Design fiction, culture and climate change. Weaving together personas, collaboration and fabulous futures

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\textbf{Abstract:} Climate change is one of the most pressing challenges to contemporary lifestyles and future living. We offer a design humanities view on shaping personas to address perspective, narrative and voice through two artifacts: a tiger fish and a nuclear powered narwhal. We ask: How can personas be employed narratively and rhetorically to motivate collaborative meaning making about climate change by different participants in diverse cultural and physical contexts? We draw on two three year projects in southern Africa and the north west European arctic. Two personas are conveyed in a multispecies design fiction ethnography. We connect physical locations and informational resources with modes of co-design and performative enactment in a southern travelling design education studio and a northern nomadic transdisciplinary research team. We weave together our experiences of working through the two personas, fictively and conjecturally to suggest ways of engaging in ‘futures literacies’ via design fiction.

\textbf{Keywords:} Personas, Design fiction, Futures literacies, Climate change

1. Co-creative design inquiry

1.1 Introduction

In the contexts of design, culture and climate change, our professional actions and personal lifestyles are increasingly embedded in practices of making, exchange and consumption. One area open for exploration is how design may be deployed communicatively in cultural terms to offer fresh, challenging and engaging perspectives on climate change and sustainability. In this article we include a series of narrative and performative oriented reflections on how personas may be taken up in communicative, aesthetic and cultural framings of design and their enactments (as opposed to more functionalist ones, such as in interaction design). To realise this we draw on the domain of speculative design (Dunne & Raby, 2013) and its subset of design fiction (Hales, 2013) and design based views on Futures Studies in a frame of ‘future making’ (Yelavich & Adams, 2015) in the systemic cultural context of the Anthropocene (Morton, 2013).

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Speculative design may be understood as a culturally and communicatively framed approach to situated making and reflection. It extends the concerns of the critical and creative into shaping and analysing systemic, meditational, multimodal and contextual framings of designing and interpreting. Design fiction (Bleecher, 2010) centres more specifically on the fictive, influenced by tropes and trends in science fiction (Sterling, 2009a, b). Increasingly humanities inflected experiment with the speculative and fictive in design, such as with narrative, poetics and performativity (Markussen & Knutz, 2013; Knutz, et al., 2013; Morrison, in press), are appearing as imaginative means for critically addressing conceptual and communicative matters of design and culture (Marres, 2012). In the format of an essay on design fiction and climate change, we weave together our individual and shared experiences of working through two communicative and aesthetically framed and situated female personas: Fiscilla (a tiger fish) and Narratta (a nuclear powered narwhal). Below we address two interconnected hermeneutic questions. What role can personas play for motivated and communicative engagement in design education and related research in the complex contexts, dynamics and hyper-saturated mediation of climate change? How can personas be employed to motivate collaborative and aesthetically framed meaning making about climate change by different participants in diverse cultural and physical contexts? The personas have been spawned out of two design research projects at two ends of the physical earth - South Africa and Norway - based in partnered design universities. The personas have been developed as part of wider bricolage (e.g. Rossi, 2013) and relational processes of experiential and experimental design learning on the part of teachers, students and researchers. These processes have included shared actions and representations (Sanders, 2006) - by students and by a research project team - in shaping voices and meditational articulations centring on climate change.

1.2 Methodologically heuristic

Overall, we engage the heuristic fictively and conjecturally in a mode of the ‘fabulous’, drawing on the projection of issues, responses and cultural contexts. We also sought to ground the personas in their two very different climatic and cultural contexts. We did this in order to prompt and support our students, pedagogy, research and outreach to be more present and proactive in working towards more sustainable professional, personal and public futures. We are concerned that ‘fabulous futures’ might be understood as active components in shaping current design cultures (Wood, 2007). They are ones that people might want or aspire towards in developing more sustainable design (artifacts, processes, policies and practices) and they are also ones that we might dream and imagine into being as a means to conceptualising and problematising such processes. Futures narratives and new narratology (Raven & Elahi, 2015), un/natural narrative theory and non-human actors and agency were central to our theoretical and pragmatist framing of the projects (Stengers, 2011).

The dialogical, situated nature of our experiments as ‘glocal’ participatory design (Edeholt & Mainsah, 2014) and multimodal reporting of design-based inquiry is positioned ethnographically. We saw design fiction as an approach to ethnography (Lindley & Dhruv, 2014) but also generated ethnographic knowledge through design fictioning (Morrison, 2016) and doing design research through (new) media narrative (Davis, 2013). The enactment of the two personas may be termed ‘a multispecies ethnography’. For Kirskey and Helmreich (2010: 565) ‘Multispecies ethnography asks cultural anthropologists to reengage with biological anthropology and to take a look at eco- and bio-art (as both allied practices and objects of study) - to craft new genres of naturalcultural criticism.’ This article is one of a set of heuristic reflections on how communicative and cultural framings and performative enactments of speculative and sustainable design might be voiced narratively and multimodally. These are seen as experimental instances as cross-pollinating’ eco-criticism and narrative theory (Lehtimäki, 2013) in a wider view on world making.
2. ‘Climatic contexts’

2.1 Climate change & design futures

To a large extent, such futures education is not concerned with simply providing sharp solutions to immediate problems: it is also motivated to engage with the systemic and discursive in processes of designing and knowing (Morrison, et al., 2011). This implies that we work with a mesh of contexts and choices that need to be assembled, sifted and processed in preferred offerings or possible options, whether in the form of products, interactions or services. Design educators and researchers are themselves enmeshed in the ‘productive’ and transformative character of educating new designers to engage in the changing nature of design in socio-technical and cultural settings, contests and attitudes (Corner, et al., 2012).

How to think about and plan for communication about climate change in a design and cultural frame therefore demands we look critically into the systemic and dynamic character of the legacies and projections of what are in essence more sustainable futures (e.g. Edeholt & Skodvin, 2012). Design has always needed to engage with futures and associated environmental and perceptual arenas (Ingold, 2000). Yet, design as a domain and design fiction too have often been bypassed in Future Studies work, typified by systems approaches from the natural sciences (Rosen, 1985/2012) and cognitivist psychology (Nadin 2015) premised on planning, scenario generation and deliberative approaches to directed outcomes.

More recently, the domain of speculative inquiry has sought to address the contingent and conjectural, not only likely and imminent, futures. This is articulated philosophically in Science Technology Studies (STS) (e.g. Sayes, 2014) and via speculative realism that aims to reconceptualise and relate people and the world, not separate as human and other material. Central is that as humans we are implicated in wider and elaborate events and ‘things’ (Harraway, 2008), climate change being one of these, that are now systematically beyond human control.

2.2 Speculative inquiry & speculative design

Researchers in qualitative inquiry and practice based research have argued that attention is needed to the speculative in how knowledge is constructed and communicated. This refers to ways in which we may work with projected and putative scenarios, elements, material and processes in considering how we know what we do and how that might be translated into alternate contexts beyond our immediate reach and located in near and distant futures. More recently speculative realism (e.g. Bogost, 2012) asserts that what we know and how we know it are entangled.

In design inquiry work Dunne and Raby initiated in the 1990s on critical design, has now been termed speculative design (Dunne & Raby, 2013). The aesthetic, gallery-centred and conceptual design projects and artifacts (e.g. Augur, 2011; Augur, 2013) originating in ‘critical design’ have been critiqued for being art centric and remote from the real world concerns much design faces. In part this argument holds; in part it misses the importance of conjecture in design where the aim may be not to solve but to surmise so as to generate thinking, not simply generate functional objects. Both have a place, we argue. Our view has been to link narrative, design and hybrid culturally and communicatively through constructed multiple species entities in a form of ‘zoonarratology’ (Herman, 2012) that we situated within design fiction (Morrison, 2011). In our work. design fiction moves beyond the ‘multispecies salon’ (Kirsey, 2014) and out into the conditions and conflicts of climate change in two remote environments.
2.3 Personas and design fiction

As the original Latin verb *personare* ‘sounding through’ suggests, the two ‘characters’, Fiscilla and Narratta, were devices that allowed us to collaboratively co-design and critically review ways of speaking through projected, archetypal identities and to articulate issues and discussions around these co-articulated discourses in a frame of narrative world making (Herman, 2013). The personas were generated from within a socio-cultural approach to learning and mediated communication (Morrison, 2010). Personas were framed formally in Greek theatre and literature. They have been central to ways in which we make meaning out of experience and lifeworlds through the projection of a perspective and identity through the mask, character or voice of another. A persona is thus related to a wider cast, and to roles assigned and performed, but also to realisations of performative, discursive exchange. In psychology, such Jung, personas are deployed to facilitate the extension of views of self into voicings of another, into archetypes, as ways to perceive and to pattern understandings of assumed and assigned roles. In narrative theory, personas are widely used in modes of characterisation and points of view. They help distinguish mediational perspectives of author and character narration.

In product design (Miaskiewicza & Kozarb, 2011) personas have been taken up to shift attention away from designer’s work practices to insights and contexts of uptake by potential users. Personas are used in design and marketing to project actual behaviours and to engage and persuade commercial processes of purchase and brand formation. Personas are widely deployed in user experience (UX) in interaction design (Nielsen, 2012), mostly in the computational aspects of Human Computer Interaction (HCI) (Grudin & Pruitt, 2002; Grudin, 2016). Future behaviour is about likely and convergent activity, not putative and off the map actions. The goal is to create better, seamless and congruent experience for the user. This has extended to cross-cultural user-centred analyses in three ethnic communities in Namibia (Cabero, 2016). However, there is still considerable room for views from the human sciences, especially narrative, to provide a more nuanced and culturally framed view of personas and their applicability in speculative inquiry and imaginary and ‘future friends’ (Massanari, 2010) where personas may be understood together in terms of use, aesthetics and participation (McCarthy & Wright, 2015).

Personas have begun to appear in the incipient field of design fiction (e.g. Morrison, 2011) in what might be called a ‘creaturely poetics’ (Pick, 2011). They have been taken up to reach beyond the given every day and to project potential actions and scenarios for alternate futures articulated through characters. A number of near future imaginary personas have been used to projectively frame problems that tie together relationship between locative and embodied technologies and the human subject and urban citizens (Morrison, 2013; Morrison, et al., 2013; Morrison, 2014). In these attempts, the notion of ‘ventriloquy’ has been adopted practically and analytically from the work of Bakhtin (1981; 1984) and more widely from communication studies (Cooren, 2012). This refers to the manner in which a persona may be taken up to speak and present a point of view, by proxy, and through a distanced or intimate voice, depending on the point of view of author/s.

3. Co-scriptings

3.1 Two siblings, two contexts

The two personas, Fiscilla and Narratta, were initially developed independently of one another as part of two design education and design research projects – *C-CAN Futures* and *Future North* - both connected to climate change and design futures. Fiscilla was fostered through a collaborative process
between design teachers and students (Figure 1) within the context of research collaboration between project partners CPUT and AHO. The project aimed to develop new design, pedagogies and research methods to support alternative public discourses about plausible futures for tackling climate change sustainably, such as the use of back casting scenarios as discursive elements (Edeholt & Skodvin, 2012). The primary work of persona development and the pedagogical journey was cultivated in Cape Town and with communities and participants en route from that city to Windhoek, the capital of Namibia. This culminated in an installation and a research presentation at the international Participatory Design Conference in Windhoek (Chisin, et al., 2014).

Figure 1. Fiscilla in development, the design school studio

Figure 2. Narrata conceptualised over group breakfast, Murmansk
Narratta was generated through situated and online collaboration, connected to field work in several arctic cities and journeys (Figure 2), by a transdisciplinary team of researchers and design based studios, courses and events (Morrison, 2016). She was devised to explore, sensorially, informationally and participatively, prospective cultural landscapes of the arctic in the Anthropocene (Morrison, 2017 in press). She connected us to a shared space for imaginative inquiry grounded in our emerging experience and knowledge about climate change, landscape and the arctic.

3.2 Understanding two ‘speaking creatures’

Figure 3. Fiscilla elaborated with mud, Noordoewer

Figure 4. Narratta listens to harbour talk and future potentials
Both personas were based on actual water borne creatures, one a fish the other a mammal, one a predatory and dominant river and lake dweller, the other a shy small whale often difficult to locate and hunted by Inuit communities. Fiscilla served to promote discussion about the past: students travelled up the coast and inland and met with fishing communities and local groups (Figure 3) to discuss how their livelihoods had changed as water diminished. Narratta functioned to bind together researchers and participant communities and students in thinking about future arctic needs and pressures (Figure 4). Fiscilla teased out the past to look with foresight into sustainable design futures on the part of young and emergent design professionals. Narratta prognosticated about the future through the ventriloquising of designer-researchers.

Fiscilla’s views were centred around a physically large form, travelling on trailer over great distances between two cities and countries. Narratta on the other hand was a blog-based online character, able to travel between locations and different temporal planes: past, present and future. Fiscilla - sensorially present in the material environment and connected to people having dialogues around her physical manifestation including elders, children and various stakeholders - differed from the cooler, more remote, cerebral, interruptive persona of Narratta who surfaced unexpectedly. Fiscilla functioned as an embodied artifact (Figure 5), with Narratta being spectral and digitally discursive.

As a speaking and anthropomorphised ‘thing’, Fiscilla was articulated through her contexts of passage and pause and was patently visible; Narratta was invisible as a physical-material artifact, yet had a lively online presence, both verbal and visual and was a speaking subject as a co-researcher. Where Fiscilla was characterised as having few words of her own and worked to generate locative dialogue, Narratta was an elaborate orator and specialist, jumping between contexts, topics and expectations (Figure 6).

We now take up a number of core aspects of design futures in working with design fiction personas in the context of climate change between the two projects and their ‘speaking artifacts’.

3.3 Processes & design fictional futures

Conceptualising: Our work aimed to move beyond flat and given representations, literal views and design solution driven perspectives. Rather it was meant to project a set of intermediary, subjective yet contextualised, personas to work at the level of conceptual articulation. While this was a discursive and co-designed conceptual exploration, it was explicitly also an aesthetic and narrative one geared to engage people in meeting and discussing the personas and their views. This is an alternative to the scenario and strategic explorations typical of Futures Studies inquiry, often predicative and not putative in status.

Characterising: Fiscilla is hunted as a freshwater sport for her fierce fighting spirit, even though a bony fish to consume; Narratta is a formal part of Inuit diet in Greenland and Canada. Fiscilla travelled through drylands, a skeleton made of steel and wood, two metres long, welded and carried across the landscape and onto which people transposed and projected their identities and marks. Children covered her with hand painted mud, various stakeholders stuck post-it notes onto her frame as narrative scales; at the final exhibition she was illuminated with LEDs as a site for discussion and narrative recounting. Narratta spoke directly through her blog-based irruptive utterances, from the pollution of the Kola peninsula and Murmask harbour in north west Russia, to declining fishing towns in northern Norway and into a student expedition and studio in eastern Greenland. A single voice (yet authored by eight of us) she was read by many and presented in numerous research and design settings internationally. Narratta, unlike her southern sibling who allowed people to engage in shaping public discourses in situ on climate change, asserted contradictions to online readers through first and second person address while Fiscilla was a sensorial phenomenologist of sorts.
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Figure 5. Fiscilla exhibited with stories scaled on her frame

Figure 6. Narratta’s blog roll spans artic locations and representations
Narratta was a critical discursive digital entity. Fiscilla travelled the unfamiliar desert, out of water and in motion on a road trip of discussion and dialogue, while Narratta knew and showed what is under the ice, confronting us to acknowledge climate change and the chilling need for action.

Making: Fiscilla was generated through a collaborative process between design 4th year students at CPUT as part of a wider nomadic pedagogy pitched to alter studio based city learning with dynamic journeying across landscapes of climate difficulty (Snaddon, et al., 2017). Unable to hide like Narratta, who was designed and articulated by the team of researchers and motivated much by one project member, Fiscilla was interpreted en route, through students and teachers travelling together, crossing the rapidly shrinking Orange River, leaving a dusty trail in her wake. Narratta, in contrast, was authored in draft blog mode, co-scripted and edited before being published online, or presented at conferences and to related design studio events. Fiscilla was wood, steel, paper, mud and lights made by a large group with a more open and emergent aesthetics. Narratta made use of photography and writing, composed by a much smaller collective and aesthetically tapered to cohere to her critical and self-directed views.

Contextualising: The two personas were realised in different environments and diverse aesthetic sensibilities, relationally framed to contexts and to communicating climate complexity and multiple views to engagement. For Fiscilla, context was generic and systemic. El Nino dries the region drastically every seven years and the land is more arid, putting her species under pressure; Narratta knows how fast polar ice melts and it threatens her shy character (in reality narwhals are reclusive). In terms of context, Face-to-face workshops occurred in the south and online work in the north. They allowed participants to engage productively in voicing key issues in facing up to mounting challenges around building sustainable futures and to developing possible, preferable, potential and putative futures in the context of mineral and resource extraction policies and practices.

Collaborating: Shaping theses personas was interesting in our different settings because it was achieved collaboratively. This involved a variety of design students, cultural backgrounds and experience at CPUT and with stops and consultations on the journey north. In the arctic, Narratta engaged in discussion with researchers, community members and visiting students. Both personas were presented at international conferences and took part in sharing their making and their communicative and discursive practices with wider design education and research communities. Collaboration occurred across areas of expertise, cultures and languages, and moved into and through actual real world settings in the two regions remote from one another.

4. Personas, design & cultures of climate change

4.1 Cultural thematics, design fiction & climate change

The two ‘characters’ operate as mediating artifacts that ontologically differ from earlier multispecies projects (Buchanan, 2008) and the typically non-speaking roles ascribed to non-humans. Design fiction allows this bridge to be made between STS and Futures inquiries (e.g. Harraway, 2016). Our personas present projected identities who push out into the future, performatively and in a mode of being and becoming. Next we outline eight thematics we have abstracted to relate personas to design fiction and the communication of complexity in relation to design and to climate change.

1. Persona and self-reflection: Personas offer a fictive yet materially located means to facilitate self-reflection. You need to turn your eyes inwards to process matter so as to take people into reflecting beyond their traditional cultural modes and thinking about design, their preconceptions and expectations.
2. **Persona and cultural navigation:** Personas may be deployed in one place, on one journey, or across places and times to promote critical thinking and altered perception about subjective, promoted or given views on climate change.

3. **Persona and observation:** By observing through a persona we allow ourselves to free up points of view other than our own or ones we are persuaded or feel obliged to follow.

4. **Persona and saturation:** Participants meeting a design fiction persona may become immersed and saturated with the perspective before them, so that it is possible to empathise with or even to take on the gravity of the message at hand, although his may be critically presented and challenging.

5. **Personas and inscription:** Playful engagement through design fiction centred personas enables a participatory space that may be even allow for the inscription of culturally related matters in context.

6. **Persona and cultural identification:** Matters of emotion and identity, the biological and the conceptual, intersect allowing participants to be open to the purpose, processes and evolvement of the journey, issue, and context.

7. **Persona and conscientisation:** Artistic/discursive aspects may be revealed through speculative inquiry as participants begin to see, relate to and share their understanding of the purpose, context and content of the work and its formative and positional roles.

8. **Persona and expression:** There is a performative and expressive character to the relations between personas and design culture through joint making of an artifact, a process and discussion that comprise shared meaning making as co-articulation.

### 5. Conclusions

Our motivation has been to discuss how spatial narratives - one material in the world and one virtual and online - have been used to develop design pedagogical and public educational discourses on thinking about climate futures. This is akin to ‘reading and writing the weather’ (e.g. Szerszynski, 2010) in the context of mapping climate change and society today (Urry, 2011) but also anticipating design futures (Wood, 2014). Yet, these experiences cannot be simply replicated mimetically but always need to be developed and scaled to context and need, poetically and aesthetically speaking.

Our experimentation has been risky as it deals with the putative and the contingent: we have not known or pre-scripted the unfolding narratives of creation, participation and use. Our project teams have also sought to generate voices and dialogues on climate change and sustainability that are not didactically directive or strident. We wanted to allow participants to relate to the discourses on their own terms, in physical and virtual spaces. We also intended that the speculative design and related discourses would be both informative and persuasive. We see there as being value in other educators, communities and projects adopting similar endeavours.

Our two ethnographic, narrative and performative nomadic design fiction experiments included designing the personas and articulating the characters of two mediating artifacts (c.f. the earlier work of Uexküll, 1934/2010). Selected and shaped to communicate the complexities of climate change we suggest that personas such as these have considerable potential in the speculative end of design research in mediating intricate and challenging topics to diverse publics. The anthropomorphised figures of thinking and speaking ‘things’ is one way design fiction may be taken up.

Design fiction personas are a way to encapsulate and share emotional and psychological responses to climate change and community distress. They allow us to bring forth deeply personal and biographical history to tease out wicked problems in the preparation, analysis, design and delivery of
design oriented futures. As a form of world making, such narratives allow us to move from the particular into general issues and wider pressing demands of designing in the Anthropocene. Even if these offerings are transient and conjectural – fostered to suggest changing attitudes and sustainable thinking to inform sustainable living – our experience has been that design futures lie with our collaborative attempts to mediate complex processes and contexts. Ultimately, collaborative meaning-making about climate change and sustainable living lie also in the imagined actions and literacies of involved students and design professionals as change agents of the future.

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