

# A vehicle for design futures: exploring the experience of driving in the present to inform an inclusive future

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## Designing car futures

In a project between the Helen Hamlyn Centre for Design at the Royal College of Art in London and the Cambridge Department of Engineering, we have explored the space of the possible for the future inclusive human machine interface in vehicle design. A collaboration between anthropologists, psychologists, engineers, vehicle designers and an illustrator, understandings of people's experience of driving in the here-and-now became a scaffold to imagine potential technologies. The process involved a constant interplay across temporalities, disciplines, and perspectives, and so informs the discussion on the methodological and theoretical implications that emerge from ethnographies of the possible.

## Imagining what could be through reactions to what is

At its heart this work is a projection into the future based on responses to current modes of driving and ideas for what could be. We reached out to participants who experience different extreme contexts of driving; amongst others we talked to young professionals in Bangalore who navigate potholes, flooded roads, and chaotic traffic, and elderly drivers in rural Brazil who develop strategies to circumvent long distances and dense highways.

These contexts at the extreme were selected to explore the limits of technology when faced by those who struggle with digital interactions, with the view to identify potential changes that might enable more inclusive design affordances. In each conversation we asked participants about the practices, perceptions and attitudes

currently felt whilst driving, and the challenges they find in each specific scenario. We asked what they hoped for in a world where any car technology was possible, and we asked for their reactions to emerging technologies. Their responses formed the contours of our understanding about what driving is now, and what it could be in a future that accommodates diverse perspectives and abilities.

Based on these conversations, we developed a series of short narratives that focused each time on a different individual in a certain context or scenario. Each narrative had a present storyline that revealed current challenges to the drive, and a future storyline that proposed a reality where new technologies enabled a more accessible driving experience. Present and future were accompanied by illustrations, and depicted in parallel. These stories were then shared to participants in a further round of interviews, and adapted and refined again in turn.

### Shifting roles, shifting temporalities

Across this process was a constant to and forth between anthropologists, participants, engineers, psychologists, vehicle designer and illustrator. The engineers and vehicle designer suggested potential future technologies to share with participants during the interviews. They then drew from the reactions that emerged to develop the future concepts further and establish the extent to which they fulfilled inclusivity criteria. Although oriented towards a temporal future (Otto and Smith, 2013), these disciplines kept a strong grounding in the present.

Meanwhile, participants' reactions to future scenarios and ideas for ideal driving experiences meant that they played their part in design as well. Every interview generated iterations to the narratives, which in turn stimulated further insights in later conversations. Responses extended from the everyday when talking about the present (for instance, how to programme a satnav in a foreign language), to the unusual when talking about the future. This realm of the unusual, however, was always in relation to the familiar; the speculative tethered to the now. Resistance to imaginary technologies, for example, correlated with resistance to current digital interactions.

In turn, the anthropologists led this research and, through understandings from participant interviews, helped to shape driving narratives present and future. We ensured that both storyline and innovations proposed reflected actual experience; that the strange was still framed in human terms. With a focus on not just technology but individual meaning, social experience and personal values, anthropologists' role provided a creative and critical stance in future-making. This involved exposing and maintaining sensitivity to the socio-political implications of new technology concepts (such as how a certain technology might influence changing gender roles), ultimately carving out a space of the possible aware of its impact beyond functional or esthetic design.

All together, engineer, designer, psychologist, anthropologist, participant and illustrator contributed towards the output of the project. Each discipline and participant was grounded in their own reality and field, and yet still part designer, part researcher, part story-maker.

### Implications for design anthropology

When involved in a project about the future, we thus found that, as Ingold and Gatt (2013) note, anthropology was deliberately active, and design was equally open to transformation and improvisation. Anthropology helped make design engaged in a range of potential agencies and perspectives, where the future takes into account imbalances of power between people of different abilities, as well as the implicit socio-political meaning within technology. Individuals who might otherwise have little say in spheres where decisions about the future are made were given a platform; their voice iteratively adopted into the design process, shaping the material artifacts described in our future narratives. And, similar to Gunn and Donovan's (2012) take on design anthropology, this was design *with* anthropology. Neither was simply in the service of each other, nor simply critical (Dourish, 2007), but rather in close collaboration, at times even blurring disciplinary lines.

Temporal orientations were also exchanged and traversed. Designers looked to the present to inform the future, and anthropologists delineated what the future might mean through gaining a grasp on experiences now: both with an orientation to a hopeful possible (Anusas and Harkness, 2014). This dialectic – between future and present, between what's known and what's not, between multiple points of view – was mediated by and constantly rooted in a specific scenario, holding implications for the practice of anthropology when working with design.

In acting as a mediator of multiplicities, each scenario acted as a kind of boundary object (Star and Greisemer, 1989) – or a hybrid design intervention as a form of inquiry (Halse and Boffi, 2014). It was grounded in a narrative based on actual experience, and so scenes in the storyline were not pure speculative fiction but rather a possible future. The narrative brought together multiple perspectives or presents – through amalgamations of responses from participants and disciplinary input – all the while moving between future and here-and-now. This framework was our space for the possible. It allowed us to encapsulate multiple temporalities, perspectives and potential innovations in a single narrative. Similar to how Mazé (2014) describes, in doing so it brought about the potential for not just one but many futures and address the socio-politics implicitly involved. Futures extended from the present to render them imaginable, all the while being open to diverse abilities, meanings and contexts.

Design anthropology thus became a scaffold for the imaginary, identifying what is familiar and what is not, and what they might mean when creating possible futures with a diversity of people. The act of anthropology is still rooted to its disciplinary traditions. But it reaches out to include the use of design as part of the research method, a collaboration that is multi-disciplinary, participatory, and iterative, and a temporal orientation that's not just in the past, the present and the familiar, but that jumps to the possible betwixt and between the strange, the speculative and the future.

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