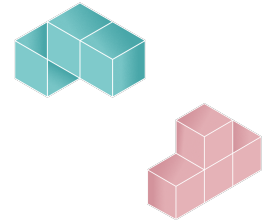


NORDES 2021



RESIDUE OF INTERACTION: SCALING PARTICIPATORY EXPERIENCE

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ABSTRACT

Situated within both design research and design education and learning, the *Residue of Interaction* workshop is proposed as a means to begin a discussion on the residual influence of participation on the designer-researcher and how these one-off experiences individually scale up to influence future practice. Based within participatory-based research practice, the rich experiences had by design researchers is often translated into insights and design requirements required by project partners. In some instances, however, participation leads to insights (even after a project is complete) that do not have a space to be documented or shared within the scope of the research at hand. The workshop will document, reflect and discuss how experience can be scaled into meaningful and accessible resources and how they can be shared in a way that it becomes useful for others. A collective documentation and dissemination workshop, it will gather narratives of how participation has impacted researchers themselves and how these insights continue to impact how they design or their teaching practice. The aim of this workshop, then, is to identify ways to integrate reflection into the design process and best practices for articulating, documenting or disseminating experience as knowledge. The workshop will result in a collection of media resources and artifacts that can be used for

continued research in this area as well as a resource within education.

INTRODUCTION: TURNING TOWARDS PEOPLE

Increasingly over the last decade, the notion of working together (co-design, co-creation, participatory design, user-centered design, human-centered design, etc....) with users or participants has become well integrated into the design process both within industry as well as tertiary design education. This *turning towards people* has allowed design to become concerned with contexts of use, communication of use and the consequences of designed objects as well as the influence of these design objects on people (Frascara 2002) which in principle leads to a “better informed design” (Taffe & Barnes, 2010, p. 211). Quite different to the process of designing to second-hand accounts or what Tomico refers to as third person in which people are designing *for* instead of *with* (Smeenk et al. 2016) the value of participation is well documented.

In the *Routledge International Handbook of Participatory Design*, participatory design is defined as:

“a process of investigating, understanding, reflecting upon, establishing, developing, and supporting mutual learning between multiple participants in collective ‘reflection-in-action’... the designers strive to learn the realities of the users’ situation while the users strive to articulate their desired aims and learn appropriate technological means to obtain them” (Simonsen & Robertson 2012, p. 2).

It is here where a gap begins to form. The definition above speaks of exertion; those doing the investigating, the reflecting on, etc. (the designers) are *striving* for understanding and the participants equally are *striving* to meet their expectations. In collaborative making, the striving together results in a designed thing that shows impact of the collaboration. The participant sees themselves reflected in it; in some cases they can even see traces of their influence in the end result. Equally the designer remains in control of how the participation results are shared, thus they too see their own design decisions (based on the participation) reflected in the designed artefact.

But what of the *labour* that the handbook describes above? How does this manifest and documented? Often the struggle evidenced in literature is about the search for methodologies that match not only the needs or abilities of the participants, but the requirements or limitations imposed by the project.

Literature is rife with stories of the strife mentioned above and covers project successes, methodology creation and adaptation as well as highlighting the challenges faced by applying methodology in demanding contexts. From expressing the benefit of collaboration for the participants(s) (Bratteteig & Wagner 2016; Vines et al. 2013; Sanders 2008; Spinuzzi 2005; Schuler & Namioka 1993) to articulating the importance of their voice being heard (Peters et al. 2018; Ehn 2008; Muller 2002) academics publish research on the struggle between participant and design researcher. There is participatory design literature focusing on ways to include participants with impairments (Barendregt et al. 2014; Hendriks et al., 2015; Hourcade et al. 2014) as well as discussions about methodology adapted for personalized or bespoke participation (Dreessen and Schoffelen 2016; De Couvreur and Goossens 2011; Padfield 2011) among others.

Although the perceived strife of the designer is documented in each of the aforementioned articles, in terms of their formal experience and the preparation, execution and analysis of work is validated, their personal *experience* often remains sidelined as being informal or unreliable. Although there is literature suggesting that participatory methods may lead to empathy on behalf of the designer (Hess & Fila 2016; Kouprie & Visser 2009), these too focus on how empathy manifests within designed product (Redström 2006; Sanders 2002).

The knowledge generated and documented within these participatory approaches are limited to the expectations of academics and journals as well as limited by the requirements outlined by the project the research is situated within. However, in acknowledging the relevance of both, there is also the need to be aware of other forms of knowledge generated through these

processes. They are not the focus of papers and they exist within the fringes of formal design processes, but they are powerful drivers of the way in which designers design.

BEYOND THE ANALYSIS OF RESEARCH: A SPACE FOR OTHER TYPES OF KNOWLEDGE

What this limited literature study intends to highlight is a gap not in knowledge creation on behalf of the design researcher, but highlight the lack of platforms for discussing and disseminating knowledge that is generated between these spaces, knowledge that lacks the methodological framework to ground it to participatory practice, yet is a knowledge that exists within backstage relating, within a designer's *way of being* as well as within their reflective practice.

PLACING KNOWLEDGE IN THE BACKSTAGE

One place where this sort of knowledge could place itself would be within Star's "going backstage" (Star 1999). Linked to this idea of infrastructuring in which invisible structures are acknowledged and validated for their role in enabling future collaborations to take place, these infrastructures are often ignored. One of the key aspects of backstage infrastructuring relies on the orchestrated relationships within participatory design and how they could be counted as objects of design. As valuable as worksheets used within workshops and as tangible as the workshop context itself, the relationships that are formed are "a phenomenon that is malleable" and formed in function of design and influence the success of the participation (Dindler & Iversen 2014, p. 43, Seravalli 2018). Within this backstage space, the designer moves in and out of different functions; there is 'non design' work as well as work that is seen to in function of the 'design research' (interviews, shadowing, mapping, workshops, etc.). Backstage work helps to establish the designer-participant relationship and is crucial to the success of the following design process. "Whereas the backstage is often hidden chaos of conflict and turmoil" this is contrasted against what Bødker et al. describe as the formal and often well documented design activities which offer the "pretty image of success" (2017, p. 250).

PLACING KNOWLEDGE IN A DESIGNERLY WAY OF KNOWING

Likewise these personal experiences could be placed within a designer's *modus operandi*. In Cross's influential text on *Designerly ways of knowing* he suggested that the confidence with which a designer moves from decision to decision is based on both their previous experiences as well as new experiences and that this way of operating is a designer's way of *being in the world* (1982 p. 224). This construct of continually making connections within a mental constellations is

what von Glasersfeld defined as *knowledge* creation: “a kind of compendium of concepts and actions that one has found to be successful, given the purposes one had in mind” (2012 p. 4). What makes this appealing as a place for alternative design knowledge is Cross’s *Designerly ways of Knowing* is not merely the knowing that is presented as design research results: qualified and quantified within power point presentations to other members of a design team, where interviews are reduced to one-liner quotes presented in board rooms to clients as a means to validate the research carried out, but it is seen to be *embedded* within the designer’s ongoing experience, not simply in their analysis of the results.

PLACING KNOWLEDGE IN REFLECTIVE PRACTICE

For designers working closely with participants, the distance between analysis and research validation can be blurry. A designer stepping into a person’s world does so it expressly: they are *experiencing* it, as a means to become *aware* of it. For Boud et al., experiences like these are not happenstance, but rather *meaningful encounters*. They are not “just an observation, a passive undergoing of something, but an active engagement with the environment” (1993, p. 6). Schon, specifically called for make “tacit knowledge explicit” (1992, p. 123); expressly grounding these meaningful experiences “in the external world...through internal reflection about the attributes of these experiences and ideas” (1983, p. 52).

As with the knowledge that situations itself in the backstage and in a designerly way of being, these meaningful encounters, however, do not all manifest as insights that are relevant for the research at hand thus remain ambient reflections on incidents, encounters, challenges, confrontations, unexpected outcomes etc. until they are are mulled over and reflected upon.

DISSEMINATION THROUGH NARRATIVE

As these knowledge-making moments are seen to be found embedded in the work a designer-researcher does, then what tool(s) exist to evidence them? Narratives or storytelling is often the way that very personal, experienced knowledge is transferred (scaled) to others. Often dismissed as minor narratives, anecdotes are a means to make tacit knowledge explicit and they possess a powerful performative, reflective nature: “the making and enactment of anecdotes is a means of interrogating the research process itself” (Lury & Wakeford, 2012, p. 33). Used within design education, for example, firsthand experiences by a lecturer are made *memorable* and *known* through storytelling. So too does storytelling fit within the spectrum of knowledge acquisition. Within a traditional classroom setting, a professor can be seen to be the gatekeeper of knowledge; the teacher has the goods and need only to deliver them (Wilson 1996). On the other end of the

spectrum is a form of anthropology; knowledge to be gained is inexplicit, intangible and an individual is only able to gain access to it through enculturation and becoming part of the community itself. Making experiential knowledge accessible through narrative (sharing anecdotes), the transfer of knowledge falls somewhere inbetween the experience of enculturation and gatekeeping (Wilson 1996). Although on this spectrum there are tools such as thick descriptions (Ponterotto 2006) used within research analysis as well as persona development (Pruitt & Adlin 2010) in which narrative storytelling supports the understanding of a persona’s experience, the knowledge that goes unmentioned, the tacit and latent knowledge that is seen to be almost necessary or irrelevant at the time, but yet is a part of a designers way of being is where this workshop situates itself.

SCALING THE RESIDUE IMPACT OF INTERACTION: THE WORKSHOP FORMAT

Rooted in experience, humour, failings, conversations, exchanges...these knowledge fragments are the residues of interaction; the leftover bits that are chewed on, mulled over and recalled as examples. They stick with the designer for the way it was confronting, for the way the interaction was impactful, the way the relationship challenged them, for the way in which it shifted the way they teach practice to others...

INTENDED AUDIENCE

The intended audience of this workshop is designers in various capacities with a specific focus on designers who also see themselves as researchers and are therefore familiar with this translation. Specific knowledge or interest in co-design/participatory design or design education is not necessary as the workshop has specifically been created to welcome the voice of a wide range of participants.

WORKSHOP FORMAT

This workshop will run across one full day or two half-days. This workshop will be built from the actual voices and experiences of participants, with the specific goal of creating access to, archiving, listening, reflecting and disseminating not only designer-research stories but a means to give them a place in practice as sharable knowledge.

PREPERATION BY PARTICIPANTS (HOMEWORK)

To facilitate this, participants are asked on the forehand to consider the impact of interaction. When did a participatory exchange challenge them? What are moments as designers, researchers or participatory facilitators in which they learned the most? Who were the participants that without much intention, instigated this learning?

An online worksheet will be provided that participants can use to gather their thoughts on this topic. They will not be limited to one moment but will be asked to provide a collection of insights. Examples will be provided as a means to trigger recollection about knowledge generated from experiences across a broad range of reference points: anecdotes often told during lectures, stories told as examples within presentations, challenges discussed between colleagues, images that are used as props, etc.

DAY 1 (SMALL GROUP SESSIONS):

Participants will be divided into small, intimate groups which will gather together with the workshop organisers to share their stories. These sessions will be during a 'workshop time slot' during one of the first days. – 45 minutes per session

DAY 2 (PARTICIPANT EXPERIENCE):

Participants will begin the second part of the workshop by receiving a 'bundle'. This bundle will be the gathered stories received on the first half day but presented in different ways in terms of physical artifacts, installations, etc. The walk will be in teams of two or three and each team will arrive a 'destination' in which they will carry out a predetermined task together before returning to campus. – 1 hour and 30 minutes

MAPPING

On their return to the primary workshop location, the participants will group together in teams for a mapping. A tool to facilitate "participants' exchanges and disagreements" (Schepers et al. 2013), the mapping will focus on different challenges, from materialisation of knowledge to incorporating this into teaching practice. – 1 hour and 30 minutes (30 min. per session)

SCALING EXPERIENCE:

Ways in which direct (observational, first-person design research) can be scaled so that they are able to be offered to others as knowledge. Are these able to be grouped thematically? What medium works best for accessing these stories? What platforms already exist that could host this time of knowledge? What audiences will be receptive and how will they be used?

REFLECTIVE PRACTICES:

Best-practices for reflection within design processes. What are the ways in which reflective practice can be taught within design curricula so that meaningful experiences and the learning resulting from these experiences are acknowledged? How is this related to learning outcomes and expectations around coursework?

CHALLENGES IN ACADEMIA:

Challenges to scaling (disseminating) reflective experiential knowledge within an academic

context. What might need to shift within academic practice in order for narrative-based, anecdotal contributions to be welcomed? What changes can be proposed?

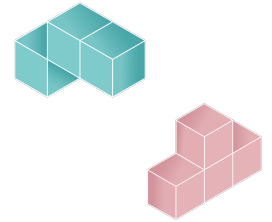
FUTURE PLANNING:

After the groups have completed their map, they will present their group's top proposals for each section and collectively discuss ways to further this research. Are there themes that cut across the groups? Are there leaders within the group that might already be experts in this area? – 45 minutes per session

What will be 'left over' from the workshop will be a framework for further research (interviews) highlighting the critical challenges related to scaling experiential knowledge in design practice as well as a plan for where this research should best be published. These collective results (as well as the collected stories) gathered in the workshop will be made available for design researchers and practitioners engaged in this space for future research.

REFERENCES

- Barendregt, W., Slegers, K., Eriksson, E., Torgersson, O., Heath, C., Andersson, A., Sonne, T. and Fohlin, R. 20140601. Including children with disabilities in the design process *In: IDC '14, Proceedings of the 13th International Conference on Interaction Design and Children* [Online]. ACM; New York, pp.1–4.
- Bødker, S., Dindler, C. and Iversen, O.S. 2017. Tying knots: Participatory infrastructuring at work. *Computer Supported Cooperative Work (CSCW)*. **26**(1–2), pp.245–273.
- Boud, D., Cohen, R. and Walker, D. 1993. *Using Experience For Learning*. McGraw-Hill Education (UK).
- Bratteteig, T. and Wagner, I. 2016. What is a participatory design result? *In: Proceedings of the 14th Participatory Design Conference: Full papers - Volume 1* [Online]. PDC '16. Aarhus, Denmark: Association for Computing Machinery, pp.141–150.
- Cross, N. 1982. Designerly ways of knowing. *Design Studies*. **3**(4), pp.221–227.
- De Couvreur, L. and Goossens, R. 2011. Design for (every)one: co-creation as a bridge between universal design and rehabilitation engineering. *CoDesign*. **7**(2), pp.107–121.
- Dindler, C. and Iversen, O.S. 2014. Relational expertise in participatory design *In: Proceedings of the 13th Participatory Design Conference: Research Papers- Volume 1.*, pp.41–50.



RESIDUE OF INTERACTION: SCALING PARTICIPATORY EXPERIENCE (PRACTICAL OVERVIEW)

MOTIVATION

Situated within both design research and design education and learning, the *Residue of Interaction* workshop is proposed as a means to begin a discussion on the residual influence of participation on the designer-researcher and how these one-off experiences individually scale up to influence future practice. Based within participatory-based research practice, the rich experiences had by design researchers is often translated into insights and design requirements required by project partners. In some instances, however, participation leads to insights (even after a project is complete) that do not have a space to be documented or shared within the scope of the research at hand. The workshop will document, reflect and discuss how experience can be scaled into meaningful and accessible resources and how they can be shared in a way that it becomes useful for others. A collective documentation and dissemination workshop, it will gather narratives of how participation has impacted researchers themselves and how these insights continue to impact how they design or their teaching practice. The aim of this workshop, then, is to identify ways to integrate reflection into the design process and best practices for articulating, documenting or disseminating experience as knowledge. The workshop will result in a collection of media resources and artifacts that can be used for continued research in this area as well as a resource within education.

LENGTH OF WORKSHOP:

A full day spread across two days
(ideally day 1 of the conference and day 3)

DAY 1 SMALL GROUP SESSIONS:

Participants will be divided into small, intimate groups which will gather together with the workshop organisers to share their stories. These sessions will be during a ‘workshop time slot’ during one of the first days. The groups will not intermingle. This can be seen to be a ‘mini-podcast’ production session and privacy issues will be addressed and those who do not want to be recorded are still able to participate.

– **45 minutes per session**

DAY 2 PARTICIPANT EXPERIENCE:

Participants will begin the second part of the workshop by receiving a ‘bundle’. This bundle will be the gathered stories received on the first half day but presented in different ways in terms of physical artifacts, installations, etc. The walk will be in teams of two or three and each team will arrive a ‘destination’ in which they will carry out a predetermined task together before returning to campus.

This facilitates small teams and allows the participants to explore Kolding while carrying out part of the workshop. The ‘task envelope’ will include a set of questions and will include enough money for the team to get a drink together (coffee, have cake, etc.) This will later be discussed as residual knowledge that was developed directly from participatory design research by two of the workshop organisers. In this way, the participants come in direct contact with the intention of the workshop.

– **1 hour and 30 minutes**

MAPPING

On their return to the primary workshop location, the participants will group together in teams for a mapping. A tool to facilitate “participants’ exchanges and disagreements” (Schepers et al. 2013), the mapping will focus on different challenges, from materialisation of knowledge to incorporating this into teaching practice.

– **1 hour and 30 minutes (30 min. per session)**

SCALING EXPERIENCE:

Ways in which direct (observational, first-person design research) can be scaled so that they are able to be offered to others as knowledge. Are these able to be grouped thematically? What medium works best for accessing these stories? What platforms already exist that could host this time of knowledge? What audiences will be receptive and how will they be used?

REFLECTIVE PRACTICES:

Best-practices for reflection within design processes. What are the ways in which reflective practice can be taught within design curricula so that meaningful experiences and the learning resulting from these experiences are acknowledged? How is this related to learning outcomes and expectations around coursework?

CHALLENGES IN ACADEMIA:

Challenges to scaling (disseminating) reflective experiential knowledge within an academic context. What might need to shift within academic practice in order for narrative-based, anecdotal contributions to be welcomed? What changes can be proposed?

FUTURE PLANNING:

After the groups have completed their map, they will present their group's top proposals for each section and collectively discuss ways to further this research. Are there themes that cut across the groups? Are there leaders within the group that might already be experts in

this area?

– **30 minutes**

WORKSHOP OUTCOME:

What will be 'left over' from the workshop will be a framework for further research (interviews) highlighting the critical challenges related to scaling experiential knowledge in design practice as well as a plan for where this research should best be published. These collective results (as well as the collected stories) gathered in the workshop will be made available for design researchers and practitioners engaged in this space for future research.

WORKSHOP NEEDS REQUIREMENTS:

Day one will require a room that is silent as to aid in the recording of the storytelling.

Materials: Between Day 1 and Day 3 printing will need to be done in order to make the 'bundles' required for the walk. This can also be done at a local print-shop facility. If one of the stories lends itself to other forms of artefacts or installations, this will be discussed on with the conference organisers (ie. it might involve hanging a poster or setting an object on a plinth with accompanying wall text, etc.)

All participants will be made aware of their story being recorded and will have provided the correct and applicable privacy forms for the use of their words, voice, submissions or for photography.

- Dreessen, K. and Schoffelen, J. 2016. *Bespoke Design*. Leuven, Belgium: Acco.
- Ehn, P. 2008. Participation in design things *In: Proceedings of the Tenth Anniversary Conference on Participatory Design 2008*. PDC '08. Bloomington, Indiana: Indiana University, pp.92–101.
- Frascara, J. 2002. People-centered design *In: Design and the Social Sciences* [Online]. Contemporary Trends Institute Series. CRC Press, pp.33–39.
- Glasersfeld, E. von 2012. A Constructivist Approach to Teaching. *Constructivism in Education*. [Online].
- Hendriks, N., Slegers, K. and Pieter, D. 2015. Codesign with people living with cognitive or sensory impairments: a case for method stories and uniqueness. *CoDesign*. **11**(1), pp.70–82.
- Hess, J.L. and Fila, N.D. 2016. The manifestation of empathy within design: findings from a service-learning course. *CoDesign*. **12**(1–2), pp.93–111.
- Hourcade, J.P., Garzotto, F., Rozga, A., Tentori, M.E., Markopoulos, P., Pares, N., Good, J., Pain, H. and Alper, M. 2014. Supporting children with complex communication needs *In: CHI '14 Extended Abstracts on Human Factors in Computing Systems* [Online]. CHI EA '14. New York, NY, USA: Association for Computing Machinery, pp.119–122. [Accessed 27 January 2021].
- Kouprie, M. and Visser, F.S. 2009. A framework for empathy in design: stepping into and out of the user's life. *Journal of Engineering Design*. **20**(5), pp.437–448.
- Lury, C. and Wakeford, N. 2012. *Inventive Methods: The Happening of the Social*. Routledge.
- Muller, M.J. 2002. Participatory design: the third space in HCI *In: The human-computer interaction handbook: fundamentals, evolving technologies and emerging applications*. USA: L. Erlbaum Associates Inc., pp.1051–1068.
- Padfield, D. 2011. 'Representing' the pain of others. *Health (London, England: 1997)*. **15**(3), pp.241–257.
- Peters, D., Hansen, S., McMullan, J., Ardler, T., Mooney, J. and Calvo, R.A. 2018. 'Participation is Not Enough': Towards Indigenous-led Co-design *In: Proceedings of the 30th Australian Conference on Computer-Human Interaction* [Online]. OzCHI '18. New York, NY, USA: ACM, pp.97–101.
- Ponterotto, J.G. 2006. Brief Note on the Origins, Evolution, and Meaning of the Qualitative Research Concep. *Qualitative Report*. **11**(3), pp.538–549.
- Pruitt, J. and Adlin, T. 2010. *The Persona Lifecycle: Keeping People in Mind Throughout Product Design*. Morgan Kaufmann.
- Redström, J. 2006. Towards user design? On the shift from object to user as the subject of design. *Design Studies*. **27**(2), pp.123–139.
- Sanders, E.B.-N. 2008. An Evolving Map of Design Practice and Design Research. *Dubberly Design Office, Interactions magazine*.
- Schon, D.A. 1983. *Reflective Practitioner*. Basic Books.
- Schon, D.A. 1992. Designing as reflective conversation with the materials of a design situation. *Research in Engineering Design*. **3**(3), pp.131–147.
- Schuler, D. and Namioka, A. (eds.). 1993. *Participatory Design: Principles and Practices* 1 edition. Hillsdale, N.J: CRC / Lawrence Erlbaum Associates.
- Seravalli, A. 2018. Infrastructuring urban commons over time: learnings from two cases *In: Proceedings of the 15th Participatory Design Conference: Full Papers - Volume 1* [Online]. PDC '18. Hasselt and Genk, Belgium: Association for Computing Machinery, pp.1–11.
- Simonsen, J. and Robertson, T. 2012. *Routledge International Handbook of Participatory Design* [Online]. Routledge Handbooks Online. [Accessed 4 May 2020].
- Spinuzzi, C. 2005. The Methodology of Participatory Design. *Technical Communication*. **52**(2), pp.163–174.
- Star, S.L. 1999. The Ethnography of Infrastructure. *American Behavioral Scientist*. **43**(3), pp.377–391.
- Taffe, S. and Barnes, C. 2010. Outcomes we didn't expect: participant's shifting investment in graphic design *In: Proceedings of the 11th Biennial Participatory Design Conference* [Online]. ACM, pp.211–214.
- Vines, J., Clarke, R., Wright, P., McCarthy, J. and Olivier, P. 2013. Configuring Participation: On How We Involve People in Design *In: Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* [Online]. CHI '13. New York, NY, USA: ACM, pp.429–438.
- Wilson, B.G. 1996. *Constructivist Learning Environments: Case Studies in Instructional Design*. Educational Technology.