

Editorial

What is it that makes participation in design participatory design?

It is an interesting time to produce a special issue on participatory design. The seed for this started as a rejoinder to a previous *Design Studies* special issue on Participatory Design (Sanoff 2007), with the intention to refresh design research understanding of participatory design. It was also inspired by Nigel Cross's observation at the 1971 *Design Participation* conference on user participation in design when "*the phrase 'design participation', which I thought I had invented specifically as a title for the conference ... had become, according to one reviewer ... 'an inadequate cliché'. You have been warned!*" (Cross 1971, pp. 11–14). At the same conference Reyner Banham recounted that it had become "*in Donald Schön's terms, one of those 'ideas in good currency' and therefore dead; one of those ideas that everybody has heard of, everybody can discuss, everybody knows what it means. It has reached the point where it is susceptible to government action and has therefore ceased to be a live issue. But the presence of 150 souls at this conference is a fair indication that it is not quite a dead issue yet*" (Banham, 1971, pp. 15–18).

As we approach the end of the second decade of the twenty-first century I sense something similar is happening. On occasion there is a concept or value that ignites the imagination. Participation is ubiquitous and participatory design is the vehicle and mechanism for its application (Smith, Bossen, & Kanstrup, 2017). It has grown to become an established field of practice

(Dalsgaard 2012). Indeed, the 2016 (PDC) Participatory Design Conference 'Participatory design in an era of participation' in Aarhus, Denmark, set out to invite critical and constructive discussions on the values, characteristics, politics and future practices of participatory design in an era in which participation is now pervasive (Smith et al., 2017). However, as is noted in this special issue, "*The paradox is that the more acceptance participatory design has gained in the general design discourse, the more diluted the meaning of 'participation' has become*" (Smith and Iversen 2018).

Despite renewed enthusiasm for participatory design it continues to be appropriate to question how it is conceived. Indeed, this special issue was also inspired by a conversation at the PDC 2016 conference, between two researchers who were surprised by the participatory design activities that were not strongly represented. While one person anticipated the discussion of Henry Sanoff's community architecture work (given that Aarhus has a prominent school of architecture and had been elected as European Capital of Culture), the other thought there might be more discussion of the pragmatist roots of the civil rights movement. This observation is not a criticism. It was an exceptional conference that has inspired three journal special issues (Hansson, Forlano et al., 2018; Smith et al., 2017), including this one. It does, however, draw attention to the different disciplines and communities in which PD takes place, which are still only partially connected.

The purpose of this editorial therefore is to map a common ground from which to discuss participatory design matters across the different domains in which it is applied. There are several accounts of the history of participatory design from its Scandinavian roots (Bjerknes, Ehn, Kyng, & Nygaard, 1987, Greenbaum and Kyng 1991, Kensing and Greenbaum 2013) and another trajectory that stems from the North American philosophical tradition of pragmatism, the civil rights movement and political activism, thereby connecting learning with participation in the fields of community architecture and planning (Blundell-Jones, Petrescu et al. 2005; Forester 1989; Sanoff 2003). Another source is the *Design Participation* conference (Cross 1971, pp. 11–14), where it was noted that the term had already been used in collaborative decision-making (Jones 1971, pp. 120–122).

The multiple origins of the term participatory design (PD) are a reflection of the different disciplines, domains and communities in which it is practiced: IT workplace technology, architecture, international development and disaster relief, education, the community planning of neighbourhoods and urban scale decision-making for cities, and increasingly in intersections with the field of design anthropology. Different expertise is brought to participatory design in these applications, from the liberal arts and humanities, the social sciences as well as in computing and information and technology design. Furthermore, there are socio-political differences in PD, for example, regions of the world that do not have a welfare state will have different conceptions of PD from countries where the values of social democracy are held more central. The socio-democratic values that underscore ‘design for a common good’ and ‘design for a better society’ that circulate within design communities are not upheld, universally, throughout society. PD as a theory and research practice, as we will see in the papers within this issue, is able to accommodate this diversity.

Given the plurality and diversity of PD, and of the different communities in which it is applied, what is it that makes it participatory design rather than something else? Indeed, given the dilution of the term ‘participation’ (Smith and Iversen 2018) it is less certain whether different communities are using the term, as well as the motivations and concepts that underscore participatory design, in the same sense. What are the common themes, characteristics and qualities that connect across different applications of participatory design.

1 What are participatory design’s core concepts and characteristics?

It is in the field of workplace and technology design that the characteristics of participatory design and its core concepts are most clearly defined. The guiding principles underpinning participatory design that were born in the worker struggles of the 1970s, primarily in Scandinavia, still stand (Greenbaum and Loi 2012). These include:

Equalising power relations – finding ways to give voice to those who may be invisible or weaker in organisational or community power structures, which are embedded in;

Situation-based actions – working directly with people and their representatives in their workplace or homes or public areas to understand actions and technologies in actual settings, rather than through formal abstractions, which in part can give rise to;

Mutual learning – encouraging and enhancing the understanding of different participants, by finding common ground and ways of working, which hopefully is fostered by;

Tools and techniques – that actually, in practical, concrete, specific situations, help different participants to express their needs and visions, which require;

Alternative visions about technology – whether it be in the workplace, at home, in public or elsewhere; ideas that can generate expressions of equality and;

Democratic practices – putting into play the practices and role models for equality among those who represent others (Greenbaum and Loi 2012).

1.1 Equalising power relations

John Chris Jones' words continue to be relevant: “People in the design world should begin to look deeper not only into the political sense, but also into the possibility of helping people to change. Participation may be one educational approach to this” (Jones 1971, pp. 120–122). He saw the important part participation plays in helping people to change, which prefigured what we might now refer to as design's social agenda. This perspective chimes with the current impetus for design to transform situations, to make better futures, using design processes in creative ways to engage more people in finding solutions to twenty-first century problems. Indeed, “the intent of PD clearly marks it as going beyond user-centred interaction design as well as its nearest cousin in the computer field, Computer Supported Cooperative Work (CSCW)” (Greenbaum and Loi 2012). In this special issue, the sensitive issue of how people with dementia can participate, is explored by Hendriks, Huybrechts and Slegers.

The social transformation of neighbourhoods is enabled through participatory design in the field of community architecture where, “Participatory design is an attitude about a force for change in the creation and management of environments for people. Its strength lies in being a movement that cuts across traditional professional boundaries and cultures. Its roots lie in the ideals of a participatory democracy where collective decision-making is highly decentralized throughout all sectors of society, so that all individuals learn participatory skills and can effectively participate in various ways in the

making of all decisions that affect them” (Sanoff 2010, p. 1). The paper by Luck in this issue traces the history of PD in architecture, bringing understanding from other PD fields into conversation with the new ways that architecture is practiced.

At a larger scale, “in order to understand the relationships involved in the constitution of publics, Le Dantec and DiSalvo drew on the concept of “attachments” as a way to address the interplay of dependency on and commitment to that occurs as publics enlist the resources of its multifarious memberships. The notion of attachments emphasises the dynamic relationships formed around issues, which is in contrast with the notion of “frames,” which are usually characterized as relatively stable entities (e.g., entrenched authority structures). Whereas frames largely involve working around known issues, attachments relate to responding to evolving commitments and dependencies. The notion of attachments also connects to the ongoing discourse about the role of PD as a means for engaging with power structures and marginalization” (Karasti 2014). It is with this understanding that the mobilization of an activist movement is described in Agid's paper in this issue.

1.2 Situated action

Participatory design is not a design or research method. There is no PD process as such. As the title of the book ‘Participatory Design theory and techniques’ (Sanoff 1990) suggests – with emphasis on the plural, ‘techniques’ – participatory design is not a single method that can be applied like a boilerplate from one situation to the next. By necessity, participatory design practices are situated. Indeed this situated characteristic is core to all participatory design initiatives. Participatory design is rooted in a concern for located accountabilities (Suchman 2002), where each project is contextually relevant, meaning that each application is embedded and is designed/crafted to suit local characteristics and circumstances (Simonsen,

Svabo et al., 2014). There is no universal participatory design process that can be transferred from one situation to the next. “*Participatory design is not defined by formulas, rules and strict definitions but a commitment to the core principles of participation in design*” (Robertson and Simonsen 2013). Given its ‘situated’ nature, a central PD concern is how to scale-up, scale-out or expand from what has been learnt in one situation to other settings. Indeed, “*could there be forms of infrastructuring that fit with the situated but are ... capable of crossing boundaries ... [of] scales and scope*” (Karasti 2014). The paper by Smith and Iversen engages with these concerns, questioning how PD projects might be scoped and scaled in ways that make them academically valuable, while also creating impact at a societal scale.

1.3 Mutual learning

Participatory design is “*a process of investigating, understanding, reflecting upon, establishing, developing and supporting mutual learning between multiple participants in collective ‘reflection-in-action’*. The participants typically undertake the two principal roles of users and designers where 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” (Robertson and Simonsen 2013). Learning, as a specific consequence of PD engagement, is investigated in Lundmark’s paper in this special issue.

1.4 Tools and techniques – design by doing

Participatory design assumes a non-cognitivist stance. While “*Computer Human Interaction ... borrowed the cognitive assumption from earlier computer systems design, establishing a set of procedures that stemmed from how designers thought users might think. From a participatory perspective, this cognitive approach is considered a central*

fallacy in that it assumes that individual users’ thoughts could be transcribed into programmed interfaces and applications” (Kensing and Greenbaum 2013). Instead participatory design involves doing something concrete and tangible. “*Using design by doing methods, such as mock-ups and prototypes, is another central commitment of Participatory Design because they have enabled ‘ordinary workers’ to use their practical skills when participating in the design process*” (Ehn 1993). Participatory design has developed a variety of tools and techniques to support collective ‘reflection-in-action’ to enable participants to participate in design. The “*extensive use of material mock-ups and prototypes led to new ways of performing design in participatory design through ‘design-by-doing’ and ‘design-by-playing’*” (Bannon & Ehn, 2013). It is an ongoing process, with cycles of design experiment and evaluation (Binder, Brandt, Ehn, & Halse, 2015). An interventionist approach is presented in Tironi’s paper in this special issue on homelessness as disruption in the ‘smart’ city.

1.5 Infrastructuring

The practice of PD entails infrastructuring (Bodker, Kensing, & Simonsen, 2004), which builds on and Star and Bowkers’ (2002) expansion of the term from socio-technical systems, to acknowledge that information systems are infrastructures. The process of making PD possible, includes how the situation is configured, the kinds of tools and methods we need (Robertson and Simonsen 2013, p. 5). Karasti coined the term ‘infrastructuring’ to emphasise the processual, ongoing quality of infrastructuring activities and drew attention to the extended periods over which it unfolds (Karasti 2014). PD infrastructure is constantly ‘becoming’ through complex relational qualities in situated settings “*Infrastructuring is set apart from ‘useful systems’ conceived as multi-stakeholder response to known issues (‘frames’) and viewed as federating individuals in the discovery of unknown issues (‘attachments’)*” (Karasti 2014).

Infrastructuring is a “*community of practice in the making through the use of tools*” (Brandt and Binder 2013). The paper by Agid in this special issue describes the infrastructuring processes and practices that were part of the political activism for a social justice movement.

1.6 Alternative visions about technology – shaping future scenarios

Participatory design, like all areas of design, is projective looking at producing something or changing the future. It is always an intervention (Bannon & Ehn, 2013). “*The Participatory Design tradition is defined by a perspective that always looks forward to the shaping of future situations ... If we are to define the futures we wish to live, then we need those whose futures they will be to actively participate in their design’ ... At the heart of this tradition is an unshakable commitment to ensuring that those who will use information technologies play a critical role in their design*” (Robertson and Simonsen 2013).

Indeed, there is increasing awareness in PD around the importance of considering longer temporal horizons (Karasti 2014), with a realignment from a project focus to use in an unspecified future. The design project as the prevalent and taken-for-granted temporal unit of limited duration has led to a change in focus, from product to process, creating opportunities for future design-in-use (Ehn, 2008), extending design towards more open-ended, long-term processes (Björgvinsson, Ehn, & Hillgren, 2012a; Björgvinsson, Ehn, & Hillgren, 2012b). There are, however, differences in what longer temporalities mean, which include, longitudinal ahistoric future-orientation (from the present to an open-ended future) as well as approaches that study existing communities with shared histories and a past temporal horizon (Karasti 2014). The complexity of conducting PD at scale in a healthcare setting with legacy systems,

whilst seeking to change its working practices, were examined by Ostergaard, Simonsen and Karasti in this issue.

1.7 Democratic practices – PD as a set of values

Participatory design is a conviction, personal volition and research stance, as well as a field of practice. Amongst the values that can be seen to guide participation in design strategically, “*One is the social and rational idea of democracy as a value that leads to considerations for proper and legitimate user participation – the very making of things. The other value might be described as the idea of the importance of making participants’ ‘tacit knowledge’ come into play in the design process, not only for their formal and explicit competencies – skills as fundamental to the making of things as objects. We could also think about this as the value of being able to express and share ‘aesthetic experiences’ in the pragmatic sense of embodied experience enforced by emotion and reflection*” (Binder et al., 2011, p. 163).

1.8 Genuine participation

In participatory design situations the concept of genuine participation (Bodker et al., 2004) is core. This involves a fundamental adjustment of the users’ role from being merely informants to being legitimate and acknowledged participants in the design process (Robertson and Simonsen 2013, p. 5). It also prioritises mutual learning where there is the epistemic development in the construction of knowledge, which is not just an information exchange. This involves getting to know and respect each other across differences in position, perspective, knowledge and skills. Learning in participatory design is an iterative process, through an intervention and then reflection on what is newly revealed though this interaction (Kensing and Greenbaum 2013). The concept

of genuine participation is re-examined by Ostergaard, Simonsen and Karasti in this special issue.

2 *The selection of papers*

The papers in this special issue reflect the broader picture of the field of participatory design, not only a range of approaches and vantage points from which PD is undertaken, but also more generally how the field of design research is expanding. There is an attempt to represent a range of subjects in which participatory design research is applied, as well as a range of regions (not just the geographic north) and different scales of application: architecture, cities, civic protest movement, changing IT/digital education, healthcare at different scales, to advance the genuine inclusion of people (homeless, youth groups, people with communication difficulties) in design. Selected people were invited to submit a paper for this special issue, to develop research that was presented at PDC 2016 conference. Other people were invited to contribute to this special issue where it was felt that a field of PD was not strongly represented.

The article by Rachel Charlotte Smith and Ole Iversen *Participatory design for sustainable social change* not only accentuates core values of participation, but also broadens their relation to cultural practices and future imaginaries. The long-standing PD challenge, how to scale, is engaged directly in this design anthropological research, following a long-term research project on emerging digital technologies in Danish primary and secondary education. Three *dimensions of engagement of scoping, developing and scaling* are introduced, which were seen to be essential for participatory design as a sustainable practice of social change.

The article by Kija Ostergaard, Jesper Simonsen and Helena Karasti also engages with the challenge of PD at scale. Nurses play an important role in how changes are administered in the

healthcare sector, in an environment of almost constant change, where the participants can become fatigued by consultation. The nurses' genuine participation is studied from an insider's perspective, as the researcher is also a practitioner and participant in the PD change project. This research is part of a programme that has accomplished sustained change in healthcare, an achievement that is acknowledged to be rare (Smith and Iversen 2018).

The paper by Niels Hendriks, Liesbeth Huybrechts and Karin Slegers *Valuing implicit decision-making in participatory design: a relational approach in design with people with dementia* reconsiders how decisions are made in PD when working with people with advanced dementia. Drawing insight from person centred care practices, this article considers how to train care workers to build relational expertise to care for people within a dementia ward.

The paper *Design project failures: outcomes and gains of participation in design* by Sophia Lundmark is a study of an online youth counselling service that concentrates on how the counsellors develop new skills and knowledge as their work practices change over time. The study engages with temporal aspects of participation, when a project that fails to meet its explicit goals has positive secondary outcomes through the situated learning among the participants. This research draws attention to disruptive consequences, where the project's unintended learning consequences are viewed positively.

In contrast, in Shana Agid's paper, *Dismantle, change, build': designing abolition at the intersections of local, large-scale, and imagined infrastructures* the disruptive actions of a political activist movement provide the motivation for PD intervention. Agid studies how infrastructuring, as a theory and practice in participatory design, holds complex intersections between people, groups, technologies, systems and ideologies in view.

Following the local dynamics of a social justice organization, this article shows how infrastructuring is done in relation to the groups and systems that it seeks to engage.

The article by Martin Tironi takes an interventionist approach to explore the often-unheard voices of the homeless in cities. Through a form of counter-participation open city urbanism, citizens intervene socially and materially in the configuration of their own environment. This is a deliberate move away from top-down conceptions of ‘users’ as datapoints in smart city initiatives. The case marks a shift from problem solving to problem making, inventing and eliciting urban issues through frictions and prototyping that explore local issues and needs. This research illustrates the importance of design’s intervention with broader problems in society.

The paper by Rachael Luck *Participatory design in architectural practice: changing practices in future making in uncertain times* presents an overview of architectural PD in three eras: the pioneer years, resilient practices and recent, more progressive ways of practice. Architectural PD continues to interconnect the activities of research, teaching and practice with local communities, in ways that are acknowledged to have positive impacts in creative communities in the twenty-first century.

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