova 2016), leading to tensions between actors' organizations and the game industry, which have manifested in the 2016–2017 **actors' strike** against major game studios (Jan Švelch and Švelch 2022b). This issue is becoming even more pressing at a time when **artificial intelligence** applications may be used to generate new voiceovers or realistic-looking videos from existing footage of an individual performer.

Thanks to the focus on the relational, dynamic nature of the index, this project will be able to **bridge** three approaches in the study of games that have been largely separated: the humanities-inspired research of **games as objects**, the social-scientific research of game development as a **creative industry**, and the **computer science-based research** of digital games (and VR) technology.

#### Methodology and execution

Indexicality in digital spaces is a complex issue that will require a multi-pronged approach combining theoretical and empirical work and a collaboration of a team of researchers over five years of the project. The goal is to create a theory that is **empirically informed and widely applicable to real-life examples**. While work packages WP1 and WP5 are theoretical, the work packages WP2–4 will involve the most labor-intensive empirical parts of the research. Given the exploratory nature of this research, GAMEINDEX will primarily use **qualitative** methods: ethnography, textual analysis (with an emphasis on semiotics), and discourse analysis. Sample and case study selection will be partially determined by the specializations of the PhD and postdoctoral team members. The research will be divided into the following work packages, described in more detail in Part B2:

#### WP1 – Critical review of theories and histories of indexicality

This WP entails the necessary theoretical and historical work that precedes empirical research and will build the **conceptual framework** and a **hermeneutic** for further analysis of games and VR apps as artifacts. It also compiles contextual data on **cultural and economic policies** that affect the use of indexical techniques, and the **legal issues** associated with reproducing architecture and human likenesses.

#### WP2 – Ethnographies of indexical techniques in game development practice

**Objectives:** Gain empirical knowledge of indexical techniques (such as motion capture, photogrammetry, voice recording). We will be especially interested in (1) the **material affordances and constraints** of the techniques and (2) **routines, values, and key decision-making points** of game industry practitioners and in the impact of these routines and decisions on the aesthetic and political dimensions of indexicality. E.g.: What is the rationale for setting a digital game or VR experience in a local peripheral space? How are scanned objects or textures manipulated to fit the constraints of game-making tools or to achieve a certain aesthetic? How do voice over professionals treat local or regional accents in speech? To what extent do studios use ready-made stock 3D models and textures from commercial libraries such as *Quixel Megascans*? **Method:** Participant observation and interviews in game development studios based in the Czech Republic and/or other EU countries, inspired by so-called studio studies (O'Donnell 2014; Whitson 2020).

#### WP3 – Analysis of indexicality in games/VR apps as media artifacts

**Objectives:** Identify, examine, evaluate, and categorize indexical representations in a selected corpus of games and VR experiences, both as traces and pointers. **Critically assess the conventional uses of indexicality** and identify the potential contribution of peripherally produced games to a greater diversity of virtual spaces. Build **a database and a virtual map** of the games in the corpus that can be used and expanded by other researchers and stakeholders.

**Method:** Qualitative multimodal game analysis following the hermeneutic developed in WP1 and adapting existing models of game analysis (Bizzocchi and Tanenbaum 2011; Fernández-Vara 2015; Šisler, Radde-Antweiler, and Zeiler 2019). Focus groups with stakeholders from represented places or groups of people.

#### WP4 – Reflection of indexical techniques in the discourse about digital games

**Objectives:** Identify the **aesthetic, political, and other values** embodied in public discourse about indexicality. Evaluate how indexical techniques are presented in relation to the claims of "realism," "immersion," or "authenticity". Examine how indexicality is presented to the public and to industry practitioners as a part of the game industry's *industrial reflexivity* (Caldwell 2008).

**Method**: Thematic analysis and discourse analysis applied to a corpus of journalistic texts and paratextual and metatextual material (manuals, "making-of" articles and videos, press releases, reviews, etc.).

#### *WP5* – *Synthesis and theory building*

Comparative analysis of the empirical case studies and a synthesis of the findings, culminating in a theory of indexicality in digital games and VR. The theory will chart the relationships between production practices, game content, and public discourse. It will elucidate both **political** and **aesthetic dimensions** of indexicality, mapping (a) how the structures of power within the game industry affect the production process, and which regions or groups are exploited in the process, and (b) what are the specific audiovisual features associated with indexical representation.

The project will be executed by a team of seven researchers – me as the PI, focusing on theoretical work and intellectual leadership, a senior researcher specializing in the political economy of game production (and therefore complementing my expertise), two postdocs (one on WP2 and the other one on WP4), two doctoral students (one on WP2 and the other on WP3), and a research assistant (managing the corpora and providing research support). The team will be supported by a part-time programmer who will design, code, and maintain the database and the map software, and by a grant administrator appointed by the hosting institution. When hiring post-docs and doctoral students, I will prioritize regional diversity, so that empirical research can focus on different countries or regions, creating opportunities for comparative studies. Research progress will be periodically consulted with an international advisory board, which will include scholars cited in this application, such as Tanine Allison, Amanda Cote, or Paweł Grabarczyk (full list provided in Part B2).

The project might face several **risks**, especially in data collection. The game industry is notoriously secretive and only discloses carefully selected information about the behind-the-scenes operations (O'Donnell 2014). This risk will be mitigated thanks to the close relationships with industry players that my research group has established over the previous years. A detailed risk assessment is included in Part B2.

#### My qualification to lead the project

As shown in my track record, I have opened many **new previously unexplored topics in digital game studies**, including history of game productions in the former Soviet bloc (Švelch 2018), monstrosity in digital games (Švelch 2023), and digital games and comedy (Bonello Rutter Giappone, Majkowski, and Švelch 2022). I am therefore ready to tackle the challenge of studying indexicality as another frontier topic in game studies and media studies. My previous work on **peripheral and hyperlocal game productions** (Švelch 2021b; 2021a) and **voice acting in digital games** (Jan Švelch and Jaroslav Švelch 2022b; 2022a) foreshadows GAMEINDEX's focus on indexical representations. Throughout my career, I have embraced interdisciplinarity and mixed-method approaches as I believe that many conundrums of media theory and game studies can only be answered using deep empirical knowledge of real-life practices of production and reception.

I have substantial **PI experience**. Since 2020, I have been the PI of the **Prague Game Production Studies Group**, which has six members at various stages of their careers.<sup>1</sup> The team has published in top journals in the field (including *New Media & Society, Games and Culture*, and *Game Studies*) and recently received HORIZON funding within the HORIZON-CL2-2023-HERITAGE-01-06 call to work on the GAME-ER project starting in 2024 (although my workload in it will be low). I have also been active in **building research communities**, having co-founded the Central and Eastern European Game Studies (CEEGS) conference. My extensive network of contacts will allow me to find suitable post-docs and PhD students and to implement the most state-of-the-art knowledge within digital game studies.

<sup>&</sup>lt;sup>1</sup> See the website at <u>https://gameproductionstudies.fsv.cuni.cz/</u>.

#### References

- Allison, Tanine. 2011. "More than a Man in a Monkey Suit: Andy Serkis, Motion Capture, and Digital Realism." *Quarterly Review of Film and Video* 28 (4): 325–41. https://doi.org/10.1080/10509208.2010.500947.
- Ash, James, and Lesley Anne Gallacher. 2011. "Cultural Geography and Videogames." *Geography Compass* 5 (6): 351–68. https://doi.org/10.1111/j.1749-8198.2011.00427.x.
- Bailes, Jon. 2019. Ideology and the Virtual City: Videogames, Power Fantasies and Neoliberalism. Winchester, UK; Washington, USA: Zero Books.
- Bazin, André. 1960. "The Ontology of the Photographic Image." Translated by Hugh Gray. *Film Quarterly* 13 (4): 4–9. https://doi.org/10.2307/1210183.
- \_\_\_\_\_. 1967. What Is Cinema? Translated by Hugh Gray. Berkeley: University of California Press.
- Bizzocchi, Jim, and Joshua Tanenbaum. 2011. "Well Read: Applying Close Reading Techniques to Gameplay Experiences." In Well Played 3.0: Video Games, Value and Meaning, edited by Drew Davidson, 262–90. Pittsburgh, PA: ETC Press. http://dl.acm.org/citation.cfm?id=2031858.2031881.
- Bogost, Ian, and Cindy Poremba. 2008. "Can Games Get Real? A Closer Look at 'Documentary' Digital Games." In *Computer Games as a Sociocultural Phenomenon: Games Without Frontiers War Without Tears*, edited by Andreas Jahn-Sudmann and Ralf Stockmann, 12–21. London: Palgrave Macmillan UK. https://doi.org/10.1057/9780230583306 2.
- Bollmer, Grant. 2019a. Materialist Media Theory: An Introduction. New York: Bloomsbury Academic.
   2019b. "The Kinesthetic Index: Video Games and the Body of Motion Capture." InVisible Culture: An Electronic Journal for Visual Culture, no. 30 (April). https://ivc.lib.rochester.edu/the-kinestheticindex-video-games-and-the-body-of-motion-capture/.
- Bonello Rutter Giappone, Krista, Tomasz Z. Majkowski, and Jaroslav Švelch. 2022. "Ludo-Comedic Consonance: An Introduction to Video Games and Comedy." In *Video Games and Comedy*, edited by Krista Bonello Rutter Giappone, Tomasz Z. Majkowski, and Jaroslav Švelch, 1–31. Cham: Palgrave Macmillan. https://doi.org/10.1007/978-3-030-88338-6\_1.
- Burgess, Melinda C. R., Karen E. Dill, S. Paul Stermer, Stephen R. Burgess, and Brian P. Brown. 2011. "Playing With Prejudice: The Prevalence and Consequences of Racial Stereotypes in Video Games." *Media Psychology* 14 (3): 289–311. https://doi.org/10.1080/15213269.2011.596467.
- Caldwell, John Thornton. 2008. Production Culture: Industrial Reflexivity and Critical Practice in Film and Television. Durham, NC: Duke University Press.
- Calleja, G. 2010. "Digital Games and Escapism." *Games and Culture* 5 (4): 335–53. https://doi.org/10.1177/1555412009360412.
- Chapman, Adam. 2018. Digital Games as History: How Videogames Represent the Past and Offer Access to Historical Practice. First issued in paperback. Routledge Advances in Game Studies 7. New York London: Routledge, Taylor & Francis Group.
- Cote, Amanda C., and Brandon C. Harris. 2023. "The Cruel Optimism of 'Good Crunch': How Game Industry Discourses Perpetuate Unsustainable Labor Practices." New Media & Society 25 (3): 609– 27. https://doi.org/10.1177/14614448211014213.
- Doane, Mary Ann. 2007. "The Indexical and the Concept of Medium Specificity." *Differences* 18 (1): 128–52. https://doi.org/10.1215/10407391-2006-025.
- Dormans, Joris. 2011. "Beyond Iconic Simulation." *Simulation & Gaming* 42 (5): 610–31. https://doi.org/10.1177/1046878111426963.
- Fernández-Vara, Clara. 2011. "Game Spaces Speak Volumes: Indexical Storytelling." In DiGRA '11 -Proceedings of the 2011 DiGRA International Conference: Think Design Play. DiGRA/Utrecht School of the Arts. http://www.digra.org/digital-library/publications/game-spaces-speak-volumesindexical-storytelling/.
  - —. 2015. Introduction to Game Analysis. New York: Routledge.
- Flusser, Vilém. 2011. *Into the Universe of Technical Images*. Electronic Mediations, v. 32. Minneapolis: University of Minnesota Press.
- Fousek Krobová, Tereza, Justyna Janik, and Jaroslav Švelch. 2022. "Summoning Ghosts of Post-Soviet Spaces: A Comparative Study of the Horror Games Someday You'll Return and the Medium." *Studies in Eastern European Cinema* 14 (1): 39–52. https://doi.org/10.1080/2040350X.2022.2071520.
- GameSpot. 2022. "Mocap vs. Game The Last of Us Part 2." Facebook Video. January 14, 2022. https://www.facebook.com/watch/?v=616554409643073.
- Geimer, Peter. 2007. "Image as Trace: Speculations about an Undead Paradigm." *Differences* 18 (1): 7–28. https://doi.org/10.1215/10407391-2006-021.

Grabarczyk, Pawel. 2021. "The Typology of Representations in Computer Games." *Journal of the Philosophy of Games* 3 (1). https://doi.org/10.5617/jpg.2926.

Gunning, Tom. 2008. "What's the Point of an Index? Or, Faking Photographs." In *Still Moving*, edited by Karen Beckman and Jean Ma, 23–40. Duke University Press. https://doi.org/10.1215/9780822391432-003.

- Hussain, Umer, Sami Jabarkhail, George B. Cunningham, and Jean A. Madsen. 2021. "The Dual Nature of Escapism in Video Gaming: A Meta-Analytic Approach." *Computers in Human Behavior Reports* 3 (January): 100081. https://doi.org/10.1016/j.chbr.2021.100081.
- Keogh, Brendan. 2023. The Videogame Industry Does Not Exist: Why We Should Think beyond Commercial Game Production. Cambridge, Massachusett: The MIT Press.
- Kerr, Aphra. 2017. *Global Games: Production, Circulation and Policy in the Networked Era*. London: Taylor & Francis.
- Koutras, Konstantinos. 2023. "Documentary Fictions: Jacques Rancière and the Problem of Indexical Media." *Film-Philosophy* 27 (2): 262–81. https://doi.org/10.3366/film.2023.0229.
- Lamerichs, Nicolle. 2018. "Hunters, Climbers, Flâneurs: How Video Games Create and Design Tourism." In *The Routledge Handbook of Popular Culture and Tourism*, 161–70. Routledge.
- Majkowski, Tomasz Z. 2018. "Geralt of Poland: The Witcher 3 Between Epistemic Disobedience and Imperial Nostalgia." *Open Library of Humanities* 4 (1). https://doi.org/10.16995/olh.216.
- Malkowski, Jennifer, and TreaAndrea M. Russworm, eds. 2017. *Gaming Representation: Race, Gender, and Sexuality in Video Games*. Digital Game Studies. Bloomington, Indiana: Indiana University Press.
- Menache, Alberto. 2011. Understanding Motion Capture for Computer Animation. 2nd ed. Burlington, MA: Morgan Kaufmann.
- Mihailova, Mihaela. 2016. "Collaboration without Representation: Labor Issues in Motion and Performance Capture." *Animation* 11 (1): 40–58. https://doi.org/10.1177/1746847715623691.
- Mochocki, Michał. 2021. "Heritage Sites and Video Games: Questions of Authenticity and Immersion." *Games and Culture* 16 (8): 951–77. https://doi.org/10.1177/15554120211005369.
- Mukherjee, Souvik. 2017. Videogames and Postcolonialism. Cham, Switzerland: Palgrave Macmillan.
   2022. Videogames in the Indian Subcontinent: Development, Culture(s) and Representations. First published in India, this Export edition published in 2022. New Delhi London Oxford New York Sydney: Bloomsbury.
- Naughty Dog. 2020. "The Last of Us Part II." PS4. Sony Interactive Entertainment.
- O'Donnell, Casey. 2014. *Developer's Dilemma: The Secret World of Videogame Creators*. Inside Technology. Cambridge, Massachusetts: The MIT Press.
- Peirce, Charles S. 1991. *Peirce on Signs: Writings on Semiotic*. Edited by James Hoopes. Chapel Hill: University of North Carolina Press.
- Penix-Tadsen, Phillip. 2016. Cultural Code: Video Games and Latin America. Cambridge, MA: The MIT Press.
- Perun Creative. 2017. "Hobo: Tough Life." PC.
- Poiron, Perrine. 2021. "Assassin's Creed Origins Discovery Tour: A Behind the Scenes Experience." *Near Eastern Archaeology* 84 (1): 79–85. https://doi.org/10.1086/712580.
- Raessens, Joost. 2006. "Reality Play: Documentary Computer Games Beyond Fact and Fiction." *Popular Communication* 4 (3): 213–24. https://doi.org/10.1207/s15405710pc0403\_5.
- Rockstar San Diego. 2010. "Red Dead Redemption." Sony PlayStation 3. Rockstar Games.
- Rubinstein, Daniel, and Katrina Sluis. 2013. "The Digital Image in Photographic Culture: Algorithmic Photography and the Crisis of Representation." In *The Photographic Image in Digital Culture*, edited by Martin Lister, Second edition, 22–41. London; New York: Routledge, Taylor & Francis Group.
- Salmond, Michael, and Jacqueline Salmond. 2016. "The Gamer as Tourist: The Simulated Environments and Impossible Geographies of Videogames." In *Tourism and the Creative Industries*, 151–64. Routledge.
- Seppänen, Janne. 2017. "Unruly Representation: Materiality, Indexicality and Agency of the Photographic Trace." *Photographies* 10 (1): 113–28. https://doi.org/10.1080/17540763.2016.1258658.
- Šisler, Vít. 2008. "Digital Arabs: Representation in Video Games." *European Journal of Cultural Studies* 11 (2): 203–20. https://doi.org/10.1177/1367549407088333.
- Šisler, Vít, Holger Pötzsch, Tereza Hannemann, Jaroslav Cuhra, and Jaroslav Pinkas. 2022. "History, Heritage, and Memory in Video Games: Approaching the Past in Svoboda 1945: Liberation and

Hidden Fields. 2021. "Mundaun." PC. Lucerne.

Train to Sachsenhausen." *Games and Culture* 17 (6): 901–14. https://doi.org/10.1177/15554120221115402.

- Šisler, Vít, Kerstin Radde-Antweiler, and Xenia Zeiler, eds. 2019. *Methods for Studying Video Games and Religion*. First issued in paperback. Routledge Studies in Religion and Digital Culture 3. London New York: Routledge.
- Soderman, Braxton. 2007. "The Index and the Algorithm." *Differences* 18 (1): 153–86. https://doi.org/10.1215/10407391-2006-026.
- Sotamaa, Olli, and Jan Švelch, eds. 2021. *Game Production Studies*. Amsterdam: Amsterdam University Press. https://doi.org/10.5117/9789463725439.
- Statham, Nataska. 2020. "Use of Photogrammetry in Video Games: A Historical Overview." *Games and Culture* 15 (3): 289–307. https://doi.org/10.1177/1555412018786415.
- Švelch, Jan, and Jaroslav Švelch. 2022a. "'Definitive Playthrough': Behind-the-Scenes Narratives in Let's Plays and Streaming Content by Video Game Voice Actors." *New Media & Society* 24 (5): 1097– 1115. https://doi.org/10.1177/1461444820971778.
- . 2022b. "Recasting Life Is Strange: Video Game Voice Acting during the 2016–2017 SAG-AFTRA Strike." *Television & New Media* 23 (1). https://doi.org/10.1177/1527476420962784.
- Švelch, Jaroslav. 2018. Gaming the Iron Curtain: How Teenagers and Amateurs in Communist Czechoslovakia Claimed the Medium of Computer Games. Game Histories. Cambridge, MA: MIT Press.
- 2021a. "Adventures in Everyday Spaces: Hyperlocal Computer Games in 1980-1990s
   Czechoslovakia." In *Game History and the Local*, edited by Melanie Swalwell, 17–35. Palgrave
   Games in Context. Basingstoke: Palgrave Macmillan. https://doi.org/10.1007/978-3-030-66422-0.
- 2021b. "Promises of the Periphery: Producing Games in the Communist and Transformation-Era Czechoslovakia." In *Game Production Studies*, edited by Olli Sotamaa and Jan Švelch, 237–55. Amsterdam: Amsterdam University Press. https://doi.org/10.5117/9789463725439.
   2023. Player vs. Monster: The Making and Breaking of Video Game Monstrosity. Playful Thinking
- ------. 2023. *Player vs. Monster: The Making and Breaking of Video Game Monstrosity*. Playful Thinking. Cambridge, MA: MIT Press.
- The Astronauts. 2014. "The Vanishing of Ethan Carter." PC. Warsaw: The Astronauts.
- Ubisoft Montréal. 2014. "Assassin's Creed: Unity." PC. Montréal.
- Ubisoft Red Storm. 2023. "Assassin's Creed Nexus VR." Meta Quest. Cary, NC.
- Valeriano, Brandon, and Philip Habel. 2016. "Who Are the Enemies? The Visual Framing of Enemies in Digital Games." *International Studies Review* 18 (3): 462–86. https://doi.org/10.1093/isr/viv007.
- White, John J. 2005. "Coconut Shells and Creaking Doors: A Semiotic Approach to the Avant-Garde Radio Play's Sound-Effects." In *Outside-In — Inside-Out*, edited by Costantino Maeder, Olga Fischer, and William J. Herlofsky, 151–69. Iconicity in Language and Literature. John Benjamins Publishing Company. https://doi.org/10.1075/ill.4.13whi.
- Whitson, Jennifer R. 2020. "What Can We Learn From Studio Studies Ethnographies?: A 'Messy' Account of Game Development Materiality, Learning, and Expertise." *Games and Culture* 15 (3): 266–88. https://doi.org/10.1177/1555412018783320.
- Williams, Dmitri, Nicole Martins, Mia Consalvo, and James D. Ivory. 2009. "The Virtual Census: Representations of Gender, Race and Age in Video Games." *New Media & Society* 11 (5): 815–34. https://doi.org/10.1177/1461444809105354.
- Winston, Brian. 1985. "A Whole Technology of Dyeing: A Note on Ideology and the Apparatus of the Chromatic Moving Image." *Daedalus* 114 (4): 105–23.
- Wollen, Peter. 2013. *Signs and Meaning in the Cinema*. 5th ed. BFI Silver. London: Palgrave Macmillan for the British Film Institute.

#### Section b: Curriculum vitae and Track Record

#### PERSONAL DETAILS

Family name, First name: Švelch Jaroslav ORCID: 0000-0001-9918-8346 / Scopus ID: 34977638700 / WoS Researcher ID I-6931-2017 Date of birth: 8 April 1981 Nationality: Czech URL for web site: https://svelch.com/

#### • Education and key qualifications

2023	Habilitation in the field of Film, TV, and photographic arts, and new media
	Film and Television Faculty, The Academy of Performing Arts in Prague
2013	PhD in Media Studies
	Department of Media Studies, Faculty of Social Sciences, Charles University, Czechia
2011	Master of Arts in Linguistics and Phonetics/Translation and Interpretation (English)
	Faculty of Arts (cross-departmental degree), Charles University, Czechia
2005	Master of Arts in Media Studies
	Department of Media Studies, Faculty of Social Sciences, Charles University, Czechia

#### • Current position(s)

2010-now Department of Media Studies, Faculty of Social Sciences, Charles University, Czechia Associate professor (since 2023), assistant professor (2010–2023), on leave (2017–2019)
 2022-now Department of Game Design, Film and Television Faculty, The Academy of Performing Arts in Prague, Czechia Associate professor (part-time, since 2023), assistant professor (part-time, 2022-2023)

#### • **Previous position(s)**

2017–2019 Postdoctoral researcher, Games and Transgressive Aesthetics project (funded by the Research Council of Norway), Department of Information Science and Media Studies, Faculty of Social Sciences, University of Bergen, Norway
 2012 Salaried PhD intern, Microsoft Research New England – Social Media Collective, USA
 2007–2008 J. W. Fulbright Commission PhD visiting researcher, School of Humanities, Arts, and Social Sciences, Department of Comparative Media Studies/Writing, MIT, USA

#### **RESEARCH ACHIEVEMENTS AND PEER RECOGNITION**

#### <u>Research achievements</u>

#### Monographs

Švelch, J. (2023). *Player vs. monster: The Making and Breaking of Video Game Monstrosity*. MIT Press. An analysis of monstrosity in the medium of video games, combining approaches from media history, cultural studies, art history, philosophy, and sociology of technology. It contains a passage on motion capture of monstrous characters, related to the focus of GAMEINDEX. It has received mainstream coverage, including a recommendation from <u>The Guardian</u> newspaper.

## Švelch, J. (2018). Gaming the Iron Curtain: How Teenagers and Amateurs in Communist Czechoslovakia Claimed the Medium of Computer Games. MIT Press.

The first English-language academic monograph on the history of hobby computing and computer games in the Soviet bloc. Receiver of the **2019 Computer History Museum Prize**, awarded annually by the Special Interest Group for Computing, Information and Society of the Society for the History of Technology (SHOT)

#### **Edited volumes**

Giappone, K. B. R., Majkowski, T. Z., & Švelch, J. (Eds.). (2022). *Video Games and Comedy*. Palgrave Macmillan. <u>https://www.palgrave.com/gp/book/9783030883379</u>

The first edited volume to bring together humor/comedy studies with video games, co-edited in equal part by the three co-editors, who also wrote the introductory theoretical chapter.

#### Selected articles and book chapters

Švelch, Jan, & Švelch, Jaroslav (2022). "Definitive playthrough": Behind-the-scenes narratives in let's plays and streaming content by video game voice actors. *New Media & Society*, *24*(5), 1097–1115. https://doi.org/10.1177/1461444820971778.

Švelch, Jan, & Švelch, Jaroslav (2022). Recasting Life Is Strange: Video Game Voice Acting during the 2016–2017 SAG-AFTRA Strike. *Television & New Media*, 23(1).

https://doi.org/10.1177/1527476420962784.

Publications from a pioneering study of the **voice acting** in the video game industry, written with 50% contribution of both authors. Published in **respected journals in media and communication**.

Švelch, J. (2021). Adventures in everyday spaces: Hyperlocal computer games in 1980-1990s Czechoslovakia. In M. Swalwell (Ed.), *Game History and the Local* (pp. 17–35). Palgrave Macmillan. https://doi.org/10.1007/978-3-030-66422-0

A book chapter that introduces and explicates the idea of a "hyperlocal" game made by peripheral authors based on their local lived experiences. This concept will be useful in GAMEINDEX.

Švelch, J. (2021). Promises of the Periphery: Producing Games in the Communist and Transformation-Era Czechoslovakia. In O. Sotamaa & Jan Švelch (Eds.), *Game Production Studies* (pp. 237–255). Amsterdam University Press. <u>https://doi.org/10.5117/9789463725439</u>

A book chapter on **the potential of peripheral regions in digital game production**. It is included in a book that provides a first comprehensive survey of game production studies.

Švelch, J., & Sherman, Tamah (2018). "I see your garbage": Participatory practices and literacy privilege on "Grammar Nazi" Facebook pages in different sociolinguistic contexts. *New Media & Society*, 20(7), 2391–2410. <u>https://doi.org/10.1177/1461444817719087</u>

Sherman, Tamah, & Švelch, Jaroslav (2015). "Grammar Nazis never sleep": Facebook humor and the management of standard written language. *Language Policy*, 14(4), 315–334. https://doi.org/10.1007/s10993-014-9344-9

Two publications from one of the earliest research projects on the "**Grammar Nazi**" phenomenon, combining the approaches of media studies and sociolinguistics, written 50-50 by the two authors.

Švelch, J. (2014). Comedy of Contingency: Making Physical Humor in Video Game Spaces. *International Journal of Communication*, *8*, 2530–2552.

One of the earliest empirical studies of humor and comedy in video games, based on interviews with YouTube creators.

#### Peer recognition

#### Awards and fellowships

- 2019 **Computer History Museum Prize** for the monograph *Gaming the Iron Curtain* (2018), awarded by the Special Interest Group for Computing, Information and Society (SIGCIS) of the Society for the History of Technology (SHOT)
- 2007–2008 J. W. Fulbright Commission visiting researcher scholarship, School of Humanities, Arts, and Social Sciences, Department of Comparative Media Studies/Writing, MIT, USA

#### Selected keynotes and invited lectures

Oct 2023 University of California Los Angeles (UCLA), USA Invited lecture | Player vs. Monster: The Making and Breaking of Video Game Monstrosity

Švelch	Part B1	GAMEINDEX	
Oct 2021	ACM CHI Play 2021 conference, online due to pandemic		
	Keynote lecture   Gaming the Iron Curtain: Making, Playing, and Copying Computer Games in Communist Czechoslovakia		
Apr 2021	Tampere University Game Lab Spring Seminar, Finland		
	Keynote lecture   When the Invaders Shoot Back: A media an environment games		
Mar 2019	Massachusetts Institute of Technology, USA		
	Invited lecture   Gaming The Iron Curtain: Computer Games	s in Communist	
	Czechoslovakia as Entertainment And Activism		
Mar 2019	Stanford University, USA		
	Invited lecture   Gaming The Iron Curtain: The Subversive C 1980s Czechoslovak Paramilitary Clubs	Computer Game Culture of	
Jul 2018	Digital Games Research Association (DiGRA) 2018 conference, Torino, Italy		
	Keynote lecture   Coding Acts: Games As Messages In 1980s	s Czechoslovakia	
Sep 2017	Future and Reality of Games (FROG) conference, Vienna	a, Austria	
	Keynote lecture   <i>We have always been indie: Lessons from s in 1980s Czechoslovakia</i>		

#### <u>PI experience</u>

#### Prague Game Production Studies Group (gameproductionstudies.fsv.cuni.cz)

- A group focusing on the research of game production as a cultural industry
- As a PI, I am leading a group of 6 researchers, 2 of whom are PhD students.
- The group has recently received **HORIZON funding** within the HORIZON-CL2-2023-HERITAGE-01-06 call to work on the GAME-ER project starting in 2024 (as a consortium member)
- Between 2020 and 2023, the group has published 1 monograph and 9 articles including 3 in the field's leading journal *Games and Culture*.
- The group **collaborates with stakeholders** in the industry, such as the Game Developer Association of the Czech Republic (GDACZ).

#### Other contributions to the research community

#### Conference and community organizing

I have been organizing the game scholarship community in the CEE region in the following positions:

- 2022–now Chair of the Chapter Executive Board, **DiGRA Central and Eastern Europe**, reelected in 2023 for a 3-year term
- 2014–2022 Founding member, Central and Eastern European Game Studies (CEEGS) conference steering committee
- 2018 Organizing committee member and Program Chair, Central and Eastern European Game Studies (CEEGS) conference, ca. 100 participants, Prague, Czech Republic
- 2014 Organizing committee member and Program Chair, Central and Eastern European Game Studies (CEEGS) conference, ca. 80 participants, Brno, Czech Republic

The CEEGS conference has connected regional scholars to the international community and greatly contributed to the internationalization of regional games research.

#### Editorial board membership, reviewing

2023–now	Member of the editorial board, eLudamos: Journal for Computer Game Culture,	
	published by UiT The Arctic University of Norway	
2023–now	Member of the editorial board, ROMchip: A Journal of Game Histories, publishing funded	
	by New York University	
2014–now	Reviewer, DiGRA (Digital Games Research Association) conference	
2018–now	Regular reviewer, New Media & Society journal, published by SAGE	
2014–now	Regular reviewer, Game Studies journal, OA, published by a publicly funded consortium	

#### PERSONAL RESEARCH PHILOSOPHY

In my career as a scholar, I have successfully relied on three main principles: interdisciplinarity, originality, and international collaboration.

#### Interdisciplinarity

- After receiving a Master's degree from media studies, which is at least in the Czech context traditionally considered a **social scientific** field, I picked up another Master's in general linguistics and translation studies, therefore also getting a strong foundation in the **humanities**.
- Interdisciplinarity has equipped me with a **rich methodological toolkit**, including humanistic approaches such as semiotics, qualitative textual analysis, or discourse analysis, anthropological ones such as ethnography and interviews, and social-scientific ones, including quantitative content analysis and surveys.
- My first monograph (*Gaming the Iron Curtain*) is a **media-historical** study of computer games in 1980s Czechoslovakia, which oriented me towards local game productions and local histories; my second one (*Player vs. Monster*) is a mostly theoretical work, for which I had to draw from **philosophy**, **archaeology**, and **art history**.
- My more empirical, social-scientific work has been published in **top media studies journals** such as *New Media & Society* and *International Journal of Communication*.

#### Originality

- My interdisciplinary background has helped me identify and understand topics that are **socially** relevant but fall through the cracks between disciplines: such as sociolinguistics of social media, or history of computer games (see publications above).
- When I entered the field of game studies (in 2008), it was still in its infancy. Driven by curiosity and equipped with an interdisciplinary skillset, I have introduced **a range of new topics** to the research community, including:
  - History of digital games in peripheral regions (monograph *Gaming the Iron Curtain*, MIT Press 2018)
  - o Games and monstrosity (monograph *Player vs. Monster*, MIT Press 2023)
  - Video games and comedy (the article *Comedy of Contingency*, International Journal of Communication, 2014)

#### International collaboration

- I have a wide network of colleagues and collaborators spanning North America, Europe, and Australia. Currently, I am purposefully networking with scholars from the Global South.
- During 2007–2009, I was a visiting PhD researcher at **MIT's Comparative Media Studies**. At the time, the department and the associated GAMBIT game lab was the epicenter of the nascent field of game studies and allowed me to meet prominent scholars with whom I would later consult my work: Henry Jenkins, Nick Montfort, Mia Consalvo, Jesper Juul, and Clara Fernández-Vara.
- During my 2012 PhD internship at **Microsoft Research New England**, I connected with other prominent scholars including Nancy Baym, Mary L. Gray, and T. L. Taylor.
- My **postdoc** in 2017–2019 took place at the **University of Bergen**, Norway, where I connected to game scholars such as Kristine Jorgensen and Rune Klevjer, as well digital culture scholar and ERC Consolidator grant holder Jill Walker Rettberg.
- Throughout my career, I purposefully connected my colleagues from Central and Eastern Europe with international academia through my organizing activities, such as the **CEEGS conference** (see above).
- The exploratory and primarily qualitative nature of my work means that I mostly write singleauthored publications, but I rely on my connections for **feedback**, **advice**, **and project-driven collaboration**.