

# Hands-On Workshop on Tabletop Role-Playing for Inclusive Design: Imagining Sustainable Futures for ‘Older Adults’

Denise Lengyel  
Open Lab, Newcastle University  
Newcastle upon Tyne, United  
Kingdom  
denise.lengyel@newcastle.ac.uk

Kirsikka Kaipainen  
Unit of Computing Sciences, Tampere  
University  
Tampere, Finland  
kirsikka.kaipainen@tuni.fi

Miriam Sturdee  
School of Computer Science,  
University of St Andrews  
St Andrews, United Kingdom  
ms535@st-andrews.ac.uk

Michael Heron  
School of Computing and  
Engineering, Chalmers University of  
Technology / University of  
Gothenburg  
Gothenburg, Sweden  
heronm@chalmers.se

Makayla Lewis  
Digital Media Kingston, Kingston  
University  
London, United Kingdom  
m.m.lewis@kingston.ac.uk

Jennifer Liddle  
Open Lab, Newcastle University  
Newcastle upon Tyne, United  
Kingdom  
jennifer.liddle@newcastle.ac.uk

## ABSTRACT

‘Older adults’ are often seen as a homogeneous group, disregarding their actual diversity in attitudes, abilities, and needs. This stereotypical view can seep into the research and design of digital technologies when developing for this age group, which can lead to those technologies not matching up with actual needs and abilities and thus not being picked up or engaged with. The goal of this workshop is to explore Tabletop Role-Playing Games (TTRPGs) as a method for HCI/UX to promote reflection on the concept of ‘older adults’ and to raise awareness for the heterogeneity of this demographic. The TTRPG adventure will be set in a sustainable future where a socio-ecological transformation has taken place; a transformation that can be significantly aided by digital technologies, which additionally stresses the need for a deeper reflection on the heterogeneity of all demographics involved in such a transformation, including ‘older adults’. This workshop will contribute to an improved understanding of TTRPG as an approach to understanding diversity, paving the way to further research into inclusive design of digital technology for sustainability and beyond.

## CCS CONCEPTS

• **Human-centered computing** → **HCI design and evaluation methods**.

## KEYWORDS

Role-play, Older adults, Diversity, Inclusion, Reflexivity, Sustainability, Climate Change

## ACM Reference Format:

Denise Lengyel, Kirsikka Kaipainen, Miriam Sturdee, Michael Heron, Makayla Lewis, and Jennifer Liddle. 2023. Hands-On Workshop on Tabletop Role-Playing for Inclusive Design: Imagining Sustainable Futures for ‘Older Adults’. In *26th International Academic Mindtrek Conference (Mindtrek ’23)*, October 3–6, 2023, Tampere, Finland. ACM, New York, NY, USA, 5 pages. <https://doi.org/10.1145/3616961.3616977>

## 1 INTRODUCTION

Substantial societal transformations in sectors such as transport and urban development are required to mitigate climate change and to adapt to its consequences [18, 26]. Digitalisation and digital technologies can play a key role in reducing emissions and enabling humans to lead more sustainable lives [11]. However, the necessary societal transformations cannot be accomplished without an in-depth understanding and consideration of people’s needs and concerns when developing and deploying greener technologies and more sustainable practices. Well-meaning projects and initiatives can fail because they are based on limited understanding or stereotypical views of people who are different from the implementation team e.g., in terms of age or life stage (cf. [21]). One instance of this is ‘older people’ who are too often erroneously treated as a homogeneous group by researchers and developers of digital technologies [22, 24, 32].

There is a need for approaches that can provide a more nuanced view on the heterogeneity and diversity of older people and that can promote reflexivity among researchers, designers, and developers. Furthermore, techniques for imagining what sustainable futures might look and feel like could benefit designers as well as the general public in creating plausible and desirable visions to strive for in making them into reality [2, 23]. Role-play is a technique that has been used in research and design practice to gain a more empathic understanding of users’ needs and experiences [4, 19, 20, 27]. However, tabletop role-playing games (TTRPG) have untapped potential in offering a deeply immersive experience for players who take on the role of another person (or being) and tackle various challenges in the person’s life, potentially gaining a deeper understanding of the person’s motivations and abilities [29].

---

Permission to make digital or hard copies of part or all of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyrights for third-party components of this work must be honored. For all other uses, contact the owner/author(s).

*Mindtrek ’23, October 3–6, 2023, Tampere, Finland*

© 2023 Copyright held by the owner/author(s).

ACM ISBN 979-8-4007-0874-9/23/10.

<https://doi.org/10.1145/3616961.3616977>

In this workshop, the goal is to explore and test how TTRPG can be leveraged in the facilitation of learning about, empathizing with and reflecting on the heterogeneity of participant groups and their assumed needs, with ‘older people’ as a concrete case of a participant group. The outcome of the workshop will be an improved understanding of the potential usefulness of using TTRPG as a different way of accessing and reflecting on knowledge and illuminating different aspects of (un)known aspects of participant groups and their (assumed) needs, and as means for imagining possible sustainable futures.

## 2 BACKGROUND

### 2.1 Selected approaches to understanding diversity in HCI

At the core of aiming to understand people’s diversity for designing and developing digital technologies is arguably the need for inclusivity, the realisation that one-size-fits-all approaches are not suitable in the light of – to name just a few examples – the digital divide, cultural differences, bodily divergence and neurodivergence, all in addition to varying abilities, skills, needs, wants, values and beliefs of people [1, 3, 9, 12, 13, 15, 16, 25]. Researchers have called for “a systemic approach to diversity in HCI ... [and] for setting diversity at the core of HCI where human realities and experiences are embodied rather than defined by ‘what users must be’ or ‘what users are not’” [10], arguing for “mak[ing] the digital [and the physical] world ... perceivable and navigable for everyone, regardless of their abilities” [1].

Approaches to understanding diversity in HCI and UX research (and beyond) are as manifold as there are underlying dimensions of diversity [13] and quantitative, qualitative, mixed, creative and arts-based methods to illuminate them. Examples include the use of personas, scenarios and use cases (as written prose or drawn cartoons), sketching of user experiences, improvisational theatre and roleplay [5–7, 20, 30]. More concretely, in a recent publication by Helen Petrie [22], which also fueled the ideation of this workshop, a set of personas was developed to illustrate that ‘older adults’ are not a homogeneous group as often assumed and reported on in HCI.

### 2.2 Tabletop role-playing games (TTRPG)

Tabletop role-playing games (TTRPG) have been played for several decades, originating with Dungeons and Dragons [14]. There is a wide variety of different TTRPG systems, but at their heart they all share some core features that are relevant to the aims of this workshop: 1) players play characters that are fictionalized people (or beings) in the game world; 2) players embark on adventures and face challenges during game sessions, i.e. periods of time in the real world when people gather together to play; 3) the game world is fictional and creates the social, cultural, ecological and technological context for the characters and their adventures; and 4) a game master can lead them through their adventure in the world [29]. Several TTRPG systems utilize character sheets and multi-sided dice, but these are not necessary for role-playing. Moreover, although the concept of ‘tabletop role-playing games’ implicates a table on top of which game activities take place, TTRPGs can also be played in a hybrid mode or fully online, each player and

the game master communicating via videoconferencing, possibly using virtual tabletops such as Fantasy Grounds [28] or Roll20 [31]. Figure 1 shows an example of a typical setup of a TTRPG session taking place around a physical table.



**Figure 1: Players during a TTRPG session. Photograph by Aki Loponen.**

Role-playing in TTRPGs typically involves plenty of verbal descriptions, by the players describing and/or acting out their characters’ actions and the game master describing the elements and events in the game world, often as a response to the player characters’ actions [14]. Only imagination sets the limits to what kinds of worlds, characters and adventures can be created in TTRPGs, and this flexibility and informality makes tabletop role-playing a potentially useful approach for eliciting understanding of the diversity of people different from us [29]. One encouraging current example is a study of tabletop role-playing to support the design of a companion robot for depression [8]. The study’s findings suggest that playing a character who suffered from depression helped participants, who did not have depression themselves, to better consider the needs and context of a person living with depression.

## 3 WORKSHOP STRUCTURE AND OBJECTIVES

The aim of the workshop is to provide participants with a hands-on experience of TTRPG and to experience it as a possible method for understanding the heterogeneity of ‘older adults’ with respect to their abilities, needs and concerns. We aim for a half-day workshop with a possibility to run the workshop twice if we receive

a high number of registrations. No previous experience of (tabletop or other) role-playing is required from the participants and participants can volunteer to either be one of the 4–5 players or observe as an audience member. We expect the inclusion of an actively observing audience to help cast a light on the potential differences in the reflective process between actively playing and actively watching a TTRPG. The role-playing will be audio- and video-recorded for research purposes, given that participants provide their informed consent. For all participants, there will be quick drawing exercises before and after TTRPG to capture people's exploration of/reflection on the concept of 'older adults' (and to see if there are any changes in the before and after). There will also be a closing discussion, comparing experiences and 'lessons learned' for players and audience. This discussion will be additionally facilitated by visual notes taken by two of the workshop organisers during the TTRPG session. Table 1 presents the schedule and activities of the workshop.

## 4 CALL FOR PARTICIPANTS

We plan to disseminate the call for participants through our institutional and individual networks via email, social media and websites. The workshop and its call will be open to all participants of the Mindtrek conference, i.e. professionals from industry as well as researchers and students from academia from all backgrounds. We are aiming to attract at least 10 participants for this workshop, consisting of 4–5 players plus (active) audience. Participants will be required to register through an online form that will also ask them about their basic demographic information, such as age, gender/pronouns and their current position and discipline. In addition to playing or watching the TTRPG, participants will also be asked to engage in two short drawing exercises and a closing discussion.

After the workshop, the data provided by the participants during role-play, drawing and discussion can be collated into a unified form for submission to other venues, such as ACM DIS and Alt.CHI, or into an engaging post-workshop project. Discussion on alternative venues could be embedded in the workshop activities. We hope that this is the first of a series of workshops or studies in this vein, journeying on to other topics of accessibility and inclusion as well as refining the TTRPG and drawing-for-reflection method(s).

## 5 ACCESSIBILITY

The workshop will be designed and delivered to be attended by as many kinds of people as possible. All text and verbal utterances will be clear, simple to understand, and in English (with additional support in Finnish and German by two of the organisers, if needed). All shared imagery will contain Alt Text or Alt Narrative [17] with appropriate colour contrast. Remote attendees (here limited to organisers) will have access to closed captions (on Zoom), additionally, microphones and webcams will be used to support communication between in-person and remote attendees. Opportunities for support, questions, and comments will be present throughout the workshop regardless of in-person or online delivery.

## 6 ORGANISERS

The organisers all have an active interest in the intersection of role-playing games (tabletop and other forms), arts and HCI, and are drawn from a range of career levels, expertise, and artistic practices.

**Denise Lengyel** is an Innovation Fellow at the Centre for Digital Citizens at Open Lab, School of Computing, Newcastle University, exploring the 'Ageless' citizen. Her work centres around arts-based and creative research methods, including (visual) storytelling, drawing and dance. She is also interested in research on comics and cartoons, games, (social) death and bereavement. Her background is in HCI and Computer Science. She's been dipping her toes into TTRPGs, Live-Action Role-Play (LARP), impro and amateur theatre since 2002.

**Kirsikka Kaipainen** is a Postdoctoral Research Fellow in the research group of Human-Centered Technology, Tampere University. With a background in technology-aided interventions for mental well-being, her current research is focused on sustainable mobility and societal participation of young people. She has also played TTRPGs for almost 20 years, participated in several LARPs and organised one, and occasionally performed in impro and amateur theatre.

**Miriam Sturdee** is a lecturer in Computer Science at the University of St Andrews, specialising in art-based approaches to computer science, sketching in HCI, and shape-changing interfaces. She has a background in psychology, publishing and fine art, and a PhD in Digital Innovation. Recent publications include visualisation in cybersecurity, personality traits in game development, subconscious user-experiences and TTRPG-UX.

**Michael Heron** is a senior lecturer in games and graphics at Chalmers University of Technology and the University of Gothenburg. His current interests are primarily with regards to tabletop gaming – board games and RPGs – especially in connection to their accessibility. He is a long-time games master with experience in many different gaming systems, and has direct experience of working with older adults as part of his previous research work regarding technology to help an aging workforce.

**Makayla Lewis** is a Lecturer in Computer Science (User Experience Design) at Kingston University London specialising in design thinking for technology innovation. She is also a researcher with an interest in human factors in business, cybersecurity, smart money, and artificial intelligence, especially for people with disabilities. She is an accomplished visual recorder (sketchnotes), illustrator, and doodler whose practices are embedded in her teaching, research, and home life.

**Jennifer Liddle** is a Senior Research Associate working across Open Lab and Population Health Sciences Institute at Newcastle University. Her research interests include the development of innovative (digital) approaches to address societal challenges such as loneliness, isolation, health and care in later life. She has worked with older people and health care professionals on a range of qualitative and mixed methods studies to explore experiences of everyday life.

**Table 1: Workshop schedule and activities.**

Stage	Duration	Activity
Introductions	5–10 mins	Introduction of the workshop, its activities and organisers. (DL and KK)
Drawing (before TTRPG)	5 mins	A short free drawing exercise to capture the participants' concepts of 'older adults' before Tabletop Role-Playing Game (TTRPG). (MS and DL)
TTRPG brief + Character assignment	10 mins	Organisers describe the concept of TTRPG in the context of the workshop, including the rules of role-play (cf. [29]). Players are assigned the characters they will play. Players familiarise themselves with their character sheet (a reference sheet with character name, description, short biography and abilities).
TTRPG	60–90 mins	Role-playing led by a Game Master (KK). Participants will be asked to take notes using materials provided. The session will also be video- and audio-recorded. Visual notes will be taken by experienced graphic recorders (MS and ML) to document the role-playing session and later support the discussion
Drawing (after TTRPG)	5 mins	A short free drawing exercise (same as before) to capture the participants' concepts of 'older adults' after Tabletop Role-Play. (MS and DL)
Break	10–15 mins	
Discussion and wrap-up	30–45 mins	Discussion of experiences during the role-play, facilitated by (KK and DL) as well as the visual notes taken by (MS and ML) during the TTRPG session. Discussion prompts will cover three main aspects of the participants' workshop experience: their concepts of 'older adults', sustainable futures and TTRPG. The discussion will be audio-recorded.

## ACKNOWLEDGMENTS

The research is funded by the Centre for Digital Citizens (EP/T022582/1), the National Institute for Health and Care Research (NIHR) Applied Research Collaboration (ARC) North East and North Cumbria (NENC) (NIHR200173), and Academy of Finland, project RoboCivics with decision no. 321839. We warmly thank Aki Lopenen, Visual artista and M. Sc., for supporting our work. For the purpose of Open Access, the authors apply a CC BY public copyright license to any Author Accepted Manuscript (AAM) version arising from this submission/workshop.

## REFERENCES

- [1] Eve Andersson. 2015. *Making the Digital and Physical Worlds Accessible for People with Disabilities (ACM Talk)*. Retrieved August 30, 2023 from <https://youtu.be/gK00-nZESTM?si=0fNrHyGNjpbagfn>
- [2] Silke Beck, Sheila Jasanoff, Andy Stirling, and Christine Polzin. 2021. The governance of sociotechnical transformations to sustainability. *Current Opinion in Environmental Sustainability* 49 (2021), 143–152. <https://doi.org/10.1016/j.cosust.2021.04.010>
- [3] Laura Benton, Asimina Vasalou, Rilla Khaled, Hilary Johnson, and Daniel Gooch. 2014. Diversity for Design: A Framework for Involving Neurodiverse Children in the Technology Design Process. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (Toronto, Ontario, Canada) (CHI '14). Association for Computing Machinery, New York, NY, USA, 3747–3756. <https://doi.org/10.1145/2556288.2557244>
- [4] Stella Boess, Daniel Saakes, and Caroline Hummels. 2007. When is Role Playing Really Experiential? Case Studies. In *Proceedings of the 1st International Conference on Tangible and Embedded Interaction* (Baton Rouge, Louisiana) (TEI '07). Association for Computing Machinery, New York, NY, USA, 279–282. <https://doi.org/10.1145/1226969.1227025>
- [5] Judy Bowen, Helen Petrie, Annika Hinze, and Sanjit Samaddar. 2020. Personas Revisited: Extending the Use of Personas to Enhance Participatory Design. In *Proceedings of the 11th Nordic Conference on Human-Computer Interaction: Shaping Experiences, Shaping Society* (Tallinn, Estonia) (NordCHI '20). Association for Computing Machinery, New York, NY, USA, Article 62, 12 pages. <https://doi.org/10.1145/3419249.3420135>
- [6] Bill Buxton. 2010. *Sketching User Experiences: Getting the Design Right and the Right Design*. Morgan Kaufmann.
- [7] Kevin Cheng. 2012. *See What I Mean: How To Use Comics to Communicate Ideas*. Rosenfeld Media.
- [8] Sawyer Collins and Selma Šabanović. 2021. "What Does Your Robot Do?" A Tabletop Role-Playing Game to Support Robot Design. In *2021 30th IEEE International Conference on Robot & Human Interactive Communication (RO-MAN)*. 1097–1102. <https://doi.org/10.1109/RO-MAN50785.2021.9515554>
- [9] Aurora Constantin, Hilary Johnson, Elizabeth Smith, Denise Lengyel, and Mark Brosnan. 2017. Designing computer-based rewards with and for children with Autism Spectrum Disorder and/or Intellectual Disability. *Computers in Human Behavior* 75 (2017), 404–414. <https://doi.org/10.1016/j.chb.2017.05.030>
- [10] Nana Kesewaa Dankwa and Claude Draude. 2021. Setting Diversity at the Core of HCI. In *Universal Access in Human-Computer Interaction. Design Methods and User Experience*, Margherita Antona and Constantine Stephanidis (Eds.). Springer International Publishing, Cham, 39–52.
- [11] Yogesh K. Dwivedi, Laurie Hughes, Arpan Kumar Kar, Abdullah M. Baabdullah, Purva Grover, Roba Abbas, Daniela Andreini, Iyad Abumoghli, Yves Barlette, Deborah Bunker, Leona Chandra Kruse, Ioanna Constantiou, Robert M. Davison, Rahul De', Rameshwar Dubey, Henry Fenby-Taylor, Babita Gupta, Wu He, Mitsuru Kodama, Matti Mäntymäki, Bhimaraya Metri, Katina Michael, Johan Olaisen, Niki Panteli, Samuli Pekkola, Rohit Nishant, Ramakrishnan Raman, Nripendra P. Rana, Frantz Rowe, Suprateek Sarker, Brenda Scholtz, Maung Sein, Jeel Dharmeshkumar Shah, Thompson S.H. Teo, Manoj Kumar Tiwari, Morten Thanning Vendelø, and Michael Wade. 2022. Climate change and COP26: Are digital technologies and information management part of the problem or the solution? An editorial reflection and call to action. *International Journal of Information Management* 63 (2022), 102456. <https://doi.org/10.1016/j.ijinfomgt.2021.102456>
- [12] Isabela Gasparini, Marcelo S. Pimenta, and José Palazzo M. De Oliveira. 2011. Vive La Différence! A Survey of Cultural-Aware Issues in HCI. In *Proceedings of the 10th Brazilian Symposium on Human Factors in Computing Systems and the 5th Latin American Conference on Human-Computer Interaction* (Porto de Galinhas, Pernambuco, Brazil) (IHC+CLIH '11). Brazilian Computer Society, Porto Alegre, BRA, 13–22.
- [13] Julia Himmelsbach, Stephanie Schwarz, Cornelia Gerdenitsch, Beatrix Wais-Zechmann, Jan Bobeth, and Manfred Tscheligi. 2019. Do We Care About Diversity in Human Computer Interaction: A Comprehensive Content Analysis on Diversity Dimensions in Research. In *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems* (Glasgow, Scotland Uk) (CHI '19). Association for Computing Machinery, New York, NY, USA, 1–16. <https://doi.org/10.1145/3290605.3300720>
- [14] Michael Hitchens and Anders Drachen. 2008. The Many Faces of Role-Playing Games. *International Journal of Role-Playing* 1 (Dec. 2008), 3–21. <https://doi.org/10.33063/ijrp.vi1.185>

- [15] Bogoan Kim, Sung-In Kim, Sangwon Park, Hee Jeong Yoo, Hwajung Hong, and Kyungsik Han. 2023. RoutineAid: Externalizing Key Design Elements to Support Daily Routines of Individuals with Autism. In *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems* (Hamburg, Germany) (CHI '23). Association for Computing Machinery, New York, NY, USA, Article 333, 18 pages. <https://doi.org/10.1145/3544548.3581048>
- [16] Denise Lengyel, Ahmed Kharrufa, James Stanfield, Haley Powers, Bridget Lara Stratford, and Reem Talhouk. 2023. Gender and Racism: Considerations for Digital Learning Among Young Refugees and Asylum Seekers. In *Human-Computer Interaction – INTERACT 2023*, José Abdelnour Nocera, Marta Kristin Lárusdóttir, Helen Petrie, Antonio Piccinno, and Marco Winckler (Eds.). Springer Nature Switzerland, Cham, 469–478.
- [17] Makayla Lewis, Miriam Sturdee, John Miers, Josh Urban Davis, and Thuong Hoang. 2022. Exploring AltNarrative in HCI Imagery and Comics. In *Extended Abstracts of the 2022 CHI Conference on Human Factors in Computing Systems* (New Orleans, LA, USA) (CHI EA '22). Association for Computing Machinery, New York, NY, USA, Article 7, 13 pages. <https://doi.org/10.1145/3491101.3516394>
- [18] Brenda B Lin, Alessandro Ossola, Marina Alberti, Erik Andersson, Xuemei Bai, Cinnamon Dobbs, Thomas Elmqvist, Karl L Evans, Niki Frantzeskaki, Richard A Fuller, Kevin J Gaston, Dagmar Haase, Chi Yung Jim, Cecil Konijnendijk, Harini Nagendra, Jari Niemelä, Timon McPhearson, William R Moomaw, Susan Parnell, Diane Pataki, William J Ripple, and Puay Yok Tan. 2021. Integrating solutions to adapt cities for climate change. *The Lancet Planetary Health* 5, 7 (2021), e479–e486. [https://doi.org/10.1016/S2542-5196\(21\)00135-2](https://doi.org/10.1016/S2542-5196(21)00135-2)
- [19] Mark Matthews, Geri Gay, and Gavin Doherty. 2014. Taking Part: Role-Play in the Design of Therapeutic Systems. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (Toronto, Ontario, Canada) (CHI '14). Association for Computing Machinery, New York, NY, USA, 643–652. <https://doi.org/10.1145/2556288.2557103>
- [20] Ben Medler and Brian Magerko. 2010. The Implications of Improvisational Acting and Role-Playing on Design Methodologies. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (Atlanta, Georgia, USA) (CHI '10). Association for Computing Machinery, New York, NY, USA, 483–492. <https://doi.org/10.1145/1753326.1753398>
- [21] Min Jee Nikki Han and Mi Jeong Kim. 2021. A critical review of the smart city in relation to citizen adoption towards sustainable smart living. *Habitat International* 108 (2021), 102312. <https://doi.org/10.1016/j.habitatint.2021.102312>
- [22] Helen Petrie. 2023. Talking 'bout My Generation ... or Not? The Digital Technology Life Experiences of Older People. In *Extended Abstracts of the 2023 CHI Conference on Human Factors in Computing Systems* (Hamburg, Germany) (CHI EA '23). Association for Computing Machinery, New York, NY, USA, Article 420, 9 pages. <https://doi.org/10.1145/3544549.3582742>
- [23] Chris Riedy and Sandra Waddock. 2022. Imagining transformation: Change agent narratives of sustainable futures. *Futures* 142 (2022), 103010. <https://doi.org/10.1016/j.futures.2022.103010>
- [24] Valeria Righi, Sergio Sayago, and Josep Blat. 2017. When we talk about older people in HCI, who are we talking about? Towards a 'turn to community' in the design of technologies for a growing ageing population. *International Journal of Human-Computer Studies* 108 (2017), 15–31. <https://doi.org/10.1016/j.ijhcs.2017.06.005>
- [25] Dina Sabie, Reem Talhouk, Cansu Ekmekcioglu, Carleen Maitland, Volker Wulf, Eiad Yafi, Samar Sabie, Asam Almohamed, Safa'a AbuJarour, Kahina Le Louvier, Faheem Hussain, and Syed Ishtiaque Ahmed. 2021. Migration and Mobility in HCI: Rethinking Boundaries, Methods, and Impact. In *Extended Abstracts of the 2021 CHI Conference on Human Factors in Computing Systems* (Yokohama, Japan) (CHI EA '21). Association for Computing Machinery, New York, NY, USA, Article 97, 6 pages. <https://doi.org/10.1145/3411763.3441352>
- [26] Priyadarshi R Shukla, Jim Skea, Andy Reisinger, Raphael Slade, Roger Fradera, Minal Pathak, Alaa Al Khouradje, Malek Belkacemi, Renée van Diemen, Apoorva Hasija, Géninha Lisboa, Sigourney Luz, Juliette Malley, David McCollum, Shreya Some, and Purvi Vyas. 2022. *Climate Change 2022: Mitigation of Climate Change (Sixth Assessment Report of the Intergovernmental Panel on Climate Change)*. Technical Report. IPCC.
- [27] Kristian T. Simsarian. 2003. Take It to the next Stage: The Roles of Role Playing in the Design Process. In *CHI '03 Extended Abstracts on Human Factors in Computing Systems* (Ft. Lauderdale, Florida, USA) (CHI EA '03). Association for Computing Machinery, New York, NY, USA, 1012–1013. <https://doi.org/10.1145/765891.766123>
- [28] SmiteWorks USA. [n. d.]. Fantasy Grounds. Retrieved August 30, 2023 from <https://www.fantasygrounds.com/>
- [29] Miriam Sturdee, Mafalda Gamboa, and Michael Heron. 2023. TTRPG UX: Requirements & Beyond. In *Extended Abstracts of the 2023 CHI Conference on Human Factors in Computing Systems* (Hamburg, Germany) (CHI EA '23). Association for Computing Machinery, New York, NY, USA, Article 426, 9 pages. <https://doi.org/10.1145/3544549.3582737>
- [30] Miriam Sturdee and Joseph Lindley. 2019. Sketching & Drawing as Future Inquiry in HCI. In *Proceedings of the Halfway to the Future Symposium 2019* (Nottingham, United Kingdom) (HTTF 2019). Association for Computing Machinery, New York, NY, USA, Article 18, 10 pages. <https://doi.org/10.1145/3363384.3363402>
- [31] The Orr Group. [n. d.]. Roll20. Retrieved August 30, 2023 from <https://roll20.net/>
- [32] Britt Östlund, Elin Olander, Oskar Jonsson, and Susanne Frennert. 2015. STS-inspired design to meet the challenges of modern aging. Welfare technology as a tool to promote user driven innovations or another way to keep older users hostage? *Technological Forecasting and Social Change* 93 (2015), 82–90. <https://doi.org/10.1016/j.techfore.2014.04.012> Science, Technology and the "Grand Challenge" of Ageing.