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Democratic design experiments: between parliament and laboratory

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For more than four decades, participatory design has provided exemplars and concepts for understanding the democratic potential of design participation. Despite important impacts on design methodology, participatory design has, however, been stuck in a marginal position as it has wrestled with what has been performed and accomplished in participatory practices. In this article, we discuss how participatory design may be reinvigorated as a design research programme for democratic design experiments in the light of the decentring of human-centredness and the foregrounding of collaborative representational practices offered by the ANT tradition in the tension between a parliament of things and a laboratory of circulating references.

Keywords: participation; democracy; experiment; parliament; laboratory; thing

Codesign and ANT: rethinking participatory design

This article is an attempt to reinvigorate the democratic impulse of collaborative design through productive ‘meetings’ between the participatory design tradition and Actor–Network Theory (ANT), especially when it comes to issues of design, participation and democracy. Our practical and theoretical background for approaching such ‘meetings’ is based on decades of engagement with participatory design practices of codesign in Scandinavian welfare state settings – moving from issues of ‘democracy at work’ on to broader democratic matters of citizenship and public engagement. The driving force for letting these practices meet the insights and methodologies of ANT has been the urge to capture the emergent agency that these practices, in our view, perform and to overcome the inclination towards taking processes of participation for granted. However, we also see in these meetings the potential for clarifying the latent activism of ANT as a methodology of implication as it surfaces particularly in the writings of Bruno Latour.

We open up this encounter between codesign and ANT by pursuing the call from ANT to design for ‘drawing things together’ (Latour). We argue that participatory design practices are particularly well suited for renouncing the obsession with ‘objects’, so dominant within design, and replacing it with things or *thinging* as socio-material assemblages that evolve over time. This leads us on to fertile ground for experimentation that goes beyond the taken-for-granted wisdom that the user is king, and that human-centredness is a solid ground. In so doing, we suggest a shift from a focus on users and representation towards citizens and publics, including not only human, but also non-human participants. We end the article by proposing a programmatic agenda for

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democratic design experiments to form issues and publics. We argue that codesign as democratic design experiments, at the price of lost innocence, must commit to issues of invitation, and, in so doing, codesign may re-emerge as a valuable participant among many in the endeavour to democratise democracy.

Drawing things together

'Making Things Public – Atmospheres of Democracy' is the title of the ground-breaking catalogue for the 2005 exhibition at the Centre for Art and Media in Karlsruhe (ZKM) (edited by Latour and Weibel). Making things public could also be seen as a programmatic call for rethinking design and democracy inspired by ANT. Here we find the heterogeneous background and challenge for rendering design as 'compositionism' (Latour 2010) and as 'drawing things together' (Latour 2008). As we will argue, codesign may well be the most valid response to this design challenge from ANT.

A call for making things public opens a new role for design, which is not about projecting utopian visions of frictionless futures. On the contrary, it is about staging socio-material conditions for controversial issues in ways that facilitate contradictions, oppositions, and disagreement through direct engagement. In *The Public and Its Problems* [1927], John Dewey wrote that 'to form itself, the public has to break existing political forms' (Dewey 2012, 56). Dewey understood new 'publics' as being formed when citizens experience indirect consequences of social action. Or, as Noortje Marres has phrased it, 'issues spark publics into being' (Marres 2005). In line with Dewey's genuinely experimental attitude towards democracy, we may think of design collaborations as the making of things that explore forms of emerging publics, and thus enrich the current repertoire of democratic engagement and expression.

But what is the democratic potential of contemporary design engagements, and how can we, with a heritage of participatory design, re-envision collaborative design as democratic design experiments? Latour gives us a lead in his 2008 keynote address at the *Networks of Design* conference of the Design History Society in Falmouth. Under the title 'A Cautious Prometheus?', he proposes that design through its contemporary expansion, both to the extent it interweaves issues of form and function (asking what separates design from technology in an iPhone) and in the range of issues to which it is applied (genes, regions and lifestyles being designed), offers us a new humbleness in our appreciation of societal change. Latour summarises how design, as opposed to the work of scientists or engineers, is always vulnerable to scrutiny (is it good or bad design?), is always based on what is already there (design is always redesign) and is always concerned with the details of what is proposed (only what is skilfully and passionately crafted may invoke in us the experiential qualities in what is proposed). Furthermore, he argues that design, though inherently collaborative, is prone to cautiously producing things that are thrown into the world to become contested expressions of matters of concern (there is no way around debating the recent rebranding of our city, neighbourhood, workplace or favourite food item). To Latour, design must in all its concreteness be considered as a proposal that performs and gathers representatives around programmes and anti-programmes, and he asks designers to take a more serious responsibility and respond more effectively to matters of concern. He hints at practices of design that may bring out in the open modes of representation that let us 'draw things together'.

To meet this challenge, we find that participatory design approaches are particularly well equipped to let design give up its obsession with 'objects' and replace them with intertwined socio-material *things* or *thinging* that evolve over time (Telier 2011). Just as

ANT-oriented sociology has abandoned ‘the social’, replacing it with the socio-material *collective* of humans and non-humans, design and design research must replace the ‘object’ with *thinging* to put focus on experimenting, prototyping, infrastructuring and travelling. Such an opening up of design practices answers the ANT challenge of ‘drawing things together’, not by mapping controversies, but by literally making things public through the continuous engagement with ‘parliaments of things’ (Latour and Weibel 2005), through a kind of ‘path-finding’ (Ingold 2000) or modest, collaborative and contested ‘trail blazing’ (Krippendorff 1995). In such an endeavour, politics and power are not external conditions that design can relate to, but with codesign as *thinging* they are at the very core of making things public.

What we have in mind for exploring and performing such ‘democratic design experiments’ at the intersection of ANT, codesign and emerging publics is a performative fluid and flickering figuration (Law and Mol 2001) we could name *design thinging*. This design *thinging* is a flickering between processes of collective decision making and collaborative material making, between ‘parliamentary’ and ‘laboratory’ practices, between engagements with objects of worry as ‘matters of concern’ (Latour 1999) and the transformation of objective matter as ‘circulating references’ (Latour 1999), forging strategies and tactics of participation and representation across these practices. This performative figuration also changes over time as a flickering between gathering assemblies and appropriating objects. The challenge concerns the legitimacy and the skills of codesign to draw these things together, the ‘parliamentary legitimacy’ of assembling the assemblies (of drawing them together) as well as the ‘drawing skills’ of making collaborative designing take place.

To further expand this framework for exploring understandings of ‘democratic design experiments’, we now turn to a revision of the ‘parliamentary’ as well as the ‘laboratory’ practices of codesign.

Reviving the parliamentary heritage in codesign

In the design literature, a sensibility to the changing ways that design participates in the exploration of challenges to ‘the collectif’ is already present in writings by designers and design critics of the last four decades. In the aftermath of the great wave of modernist design in the early and mid-twentieth century, designers and design researchers began to question the processes through which design came into being. For instance in his 1971 paper to the Design Research Society conference on Design Participation, Nigel Cross announced the ‘coming of everyman’ by which he wanted designers to see that the way in which design comes about is as much about involvement and participation of non-designers as it is about bringing professional solutions to societal problems (Cross 1971).

Writing in the 1980s after a decade of anti-design and a new rise of the playfulness and diversity of contemporary design, Andrea Branzi proposes – much in line with later writings by Latour (1993) – that modernist designers were perhaps never as modern in their commitment to an international style of rational modern living as they appeared (Branzi 1988). While, for example, the New Bauhaus in Ulm and its followers proclaimed rational methods of problem-solving as the hallmark of good modernist design, Branzi argues that the real contribution of post-war industrial design was to free the design from its inscription into overarching visions of ‘the good society’ and, instead, acknowledge the design object as a (controversial) thing in itself. As Branzi and his colleagues demonstrated in the Archizoom contribution to the Milan design exhibition in 1969, tents, kitchen machines, posh furniture and industrial leftovers form open-ended configurations

that cannot and should not be inscribed into either utopian or dystopian totalities. For better or worse, design and designers participate in the evolving proliferation of things in the artificial world of contemporary living.

In his 2005 book *In the Bubble: Designing in a Complex World*, influential design critic John Thackara picks up on the themes of both Cross and Branzi, suggesting the self-image of the designer as the hunter-gatherer who collects and combines from the lived experience of the multiplicity of heterogenic everyday contemporary living, not to produce 'the new' but to enable sustainable and socially responsible practices in 'the small' (Thackara 2005). Thackara makes the move from the processes and methods of participation put forward by Cross and his 1970s followers and from the (non-) representational objects of Branzi and his fellow Italian designers to a concern for the things that make up the lived and intertwined practices of everyday living. This provides the platform for Thackara and others to call for socially engaged design that propels and projects change rather than for design that predicts futures and prescribes what is to come.

Scandinavian participatory design emerged in the aftermath of 1968 as a (critical) part of what Michel Callon et al. later called 'democratisation of democracy' (2009), supplementing representative democracy with democracy at work (Bjerknes, Ehn, and Kyng 1987; Simonsen and Robertson 2013). Such design first materialised as part of local trade union strategy for acting upon controversies in the design and implementation of 'new technology' in the workplace. The strategy was collaborative in its attempt to establish workable alternatives to deskilling and automation, yet also 'agonistic in the foregrounding of a 'negotiation model' enthusiastically supported by both the trade unions and the traditional popular movements. Hence, the 'negotiation model' was based on inquisitive workers' teams, supported by design 'experts' formulating scenarios and counter proposals as a basis for negotiations with corporate management on matters of concern.

The staging of the workers' collectives as active participants in and not as victims of technological change was immediately met with resonating attempts both in research and in professional practice to promote what was often labelled human-centred technologies (see Kyng & Greenbaum, 1991; Schuler and Namioka 1993). However, while these attempts made a lasting imprint on the shift in design from a concern with human factors to a commitment to user involvement, the participatory design approach had only modest success in establishing the workers' collective as a viable protagonist of a design programme of its own. Nevertheless, the early programme of participatory design to design for democracy at work still seems to be vigorous and worth revisiting as a designerly attempt to democratise democratisation, though now through the lens of ANT, lost hubris and political innocence.

For many participatory design researchers, the focus has gradually shifted from the workplace and the worker to the public space and the citizen. One of the main actors calling participatory design into action to make things public at the workplace and around industrial relations and labour controversies was 'the computer' in the shape of automation, planning systems and, more generally, 'new technology' (see Bjerknes, Ehn et al. 1987). Now 'the computer' is once again a forceful actor in changing public space and citizen engagement as the Internet and social media open up new possible publics, issues and controversies. Codesign today goes beyond the workplace, industrial relations and the institutional framework for 'democracy at work' and engages in and with diverse emerging publics as an actor in 'democratic design experiments', and it must once again find a way to connect with those marginalised by hegemonic infrastructures (Star 1991).

In the early participatory design projects, design for democracy at work could also become designing for skill as the encounter between unions and employers became

populated with computer mock ups and miniature factory layouts that illustrate different realities of factory automation. The prototypes played a part, as did the workers' collective that brought them into being, but all within the constituency of the industrial workplace entangled in the broader rhetoric of the Scandinavian welfare state. When codesign moves beyond the confines of the well-known constituencies of workplaces and city halls without a protection of a larger discourse of democratic participation, what then constitutes a participatory design practice?

In *Science in Democracy: Expertise, Institutions, and Representation*, Mark Brown (2009) approaches traditional political philosophy with an STS/ANT approach focusing on how 'representation' is made in science and in representative democracy. As with the emergence of design as *thinging*, the critique is strongly influenced by Dewey and Latour, demonstrating that 'representation' is a deeply entangled activity of mediation, far beyond simple correspondence in science and 'legal' elitist representation as in liberal doctrines of representative democracy. What Brown suggests is that just as ANT has demonstrated that representation in science is a meticulous work of mediation, of forging and circulating references (from Latour, 1987), this kind of mediation is also at play when making democratic decisions. Representations are always made.

Hence, participatory design, or rather collaborative design practices, may well be seen as democratic design experiments extending the forms of mediation and representation in politics through *thinging* and the making of publics. To accommodate participatory practices outside well-established constituencies, what is needed is not an abandonment of 'representation', but an attention towards additional forms of public engagement and representations. In this perspective, a shift of emphasis from participatory to collaborative design indicates that in such democratic design experiments, the very 'making' in design is both a negotiation of how this experiment may unfold and a contribution to the repertoire of making democratic decisions.

This democratic design 'making' or rather 'composition' (cf. Latour 2010) resembles what Callon and colleagues in *Acting in an Uncertain World* (2009) called 'hybrid forums'. They describe hybrid forums as heterogeneous open spaces where actors, including experts, politicians, technicians and laypersons, come together in an atmosphere of uncertainty, to 'take measurements' of often controversial issues of concern to the people involved. Hybrid forums resemble Dewian publics, which come into being where existing democratic institutions fail to 'represent'. There are many forms of hybrid forums including focus groups, public inquiry, consensus conferences, citizen panels and juries.

To map how hybrid forums may contribute to the democratisation of democracy, and to the enrichment of the democratic repertoire of representations, Callon and colleagues suggest thinking about democratic participation along two axes of a diagram. One axis indicates the 'constitution of the collective' ranging from *by composition* (e.g. hybrid forums) to *by aggregation* (e.g. representative or delegative democracy). Here aggregation is seen as the principle of reduction of individuals to universal numbers, whereas composition focuses on the specificity of the collective and the issues. The other axis indicates 'the kind of research that is carried out to explore possible worlds', varying from 'traditional, secluded research' to 'collaborative research'. Hybrid forums then show up in the diagram as highly compositional collectives where worlds are explored by collaborative research. This is described as a kind of dialogic democracy enriching the democratic repertoire beyond delegative democracy.

Seen as a kind of hybrid forum collaborative design will also show up in the diagram as highly compositional collectives where worlds are explored through collaborative research. However, in the democratic design experiments of collaborative design, rather

than taking measurements (mapping the controversial territory), the collective is engaged in another kind of ‘decision making’, opening up territory through ‘prototyping’ and ‘trail blazing’. Yet, this prototyping activity supports specific here-and-now experiments and engagements with possible worlds, rather than the modernist prototype as a form of mass production.

This calls for a qualification in relation to each of Callon’s axes. Participatory or collaborative design is not only compositional in the way it is made, but also in the designerly way it makes, and the way the research is collaborative not only by dialogue, but again by designerly collaborative exploration through prototyping activities and joint trail blazing, literally ‘drawing things together’.

A contemporary example beyond engagement with collectives at the workplace is the thesis ‘Patchworking Publics-in-the-making: Design, Media and Public Engagement’ (Lindstöm and Ståhl 2014). Here extensions of the democratic repertoire are explored through the formation of temporary publics through the making in ‘sewing circles’. Participants are invited to bring text messages from their mobile phones and embroider them by hand or digitally. They do not come together around an issue; rather matters of concern and care for deliberation emerge in the very making of them. Boundaries of participation are always at stake, and the ‘sewing circles’, though rurally located, are often most cosmopolitically drawing together human and non-human actors across the globe as issues emerge. Theoretically, in this ‘drawing together’, codesign and ANT merge with feminist techno-science, and Lindström and Ståhl demonstrate how further complexifications of emerging issues and actors are implied when drawing on Donna Haraway, Karen Barad, Lucy Suchman, Annemarie Mol and Elisabeth Grosz.

Another recent example is the thesis ‘Making Commons (attempts at composing prospects in the opening of production)’ (Seravalli 2014). Here ‘democracy at work’ – the original challenge for participatory design – is redirected towards contemporary ‘maker-spaces’. Seravalli asks how these maker-spaces can be codesigned and drawn together as venues for enhanced democratic participation in production. Who are included and who are excluded in this making? Can the composition of these heterogeneous networks challenge ‘business as usual’? The theoretical framework adds to collaborative design and ANT as the socio-material composing aspects of socio-economic *commons* making (inspired by Elinor Ostrom, Michel Bauwens, Yochai Benkler, and Charlotte Hess).

Although different in their parliamentary approach to democratising democracy, these two examples share a strong focus on the making and of decisions. To account for what is at stake not only in a parliament of things, but also what comes into being through experimental practices of circulating references, we will follow the other path laid out by Mark Brown and others into the ‘laboratory’ of democratic design experiments.

(Re-)Imagining codesign as laboratory practice

The tradition of participatory design has always been concerned with how outcomes are established through democratic processes. The early engagement of participatory design with issues of democracy at work brought forward, also in wider circles of design and design research, a renewed interest in the politics of what is designed. Design was seen as (also) a political process that favoured some and disfavoured others, and what was accomplished in this process had important implications after the design project ended. But how precisely should the line between design-in-the-making and design as an accomplishment be drawn? This question has been troubling the tradition not only analytically but also normatively.

Let us first take the practices of prototyping and the concern for who is invited to be part of participatory processes. Although the move from prototypes to prototyping may be one of the main imprints of the participatory design tradition on the larger community of design, and although this move radically promotes the direct involvement with matters of concern, the notion of prototyping also inevitably implies a subsequent process of implementation. The transition from prototype (-ing) to implementation is the assurance that an outcome is reached and that a sort of decision has been made, but it is also a transition from participation to appropriation that may well raise questions as to whether those affected have been rightfully represented.

In the participatory design literature, there have been different responses to this dilemma. Some have argued in favour of leaving as much as possible open for the appropriation after the design project (Henderson and Kyng 1991; Telier 2011), and in this tradition, some have even suggested viewing the participatory design project as a project of meta-design providing frameworks and tool boxes for open-ended configurations (Giaccardi and Fischer 2005; Pipek and Wulf 2009). Others have argued for maintaining a clear separation between design and implementation (Bødker, Kensing, and Simonsen 2004), and yet others (including the authors of this article), with reference to, among others, Karasti and Syrjänen (2004), have promoted the notion of infrastructuring as an alternative to prototyping spanning both design and implementation (see Björgvinsson, Ehn, and Hillgren 2012).

While these different responses can all be argued, the spectrum they span also indicates that there is a considerable indeterminacy in terms of the boundaries between participatory design and its appropriations. What is foregrounded in participatory design is the evolving practices of collaboration, but at the expense of an apparent opacity of both the object of design and the agency that this object may unleash. Read through the lens of ANT the practices of participatory design may well be seen as laboratories experimentally enacting networked practices of representation similarly to the scientific laboratories so delicately studied by ANT scholars. In participatory design as in the practices of scientific laboratory work, we will find permeable boundaries between the inside and the outside of the laboratory, and we will also find knowledge and agency produced through an on-going circulation of references (Latour 1987 *op. cit.*) that do not respect any clear-cut demarcation between the experiment and its effects. However, following the lines of enquiry laid out in ANT, we must then ask: what are the intermediaries and mediators of the translations performed in this laboratory of collaborative design?

Since the early work of Scandinavian and North American participatory design researchers, design representations have been at the heart of the discourse of participation. Design representations, such as cardboard mock ups, interactive scenarios, design games and paper prototypes, provided a whole new genre of participatory design techniques that were powerful mediators for envisioning new practices (see Simonsen and Robertson 2013). Participatory design researchers reported from design engagements, which through an influential impulse from Donald Schön (1983) were seen as genuinely reflective and conversational, leaving equal room both conceptually and practically for human and non-human participation in dialogues with what Schön called 'the materials of the design situation' (see Lanzara 1991). Similarly, but with a slightly different theoretical framing (informed by ethnomethodology and practice studies), research on participatory design provided ethnographic accounts of participatory practices of situated action where everyday inventiveness was performed through more or less the same kind of inquiries that were also visible in the more formally staged processes of participatory design (Suchman et al. 1999). As the tradition of participatory design matured, the emphasis on processes of

participatory design collaboration became further pronounced, for example, in Muller (2002) suggestion to see this collaboration as performing an evocative ‘third space’, that is, both beside and beyond the negotiation of interests between collaborating partners. This sensitivity to the openness of the collaborative encounter as a ‘coming together’ of shared design representations also figures strongly in a more recent review of participatory design tools and techniques introduced as ‘ways to engage making, telling and enacting’ (Brandt, Binder, and Sanders 2013).

What the tradition of participatory design offers is an experimental approach to what is performed in design practices. Collaboration is not *about* design and the societal roles that this design *implies*, but the very locus from which design emerges through design representations that cannot be separated from the experiment of coming together. Some of us have previously suggested seeing codesign practices as design laboratories (Binder 2007; Binder et al. 2011), mainly emphasising how participatory processes mobilise and align collaborators much along the same lines as suggested by early writings by, for example, Callon (1986) and through the making and enactment of design representations that act as boundary objects (Star and Ruhleder 1996). Although we still find this conceptualisation valid and relevant, it may in retrospect be seen as still hinging on a too literal interpretation of a collaborative ‘coming together’ as workshop-like encounters fuelled by the bricolage of design artefacts. In this article, we want to push further in the direction of both the experimental and the experiential as we reinterpret design collaborations as democratic design experiments. In order to do so, we will extend our frame of reference to also encompass more recent developments in speculative design and design activism, and deepen our discussion of the move from design objects to design things.

We have argued elsewhere that the design object is best understood as the imagined agency of a thing initially envisioned and eventually made manifest in the practice of design (Telier 2011). The design object is, in this sense, both more and less than what is accomplished in the making – more in the sense that what is imagined necessarily involves a particular way of practising the thing that may or may not come about, and less in the sense that the design thing as an outcome of networks may take on a multitude of agencies not imagined through its becoming. Still, it is difficult to discern the thing from the practising of it within the participatory design tradition as long as this tradition has leaned so strongly towards evolving practices. Here the fields of critical or speculative design have more bluntly explored how design may invoke controversies through the things produced. With Dunne and Raby as leading figures, post-optimality has been programmatically pursued through design that exposes and juxtaposes taken-for-granted assumptions about privacy and technological omnipresence (Dunne and Raby 2002). Through a series of furniture design that twists and tweaks the availability of wireless services, Dunne and Raby called on members of an interested public to ‘adopt’, for example, a couch made as a Faraday cage or a coffee table with inbuilt GPS. By documenting not only the design but also the subsequent everyday practices of those who appropriated the furniture, Dunne and Raby contributed to making, in Carl DiSalvo’s words (2009), the felt consequences of pervasive computing *experientially available*.

Several design researchers have followed up on these kinds of programmatic design projects that through speculative design experimentally stages imaginable futures. Ramia Mazé and colleagues have explored issues of sustainability and energy use through various designs that visualise the mundane patterns of energy consumption, and even more consistently than Dunne and Raby, they have followed what these designs evoke in everyday settings (Mazé and Redström 2008). Similarly, Gaver and his colleagues (see

Gaver and Bowers (2012) have pursued an agenda of playful interaction through a number of speculative designs that reinterpret the functionality of information appliances. In these projects, we know less about how the design came about, but what is produced and performed as the design, as a thing made accessible to the public, is not black-boxed intermediaries that easily translate from design to user or from experience to consumer. Rather, it is a deliberate staging of controversial matters, of which its audiences must collaboratively make sense. What differentiates these approaches from those of the participatory design tradition is thus not so much the programmatic ambition of the design encounter, but rather the boundaries set around the laboratory of (participatory) design experimentation.

So far, we have pointed out how participatory design through an ANT lens may be seen as contributing to experimental practices of participation through which things are 'drawn together' and how critical and speculative design may further provide exemplars of how design things evoke and enact matters of concern. However, we may still need to consider the *issue of agency* in order to see how meticulous processes of representation in design may form democratic design experiments. The ANT literature has its own weak programme of agency in its orientation towards the performative (action as an outcome not an origin) and in its principle of symmetry that lets us see that acting in the world is always an intertwining of the material and the social (see Latour 2005). However plausible this may seem from the analytical viewpoint of sociology scholars, it leaves very little space for the unfolding of experimental democracy (or other kinds of political partisanship for that matter). Turning instead to designers and design researchers working with design activism and sustainability, we find design that deliberately addresses questions of governance and democratic participation, for example the work of Manzini, Rizzo and their colleagues (Manzini and Rizzo 2011), who have collected and nurtured examples of sustainable everyday practices that through the work of designers become exposed and amplified in such a way that they may find their way to other communities. Similarly, in the work of DiSalvo community groups and designers work together to trace and project possible futures (DiSalvo 2012). Design in the activist tradition of Manzini, DiSalvo and others means articulating issues in order to let agency form around emerging publics. In those cases, design does not perform the agency, but rather prepares for a public to form and for some sort of civic engagement to be enacted.

Compared with the entanglement of design and participation in the participatory design tradition and the pronouncement of the design thing as a programmatic contribution to the unfolding of controversies, the design activist's emphasis on the articulation of issues may seem less strong in its recourse to facilitation. However, read from a Deweyian perspective towards experimental democracy, this tradition may invigorate citizenship as a productive figure of agency in collaborative design.

On the one hand, a reinvigoration of participatory design as laboratories of democratic design experiments must nurture and expand the diverse practices of making design representation particular to and entangled with the design encounter – a hallmark of the participatory design heritage. On the other hand, it must embrace both the controversial ambiguity and contingency of the design objects of speculative design and the programmatic willingness to perform democratic agency through design mediations in the design activist tradition. Such laboratories are less interested in impact and more concerned with an open unfolding of the experiments.

A recent doctoral work by Sissel Olander (2014) on what she calls the Network Lab provides one example of where such laboratories may take us. She has worked closely with municipal libraries and community centres to situate contemporary modes of

citizenship and co-production within the turbulent reconfiguration of these classical educational institutions. Taking an activist perspective on the co-evolution of issues, publics and institutions from DiSalvo and others, she stages the network lab as open-ended encounters between the everyday experiences of citizens, library employees and local politicians. These encounters are propelled by collaborative representational practices such as design games, probes and enacted scenarios, drawing on the full repertoire of participatory design, but invoked not as a means towards an end but as inventive methodologies (Lury and Wakeford 2012) that provisionally perform participation as a particular mode of citizenship. She develops the concepts of laboratory and experimentation in a cross-reading of the ANT tradition, Deweyian pragmatism and the writings of Hans-Jörg Rheinberger (2010) to argue for a type of activism from within. From Dewey, she takes a fundamentally experimental attitude to the epistemology of the collaborative encounter. From the ANT tradition, she brings the attentiveness to the entanglement of ontology and epistemology in the sense that what is becoming known and acted upon in the encounters already constitutes a hypothetical worldview that rehearses possible futures. However, what first of all points towards a rethinking of participatory design as democratic design experiments in Olander's work is her mobilisation of Rheinberger's appreciation of the virtual and the real in the laboratory. She rethinks the design thing-in-the-making as epistemic artefacts that let the potentialities of the here-and-now manifest themselves as possibilities within reach, and in so doing, she manages to make us see how the activist revelation of, for example, what she calls 'unheroic citizenship' becomes methodologically present in the encounter.

Setting a programmatic design agenda to form issues and publics

In this article, we have revisited a historical heritage from participatory design and ANT, as well as related fields of design theory and post-structural feminism. Drawing on the found conceptualisations, primarily of parliamentary and experimental figures, our aim has been to open up a particular practice of ANT-inspired codesign. As a framing invitation, we hereby propose a design research programme that prompts others to think about how democratic design experiments may continue to challenge how issues and publics are being designed together.

But how then might we conceptualise such a forward-looking agenda for democratic design experiments that seeks to experiment with, dissect, critique, enable and multiply the ways issues and publics are formed? Latour's and Callon's work offers an exciting framework for understanding public participation through hybrid forums and compositions of collectives. However, it also seems to centre our attention on relatively clearly recognisable programmes and counterprogrammes that are entangled and contested. ANT assemblages are usually rendered as complex entanglements of heterogeneous intent. This understanding of intent has lent itself nicely to the concept of 'stakeholders' in industrial codesign processes, where identifiable stakes is among the first criteria for recognising legitimate participants to be invited into collaboration. However, 'stakes' and 'stakeholders' were conceptualised in the realm of organisations whose activities are classified as 'projects'. As the focus of codesign research is shifting to broader societal issues and public concern, the rhetoric and assumptions about stakes and stakeholders are also being challenged.

On the other hand, in explicitly political processes, the 'stake' is equally present. If animal activists are invited to a public hearing about new regulations of forests, it is implied by conventional political reasoning that some of their known 'opponents',

the hunters' association, ought to be heard as well. However, this kind of assumed *a priori* juxtaposition of groups defined by a more or less singular 'stake' is not very conducive to the tentative formation of new publics and issues.

In their project, 'Urban Animals & Us', Jönsson and Lenskjold radically challenge the notions of 'intent' and 'stakes' as recognisable features that prescribe certain actors as legitimate participants (Jönsson and Lenskjold 2014). In an open-ended exploration of urban wildlife surrounding a local retirement home, the magpies and gulls as well as the residents of the senior retirement home all seem to defy the possibility of predicting what their interests in the project might be – or if they are willing to participate at all.

The democratic design experiment is a tentative formation of an issue and a public in mutual emergence. Experimenting with this formation is not merely a matter of passionless process facilitation, where 'everyone' gets to voice an opinion. Making quasi objects and quasi subjects assemble as things, that is, carrying out the democratic design experiment, entails a distinct designerly mode of agency, namely that of creating proposals. The encounter is passion-laden, in that both invitation and event depend on the ability to craft a proposal that prompts participation. This is an address to broader circles of designers working with consumer products, but interested in opening new positions for design in more complex societal issues.

As design researchers are preoccupied with expanding the possible range of participants in the formation of issues and publics, we here take Stengers' perception of idiocy as fuel for a programmatic vision of a radically open invitation to participate. What if there were absolutely no operational selection criteria of who enters the thing? The realisation that there will inevitably always be some form of selection mechanism implied in gaining access to the thing directs our attention to *the invitation* as profoundly non-trivial: Exactly who and what gets separated in and out, and under what conditions? It is not just a matter of enrolling pre-specified participants through a recruitment company that incentivises participation with gift cards. Nor is it a matter of simply broadcasting the opportunity to come and fill an empty space. Crafting an invitation to participate in a democratic design experiment is an active and delicate matter of proposing alternative possibilities just clearly enough to intrigue and prompt curiosity, and, on the other hand, to leave enough ambiguity and open-endedness to prompt the participants' desire to influence the particular articulation of the issue.

Latour, Callon, and Stengers are, no doubt, equilibrists at word and thought experimentation. However, codesigners with training in ANT are perhaps able to understand 'compositions' in more concrete, bodily and pragmatic material terms. Let us conclude by making a move towards a future-oriented agenda for democratic design experiments. We envision an interventionist design research programme about democratic design experiments, which is consciously transdisciplinary and boundary-breaking to forge controversial encounters and unlikely outcomes. Researchers of this programme acknowledge being deeply implicated in the issues they set out to explore, and are not afraid of confronting and intervening in the emergence of contested futures.

Democratic design experiments advance through what-if questions that are often improvisational: when probing into futures that are inherently unpredictable, plural and sometimes impossible, it is a matter of enabling collective action in the face of uncertainty: rehearsals, attempts and failures – all are ways to try and come to terms with prevailing ambiguity.

We must abandon the modernist ideas of radical invention of the new. Things emerge relationally. Therefore, this design research programme is inherently compositionist, and democratic design experiments are about reconfigurations and 'drawing things together'.

In practice, this entails balancing the focus of materiality and objects with that of humans and sociality.

Democratic design experiments work by making issues experientially available to such an extent that ‘the possible’ becomes tangible, formable, and within reach of engaged yet diverse citizens.

At the heart of democracy lies the option to disagree and explore alternatives. Democratic design experiments are, above all, committed to continuously finding new forms of emerging publics and aiming to enrich the repertoire of democratic forms of expression.

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