

# Design Fiction as a service design approach

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## Abstract

Many of the techniques service designers currently use to represent their ideas in the conceptual phase of their design process, such as service blueprints or customer journey maps, are rather abstract, static and schematic. While this might be valuable from an analytical, high-level perspective, such representations do not address the full contextual, emotional and spatial-temporal richness of real-life services. This paper argues that design fiction, because of its focus on telling stories about possible implications of new and emerging technologies, could have the potential to address this particular issue early on. While design fiction is currently mostly associated with more ‘underground’ design domains, such as speculative design and critical design, its principles might also be applied to service design, to visualize, explore and probe potential service scenarios already in the beginning of a design process.

**KEYWORDS:** Service prototyping, design fiction

## Introduction

Being rooted in and evolved from rather technical, business-oriented domains as management and marketing (Shostack, 1982), it may not come as a surprise that many of the representations currently used in service design, are quite abstract, static and schematic. Typical techniques such as touchpoint matrix, service blueprint, customer journey map and business model canvas, all display a strong degree of logic and order, as reflected in their graphic representation, which is basically made up from layers, boxes and arrows. By filling these boxes, organizing them into layers and drawing arrows between them, a service designer is able to create a conceptual map of the intended service.

However, while such schematic visualizations might be valuable when creating an overview of high-level relationships between different parts or stakeholders of a service, they fall short when it comes to exploring and communicating its intended experience as a whole. Services, which can be considered as sequences of multiple service moments (Koivisto, 2009) over time, each involving the use of the service in a specific context, thus call for approaches and

techniques that are less abstract and more holistic, situated and experiential (Blomkvist & Bode, 2012).

## Design Fiction

In recent years, design fiction (Bleecker, 2009) has been establishing itself as a new perspective on design. Rather than using it in the traditional way, as a practice to converge to a possible solution for an existing problem, it applies design as an instrument to generate awareness, raise concerns or challenge values about (the use of) new, emerging and future technologies, products and services. At its core, design fiction is about storytelling through and with designed objects. The stories provide context and meaning and bring people and social elements together to the stage, while the objects represent possible ways in which the envisioned technology, product or service is embodied and used. Design fiction is mostly firmly rooted in the here and now, but adds a layer of (near) future to that, thus blurring the boundaries between realism and fiction.

The designed objects in design fiction are being referred to as ‘diegetic prototypes’ (Kirby, 2010), which implies that they are embedded into and consistent within the world of story, even though they might not (yet) exist in the real world. Instead of being just props for decorating the stage, they play an active and integral part in the narrative. One could even argue that in a design fiction, diegetic prototypes are the story’s protagonists and that the scenes of which the fiction consists, should be therefore be constructed in such a way that the audience is able to identify with ‘them’.

So far design fiction has been mostly associated with the more ‘underground’ domains of speculative design and critical design (Dunne and Raby, 2013), where it is being used as a catalyst to start a discourse about the desirability of a new product or to open up a discussion about the social implications of a new technology. As a consequence, the diegetic prototypes used in these cases are not designed with the intention to be outcomes in their own right, but rather as provocations or stimuli, which should trigger and activate people to deliberate their ideas concerning the future.

Recently, design fiction has been related to other, more mainstream design domains, such as design ethnography (Lindley et.al. 2014), design anthropology (Kjærsgaard & Boer, 2015) and sustainable design (Ilstedt & Wangel, 2014), not so much with the intention to speculate about possible consequences, but rather as an instrument to probe, explore and generate possible design solutions. So what if the speculative character and narrative principles of design fiction and diegetic prototypes would be applied to service design as well?

## Contribution to service design

Because of its inherent narrative structure, level of realism and situatedness, design fiction could offers service designers an instrument to explore and probe new types of services made possible by emerging and future technologies. As many of these emerging technologies are researched and developed in consortia that consist of technical, industrial, academic and societal stakeholders, intensive communication and collaboration on social and ethical issues in the early stages of development are crucial. Service designers could take the lead in this by

creating design fictions as means to initiate and facilitate constructive dialogue and align collective action.

While design fiction can have various manifestations, it is most often represented through film or video. Because of its visual richness and intrinsic narrative structure, film provides the possibility to merge the richness of today's everyday life with the possibilities of the near future in a believable and compelling way. Having at its disposal an extensive pallet of cinematic and post-production techniques, film also allows for staging situations that are too complex to physically prototype or to make experiential. Thus design fiction enables service designers to make people experience future services as if they are already here.

Using film or video to visualize services that are based on emerging and future technologies, however, is not a new phenomenon. Especially large technology companies have since long a tradition to showcase their future vision through film, the best-known examples probably being Microsoft's Future Vision (2009) and Corning's A Day Made of Glass (2011). These type of films, however, typically show an idealized and utopian world, in which people interact fluently and effortless with large amounts of data through the use of interactive applications. Coming from technology companies, it is not surprising that the narrative is mainly directed at demonstrating the superiority of the technology, how well it is integrated into its context, how easily it can be operated and, in particular, how positively it contributes to people's lives and to society. In terms of cinematic quality, the focus is clearly on bringing out the innovative and positive character of the technologies and their seamless integration into a futuristic, yet recognisable world. There are hardly any storylines, plots, dialogues, emotions and no conflicts or hints to any social meanings or implications that might distract. To support that, the production value of the video is high: crisp images, smooth camera movements, engaging music, detailed interface designs and seamless video effects, all contributing to a vision that should reflect the high-tech image of the company.

What would distinguish a design fiction video from these full-fledged productions, are its inherent speculative character as well as its emphasis on exploration and discussion of human issues and social implications. Rather than showing blue-sky scenarios that are precisely detailed, design fiction opens up the possibility to quickly generate and stage, early in a design process, possible service scenarios without the need for a detailed analysis or sophisticated production means. Furthermore, the aim of the video would be to stir discussion about its use rather than demonstrating its potential greatness. By taking a critical stance towards its use, service designers could start a dialogue about its pros and cons in an engaging, but also thought-provoking way.

## First explorations

As a first step in exploring and validating the value of design fiction as a service design approach, its principles were applied within an educational context. As part of a Bachelor course on the use of film as a design tool, teams of four industrial design students were given the assignment to create a design fiction video of 3 to 4 minutes, which should tell a story about the envisioned use and impact of a future service. To start them off, they were provided with an overview of emerging consumer and technology trends, based on which they should develop their service, including designs of and interactions with any interfaces or touchpoints that would be part of it. Their video should then subsequently demonstrate how the service would be integrated into people's daily practices, showing both positive and negative consequences.

In total 18 videos were produced, covering a range of emerging trends and technologies, such as self-quantification, virtual reality, holographic projection and contactless payment. Since resources were very limited, all videos were situated in real everyday contexts, without the use of trained actors, special equipment or staged settings. Apart from the objects (diegetic prototypes) that were designed by the students, almost no modifications to the existing situations were being made during the production phase of the video, resulting in a high degree of realism. By applying techniques such as motion tracking in the post-production phase, interfaces and touchpoints were subsequently mapped on the designed objects or other elements in the existing world. Thus, using relatively simple means, several engaging stories were produced, in which present and future are blended to create somewhat disruptive, yet believable situations. Figure 1 shows screenshots from one of the videos, displaying a range of interactions with different touchpoints of a service made possible by new payment technology.



**Figure 1** The AllPass, a short design fiction exploring the use of new payment technology

Although the main objective of this exercise was to hone the students' video skills, it also did provide some initial insights regarding the potential of design fiction as a service design approach. Creating a design fiction required the students to consider their concept as a whole, right from the start up until the end of the exercise. By using a story as the driving and binding element in their process, they seemed to be able to keep a holistic overview of the product or service they were envisioning, while at the same time have the capability to review and design it on its different levels of detail. Except for storyboards and sketches of interfaces or touchpoints, no other visual representations of the final outcome were used in the process, the whole experience thus being constructed by creating a story around one or more diegetic prototypes, followed by acting out and refining it over time and in context. More attention for exploring and showing possibly negative aspects of the services would have been beneficial, however, since the students tended to focus primarily on their positive implications.

## Conclusion

In this paper we have introduced and discussed the possible potential and application of design fiction as a service design approach. It has been argued that because of its core principle of telling stories through diegetic prototypes, design fiction could be a new and innovative way for service designers to explore and define new services in a contextually rich and holistic way in the beginning of a design process. Some first insights about its applicability have been acquired by studying its use in an educational setting. While

acknowledging that these insights are not yet solid enough to draw any firm conclusions, they do seem to suggest that design fiction can become a valuable addition to a service designer's toolkit.

However, design fiction itself is as a design approach still in its infancy, thus lacking as of yet any formal methods or techniques. More research is therefore needed to identify how and to what extent it should be adapted to fit the particular requirements of a service design process. It is hoped that this paper provides a first step towards that goal.

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