Negotiating the Possible Through the Artificial

RUSSELL Gillian\textsuperscript{a}; BADKE Craig\textsuperscript{ab}; HERTZ, Garnet\textsuperscript{b}

\textsuperscript{a}Digital Democracies Institute, Simon Fraser University
\textsuperscript{b}Studio for Critical Making, Emily Carr University of Art + Design
\textsuperscript{c}cbadke@ecuad.ca

Relating the concepts of value-sensitive design to decolonial theory, we will describe our attempts to activate resistance to the foundations of modern technicity through a game called Reimagining the Now, which we designed for the Digital Democracies Institute in Vancouver, BC, Canada in collaboration with Dr. Garnet Hertz and the Studio for Critical Making. We argue that, as digital technologies become embedded in every facet of society, any hope of a digital democracy requires sustained public discourse, imagination, and action that goes beyond an understanding of how digital technologies work, towards a comprehension of the value systems, contexts, and consequences of their creation. To do this we devised a custom card set and large paper playmat as a speculative prompt to help participants rethink existing technologies through different value sets, to imagine with us what a digital democracy — and the world it brings with it — might look like. As part of a larger research endeavour, the game experiments with using speculative design methods as fertile spaces for generating a critical imaginary as a productive way to invite publics to think past taken for granted ideas of ‘what is’ towards ‘how what is’ and ‘what could be’.

Ontologically Orientated design; Value-sensitive design; techno-social futures; Speculative design.

1. Below the Surface

Sometimes you have to look beneath the surface to really see what is in front of you. A few years ago we were invited by the Digital Democracies Institute at Simon Fraser University to run a workshop as part of their inaugural conference: Artificial Publics, Just Infrastructures, Ethical Learning. The organizers were interested in what we as designers could add to recent debates around the current state of digital Media. The main theme we were invited to address was the question of decolonizing infrastructures based on our recent work which was strongly influenced by pluriversal critiques.

In our studio we produce projects that bring together a plurality of perspectives to explore, deconstruct, and reimagine different narratives and possibilities for the future. We often say that we work with
'defamiliarization’. This means that we aim to make the familiar strange. We conduct explorations, actions and research that use the language and structure of design as a trigger for curiosity, a mechanism to unveil the entangled complexity of our technologies, politics, culture, and environment with an emphasis on inviting people to think, see, and do differently.

Our workshop developed from our thinking about design as a form of understanding. The problem we set out to address related to the unexamined territories of technology. We were interested in working with participants to reveal preconceptions and assumptions about technologies in our culture. Similarly, we wanted to question our pervasive culture of efficiency, of ease, of speed, and of solutionism, that remains integral to the conventional wisdom surrounding design.

So we asked ourselves, what are we not seeing?

This question touched on how the biggest technological changes of the last few decades are materially invisible to us (Bridle, 2018). From the internet, and cloud computing, to social media, and artificial intelligence, the opacity with which these digital systems have been constructed, described, and maintained keep us in the dark. (Bridle, 2018; Geenfield, 2018) We cannot see them, or touch them, and most of us do not understand how they work, and more importantly their effects on how we think, act, and understand the world. In past years, our research has demonstrated that the fields of design (Industrial, communication, interaction) have been inextricably tied to this opacity. For too long we have allowed design’s expert driven processes to uncritically direct and deploy new digital technologies, leaving the rest of us at arm’s length, with little agency to meaningfully participate in the design of everyday life. We as citizens lose an important participatory role in collectively shaping the structures
that direct and limit our actions, in understanding how they will impact our lives, and in defining what types of futures we desire.

Seeking new ways of seeing, we used the workshop to uncover the many narratives hidden within our digital systems with the conscious aim to engage participants to question the radical ways digital technologies are reshaping civic perceptions and ways of being. We believed this experiment could help us understand technologies in a way that was less isolated from the social, political, material and environmental conditions that produced them. At the same time we wanted to provide participants with critical and creative tools for imagining what a digital democracy, and the world it brings with it, might look like.

This, we believed, would require a commitment to developing a critical digital literacy that extends beyond how digital technologies work, towards a comprehension of the value systems, contexts and consequences of their creation (Bridle, 2018; Geenfield, 2018).

We found James Bridle’s concept of ‘true literacy’ helpful in our conceptualization of the workshop. In his book The New Dark Age he emphasizes the urgent need to better understand our technologies, but “because we are completely entangled with them, this understanding cannot be limited to the practicalities of how things work: it must extend to how things came to be, and how they continue to function in the world in ways that are often invisible and interwoven” (Bridle, 2018, p. 3). In Bridle’s reasoning technologies carry the value systems of a society, and the promise to exercise and uphold these systems. Like Bridle, Batya Friedman and David Hendry also point to the need to see technologies as reflecting and reciprocally affecting human values, finding that even when they are formulated as tools in the service of society they take part in the reproduction of values (Friedman et al., 2019). In their work they see opportunities for new ways of designing that aim to foreground human values in design decisions as a way to cultivate a technical imagination (Friedman et al., 2019). While their approach, which they define as Value Sensitive Design, seeks to emphasize human values specifically, wherein value refers to, “what a person or group of people consider important in life” (Friedman et al., 206, p. 349), the very idea encourages a deep rethinking of the role of values in design.

This provocatiion inspired us to explore the possibilities tied to rethinking technologies through the lens of values. Within the workshop our conception of values reached far beyond the individual or group to include ‘value sets’, which we broadly defined as ‘ways of living’ or ‘ways of seeing and shaping the world’ (which in turn limit other ways of seeing and being). Entangled with a societies structural base, value sets are often the unseen or unacknowledged principles that infuse society at every level, feeding possibilities for how we might live and act in the world.

Inspiration also came from ontologically oriented design theory which, as Terry Winograd and Fernando Flores’ describe, entails the recognition that “in designing tools we are designing ways of being” (Winograd & Flores, 1986). Similarly, in Design’s for a Pluriverse, Arturo Escobar speaks of ontologically oriented design, emphasizing that it is a ‘conversation about possibilities’. Pointing to Anne-Marie Willis’ notion that ‘we design our world, and our world designs us back’, Escobar describes all design as generating human’s, as well as other beings’ structures of possibility. How space, time, and engagement are imagined in a design therefore becomes a key factor in what ways of living are possible (Escobar, 2018).

In the workshop we wanted to mobilize these key concepts, to invite participants to probe everyday technologies as a way to unveil the values that underpinned their making. Following DiSalvo, we too believe “that revealing alone is not enough because there is no assuredness that transformation will follow.” (DiSalvo, 2021, p. 10) While making things visible is necessary, we must not stop there. We were therefore keen for participants to explore the relationship between values and the impact technologies
are having on society and culture, while also using the workshop an opportunity to suggest that other world’s are possible. *Could we re-imagine our current technologies in a different way? What kinds of products and services might be produced if we started with different value sets to the one’s we design from today? How can we design our technologies to get to the futures we really want?*

To facilitate this process we devised a game for designing digital infrastructures. We were eager for participants to think technology within a wider social, political, and environmental context. The game would, we hoped, ease players into adopting the role of a designer in an imaginative manner, while addressing the theme of decolonizing infrastructures that we aimed to explore together.

![Figure 2 - Reimagining the Now Workshop](image)

**2. Reimagining the Now**

The game, which we titled *Reimagining the Now*, was designed as a custom card set with a large playmat. The deck of cards comprises two categories of card: infrastructure and value. Play is devised in three stages. Stage one is designed to help participants through a process of first deconstructing a current digital infrastructure to critically understand its relational complexities. Stage two invites players to interpret and adopt an under-represented value structure, which in turn serves as the conceptual grounding for Stage three, where players reimagine an entirely new digital infrastructure and the worlds of possibility it brings forth.

For the workshop, we divided the participants into teams of 3-4 players. Each team was given a deck of cards and playmat to work from. Play began by participant groups choosing an existing digital
infrastructure from their deck of cards. The infrastructures they could choose from included google maps, autonomous vehicles, an Alexa, a Nest networked doorbell camera, and Fit Bit, among many others. Teams were then invited to forensically examine their chosen infrastructure through its social, political, cultural and environmental lenses. They worked to imagine and fill in the details, adding their observations and reflections to the playmat under the various critical lenses.

As with any participant research, getting below the surface requires different tactics of breaching and probing people’s latent understandings to get past the familiar and rote first responses we often carry with us. To this end the playmat provides a series of common value prompts and a set of questions adapted from L.M. Sacasas’s ‘Do Artifacts Have Ethics?’, such as ‘What sort of person does the use of this technology make me?’ ‘Does using this technology make it easier to live as if I had no responsibility to my neighbours?’ ‘What practices does the use of this technology displace?’ ‘Does the use of this technology encourage me to view others as a means to an end?’ (Sacasas, 2014). Such questions challenge players to break free of the complacent understandings and passive engagements normally afforded to the ubiquitous objects we surround ourselves with, to open up different ways of seeing the familiar.

Armed with a strong critique of the values and a wider defamiliarized literacy of the intended and unintended impacts of a specific infrastructure, game play moved on to the next stage where a second card was chosen by each team from their deck of Value cards. Set in stark contrast to modernist principles of efficiency, convenience, and progress, this new deck contained a diverse set of under-represented value perspectives from slowness, feminist, indigenous ways of knowing, non-anthropocentric, gift-economy and more. As these values may be less familiar, time was given to the teams to unpack and interpret the new value to provide the context for the final stage of play.

The final stage of play in the workshop required participants to take a conceptual leap and redesign their digital infrastructure from a completely reimagined context – to imagine a world that truly embodied their newly interpreted value structures.
The reimagined infrastructures put forth a range from the pragmatic to the imaginative, but often sit in a place that allows us to see how the choices that have shaped our world could be radically different with even subtle shifts in the values that prefigure them.

Choosing Google Maps and a Non-Anthropocentric value perspective, allowed one group to draw upon a massive range of unconsidered data, using seasonal migration and life-patterns of local flora and fauna as a central consideration for way-finding our cities. The project sat conceptually very close to existing way-finding applications, but routed humans around changing phenological cycles. The group also discussed how the adoption of such a system might even radically reshape our cities, as proposed infrastructures would also be conceived quite differently, opening up corridors for migration and spaces for other-than-human-needs.

Looking to the deeply relational place-, community-, and intergenerationally-based knowledges that ground many indigenous ways of knowing, led one group to challenge the nature of our current decontextualized information-based search engines. They looked at the possibilities in a digital platform that instead gathered members of a community to share contextually situational knowledges through story and fables. Open to interpretation, such stories would serve as the starting point of an active journey to find meaning and ways forward for the searcher.

Challenged with combining communal values and CCTV, one group set out to explore the opportunities and unintended implications in rethinking data as a public commons. Recasting surveillance technologies into the hands of ‘everyone’ opened up a space of investigation to look at what these technologies could offer from small-scale usage for parenting and community life to global-scale real-time monitoring of live events around the world. Another group which drew also drew CCTV, but with the value of queering, designed a ‘Vibe-Check’ DIY body cam and closed-community network that allowed non-
binary persons a communally shared care-perspective of their everyday navigation of heteronormative and queered spaces of the city.

Figure 5 - Forensic investigation of a digital infrastructure

3. Conclusion
An important part of this project was to provide participants with critical and creative tools for imagining what a digital democracy, and the world it brings with it, might look like. We argue that, as digital technologies become embedded in every facet of society, any hope of a digital democracy requires sustained public discourse, imagination, and action that goes beyond an understanding of how digital technologies work, towards a comprehension of the value systems, contexts and consequences of their creation. (Geenfield, 2018; Friedman et al., 2006)

As we pointed out in the introduction, the ambitions of the workshop were twofold: i) To question and deconstruct latent assumptions around specific everyday technologies, highlighting the need for more transparency to these complex systems, and ii) To test out tactics and strategies of dismantling and reassembling digital infrastructures around different value positions, questioning what knowledges and imaginaries are necessary to enable divergence, transformation and change.
Interestingly, many of the imagined infrastructures that we have seen in the project have not tended to venture far into the improbable and, with some shifts in thinking, could sit comfortably in our world. Each of the responses in their own right have allowed us to see more holistic and inclusive paths and shapes for our relationships to each other (not to mention the other-than-human beings we share the planet with), but also show our world to be much less deterministic than we are often led to think.

We believe that the methods and strategies that we employed in Reimagining the Now have real potential to become fertile spaces for building needed critical digital literacies, for contributing to expanding dialogues, engaging materialisms, transforming pedagogies, and projecting alternatives and divergences from what currently exists. Simply put, to re-invent some of the very pillars of our societies will require reimagining not just our structures, technologies, and institutions, but our very ways of knowing, being, and doing. (Winograd & Flores, 1986; Escobar, 2018).

4. References


About the Author:

**Dr. Gillian Russell** is a SSHRC postdoctoral fellow with the Digital Democracies Institute at Simon Fraser University, Vancouver. She works as a designer, curator and researcher whose practice explores how design can be used as a method for actively engaging publics in unveiling present realities and future possibilities. Her work has been featured at the Museum of Art, Architecture and Technology, Portugal, in the Porto Design Biennale, Helsinki Design Museum, Design Museum London, London Design Festival, Milan Furniture Fair and the Victoria & Albert Museum. Gillian holds a PhD in History of Design at the Royal College of Art, London (2017) which was undertaken with AHRC funding in collaboration with the Victoria & Albert Museum.

**Craig Badke** is an Assistant Professor at Emily Carr University of Art + Design, in Vancouver, and has taught undergraduate and graduate studies in ecological literacy, critical/speculative design, design futures, design culture and theory, design research, as well as design studio. His research explores the ways that critical and speculative design can serve as a pedagogical tool for designers and non-designers alike to investigate and navigate the complex networked societal issues we face today, from social justice to our relationship with technology and climate change.