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REDESIGNING DESIGN FOR CULTURE CHANGE: THEORY IN THE ANTHROPOCENE

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Abstract: *Design is low on theory of transformation, which becomes problematic as the practices and outputs of design need to contribute to a culture of planetary adaptation for sustainability. In fact, design itself needs to be (re)designed to enact culture change. To make these shifts, design research can learn from cultural theory that positions culture as evolving and performative. Adopting these ideas helps to reveal the designed-therefore-designable nature of the world, which is a necessary prelude to mobilizing publics. The paper concludes with participatory collaborative thought experiments, influenced by cultural theory, that offer directions for changing design.*

Introduction

The discipline of design, despite its basis in transformation, is still developing its theories of change. Although this has progressed as design research becomes a distinct domain, there is a tendency within design disciplines to consider *fit-for-purpose* in researching individual designs, rather than reflecting on that purpose and its social impact. Dilnot suggests that design is historically resistant to theory: ‘it finds its glory in [...its] unswerving application of design to practical ends, mediated by criticism, but (often) only in minor ways by self-reflection.’ (2017). Kimbell, in rethinking design, argues for an approach that ‘moves away from a disembodied, ahistorical design thinking to a situated, contingent set of practices..., which recognizes the materiality of designed things and the material and discursive practices through which they come to matter.’ (2012, p129).

When design research considers deliberate socio-material change (the “social turn”), silence on how design matters becomes noticeably problematic. We must understand change across many social, economic and political dimensions to enable us to develop and choose between alternatives for society. Changing cultures towards sustainable living is a case in point. This focuses effort on the knowledge needed for making cultures as well as understandings of individual behaviour and any materials we use to effect change in it.

In this paper, I explore these points in considering how to democratize futures as the need grows to ask what futures are possible with climate emergency (e.g. Wallace-Wells, 2019). I argue that understanding design as a democratic principle changes the conversation, as does the resulting obligation to equip people with a sense of the ‘designed, therefore designable’ (Light 2011a) nature of our world. If recognition of this era as the Anthropocene can do any good, it must move beyond understanding that human activity

impacts life on Earth, to offer some collective insight into how this happens and what to do to tackle climate inertia.

To ground this paper, I draw from cultural theory. Design favours empirical testing. The commitments of cultural theory are discursive, rather than empirically tested. Nonetheless, it is timely to borrow from this legacy of analytic thinking since making change in culture has never been more important.

Democratising Futures

My branch of design practice could be described as *constructing possible futures in a collaborative way*, drawing on a particular branch of participatory design (Binder et al 2015). ‘Democratic participatory design practices’ (Light 2015) is used here to mean practices that knowingly address cultural relations by collaboratively exploring, critiquing and designing tools, structures and systems, hoping, collectively, to change how lives are lived and enhance them. We see this kind of work in Ehn et al’s book on *Making Futures* (2014), research on how older people might want to shape future life, *Democratising Technology* (Light et al 2009, 2011b) and Candy’s *Things from the Future* (<http://situationlab.org/project/the-thing-from-the-future/>). Wilde and Anderson (2013) address ‘a future fundamentally different from what we know’ with embodied-thinking-through-making. RMIT’s Design+Ethnography+Futures asked what uncertainty means (Akama et al 2018). Across these investigatory projects is recognition of the politics to futures in the present, and ethics to one’s methodology for impacting them, which are often omitted from mainstream design discourse. These examples are far from alone.

My particular concern is for more-than-just-human collective futures and how people engage in considering them. Futurists and technology companies, policy makers and politicians all formally address futures through their actions (often without public mandate). But it is not part of education or working life for most of us. For many people, the world is a given and they do not, as most designers do, see it as raw material for a new iteration. As predictions for the planet’s future darken, it becomes an ethical and practical matter to promote discussion of futures to include everyone sharing the concern and collective responsibility, even if they have little practice in considering alternatives. It is ethical because we share the outcome. It is practical because, by learning about alternatives and how to reach them, we become better able to innovate, change and avert catastrophe.

Design’s Dangerous Developments

My ambitions to reorient design stem from concern about its power. This work becomes more urgent as the magnitude of the industrialized world’s impact on life is revealed. The Global North is responsible for most of the planet’s energy misuse. Yet, much design work continues with little thought to where it will lead. Even people consumed with worry about unsustainable futures go to work and contribute to that unsustainability. As Kimbell describes (2012), their agency is not a match for the wider material and discursive practices of designing. Incremental changes in the fabric of an upgrade are hailed as a major

breakthrough, but the upgrading goes on. Most designing takes place in a market where an immediate competitive edge is more important than long-term impacts, blinkered to serve a segmented production line and a growth agenda that is looking increasingly absurd. Design may help configure the future, but practices on the ground are frequently indifferent to this.

Papanek famously spoke against manufactured products that were unsafe, showy, maladapted, or essentially useless (1971/1985) exemplifying the design researcher interested in changing the discipline. More recently, discussion about how design should change has gained new foci. In 2005, Sterling commented that: 'What we really ought to fear is not "Oblivion" but irretrievable decline.' (2005, p141). He advocated greater technological innovation as an antidote to fatalistic handwringing (p13). Elsewhere, anthropologists and biologists entering design conversations argue that solutions can be the problem. Advocating *Staying with the Trouble* (2016), a new generation of design researchers is bringing the work of Haraway (2016), Barad (2007) and other feminist thinkers into design research as a foundation for relations. Puig de la Bellacasa's ethical treatise on care and soil has gone viral (2017). These works point to the complexity of the systems underpinning symbiosis and the need for new ways of being together. In gentle fashion, they inform how to live together rather than how to engineer the planet.

A Social Turn

With these tensions pointing to a role for design to redesign itself, design research has been proposing new relations with society. Fuad-Luke observes the terms circulating: 'social design', 'designing society', 'design for society, socially responsible design, socially responsive design, and design for social innovation' (2015). Design as societal transformation appears in a number of movements, e.g. Sangiorgi (2011) and Cottam (2018) on transformation design. Such movements are part of broader expansion of the designer's role in society (Maze 2014). All implicitly include culture change, some involving more systematic analysis, such as system-orientated design (Sevaldson, 2013) and transition design (Kossoff et al 2015).

Significantly, some practices include working with publics to understand together how design can transform contexts and relations. With others, design knowledge and skills sit with trained designers. This raises a distinction in how design is mobilized. While it has long been asserted that everyone designs (Cross 2001, Manzini 2015), how is this understood? Can we mobilize design as a means to transform society, not only as a series of processes, but as a way of understanding society as designable and, with this, offer increased sense of agency? Giving access to design necessarily changes design.

Theory of Change

An obvious source of theory to support design's social turn comes from social science, particularly social psychology. This has not strengthened a more democratized approach.

For instance, there has been growing interest, in policy circles, in behavioural insights and nudge psychology (John 2018).

Nudge is the opposite of helping people understand the designed-therefore-designable nature of the world. It points design towards a top-down, all-knowing approach perpetrated on the masses. It is ‘bovine design’, reducing, rather than enhancing, our critical faculties when we all need to be consciously reorienting the world towards new realities (Light et al, 2017). And nudge policies fail to appreciate their own social and political dynamics, including the state’s own political-economic strategy (Leggett 2014). Yet, it is easy for even enlightened design policy to halt at this point.

By contrast, descriptive domains, such as anthropology, are increasingly exploring design as a method of collaborative engagement for world-making, and not just a field of study (e.g. Ingold 2013, Escobar 2018). How does this support a more participative agenda?

Towards Humanities?

Design research starts by understanding phenomena, not a theoretical position (although theory may be sought in sense-making). The world-making processes described by Ingold and Escobar come from a humanistic tradition. This is not always seen as useful.

Nonetheless, the humanities explicitly articulate theories of change, serving to put activity in context and eventually to change what discourses are ripe and how the world understands itself. A vision of ontological change¹ – crudely, where we change what we are to change what we do – appears in different ways across different traditions, such as the political economy of enchantment (Bennett 2001). Adopting theories of change of these kinds, we move from the craft skills of making change to designing education about change.

Humanities contribute to (interaction) design research, through ‘the central role of critical interpretation in humanistic thought ...toward the development, clarification, and justification of concepts’ and the material of social change (e.g. feminism, Marxist studies) (Bardzell and Bardzell 2015:17-8). Not only is this what mainstream design is missing, it considers what knowledge we are interested in making and, by considering epistemology, speaks about the opportunities and gaps we observe.

Designing our Development

Taking this on, we can find work that speaks to design, not in terms of the next product, but its direction of travel.

¹ This is distinct from, but complementary to, ontological design (Willis 2006), a philosophical position which acknowledges that what and how we design changes us as it changes the world. See also Verbeek’s mediation theory that considers how values change as society is changed by what we create (e.g. 2016).

Birth of Design

Philosophical literature supports a suggestion that design is integral to how humans develop. In Stiegler's (1998) expansion of Heidegger's phenomenology, we find a claim that technics ('the organisation of inorganic matter') is a process of externalisation made possible through language, technique, and culture that allows us to capture and share our existence—or the 'pursuit of life by means other than life' (1998). Through the act of organizing, we are able to constitute the world, while these acts of organization fasten interpretations upon matter and thought. Although Stiegler does not focus on the creative experimentation needed to arrive at organization, 'the organisation of inorganic matter' is inevitably a creative and collaborative process. Stiegler suggests that: 'it is the tool, that is *tekhne*, that invents the human, not the human who invents the technical. Or again: the human invents himself in the technical by inventing the tool – by becoming exteriorized techno-logically' (1998:141). Although this is a form of technological determinism, it raises questions about how designing comes to be and about whether this opportunity to organize is, in any way, equally distributed or democratic in our current world. If it is a fundamental part of our constitution, why is it not a right for all? If this doing is so central to our being, what kind of designing (and making) is fit for a world with fewer resources?

The distribution of this power and the results of this organization are demonstrably political. Bowker and Star (2000) poignantly describe how categorization systems form identities for groups through increasing bureaucratization and definitions like *apartheid*. Types of design configure who we are and what we can become. We become committed to infrastructures – from canals, sewers and roads to internet provision and 5G.

Data, with their hierarchies and identity definitions, meets information technologies, with their binary coding and hard-wiring. This alters the flexibility and balance of control in societies. If rigid systems converge, we not only design ourselves, as Willis (2006) suggests, but we design out the potential to redesign ourselves.

Identities in Flux

It would be too deterministic to say that we are human because we make. On the other hand, if we accept the ontological potential implicit in culture change, we can see both designing and identity as fluid and we can start to speculate on some interesting potential intersections. Every interaction changes how things are. Everything is designable. Greater awareness of how things are designable enables us to be more reflective about how and what is designed. We can embrace a historical perspective:

'A condition brought about at a certain time can be abolished at some other time. ...it might seem that natural condition is beyond the possibility of change. In truth, however, the nature of things is no more immutably given, once and for all, than is historical reality.' (de Beauvoir, 1972/1949).

We can regard ourselves as mutable, where identity is inscribed in society's constant rehearsal of behaviours (Butler 1990). *Performativity* presents identity as enacted: 'One is not simply a body, but, in some very key sense, one does one's body.' (1990:272). The design

of the systems round us inscribes us. There are other theories of how technology and identity are interrelated, how values are shaped by what we become as well as what we choose (e.g. Verbeek 2016; Pinch et al 1985/1999; MacKenzie and Wajcman 1999).

For me, Butler's insights help consider the way that interactions with technology inscribe, prescribe and proscribe what we can become (2011a), but they also move me, through this reflection, to consider a more flexible version of the material world. Not only does performativity focus on how society is formed, but a non-essentialist view of identity releases us from contemplating patterns of societal behaviour as fixed and immovable.

Design can speed up these reconsiderations by targeting how agency is conceived and by embracing flexibility instead of aspiring to end-states (Light 2011a). A sense of agency (or the ability to enact change) is related to this. And this is at the heart of my designed-therefore-designable ambitions. Agency, our power to do, is core to identity in change: how far (we believe) we choose our actions and are able to enact change relates to who we think we are. Performativity may show how challenging it is for individuals to change what they are inscribed to be, yet it is also clear about the social nature of identity and its potential for change, how 'to remain un-centred and open to new influences' (Light 2011a). Performativity is a liberating philosophy, then, because it allows for things to be done differently: it is concerned with enactment and how conditions affect enactment and produce ways of doing. 'When we ask after the conditions of social change, we are asking both about the preconditions for transformation and about how encounters encourage us to think and feel and act, not just individually but collectively.' (Barnett and DeLuca 2019).

The performative turn in cultural theory can be seen as the correlate of the social turn in design, offering a more integrated approach to understanding how we constitute our world. 'Such a perspective has been extended to show how not only gender, but the materiality of things [...] or even the man/machine distinction [...] are not given a priori, but are ceaselessly produced in social performances in which their reproduction is not routine or matter of fact' (Licoppe 2010).

Given these insights, there is no final arrival point, but context, an absence of dogma and a mutability that allows new truths, perspectives and engagements to emerge through a refusal to accept definition. Designs may be completed, but identity is always in flux. Adopting this stance allows a more fluid response to technological changes, methodological commitments and the possible domains to be touched by designing. It means the nature of our encounters together is not only ethically significant; it is constitutive of our relations.

Exploring activist futures with this possibility in mind can modify how we stage our encounters to consider the designed nature of the world. It is a reflexive act. Following this logic, we design something new on multiple levels when we set up democratic participatory work in contexts for co-research and engagement. We do not just share practice and reveal the nature of our interactions, but make new ones possible. These ways of being might never occur in other circumstances, so there may be no possible other way to perceive the potential revealed (Light 2015). In other words, these practices form the basis of a new *constitutive* anthropology (ibid). They are a creative form of engagement, enacting cultural research through making situations for sharing, learning and changing.

And they are ‘constitutive’ in the full sense of bringing into being. Democratic participatory design fosters new social arrangements, providing the means for new ways of being together to be born, reflected upon, interpreted, understood and supported. Performativity provides theory to show how and why these changes come into being through particular forms of design, while also providing a method for these enactments. It allows us to do more than go through motions, but to change ourselves and our futures through coming together and exploring.

Some Examples

This essay has stayed at a theoretical level, discussing theory of change. This section briefly details a single kind of practice that has resulted from considering performativity as a theory of change and the designed-therefore-designable nature of the world with members of the public. Its design is influenced by these philosophical considerations and shaped by a desire to change culture towards democratized fellow-journeying in increasingly uncertain futures. This is guided by theory that reveals the non-essential, enacted and ever-evolving nature of our relations.

Three Worlds for Transformation

I have three workshops in circulation framed as process tools and designed to help people come together and understand themselves as agents in collaborative change. I will discuss one in more detail to show its operation, but I introduce them first as a way of highlighting three dimensions:

- *World machines*

Revealing the power of the digital to connect, sense and aggregate and how the world could be joined up for greater information, understanding and feedback, people come together to discuss utopias, resistance and tools of change and make manuals for coordinating world resources (Light et al 2015).

- *On some Other World*

Demonstrating the way that the world has come about by looking at an alternative present with different path dependencies and outcomes, this shows how the world could have been different and therefore still could be (Korsmeyer and Light 2019).

- *Worlds of/ that Matter*

Working with the affective, this workshop explores how we come to care for the things we value and how we might include more that is fragile in our care.

New Worlds for New Cultures

The challenge for participants in the *On some Other World* workshop is to co-create an alternative present based on stimuli given as briefs at the start of the session. After introducing the need for new practices and the lack of need for accurate history, the Counter-Factual Worlds Generator (Figure 1) pumps out five globes, randomly assigned to small groups. Inside this globe is a description of a world that is not ours but bears a relation to ours. One crucial aspect is different. Each group is then invited to work through a process involving:

1. **Worlding:** discuss this world, how it works and what the present would be like if this world were ours;
2. **Chronicling:** record the key features of this world in a story for sharing, then tell this to the other groups;
3. **Creating:** make a thing/system/service that reflects (the values of) this world, with the materials provided (glue, scissors, pens, etc);
4. **Analyzing:** reflect on this world and its outcomes (artifacts and/or ways-of-being) to consider:
 - how values affect the design;
 - how this relates to our world(s);
 - what the process of imagining another world has revealed.

The workshop ends with sharing and contrasting of outcomes and a whole-group discussion of learning across cultural and socio-material dimensions.



Figure 1: the Counterfactual Worlds Generator, with globes (photo credit: Deborah Mason)

Inside the globes, a short provocation spurs the participants to speculate on another world (e.g. Box 1). There is no other brief, but a chance to create.

The Brazilian Rubber Monopoly persists...

In 1876, Henry Wickham, on a mission from the Royal Botanical Gardens, brought seeds of the rubber tree from Brazil to the UK. At the time, Brazil held a monopoly on rubber, making the rubber barons very rich. Both the British government and the American car manufacturer Henry Ford could see that the high cost of rubber was a barrier to the expansion of the motor vehicle industry – and anything else that required pneumatic tyres as well as a number of other manufacturing and industrial processes. Ford set up his own colony in Brazil in an attempt to produce cheap rubber. The British moved the rubber plantations to Asia where the Empire could set up rubber trees in a way that made rubber harvesting efficient and economical. By the 1910s, the monopoly was broken and rubber was available more cheaply from British Empire sources.

This counter-factual world imagines that the monopoly had not been broken and Brazil had kept control of the whole rubber market. Rubber remains expensive.

Box 1: sample of a counterfactual world provocation

New Role for Design

Over the last years, this scenario has been used to think through how materials, transport, political geography, colonialism, and commerce affect what happens in our world. It has pointed to alternative futures and, with the other workshops in the series, given a sense of what an alternative world might offer. It has been incorporated into further engagement processes to contribute to a shift in thinking. By itself, such speculation is merely like a game, but in combination with other tools it has the potential to lead to transformative creative practice (Light et al 2018, Light et al 2019).

But it is not presented here as a method or a discussion of speculation. It is offered to show the kind of tool that can be created if we redesign design to be participative, inclusive and focused on new futures that do not start from our blinkered world of squandered resources and endless upgrades. If we have, in design research, a sense of cultural dynamics and the political will to democratize design, we can apply performative theory to make sense of this – both people's desire to lead creative and fulfilling lives and the options to morph into new arrangements that such enthusiasm gives us. It points towards creative practices that designers can enable and people can engage in, which enable new selves to be created.

If we wholeheartedly adopt the creed that we become what we do, then the encounters in these workshops, and others like them, concern possibilities that are not to be observed however long we watch people going about their business during extended fieldwork. They are not to be observed in inviting participants to help us co-design products. The special characteristic here is that we are collaboratively assembling the components of how to be together. When we engage in democratic participatory design practices, we are co-designing ways of being, as well as staging encounters to learn about ways of being. It is a form of research through design where the product for iteration is a process. We literally make our futures by the practice of performing them and to design for this opportunity offers a profoundly important and meaningful future for design, despite its dangers.

Conclusion

It is, in the end, unimportant how ideas come to inform design and from where they are drawn; the pragmatics of our situation merely require that change comes, both in what is designed and what design is understood to be. I have argued that performative theories of change support the instantiation of new ways of being and save designing from its damaging legacy and a loss of relevance as natural resources become increasingly difficult and/or dangerous to use. I have given a simple example of a new kind of practice, at once

generative and modest in how it brings people together. I have shown how this relates to the critical activity of encouraging a sense of agency by acknowledging the designed-therefore-designable nature of the world.

At present, such reflections do not sit adequately in design, for it is still seen as operating in ‘a close-present: the present of a recent yesterday, limited now and almost tomorrow’ (Anusas and Harkness 2014) and this cannot be the basis of tackling the Anthropocene. Perhaps, in borrowing some theory, we can return a renewed sense of timeliness and importance for disciplines beyond our own. Certainly, we can engage in collaborative ‘what if’ speculation that gives those without the comfort of professional future-making the opportunity of redesigning design for a turbulent period when material consumption and traditional characteristics of design no longer serve.

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