



## International Perspectives on Digital Games and Inclusion

Dr. Elena Makarova, Institute for Educational Sciences, University of Basel

Dr. Alexander Schmoelz, Austrian Institute for Research on VET

Dr. Michelle Proyer, Center for Teacher Education/Department of Education,  
University of Vienna

Dr. Gertraud Kremsner, Inclusive Education, University of Leipzig

Susanne Prummer, Inclusive Education, University of Vienna

Stephanie Renggli, Institute for Educational Sciences, University of Basel

Online Publication Date: 22 September 2021

To cite this Article: Makarova, E., Schmoelz, A., Proyer, M., Kremsner, G., Prummer, S. & Renggli, S. (2021) International Perspectives on Digital Games and Inclusion. *Digital Culture & Education*, 13(2), 1-5.

URL: <https://www.digitalcultureandeducation.com/volume-13-2>

PLEASE SCROLL DOWN FOR ARTICLE

# INTERNATIONAL PERSPECTIVES ON DIGITAL GAMES AND INCLUSION

## Guest Editors

**Dr. Elena Makarova**

Institute for Educational Sciences, University of Basel

**Dr. Alexander Schmoelz**

Austrian Institute for Research on VET

**Dr. Michelle Proyer**

Center for Teacher Education/Department of Education, University of Vienna

**Dr. Gertraud Kreamsner**

Inclusive Education, University of Leipzig

**Susanne Prummer**

Inclusive Education, University of Vienna

**Stephanie Renggli**

Institute for Educational Sciences, University of Basel

## Introduction

Games are increasingly used for educational purposes as they can be interactive in nature, are based on defined rules following a specific logic, have an explicit and carefully elaborated educational intent, and provide individual feedback to players (Martens, Diener, & Malo, 2008; Hainey, Connolly, Stansfield, & Boyle, 2011; Wouters, Oostendorp, Vrugte, van der Cruysse, Jong, & Elen, 2017). The pedagogically valuable potential of (digital) games is particularly clear in their ability to consider the needs, interests and abilities of a target audience, increase the intrinsic learning motivation of gamers and integrate learning, fun and simulation (Wastiau, Kearney, & Van den Berghe, 2009; Hainey et al., 2011). Serious games are currently receiving a great deal of attention in the field of education, not least due to challenges posed by a global pandemic. Furthermore, some core studies on their potential to promote inclusion in education have been conducted (Makarova, Driesel-Lange, Lüthi, & Hofmann, 2017; Proyer et al., 2017; Schmoelz, 2016; Schmoelz et al., 2017) and, beyond that, to build a foundation for further research.

International perspectives on the nexus of digital games and inclusion need to further work out how digital games can contribute to paving the way towards a more inclusive society. A wide variety of perspectives in relation to gamers, developers, design and content, including (among others) people with disabilities, people with migration or refugee backgrounds, cross-generational groups, and LGBTIQs are at the core of a broad understanding of inclusion that goes beyond a mere focus on disability.

In this special issue international perspectives on digital games and inclusion show a two-fold approach to *game-based learning* for inclusion and learning as well as to the inclusiveness of *game-design and game development* processes. International perspectives on digital games and inclusion entail both empirical and theoretical approaches from different disciplines and locations, and especially emphasize participatory approaches, also in the dissemination of games. Different educational foci and different stages of game design, development and implementation are at the centre of this.

## **Game-Based Learning**

Game-based learning is “the use of play in an educational context and for purposes of learning” (Plass, Homer, & Kinzer, 2015) and can combine other pedagogical purposes such as the provision of inclusive environments. The contributions in this issue illustrate that game-based learning can be used to support learning and skills development in children, adolescents (Keller, Döring, & Makarova, 2021) and even higher education students (Bergstrom, 2021) as a means to promote players' self-efficacy and inclusion (Moehlen, 2021) as well as social understanding and inclusion (Boyle et al., 2021)

*Christopher Keller, Anna K. Döring, and Elena Makarova* provide a systematic review of the potential of serious games to foster learning among children and adolescents with disabilities and respond to their needs in an inclusive educational setting. They provide an overview of effective serious games for schools and practitioners in the field of inclusive education. Findings from the 21 reviewed quantitative and qualitative studies indicate that serious games provide effective support for achieving learning objectives in certain school subjects and facilitate optimal conditions for learning. They find that serious games have strong potential and can make an important contribution to the inclusion of children and adolescents with disabilities in schools.

*Kelly Bergstrom* reports on successes, failures and lessons learned from using *Night in the Woods* (NITW) across three Communication Studies courses. Theoretically informed by feminist game studies, Bergstrom argues that while the cultural baggage that surrounds games does not disappear just because we step into a classroom, the unique perspectives offered by novice players who are not yet fully enmeshed in gaming's norms and expectations provide the potential for unique insights and teachable moments. Ultimately, the author offers the following challenge: How would we reimagine a university-level game studies seminar if we designed our curriculum as if all our students were first time players?

*Lisa-Katharina Moehlen* explores the potential of digital and analogue games for enabling inclusion in educational settings. The author presents results of a study embedded in a participatory research design. Moehlen analyses data from audio and video recordings of an Erasmus+ workshop with 19 participants playing eleven (digital) games using the Documentary Method. The results illustrate that the players were confronted with social hierarchies and power structures while playing the games. Interestingly, players directly reflected on their actions, behaviours, and assumptions. The game sessions fostered the reconsideration of players' assumptions and habits of social categorization. Overall, this study highlights the positive effects of (digital) games to increase players' self-efficacy and to promote inclusion in educational settings.

*Elizabeth Boyle, Melody Terras, Murray Stewart Leith, Duncan Sim, Athanassios Jimoyiannis, Jannicke Baalsrud Hauge, Nadera Sultana Tany, Hans Hummel, and Petar Jandric* explore possibilities for the promotion of a more nuanced and in-depth understanding of what they refer to as European Identity through serious games. The authors assume that this understanding of the complexity of the EU's values and its fundamentals beyond superficial one-sided knowledge of one's own national identity hold the potential for enabling a culture of tolerance and inclusion. By sharing insights into the design and development process as well as concrete tools such as a multicomponent model of European identity for the game *RU EU?*, the authors aim to substantiate findings referring to the potential of serious games to promote social understanding and inclusion.

### **Game Design & Game Development**

Game design and game development in education engages in “learning and teaching that go into the design of video games, simulations and virtual worlds” (Walsh & Schmoelz, 2016, p. 433). The contributions of this special issue have illustrated the means of non-mainstream game production that engages marginalised groups in game-making (de Paula, 2021), participatory game design process for inclusion (Schlote & Major, 2021) as well as an innovative transmedia-based game development method for inclusive education (Kaimara, Deliyannis, Oikonomou, Fokides, & Miliotis, 2021).

*Elke Schlote* and *Andrin Major* analyse prosocial depictions of mental health issues in entertaining video games, with the theoretical lens of Critical Disability Studies. Their inquiry of four video games focuses not only on how the depictions of the mental health issues were constructed in the games' production process but also on how these issues are represented in the products' structures. They come to the conclusion that the way the mental health issues are constructed in the video games can be considered as illustrative for an individualized, medical model of mental health. This can be traced back to the production process, as the game designers mainly relied on the advice of medical professionals and/or the introspection of individuals with a lived experience of the mental health issue. Although the analysed video games are commendable for their efforts to engage with mental health issues in a prosocial and playful way, their usefulness for fostering a comprehensive mental health education is limited.

*Bruno de Paula* explores a game-making programme among young migrants in London/UK. It focuses on the relationships between game conventions, platforms and personal preferences in the curation of fluid identities through game production. Participants presented varying levels of affinity with games linked both to access issues and to other specific elements (e.g. perception of games in contemporary culture, gender). Based on the analysis of data generated through questionnaires, observations, unstructured/semi-structured interviews and gaming archives, this study shows how shared understandings about digital games can find their way into platforms and act as “cultural-technical gatekeepers”, supporting or hindering the engagement with game-making of those often perceived as outsiders to gaming culture. Overall, this study provides new insights in a subversive/non-mainstream game production.

*Polyxeni Kaimara, Ioannis Deliyannis, Andreas Oikonomou, Emmanuel Fokides, and George Miliotis* highlight that education is the cornerstone for a society without discrimination as it promotes full

personality development and enhances respect for human rights and fundamental freedoms. In light of this, the paper focuses on one of the main concerns of educators, parents, and therapists such as independent living of children with Special Educational Needs and/or Disabilities (SEND) who often struggle to achieve independence because of their limitations in adaptive behaviour. Considering valid epistemological backgrounds, pedagogical frameworks and a range of intervention strategies focusing on those skills, the paper presents an innovative transmedia-based game development method for inclusive education, combining traditional games, art-based production, and game development methodologies with cutting-edge technologies involving 360° videos, virtual, and augmented reality.

To *summarize*, international perspectives on digital games and inclusion bring together global insights into current developments at the nexus of digital gaming and inclusion in education, culture and beyond. This special issue covers a wide variety of topics related to diversity, such as cultural dimensions, dis/ability and gender, and approaches. It even refers to aspects often left out in the context of inclusive discourses, such as references to mental health. Nevertheless, there are a couple of dimensions of diversity that were not directly addressed: These include topics related to the lived realities of LGBTIQs as well as references to age and socio-economic backgrounds. In addition, we would like to point out that cross-sectional contexts should be considered in future game design; development and implementation research to discover the complex lived realities of persons experiencing exclusion and enabling understanding and representation in games, participatory approaches and innovative ideas are first steps in that direction.

## References

- Bergstrom, K. (2021). What if we were all novices? Making room for inexperience in a game studies classroom. *Digital Culture & Education*, 13(2), 37-53.
- Boyle, E., Terras, M., Leith, M. S., Sim, D., Jimoyiannis, A., Baalsrud Hauge, J., Sultana Tany, N., Hummel, H., & Jandric, P. (2021). Serious games as a means to promote thinking about European identity: A case study of the design and development of the RU EU? game. *Digital Culture & Education*, 13(2), 73-93.
- de Paula, B. (2021). Korean soap operas, telenovelas and sci-fi conspiracies: A game-making experience with Latin American youth in London. *Digital Culture & Education*, 13(2), 111-128.
- Hainey, T., Connolly, T., Stansfield, M., & Boyle, E. (2011). The use of computer games in education: A review of the literature. In P. Felicia (Ed.), *Handbook of Research on Improving Learning and Motivation through Educational Games: Multidisciplinary Approaches* (Vol. 1, pp. 29-50). Hershey: Idea Group. doi: 10.4018/978-1-60960-495-0.ch002
- Kaimara, P., Deliyannis, I., Oikonomou, A., Fokides, E., & Miliotis, G. (2021). An innovative transmedia-based game development method for inclusive education. *Digital Culture & Education*, 13(2), 129-162.
- Keller, Ch., Döring, A. K., & Makarova, E. (2021). The potential of serious games to foster learning among children and adolescents with disabilities: A systematic review. *Digital Culture & Education*, 13(2), 6–36.

- Makarova, E., Driesel-Lange, K., Lüthi, J., & Hofmann, M. (2017). Serious Games in der schulischen Berufsorientierung: Ein Instrument zur Entdramatisierung von Geschlecht? In M. Kampshoff, & B. Scholand (Eds.), *Schule als Feld–Unterricht als Bühne–Geschlecht als Praxis* (pp. 180-198). Münster: Waxmann.
- Martens, A., Diener, H., & Malo, S. (2008). Game-Based Learning with Computers – Learning, Simulations, and Games. In Z. Pan, A. D. Cheok, W. Müller, & A. El Rhabili (Eds.), *Transactions on Edutainment 1* (pp. 172-190). Berlin, Heidelberg: Springer. doi: 10.1007/978-3-540-69744-2\_15
- Moehlen, L.-K. (2021). (Digital) games don't care about social categorizations: Enabling inclusion through game-based learning in educational settings. *Digital Culture & Education*, 13(2), 54-72.
- Plass, J. L., Homer, B. D., & Kinzer, C. K. (2015). Foundations of Game-Based Learning. *Educational Psychologist*, 50(4), 258-283. doi.org/10.1080/00461520.2015.1122533
- Proyer, M., Schmoelz, A., Kremser, G., Karpouzis, K., Yannakakis, G., Pfeiffer, D., Moehlen, L., & Koulouris, P. (2017). Doing Social Inclusion: Aiming to Conquer Crisis Through Game-Based Dialogues and Games. In M. Pivec, & J. Gründler (Eds.), *Proceedings of the 11th European Conference on Game-Based Learning* (pp. 554-561). Reading: Academic Conferences and Publishing International Limited.
- Schlote, E., & Major, A. (2021). Playing with mental issues – Entertaining video games as a means for mental health education? *Digital Culture & Education*, 13(2), 94-110.
- Schmoelz, A. (2016). Ernsthafte Spiele als Anlass für Ko-Kreativität? In J. Haag, J. Weißenböck, W. Gruber, & C. F. Freisleben-Teuscher (Eds.), *Game Based Learning. Dialogorientierung & spielerisches Lernen analog und digital* (pp. 107-118). Brunn am Gebirge: IKON.
- Schmoelz, A., Kreamsner, G., Proyer, M., Pfeiffer, D., Moehlen, L., Karpouzis, K., & Yannakakis, G. (2017). Inklusiver Unterricht mit Digitalen Spielen. *Medienimpulse. Beiträge zur Medienpädagogik*, 2, 1-15.
- Walsh, C. S., & Schmoelz, A. (2016). Stop the Mob! Pre-service Teachers Designing a Serious Game to Challenge Bullying. In A. Gloria (Ed.), *Games and learning alliance* (pp. 431-440). Cham: Springer.
- Wastiau, P., Kearney, C., & Van den Berghe, W. (2009). *How are digital games used in schools? Complete results of the study. Final report*. Brüssel: European Schoolnet.
- Wouters, P., Oostendorp, H., Vrugte, J., van der Cruysse, S., Jong, T., & Elen, J. (2017). The effect of surprising events in a serious game on learning mathematics. *British Journal of Educational Technology*, 48(3), 860-877. doi: 10.1111/bjet.12458