The Design Process of an Urban Experience

Anne Nigten

Director of the Patching Zone, Leader of the PSI Research Group,
Centre of Applied Research and Innovation Art & Society,
Hanze University of Applied Sciences, Groningen, The Netherlands
anne@patchingzone.net

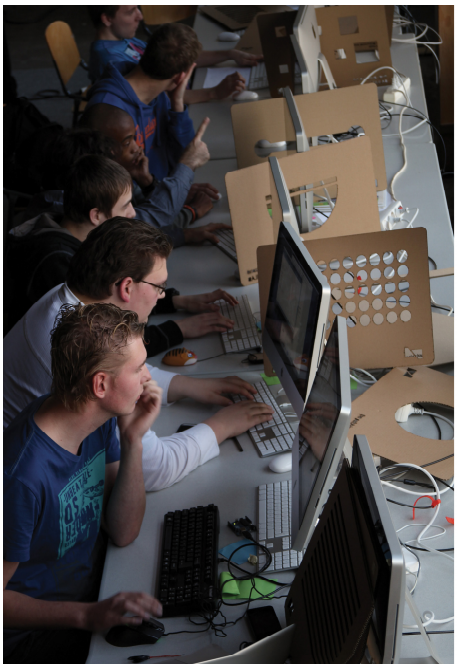
Abstract. In this paper we will be investigating the relevance of artistic practice-based research as a design method for interactive co-design works. Our study is based on Are You for Real?, an urban co-creation project which was developed by a cross-disciplinary project team with co-design contributions by students and youngsters. Although this case study was initially developed with and for youngsters and students of a technical vocational school, its design and creation approach addressed assumptions that are expected to be valuable for professionals as well as for educators in higher education. This study could contribute to people's understanding of 'real-life' research methods for 'real-life' situations. For our reference framework we identified two issues that were brought forward as impediments for new cross-disciplinary courses that dealt with interactive works in a public space. Following that, the lessons learned from our investigation are suggested as input for the next editions of these courses.

Keywords: Design principles and guidelines for Distributed, Ambient and Pervasive Interactions, Social Interaction, Art, Design.

1 Introduction

First of all we would like to introduce you to The Patching Zone media laboratory and the case study that was developed there. The Patching Zone is a trans-disciplinary R&D media laboratory where young professionals and students work together with experts and end-users. In their projects the participants cross over the boundaries of their discipline. For the duration of the project the team members leave their usual professional frameworks behind and venture into new territory. During the past seven years, The Patching Zone has worked on a series of iterations of Nigten's flexible Processpatching approach, where fitting methods and approaches are often loosely combined [1]. Although Processpatching focused initially on the collaboration among artists, technicians and computer scientists, over the years its focus has broadened. Other creative and scientific branches, the humanities and the end-users were all taken into account as collaborators who brought their domain-specific knowledge and methodologies or ways of working.

N. Streitz and P. Markopoulos (Eds.): DAPI 2014, LNCS 8530, pp. 575–582, 2014.



(a)

(b)

Fig. 1. (a) Students as co-designers; (b) Are You For Real ? participant

The case study "Are You For Real?"(AYFR?) is a GPS driven, real-time, sound experience created for and by young people and played in their own local urban setting. As the players roam the familiar city streets, they are simultaneously experiencing and exploring a virtually sonified version of the urban space through modified smartphones/headphone sets. The sound experience is driven by the players' position, the position of other players and the influence of online users who virtually walk through the same streets and are able to broadcast messages to specific locations in the sonic cityscape. The project explores how sound and music influence the experience of moving through an urban environment while at the same time altering the possibilities for social interactions in the streets. The overall structure of the game-like experience follows the mechanics of a traditional treasure-hunt, with players collecting sonic elements located in physical space, but the result is an open-world game where the interaction between players (both online and in the streets) generates complex sets of rules and experiences. AYFR? was designed in a participatory way, in which all aspects of the project were subject of interactive workshops with students and / or local youth. After each workshop the team entered an iterative design cycle, in which output from the last workshop was integrated, together with newly gained knowledge, insight and ideas.

AYFR?'s projectteam included representatives from media art, game design, engineering, ethography, audio design and so on. Human Technology and ICT students from the Zadkine technical vocational school worked as collaborators, co-deisgners

and later mingled with the end-users. The co-designing youngsters came from the Helderheid youth group in the neighborhood and brought in their interest in local rap and popular culture.

2 Reference Framework

Our reference framework for this study stems from a higher education environment: recently Academy Minerva (Hanze University of Applied Sciences) and the University of Groningen initiated a shared module 'Research & Development: New Media Art Practices' for their Master students Media Art Design and Scenography and students of the University's Art faculty. The students worked in cross-disciplinary teams on a media art experiment., Most experiments were situated in the urban public space. The two most striking issues that were brought forward in the evaluation of the first edition of this course were: the lack of knowledge about artistic research and the limited interest the students showed in the participant as a co-creator. It is worthwhile to note that both evaluative issues are related to the making process of interactive art and design works. In this paper therefore we will elaborate on the most eye-catching making methods that were used for the realisation process of AYFR? and how these relate to a theoretical framework. We'll complete this study with an extrapolation of the outcomes of the case study for our educational reference framework.

3 Design Methodology

The practice-based approach to AYFR? is inspired by the design and art practices. For this we draw especially from the explorative (hands-on) design process and the 'making' itself, the implementation aspect, as we know it in today's design and artistic practice. When we zoom in on its characteristics we'll notice that during and because of this creation process an important part of the research emerges. Following this there is an iterative cycle where the progress of the creative process brings about the necessity for background information and theory, and in its turn the theory feeds the practice. Furthermore the research and creation process usually has a holistic nature, as opposed to the conventional reductionist and solution-focused processes. From a classical engineering perspective this can sometimes be problematic, because it may lead to a myriad of different interpretations and viewpoints on one theme, or many possible solutions to a design problem [2]. However, it does link very well with the current interest in Human Computer Interaction (HCI) for multiple interpretations concerning emerging technical design areas, which are increasingly influenced by interaction of the end user with the technical system and with the designer. The space for multiple and personal interpretations, and holistic viewpoints is a counterpart or addition to the singular (reductionist) HCI interpretation. [3] This is closely connected to the recent shift from instrumental, work-related technology to technology for personal experience and the experience industry. Sengers and Gaver claim that the much-used traditional, objective utility and usability studies are not sufficient for personal, subjective experiences. They also refer to media art as an inspiration for the

replacement of the singular interpretation, which is often still in the hands of the HCI designer.

"*Systems that can be interpreted in multiple ways allow individual users to define their own meanings for them, rather than merely accepting those imposed by designers."* [4]

The role of the designer in this situation, and in certain elements of the design process, is more appropriately described a facilitator of the process rather than *the* designer who always makes *all* design decisions. In AYFR? the work was often done according to a co-design approach, an approach derived from participatory design and user-centred design.[5] In co-design the emphasis is on the joint design process. During the various phases of the whole process (concept, pre-design, design and realisation,) the relationships of the participants towards each other shift. For example, The Patching Zone's team worked together as coaches with the students in the pre-design phase (co-design). At a later stage (development) the students partly represented the end users.

The responsibilities everyone had in AYFR? (student, designer and artist) kept shifting; a necessary role change, which was sometimes a bit confusing. After a largely democratic co-design trajectory, holding on to a democratic decision-making process can become an obstacle for the process, because it may lead to a design compromise. This gives a good idea of the dilemma between emancipatory work and artistic, or more general, creative work. What is the most important issue in each part of the whole process? From the huge collection of ideas gathered in the pre-design phase, it turned out to be quite difficult to arrive at a convincing design supported by everyone. Of course we considered several instrumental solutions to this situation, but it was preferred to study strategies from the professional practices, which surrounded us at the start of the R&D process.

3.1 New Design Paradigms

We see an extreme example of process-facilitated co-design in Conditional Design.[6] Based on a number of clear, logical rules a joint design (sketch) process is set up, to which various people contribute. The designers and artists have drawn up a manifesto, which reads:

"…Input engages logic and activates and influences the process.

Input should come from our external and complex environment: nature, society and its human interactions." [7]

A very interesting concept which, in their documentation and in their workbook, surprisingly often leads to more or less the same results. The drawings on the website of Conditional Design reminds one of machine-made drawings without a random function or any noise. In his afterword in the Conditional Design Workbook Koert van Mensvoort teleports this Conditional Design formula to the China of 2061 because, according to him, it offers perspectives for co-creation which remind him of a Lego system for urban development, which of course everyone is allowed to help build. Rather, Conditional Design reflects what is on the minds of many designers and

artists these days. It was invented during the process of the search for the new role of the designer as a process facilitator. Quite a lot of literature is available about recent shifts in the design world; from the traditional designer who works on products, to designers who work on the designing of meaning (purpose). With this last one you can think of experience design, design for emotion and design for transformation. [8] The shift from problem or functionality based designing to designing 'for the sake of fun and pleasure' inspired Gaver and Dunn to the concept of 'ludic design' [9,10] Ludic design, a reference to Huizinga's Homo Ludens, a study of the play-element in culture [11] in many respects resembles a somewhat formalised art approach. Here designing no longer happens from a predetermined functionality or a specific use in order to become engaged with the world around us. We see that the old rules and laws of applied design discipline are shifting more and more towards the explorative way artists work. The dividing line between the design and the art practice is becoming ever more blurred. It is remarkable that a lot of literature is available from the design and technological perspective and much less from an art perspective. While it is precisely this media art practice to which Sengers et al look as inspiration for ambiguous interpretations and open scenarios for participation.[12] Media art and art & technology harbour a wealth of information. During the past decades the media artist has created a trail, which many people can learn from. For some time now the Creativity and Cognition Studios from Sydney, Australia, have been publishing about artistic experiments as forerunners and inspiration for interaction design and technology. Bilda, Edmonds and Candy [13] researched the interactive behaviour and the engagement of participants in different interactive media art installations over a longer period. This resulted in their 'Creative Engagement Model'. Bilda then 'translated' the sequential interaction phases and the different 'modes' of active audience behaviours into experience Design Principles for five different phases (from initial introduction to deep understanding) of the interaction process. [14]

3.2 Background

In personal, often informal, conversations with established media artists about the role they play in their projects, what often becomes clear is that they usually do many different kinds of jobs and switch roles very easily. It is worth mentioning that many media artists also have a professional practice as new style designers. Most media artists or media art collectives carry the final responsibility for the process, or for the final product (depending on how they look at it and what is developed). This brings us to an important point of what distinguishes media art from the co-creation processes of, for example, community art. The media artist is almost always the person who weighs the artistic deliberations and makes decisions in the design process, while in community art the emancipatory aspect often gets priority. Concerning the artistic quality of community art many interesting discussions have been held. [15]

It seems to us that the outcomes of community art, in which the emancipatory aspect is the central focus, should not be assessed for artistic quality but for the participation process, the realised empowerment and everything this entails. Although in media art public interaction is often essential and parts of the work are realised

according to co-design principles, we do judge the final process or the media art experience according to (new) personal and subjective artistic criteria. Let's see what happens when we map the two approaches to different innovation layers in AYFR? The emancipatory (community art-like) approach was required during the first phase (pre-design), while the realisation would benefit from a media art-like approach. You may wonder whether this dichotomy did not complicate the process needlessly. Perhaps the ambition-bar had indeed been set a bit high here because we learned that this turnaround was complicated for both our team and for the students. Our team could, as far as we are concerned, relied even more on their discipline-specific expertise so team members could fall back on this at the change from process facilitator for empowerment to the designing of the final artistic and creative experience.

4 Lessons Learned

What can we learn from our case study regarding the articulation of artistic research; the iterative process of making and reflecting? This project, as well as earlier Patching Zone projects [16,17] confirms our findings that artists and designers often deal with a comprehensive and integral approach, which includes a constant dialogue between creating (making) and reflecting. This allows a reflective attitude to surface due to a continual exchange between practical knowledge, skills and theory (wisdom). It brings forward an integral practice, research and theory model that may provide fertile ground for the enhancement of practical knowledge through continuous feedback, from practice through to the context and the theory. Through this method the researcher and the co-creators become aware of the modelling powers of their own practice, during the work or learning processes. This interconnected approach will either succeed or fail with a balance between making and passing on of knowledge or the other way around, of generating new knowledge that is linked to the practical creation process. When summarizing the connection between practice and theory, we can state that in AYFR? the values and interpretations from academic research, design and art practices came together with the co-design interest from popular culture that was brought in by our young collaborators and young people in the online environment. In such a constellation, theory is a dynamic given; it is constantly renewed and questioned by the practice and vice versa. The theoretical background in this environment is always linked to the (new) practice. So we can speak of an 'integrated design where reflection informs practice and practice generates theory'. In a way this model reminds us of Schön's Reflective Practice theory. [18]

As we briefly mentioned earlier, the creation process of interactive media art doesn't stop after the artistic and technical development phase, it also embodies the shift from a final piece of art to the interactive process where the participants become co-creators of the experience. Here the participants all establish or create a highly personalised experience that could be described as an on-going co-creation process. An interactive artwork is therefore never finished. [19] In regard to understanding the co-creators' making process a working prototype as the interaction environment is of crucial importance.

These working prototypes make artistic research and development so interesting as a Real-Life design approach to technology for personal experiences and the experience industry. In other words: In our case study it would not have been easy to simulate AYFR? because of the personal involvement, which was essential for the experience. AYFR? therefore was a convincing example of a subjective and personal experience, which allowed space for multiple or ambiguous interpretations, with strong artistic, cultural and aesthetic aspects to boot. Our case study thus illustrates that artistic, practice based research could contribute to the establishment of real-life research methods for real-life situations. [20]

This brings forward valuable new knowledge for the academic discourse dealing with the making of media art, as this knowledge is only just at its initial stage today. This is an issue for academic researchers whose research practice will be positioned more and more in a so-called hyper reality. [21] where the interactive experience plays a role of crucial importance. Nor should we overlook the importance of a suitable discourse for contemporary artists and designers who plan to work with interactive experiences, in particular those who intend to collaborate with other disciplines in the research and development process.

5 Conclusion

What are the relevant lessons learned for the education as it was outlined in our reference framework? AYFR? and other interactive art pieces show a remarkable resemblance to the co-design process and could be characterised as never finished. The artistic research process represents an integrated practice, a creation and theory model that could lead the way to getting a grip on the never-ending making process, as this type of research is grounded in the creation process. The holistic nature of our case study links well with multiple or subjective interpretations that are brought forward by the end users' interaction process In this situation theory is a dynamic given that is thus by definition subjective. Finally, community art practice taught us about participants' engagement in a democratic co-design trajectory and media art taught us how to shift the design process to an artistic or design decision mode.

Author's Note. Some parts of this text are a slightly altered version of earlier writings by the author such as Real Projects for Real People Volume 3, 2013 and the epilogue in Research & Development: New Media Art Practice, 2014.

Acknowledgements. Are You For Real? Is developed by The Patching Zone team in 2012-13: Kati Bessenyei (HU), Waldek Rapior (PL), Ida Toft (DK), Victor Díaz (ES), Sebastien Seynaeve (BE) supervised by Kristina Andersen (NL/DK), David Jonas (NL/PT), Anne Nigten (NL) and staff. The Patching Zone is grateful to her project collaborators; the Zadkine students and Helderheid group, the projects' partners: Zadkine, Kosmopolis Rotterdam, Alares, CRISP IP-e and the DIVO partners Blast Theory (UK) and Translocal (FI). The CRISP project receives FES funding from the Dutch government and NWO (the Dutch organisation for scientific research). The Patching Zone is also grateful to the funding bodies for Are You For Real? DOEN, Cultural Participation Fund, SNS Reaal Fund, VSB Fund, The Prins Bernhard

Cultuurfonds, Stichting Bevordering van Volkskracht, and the Culture Programme of the European Union. This project has been funded with support from the European Commission. This publication reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein. The Patching Zone also would like to thank their generous sponsors: Alcatel Onetouch and Gemeente Rotterdam Dienst Jeugd Onderwijs en Samenleving.

References

1. Nigten, A.: Processpatching, Defining new Methods in aRt&D, printed edition, p. 103 (2007); Nigten, A.: Leonardo The Journal of the International Society for the Arts, Sciences and Technology 42(5), 478–479 (2009); Nigten, A. (ed.) Real Projects for Real People, vol. 1 (2010); Nigten, A. (ed.) Real Projects for Real People, vol. 2 (2012); Nigten, A. (ed.) Real Projects for Real People, vol. 3 (2013)
2. Nigten, A.: Processpatching, Defining new Methods in aRt&D, printed edition, p. 103 (2007)
3. Sengers, P., Boehner, K., David, S., Kaye, J.: Reflective Design. Proceedings Critical Computing: Between Sense and Sensibility, 49–58 (2005)
4. Sengers, P., Gaver, B.: Staying Open to Interpretation: Engaging Multiple Meanings in Design and Evaluation. DIS / ACM 1 (2006)
5. Nigten, A. (ed.) Real Projects for Real People, vol. 1 (2010); Nigten, A. (ed.) Real Projects for Real People, vol. 2 (2012)
6. Maurer, L., Paulus, E., Puckey, J., Wouters, R.: http://conditionaldesign.org/ (assessed February 18, 2014)
7. Blauvelt, A., van Mensvoort, K. (eds.): Conditional Design: Workbook, van Mensvoort K., How Conditional Design Changed the World, p. vii (2013)
8. Sanders, E.B., Stappers, P.J.: Co-creation and the new landscapes of design (2008)
9. Gaffney, G.: Ludic Design: An interview with William Gaver, Information and Design (2007), http://infodesign.com.au/uxpod/ludicdesign/ (assessed January 27, 2014)
10. Gaver, B., et al.: The Drift Table: Designing for Ludic Engagement. In: CHI 2004 (2004)
11. Huizinga, J.: Homo Ludens, A study of the play-element in culture (1944)
12. Sengers, P., Gaver, B.: Staying Open to Interpretation: Engaging Multiple Meanings in Design and Evaluation. DIS / ACM 1 (2006)
13. Bilda, Z., Edmonds, E., Candy, L.: Designing for creative engagement. Design Studies 29(6), 525–540 (2008)
14. Bilda, Z.: Designing for Audience Engagement. In: Candy, L., Edmonds, E. (eds.) Interacting - Art, Research and the Creative Practitioner, pp. 163–181 (2012)
15. Bishop, C.: Is Everyone an Artist?, Van Abbemuseum, Eindhoven The Netherlands (2010), http://www.conferenceofconferences.com/is-everyone-an-artist (assessed January 27, 2014)
16. Nigten, A. (ed.): Real Projects for Real People, vol. 1 (2010)
17. Nigten, A. (ed.): Real Projects for Real People, vol. 2 (2012)
18. Schön, D.: The Reflective Practitioner: How professionals think in action (1983)
19. Nigten, A.: Epilogue in Research & Development: New Media Art Practice (2014)
20. Mulder, I.: Living Labbing the Rotterdam Way: Co-creation as an Enabeler for Urban. Technology Innovation Management Review, 39–43 (2012)
21. Eco, U.: Travels in Hyperreality. The Fortresses of Solitude (1990), http://public.callutheran.edu/~brint/American/Eco.pdf (accessed January 12, 2014)