Talking about Myself – Playful Inquiry into an Absent Life World

Katharina Spiel
Christopher Frauenberger
Julia Makhaeva
Fares Kayali
Institute for Design and
Assessment of Technology,
Vienna University of Technology
Vienna, Austria
katharina.spiel@tuwien.ac.at
christopher.frauenberger@tuwien.ac.at
julia.makhaeva@tuwien.ac.at
fares.kayali@tuwien.ac.at

Abstract

Participatory Design (PD) processes provide a limited glimpse into participants' life worlds. Projects developing technologies more holistically embedded in these lives, however, require a deeper understanding. We envision a novel technique named Playful Inquiry allowing PD participants to talk about their lives in game terms via the development of a game situated in their everyday experiences. Initial steps towards a fully fledged concept show – in an exploratory example case – the potential of such an approach and how it might tie into Participatory Design.

Author Keywords

Participatory Design, Contextual Inquiry, Gamification

ACM Classification Keywords

H.5.m [Information interfaces and presentation (e.g., HCI)]: Miscellaneous; See [http://acm.org/about/class/1998/]: for full list of ACM classifiers. This section is required.

Introduction

Participatory Design (PD) workshops are necessarily events that only get a little glimpse into the life worlds of participants. Design sessions are embedded in an (often crucial) aspect of future users' lives, but are limited in their informative capabilities. Projects such as OutsideTheBox (cf. [8] aim at design concerning the life worlds of their participants

more holistically. Those require a vehicle to those areas of participants' life worlds, which are absent from the design session. This need becomes more pressing, when a verbal description is not sufficient or not feasible to get. Playful Inquiry could bridge into participants' absent life worlds in a novel way.

Within OutsideTheBox we design technologies with autistic children[1], that have a meaningful place in their lives and afford positive experiences the children can share with their environment.

It is not feasible to define the terms *play* or *game* in this contribution. For work discussing these terms we refer to e.g., [5], [4], [3] or [12]. We describe here a shared activity with a rule set and goals that are jointly developed by participants and researchers in a PD process.

Game elements and playful elicitation of ideas has already sparked some interest in the HCI research community. Next to playful probes and triggers used to investigate the potential use of novel technologies (see e.g. [1] or [14]) and the use of playful elements for requirements analysis (as in e.g., [6]) there has also been research into the development of games that assist ideation (see e.g. [11], [2]). Our work starts earlier in that it Playful Inquiry is used to bring absent life worlds to the design session before the creative work begins.

Background and Purpose
Playful Inquiry relies on play and games as a known activity to a large variety of potential participants in PD workshops (cf. [10]). Elements of play and games combine a known

language with an unknown context. This builds bridges to new experience in an environment which is perceived as safe (cf. [16]). This is especially relevant in our project context of designing with autistic children.

Known elements of games, such as achievements, antagonism, awards, discovery, levels, obstacles or progression are used to talk about an absent life world through a different lens (an approach which can also be seen as gamification (see [7] and [15]) of contextual inquiry [9]). In Playful Inquiry researchers and participants create a game whose elements are inspired by the life world of the participants. For this, researchers might want to come to the session with a rough game outline, that defines e.g. type (board game, spatial game, social game...), genre (puzzle, single-player, maze...) and general game objective beforehand in order to provide structure for the inquiry.

Description of Probing Case
Our first attempt at Playful Inquiry within OutsideTheBox was inspired by one of our children (let's call them M). One of M's focus interests were on everything related to SUPER MARIO WORLD. They liked playing it, they identified with the characters and they even invented new games with their Mario-themed plushies. In preparation for our workshops, the research team developed a maze like spatial game with doors. Behind doors there would be power-up items and the goal of the game was not to be caught by monsters. The maze was drawn on the floor using tape, the monster was played by one of the researchers with a mask depicting the face of Bowser (one of Mario's antagonists). Power up items were small tokens that resembled the power ups used in SUPER MARIO games.

We provided a functional rule set and an initial narrative frame. While both are subject to change in discussion with

---

[1]While the discussion about advantages and dis-advantages of person-first language is still ongoing, I adopted the label-first way of referring to the user group, in order to respect the predominant self-chosen form (cf. [13]).

participants, the general focus is on the latter. By remodelling the monsters into obstacles in M's life and giving power-ups the functionality of currently employed strategies to deal with these obstacles, we learned what M finds difficult in their life and how they cope with these. By bridging SUPER MARIO WORLD with M's life world by superimposing the latter on the former we were able to talk about topics M was previously shy to discuss.

M showed some acceptance of the new language, but did not accept the direct analogy with SUPER MARIO WORLD. However, they took the template and altered the playing field and the rules according to their ideas of how the game should work. That means that next to the narrative frame, they also took ownership of the functional side of the game. Both combined gave us a deeper understanding of how they interact with their world and what matters to them.

Implications for Future Work

First probing into Playful Inquiry gave us a promising look into what is possible and we hope to realise more case studies with more diverse participants soon. We would also like to investigate different forms of playful interaction along game types. Furthermore, we currently explore different options to use the games created during Playful Inquiry as design generating tools.

Playful Inquiry also needs better grounding in theoretical background to become a fully developed method for participatory design that balances out structure and creative freedom. Additionally, it is of interest to us to see how Playful Inquiry relates to certain theories about games, such as the rule set Juul [12] presents.

References
[1] Regina Bernhaupt, Astrid Weiss, Marianna Obrist, and Manfred Tscheligi. 2007. Playful Probing: Making Probing More Fun. In *Human-Computer Interaction – INTERACT 2007*, Cecilia Baranauskas, Philippe Palanque, Julio Abascal, and Simone Diniz Junqueira Barbosa (Eds.). Number 4662 in Lecture Notes in Computer Science. Springer Berlin Heidelberg, 606–619. http://link.springer.com/chapter/10.1007/978-3-540-74796-3_60 DOI: 10.1007/978-3-540-74796-3_60.

[2] Mark Blythe, Jamie Steane, Jenny Roe, and Caroline Oliver. 2015. Solutionism, the Game: Design Fictions for Positive Aging. In *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems (CHI '15)*. ACM, New York, NY, USA, 3849–3858. DOI:http://dx.doi.org/10.1145/2702123.2702491

[3] Frederik Jacobus Johannes Buytendijk. 1976. *Wesen und Sinn des Spiels*. Ayer Company Pub.

[4] Roger Caillois. 2001. *Man, Play, and Games*. University of Illinois Press.

[5] Roger Caillois and Elaine P Halperin. 1955. The Structure and Classification of Games. *Diogenes* 3, 12 (1955), 62–75.

[6] Lorenzo Cantoni, Luca Botturi, Marco FarÃľ, and Davide Bolchini. 2009. Playful Holistic Support to HCI Requirements Using LEGO Bricks. In *Human Centered Design*, Masaaki Kurosu (Ed.). Number 5619 in

Lecture Notes in Computer Science. Springer Berlin Heidelberg, 844–853. http://link.springer.com/chapter/10.1007/978-3-642-02806-9_97 DOI: 10.1007/978-3-642-02806-9_97.

[7] Sebastian Deterding, Miguel Sicart, Lennart Nacke, Kenton O'Hara, and Dan Dixon. 2011. Gamification. Using Game-design Elements in Non-gaming Contexts. In *CHI '11 Extended Abstracts on Human Factors in Computing Systems (CHI EA '11)*. ACM, New York, NY, USA, 2425–2428. DOI:http://dx.doi.org/10.1145/1979742.1979575

[8] Christopher Frauenberger, Julia Makhaeva, and Katharina Spiel. 2016. Designing Smart Objects with Autistic Children – Four Design Exposès. Accepted at CHI'2016. (2016).

[9] K. Holtzblatt and S. Jones. 1993. Contextual inquiry: A participatory technique for system design. In *Participatory design: Principles and practice*. Erlbaum, Hillsdale, NJ, 180–193.

[10] Johan Huizinga. 1956. Homo Ludens: Vom Ursprung der Kultur im Spiel.(1938). *Hamburg: Rowohlt* (1956).

[11] Jonathan Huyghe, Niels Wouters, David Geerts, and Andrew Vande Moere. 2014. LocaLudo: Card-based Workshop for Interactive Architecture. In *Proceedings of the Extended Abstracts of the 32Nd Annual ACM Conference on Human Factors in Computing Systems (CHI EA '14)*. ACM, New York, NY, USA, 1975–1980. DOI:http://dx.doi.org/10.1145/2559206.2581348

[12] Jesper Juul. 2011. *Half-Real: Video Games Between Real Rules and Fictional Worlds*. MIT press.

[13] Lorcan Kenny, Caroline Hattersley, Bonnie Molins, Carole Buckley, Carol Povey, and Elizabeth Pellicano. 2015. Which terms should be used to describe autism? Perspectives from the UK autism community. *Autism* (July 2015), 1362361315588200. DOI:http://dx.doi.org/10.1177/1362361315588200

[14] Daria Loi. 2007. Reflective probes, primitive probes and playful triggers. *Ethnographic Praxis in Industry Conference Proceedings* 2007, 1 (2007), 232–245. DOI:http://dx.doi.org/10.1525/epic.2007.2007.1.232

[15] Jane McGonigal. 2011. *Reality is Broken: Why Games Make Us Better and How They Can Change the World*. Penguin.

[16] Karin Slegers, Sanne Ruelens, Jorick Vissers, and Pieter Duysburgh. 2015. Using Game Principles in UX Research: A Board Game for Eliciting Future User Needs. In *Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems (CHI '15)*. ACM, New York, NY, USA, 1225–1228. DOI:http://dx.doi.org/10.1145/2702123.2702166