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*Christian Nold, Patrycja Kaszynska, Jocelyn Bailey, Lucy Kimbell*

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# Twelve potluck principles for social design

Christian Nold <sup>a</sup>, Patrycja Kaszynska <sup>b</sup>, Jocelyn Bailey <sup>c</sup>, Lucy Kimbell <sup>d</sup>

<sup>a</sup>School of Engineering & Innovation, The Open University, Milton Keynes, UK. christian.nold@open.ac.uk

<sup>b</sup>Social Design Institute, University of the Arts London, London, UK. p.kaszynska@arts.ac.uk

<sup>c</sup>Social Design Institute, University of the Arts London, London, UK. j.a.bailey@arts.ac.uk

<sup>d</sup>Social Design Institute, University of the Arts London, London, UK. l.kimbell@arts.ac.uk

## Abstract

The term ‘social design’ is used in a variety of contexts, but—or maybe because of this—it is far from clear what it means. The starting point for this paper is that there is a need for stronger and more critical community discourse to understand and clarify what social design is and what it does. By analyzing key texts, the paper identifies commonalities, disagreements and unresolved questions in relation to social design. Drawing on the example of citizen science, the paper argues for a need to develop principles for social design for further inquiry and discipline-building for social design. The paper offers twelve principles that focus on the notion of the social in social design, its methods and practices and its normative intent, as well as its critical reflexivity. These principles are intended as a ‘potluck’ boundary object to kickstart a stronger social design community. The paper reports feedback from two workshops where these principles were discussed and tested with design academics suggesting how the principles can be applied.

**Keywords:** Social design, Design principles, Manifesto, Boundary objects, Design research

## Introduction

Design skills and knowledge are today used in higher education, business, the public sector and civil society to address social and public policy issues, such as the climate emergency, migration, air pollution and community inequalities. These many instances are being described as *social design*. Indeed, the term has been applied to encompass a diverse range of design work: creating community food projects, gathering pollution data, designing circular textiles, supporting charities and companies, and creating governmental strategies to reduce energy consumption or childhood obesity. Contemporary social design spans a gamut of practices, scales and political affinities from pro- to anti-capitalist, bureaucratic to anarchist, object- to system- and community- to governance-focused (Armstrong et al., 2014). What do these practices have in common?

This paper provides a short literature review to highlight the contradictory ways ‘the social’ is invoked within the literature that has (Markussen, 2017, p. 162) led researchers to question whether there is such a thing as social design (Tonkinwise, 2019). Markussen (2017) notes that “social design has become a murky concept” (p. 161) and that “the field of social design has become so multifaceted in theory and practice that it seems to deter anyone from trying to say exactly what social design is” (p. 162). We argue that forging social design as a single discipline and field of practice requires a stronger and more critical discourse around the concept of social design, resulting in a more critical, reflective and reflexive social design community. Based on observing parallel work that has taken place within citizen science around the creation of a set of shared principles (Robinson et al., 2018), we propose that social design should follow a similar collective articulation process. We thus offer twelve *potluck* principles of social design to kickstart the development of more informed discourse. A ‘potluck’ is a collective meal where people bring dishes in an unplanned way—resulting in surprising combinations. Together, these twelve principles offer a broad characterization that both acknowledges the irreducible diversity of social design while aiming to

consolidate and simplify commonalities to advance practice and research.

What is our motivation? We do not want to discipline practitioners and researchers to adhere to the 'right' way of doing and thinking about social design nor do we want to force conformity. We are interested in facilitating sense-making among different and conflicting worldviews to create a transition in social design. We are not proposing a new paradigm for social design but instead aim to facilitate examination of the existing claims about social design. In doing that, we are supporting transition by taking on the role of 'boundary spanners' (Klerkx et al., 2010) that create principles as a boundary object to drive change, but do so without imposing top-down solutions. These twelve principles are intended as a provocation to practitioners and researchers involved in social design and a contribution towards consolidating a community of practice and inquiry.

### **Key texts on social design: Commonalities, disagreements and questions**

What is social design, and how has it been defined in the literature? Below, we review a sample of texts to highlight some commonalities, disagreements and unresolved questions in key texts on social design. We identified contributions that were specifically attempting definitional work and that capture the current academic discourse on social design, rather than its long history. These are a mixture of papers, books and blogs. Some of these contributions used the term 'social design', whereas others used related terms like 'socially responsive design' or 'design for social innovation'. While some authors like Manzini attempt to establish a difference between social innovation as focused on social forms and social design as focused on social problems, Manzini acknowledges that in practice they are hard to differentiate (2014). We include the range of these texts based on their engagement with the broader social design discourse.

### **Commonalities**

It is widely agreed that social design is done *with* people as "a social activity" (Tonkinwise, 2019, p. 10). Chen and colleagues observe that all the social design papers they examined involved situated social activity with people (2016, p. 3). Markussen argues that social design is "a collaborative design process where designers involve a specific group of citizens, public and private partners to achieve social change" (2017, p. 169). For Manzini, (2015) the participatory nature of social design, where designing is distributed across multiple social actors, raises questions about the specialist role of the designer. Thorpe and Gamman identify three modes of collaboration within social design: a *paternalistic* mode where the designer assumes responsibility, a *maternalistic* one that involves the designer enabling others, and a *fraternalistic* approach where the designer is one among many in a collaborative process (Thorpe & Gamman, 2011, p. 221). These discussions show that social design has developed a sensitivity toward the dynamics and power relations involved in participatory processes and infrastructure practices (Björgvinsson et al., 2012; Hillgren et al., 2011).

The literature is also in agreement that design, including social design, operates with and through objects as a material or materializing aesthetic practice. This attention to materiality makes social design different from other disciplinary communities operating on the social: "designers bring to the social a focus on materiality, how things can promote, sustain or obstruct certain types of social life" (Tonkinwise, 2019, p. 11). Some authors suggest that social design involves *socio-material things* rather than inert objects (Binder et al., 2011, 2015). These discussions highlight the way social design exists as a meeting point between a variety of social and material concepts and practices.

## Disagreements

Some argue that social design involves *regular* design skills and practices that are applied to specific kinds of social problems instead of commercial interests (Thorpe & Gamman, 2011). In this framing, *social* is a synonym for “particularly problematic situations (such as extreme poverty, illness, or social exclusion, and circumstances after catastrophic events)” (Manzini, 2015, p. 64). This framing encompasses graphic designers making public health posters and architects building public housing. In contrast, other authors argue that social design is unique because it involves a distinctive way of designing (Chen et al., 2016; Kimbell, 2020). What these specificities amount to is, however, disputed. Another source of disagreement is whether social design does or does not aim to improve social realities. Some authors claim social design is “design with a conscience,” (Resnick, 2019, p. xiii) has “a noble ethical nature” (Manzini, 2015, p. 65) and has the intention to “improve people’s lives” (Del Gaudio et al., 2016, p. 53). Papanek’s foundational text, *Design for the Real World* (1973) is in this tradition, as well as contributions such as Victor Margolin, who claims: “the ultimate purpose of design is to contribute to the creation of a good society” (2019, p. 19). Yet other authors are not convinced by such claims, labelling them as “utopian” (Koskinen & Hush, 2016), highlighting the inability of designers to control change and protect good intentions from co-option (Chen et al., 2016; Thorpe & Gamman, 2011). Koskinen and Hush note that sociologically-informed social design struggles to create designed outcomes “equal to its critical ambitions” (2016, p. 68). In practice, the design proposals created by social designers are often not implemented (Bailey, 2021) or are intended as speculative future-making (Catoir-Brisson & Watkin, 2021). This presents an issue for people who want to make a strong claim for the positive outcomes of social design and forces us to distinguish between intentions and impacts. Controversies persist regarding the actual outcomes versus expectations placed on social design.

## Questions

The overview of key social design texts surfaced several questions which spotlight future avenues for inquiry. These include questions of scale, the role of social theory and the significance of politics. Some authors distinguish between different kinds of social benefits and scales of impact (Markussen, 2017, p. 161). Koskinen and Hush identify ‘molecular’ social design, which aims to intervene in small-scale social worlds to “do good design work, humbly, close the door and go home” (2016, p. 67) and “sociological social design”, which integrates sociological and critical theory into the design. These discussions highlight that social design has unresolved issues around how to address different scales of social structures and the need for new methods and concepts that can expand beyond the village.

Some authors suggest that the solution involves a more substantive engagement with social theory, sociology and other disciplines dealing with ideas of the social (Kimbell & Julier, 2019). Tonkinwise emphasizes the need for all designers to be aware of the systems within which their designs exist, and since these are social (not just technical) or even socio-technical, a specific set of concepts is required to grapple with them (Tonkinwise, 2019). Koskinen and Hush speculate that the difference between social design and other kinds of design may be “not so much in the actual design work, but in the conceptual and motivational scaffolding of the work” (2016, p. 65) and suggest that sociology can provide useful conceptual and reflexive tools. Similarly, Kimbell suggests that what matters more than methods is the conceptual positioning of social design: its “purposes, assumptions, reflexivity, forms of analysis and modes of organization” (2020, p. 5).

These observations indicate that social design may be more complex than other domains of design practice, leading several authors to highlight the political ambiguity of social design. Markussen points out that social design arose in the middle of “an ongoing ideological debate about democracy, empowerment and civic

resistance against systems of power and control” (2017, p. 165). Chen and colleagues (2016) identify a variety of political positions and ideas in social design practices and projects: Scandinavian Marxism, critiques of unsustainable economic and political structures, social and industrial psychology, and – in ‘user-centeredness’ – a rejection of the political content of participatory design. The implication is that social designers

*“...cannot choose their sides in the manner of early participatory designers. Whatever commitments they make, the implications of their choices are not in their control. Social design projects have ambiguous ends and articulate several agendas and visions, and their outcomes are ambiguous and unforeseeable.”* (Chen et al., 2016, p. 3)

What emerges from this overview is a plurality of understandings, positions, and practices of social design. While there are commonalities, the discourse around social design encompasses fundamental disagreements and questions about its core objective of *the social*, with a lack of a shared language and common definition.

## **Methodology**

To develop a framework within which the different approaches to social design can co-exist and support self-definition, we examined some parallel domains. Citizen science has some similarities with social design. It involves members of the public working with scientific experts and creating their research (Haklay, 2013). In the last decade, it has gained prominence and institutional support and funding and yet lacks a stable theoretical foundation. The role of the *citizen* has proved difficult to define and has parallels with the elusive quality of *the social* in social design, while the concept of citizen science is contested between the natural and social sciences as well as activist practitioners. So, while citizen science has taken place for more than a hundred years, the lack of a shared definition has made interdisciplinary collaboration difficult. However, in the last decade citizen science has undergone a significant process of community self-definition that offers a useful guide on how to proceed with social design. In the period 2013 to 2015, an independent body called the European Citizen Science Association started a consultative process that led to a document entitled the *Ten Principles of Citizen Science* (Robinson et al., 2018). This document was generated by a working group as a long list of potential principles, followed by an iterative two-year public consultation. The resulting principles are written in straightforward language that tried to synthesize academic and practitioner discussions. For example, Principle 3 states that: “both the professional scientists and the citizen scientists benefit from taking part” (Robinson et al., 2018, p. 29), noting a recurring issue within citizen science around who benefits from the activity.

The Ten Principles document has now been translated into 26 languages and proved useful in reaching out to people who have not been in contact with citizen science before. From the start, another goal had also been to use them as a “common set of core principles to consider when funding, developing or assessing citizen science projects” (Robinson et al., 2018, p. 27). The principles thus acquired a coordinating and disciplining function of delimiting what can be considered citizen science. This function has been very successful with the principles being used by funding bodies such as UK Research and Innovation to adjudicate what should be funded as citizen science (UK Research and Innovation, 2020). Yet within the broader citizen science community, there has been some concern about how well the Ten Principles function to adjudicate what is citizen science and arguments for curtailing their purpose. In a follow-up piece of work, a group of academics developed a process of community characterization rather than a definition—the difference being a focus on the description of empirical citizen science practice rather than axiomatic concepts (Haklay et al., 2020). The process involved generating more than a hundred vignette descriptions of citizen science practice as well as edge cases. The broad community of citizen

science was then asked to rank these vignettes in terms of how closely they represent citizen science (Haklay et al., 2021). Significantly, the result of this effort was a characterization of citizen science that is broader and more diverse than that which was captured by the initial Ten Principles. Other follow-up research analyzed the impact of definitional labelling on the citizen science domain (Cooper et al., 2021). In summary, these definitional and anti-definitional efforts are a powerful example of a community of practice working together to articulate and contest the boundaries of its domain.

We believe that translating such a process to social design could reap similar community-building benefits and raise critical discussion about the effect such definitions might create for social design. As in citizen science, we propose kickstarting such an effort by creating the Twelve Principles of Social Design and then opening them up to the wider community to rewrite and improve them. We consider that the social design principles could function in these ways:

- As a series of axiomatic truths, attempting to capture the fundamental nature of social design. While conceptually neat, we are not convinced that such ‘truths’ exist or would be useful for the social design community.
- As regulative ideas. In contrast to constitutive ideas which capture how reality is, regulative ideas make proposals for regulating human conduct. Rather than expressing truths, regulative ideas do not define notions such as social justice but set attitudes and expectations. This way of understanding principles bridges the axiomatic and the boundary object way of thinking about principles.
- As a design prototype to be iterated before reaching a revised or even final set of social design principles that are agreed upon by the whole social design community. Given the variety of locations, intersectional positions and perspectives within social design, we question whether such community agreement could ever be achieved and believe it might be more useful to see the principles as a transient process for supporting community building.
- As a potluck meal where each guest contributes a different dish to be shared with others without there being a central plan. Rather than aiming at creating consistency and uniformity, the goal is for the principles to function as a coordinating mechanism for bringing the community together. Social scientists have referred to this as a “boundary object” (Star & Griesemer, 1989), a device that is adaptable enough to encompass different viewpoints while being robust enough to maintain its identity across them. This means individual principles can use different theoretical and practical assumptions of the social if they can remain distinctive as a whole. While this is a balancing act, we suggest that aiming at social design potluck principles is achievable and helpful for bringing together the traditions of social design that exist in different silos.

The principles we offer in this paper were created via team discussions adopting a potluck approach that integrates the different perspectives of the authors. They combine concepts of “the social” from Actor-Network Theory (Latour, 2005), which focuses on including non-humans, as well as humanist ideas of social inclusion and normative change. This fusion represents what the philosopher Andrzej Nowak has called a “fire and water” synthesis that brings together humanist ethical-political sensitivity with post-humanist ontological insights (2013). Nowak suggests it is only by creating such unlikely combinations that it is possible to acquire an ontological imagination for transforming the world. Nevertheless, developing this ontological imagination is difficult (Nold, 2021a) and the principles are an experimental chimaera that

is receptive to further input from other traditions and approaches.

The principles have been shared with the social design community since late 2020 in the form of a publicly editable online document, and two participatory workshops in 2021 and 2022 with 20 and 45 participants respectively. The participants included design students, senior design educators running their own social design courses as well as neighborhood design activists, commercial designers and academic design researchers. These events offered up the draft principles for collective discussion and evaluated them against a series of empirical case studies of social design contributed by the workshop participants.

**Principle 1: Social design claims that the ‘social’ is made through and with things**

This principle suggests it is not enough to design for human users and social groups—social designers must wrestle with collectives where people and nonhuman “things” are intermingled (Brassett, 2018). This notion of the social is made up of combinations of human and nonhuman entities. Arguing that social design can redesign “the social” is a powerful claim because the theoretical literature merely offers tools for analysis, rather than design, of post-human socials.

**Principle 2: Social design operates on the relational practice between human and technical systems where human-centred design is inadequate**

This principle highlights that social design must tackle technical and human problems together and at the same time. Dualistic separations between technologies and people such as “human-centred design” have made it hard to engage with notions such as systems in design (Nold, 2021b). Drawing on post- and more-than-human relational perspectives, (Bennet, 2010) social design has to recognize the diverse embodied beings, living forms, ecologies and materialities that participate in configuring the social.

**Principle 3: Social design extends across an object and planetary scales, domains and sites**

A socio-material approach demonstrates that social design is not confined to obvious sites of social activity such as community organizations or social services. Instead “the social” permeates and extends across scales—even to the planetary scale of climate change (Hunt, 2020). This approach allows social design to engage with multi-scalar issues, such as the deployment of artificial intelligence into society and disaster-related displacement of people.

**Principle 4: Social design acknowledges that there are many ways of operating in the social**

This principle acknowledges that social design takes place in many ways and sites from interpersonal relations to formal institutions, informal organizations and projects. Professional communities beyond traditional design such as managers and policymakers have long been “designing” social things. The principle recognizes the diverse logics of acting on the social, which include methods, tools and skills as well as bundles of resources existing within institutional logics (Armstrong et al., 2014; Kimbell, 2021).

**Principle 5: Social design is an anticipatory materializing practice that proceeds through inquiring into and reconfiguring narratives, sites and worlds**

Building on studies that emphasize the situated practices of those involved in designing and using designed things, this principle points to the inventive, generative and creative character of designing. The concept of “anticipation” (Miller et al., 2018) highlights the capacity of designing to exceed current possibilities and reconfigure ways of knowing, being and doing in and through social worlds.



**Principle 6: Social design engages multiple kinds of knowledge — no single discipline has a privileged methodology for operating on the social**

This principle emphasizes the synthetic, interdisciplinary character of social design as an assemblage of many epistemic claims and methodologies. One of the key encounters is between Actor-Network Theory and humanist ideas of normativity and reason. Social design is thus a place where ethical-political sensitivities and post-humanist ontological insights can meet (Nowak, 2013).

**Principle 7: Social design is underpinned by normative intent, whether or not deliberate or explicit**

This principle highlights that the effects of social design can be for good as well as ill; it means that the forms of social designing need to be justified and critiqued. Being engaged in social design means participating in an activity that is subject to personal and collective judgement as well as public evaluation.

**Principle 8: Social design forms issue-publics by creating collaborative endeavours with communities through discussion about purposes, needs, values, agency and consequences**

This principle captures the nature of social design as not just socially embedded but also capable of generating new social formations. The point emphasizes that collectively constituted design processes can create issue-publics that are (re)formed in and through the process of social design (Marres, 2012). This raises questions about what binds those communities of inquiry and practice together and how long those collectives last.

**Principle 9: Social design builds new democratic relations between places, living beings and things**

This principle attends to the political character of social design and its consequences and implications. It outlines an intention to achieve equitable relations between living beings, things and ecologies that can be represented and have agency. Here design expertise and traditions are in dialogue with understandings of co-production and democracy (Durose & Richardson, 2015; Seward, 2021).

**Principle 10: Social design is critically aware of its political, systemic, institutional, and environmental situatedness**

This principle builds on observations about the socio-technical embeddedness of designing but recognizes that, in the case of social design, the systemic context is more-than-technical. This means asking critical and reflexive questions (Alvesson & Skoldburg, 2000) about design practice: “Whose interests does this serve?” and “Is this the appropriate scale for intervention?”, as well as about the designer as a person: “How is my understanding influenced by my standpoint?” and “What other perspectives might help me?”

**Principle 11: Social design problematizes the history and modes of professional design, its inequalities, absences and exclusions, such as its Eurocentric assumption, and racialized and gendered outcomes**

This principle builds on the history of social design as a critique of the mainstream and proposes social design as an ongoing critical practice (Mazé, 2008). This means understanding the problematic histories of both the mainstream and social design itself, recognizing the epistemic regimes within which they have arisen and excavating the complex power dynamics inherent in designing and designs (Abdulla et al., 2019; Schultz et al., 2018).

## **Principle 12: Social design tries to mitigate against the unintended and damaging outcomes of designing.**

The world is littered with the damaging effects of design, both intended and unintended (Monteiro, 2019). This principle, responding to social design's humanist tendencies, proposes that what is needed to realize well-meaning ambitions is an additional loop of critical reflection. If design typically asks about the possibilities with an inherently optimistic slant, social design must also ask "What's the worst that could happen?", "Do we risk exacerbating a problem rather than helping it?" and "Is design the appropriate response?"

### **Discussion**

Whenever one sees principles or a manifesto, it is easy to have a knee-jerk reaction: "This is wrong!" and "That doesn't make sense!" Even amongst the authors of the paper, we do not agree on all the principles, and yet we believe that they are meaningful and productive when seen as a collective potluck gathering. We see our role as offering the principles as a boundary object that can be used "to drive transitions through bridging conflicting logics without constraining their diversity" (Franco-Torres et al., 2020, p. 34). Boundary objects work to support sense-making not despite but *because* they "hold different meanings for those involved" (Tharchen et al., 2020, p. 9). It is thus the blend of differences in the principles that are intended to kickstart a community and help support the social design discourse.

When we presented these principles to researchers and practitioners working in social design via the online document and the two participatory workshops, we received constructive as well as challenging feedback. Some of the requested changes were minor, but other feedback was more substantial, such as the need to emphasize the participatory nature of social design, the impossibility of applying all the principles at the same time and the difficulty of picking which ones to apply. The most oppositional comments were made anonymously to the online document, and they challenged our assumption that social design is normative by suggesting, "it can just be a pleasure, not a cause". This range of feedback has informed the present principles by forcing us to further clarify them and to explore how they can be applied within real-world contexts. The participants suggested that the principles function as a diagnostic device for designers to reflect on their practice. They also emphasized the use of the principles with external partners and stakeholders to articulate what is involved in social design and to establish a common set of reference points to enable better collaborations. One interesting observation was that the participants argued that the principles permit designers to be *more* normative—social design does not mean having to be disinterested and impartial and that the principles encourage designers to pick which stakeholder agendas they want to support. Finally, the participants argued that the principles can assist the broader design discipline by promoting transparency and analysis of what takes place within social design projects.

One challenge identified was the academic language in which the principles are expressed, which might not be suitable for a practitioner community. Reflecting on this point, we note that social design currently has to borrow theoretical concepts to talk about 'the social' as socio-material. Despite research emphasizing its relationality, much design *practice* is still framed as 'human-centred', and practitioners do not have a way of talking about the entanglement of people and technologies. In addition, we believe that retaining the multiple phrasings of social design might be beneficial for generating more robust and honest soul-searching about the goals and assumptions within practice and research. This is in line with the way boundary objects have been used to develop "pluralistic tolerance" (Stirling, 2011) and cooperation without consensus. So, for now, we retain the mix of academic and plain, emotive language in the principles to represent the multiple nature of social design itself.

The other challenge we received was that there is a benefit to the current ambiguity around social design. Participants worried that the principles might end up as a regulatory—and exclusionary—checklist. Our response is to point to citizen science where the creation of principles also triggered other definitional processes that contested the principles. We argue that this kind of dialogue is productive and can contribute to building a base for conceptual and methodological formation necessary for a field of inquiry to be established. As academics researching and practising social design, we hope the potluck principles are a step in building social design into a distinctive discipline in the same way other areas such as Service Design and Cultural Studies have managed to achieve. These disciplines have created enough ‘gravitational pull’ for practitioners and researchers to coalesce around a common language and to establish concepts, methods, and approaches. Our concluding thought—perhaps a call to action—is that the social design community needs to come together to better articulate its concepts and approaches in order to take ownership of its central object of *the social*.

## References

- Abdulla, D., Ansari, A., Canli, E., Keshavarz, M., Kiem, M., Oliveira, P., Prado, L., & Schultz, T. (2019). A manifesto for decolonising design. *Journal of Futures Studies*, 23(3), 129–132. [https://doi.org/10.6531/JFS.201903\\_23\(3\).0012](https://doi.org/10.6531/JFS.201903_23(3).0012)
- Alvesson, M., & Skoldburg, K. (2000). *Reflexive methodology*. Sage.
- Armstrong, L., Bailey, J., Julier, G., & Kimbell, L. (2014). *Social design futures: HEI research and the AHRC*. University of Brighton. <https://tinyurl.com/4kawnh9z>
- Bailey, J. (2021). *Governmentality and power in 'design for government' in the UK 2008-2017: An ethnography of an emerging field [Doctoral dissertation, University of Brighton]*. <https://tinyurl.com/yc7b466s>
- Bennet, J. (2010). *Vibrant matter: A political ecology of things*. Duke University Press Books.
- Binder, T., Brandt, E., Ehn, P., & Halse, J. (2015). Democratic design experiments: Between parliament and laboratory. *CoDesign*, 11(3–4), 152–165. <https://doi.org/10.1080/15710882.2015.1081248>
- Binder, T., De Michelis, G., Ehn, P., Jacucci, G., Linde, P., & Wagner, I. (2011). *Design things*. MIT Press.
- Björgvinsson, E., Ehn, P., & Hillgren, P.-A. (2012). Agonistic participatory design: Working with marginalised social movements. *CoDesign*, 8(2–3), 127–144.
- Brassett, J. (2018). Creating affective social design: An ethical and ontological discussion. *Cubic Journal*, 1(1), 172–185. <https://doi.org/10.31182/cubic.2018.1.010>
- Catoir-Brisson, M.-J., & Watkin, T. (2021). Rethinking social and sustainable innovations through prospective co-design and project-grounded research. *Discern: International Journal of Design for Social Change, Sustainable Innovation and Entrepreneurship*, 2(2), 123–137.
- Chen, D. S., Cheng, L. L., Hummels, C., & Koskinen, I. (2016). Social design: An introduction. *International Journal of Design*, 10(1), 1–5.
- Cooper, C. B., Hawn, C. L., Larson, L. R., Parrish, J. K., Bowser, G., Cavalier, D., Dunn, R. R., Haklay, M., Gupta, K. K., Jelks, N. O., Johnson, V. A., Katti, M., Leggett, Z., Wilson, O. R., & Wilson, S. (2021). Inclusion in citizen science: The conundrum of rebranding. *Science*, 372(6549), 1386–1388. <https://doi.org/10.1126/science.abi6487>.

- Del Gaudio, C., Franzato, C., & de Oliveira, A. J. (2016). Sharing design agency with local partners in participatory design. *International Journal of Design*, 10(1), 53–64.
- Durose, C., & Richardson, L. (2015). *Designing Public policy for co-production: Theory, practice and change*. Policy Press.
- Franco-Torres, M., Rogers, B. C., & Ugarelli, R. M. (2020). A framework to explain the role of boundary objects in sustainability transitions. *Environmental Innovation and Societal Transitions*, 36(May), 34–48. <https://doi.org/10.1016/j.eist.2020.04.010>
- Haklay, M. (2013). Citizen Science and volunteered geographic information: Overview and typology of participation. In D. Sui, S. Elwood, & M. Goodchild (Eds.), *Crowdsourcing geographic knowledge: Volunteered geographic information (VGI) in theory and practice* (pp. 105–122). Springer.
- Haklay, M., Fraisl, D., Tzovaras, B. G., Hecker, S., Gold, M., Hager, G., Ceccaroni, L., Kieslinger, B., Wehn, U., Woods, S., Nold, C., Balázs, B., Mazzonetto, M., Rufenacht, S., Shanley, L., Wagenknecht, K., Motion, A., Sforzi, A., Riemenschneider, D., ... Vohland, K. (2021). Contours of citizen science: A vignette study. *Royal Society Open Science*, 8(8), 1–24. <https://doi.org/10.1098/rsos.202108>
- Haklay, M., Motion, A., Balázs, B., Kieslinger, B., Bastian, T. G., Nold, C., Dörler, D., Fraisl, D., Riemenschneider, D., Heigl, F., Brounéus, F., Hager, G., Heuer, K., Wagenknecht, K., Vohland, K., Shanley, L., Deveaux, L., Ceccaroni, L., Weißpflug, M., ... Wehn, U. (2020, April). ECSA's characteristics of citizen science. European Citizen Science Association. <https://doi.org/10.5281/zenodo.3758668>
- Hillgren, P.-A., Seravalli, A., & Emilson, A. (2011). Prototyping and infrastructuring in design for social innovation. *CoDesign*, 7(3–4), 169–183.
- Hunt, J. (2020). *Not to scale: How the small becomes large, the large becomes unthinkable, and the unthinkable becomes possible*. Grand Central Publishing.
- Kimbell, L. (2020). Double-loop social design: An introduction to social design and design for sustainability Social Design Institute, UAL. <https://tinyurl.com/yxxyhssz>
- Kimbell, L. (2021). Logics of social design. Design as common good: Framing design through pluralism and social values, 25-26 March 2021, Lucerne, Switzerland. <https://tinyurl.com/3urfh57j>
- Kimbell, L., & Julier, G. (2019). Confronting bureaucracies and assessing value in the co-production of social design research. *CoDesign*, 15(1), 8–23. <https://doi.org/10.1080/15710882.2018.1563190>
- Klerkx, L., Aarts, N., & Leeuwis, C. (2010). Adaptive management in agricultural innovation systems: The interactions between innovation networks and their environment. *Agricultural Systems*, 103(6), 390–400. <https://doi.org/10.1016/j.agsy.2010.03.012>
- Koskinen, I., & Hush, G. (2016). Utopian, molecular and sociological social design. *International Journal of Design*, 10(1), 65–71.
- Latour, B. (2005). *Reassembling the social: An introduction to actor-network-theory*. Oxford University Press.
- Manzini, E. (2014). Design for social innovation vs. social design. DESIS Network. <https://www.desisnetwork.org/2014/07/25/design-for-social-innovation-vs-social-design/>
- Manzini, E. (2015). *Design, when everybody designs: An introduction to design for social innovation*. MIT Press.

- Margolin, V. (2019). Social design: From utopian to the good society. In E. Resnick (Ed.), *The social design reader* (pp. 15–30). Bloomsbury.
- Markussen, T. (2017). Disentangling ‘the social’ in social design’s engagement with the public realm. *CoDesign*, 13(3), 160–174. <https://doi.org/10.1080/15710882.2017.1355001>
- Marres, N. (2012). *Material participation: Technology, the environment and everyday publics*. Palgrave Macmillan.
- Mazé, R. (2008). Criticality meets sustainability: Constructing critical practices in design research for sustainability. In C. Cipolla & P. P. Peruccio (Eds.), *Changing the change design, visions, proposals and tools proceedings* (pp. 1–14). Allemandi Conference Press.
- Miller, R., Poli, R., & Rossel, P. (2018). The discipline of anticipation: Foundations for futures literacy. In *Transforming the future: Anticipation in the 21st century* (pp. 51–65). Routledge. <https://doi.org/10.4324/9781351048002>
- Monteiro, M. (2019). *Ruined by design: How designers destroyed the world, and what we can do to fix it*. Mule Books.
- Nold, C. (2021a). Insurrection training for post-human politics. *International Journal of Sociology and Social Policy*, 41(3/4), 541–557. <https://doi.org/10.1108/IJSSP-03-2020-0066>
- Nold, C. (2021b). Towards a sociomaterial framework for systems in design. (Working Paper No. 2; Social Design Institute, UAL). <https://tinyurl.com/yc2fccbp>
- Nowak, A. W. (2013). Ontological imagination: Transcending methodological solipsism and the promise of interdisciplinary studies. *Avant*, 4(2), 169–193.
- Papanek, V. (1973). *Design for the real world*. Bantam Books.
- Resnick, E. (2019). Introduction. In E. Resnick (Ed.), *The social design reader* (pp. 3–7). Bloomsbury.
- Robinson, L. D., Cawthray, J. L., West, S. E., Bonn, A., & Ansine, J. (2018). Ten principles of citizen science. In *Citizen science: Innovation in open science, society and policy* (pp. 27–40). UCL Press. <https://doi.org/10.14324/111.9781787352339>
- Saward, M. (2021). *Democratic design*. Oxford University Press.
- Schultz, T., Abdulla, D., Ansari, A., Canli, E., Keshavarz, M., Kiem, M., Martins, L. P. de O., & J.S. Vieira de Oliveira, P. (2018). What is at stake with decolonizing design? A roundtable. *Design and Culture*, 10(1), 81–101. <https://doi.org/10.1080/17547075.2018.1434368>
- Star, S. L., & Griesemer, J. R. (1989). Institutional ecology, “translations” and boundary objects: Amateurs and Professionals in Berkeley’s Museum of Vertebrate Zoology, 1907–39. *Social Studies of Science*, 19(3), 387–420.
- Stirling, A. (2011). Pluralising progress: From integrative transitions to transformative diversity. *Environmental Innovation and Societal Transitions*, 1(1), 82–88. <https://doi.org/10.1016/j.eist.2011.03.005>
- Tharchen, T., Garud, R., & Henn, R. L. (2020). Design as an interactive boundary object. *Journal of Organization Design*, 9(1), 21. <https://doi.org/10.1186/s41469-020-00085-w>

Thorpe, A., & Gamman, L. (2011). Design with society: Why socially responsive design is good enough. *CoDesign*, 7(3–4), 217–230. <https://doi.org/10.1080/15710882.2011.630477>

Tonkinwise, C. (2019). Is social design a thing? In E. Resnick (Ed.), *The social design reader* (pp. 9–16). Bloomsbury.

UK Research and Innovation. (2020). UKRI citizen science collaboration grant opens for applications. ResearchConnect. <https://www.myresearchconnect.com/ukri-citizen-science-collaboration-grant-opens-for-applications/>