Abstract: Critical Design and Design Fiction are both future-oriented activities, whose aim is not just to create products but even more ideas, to imagine possible futures. Design Fiction, in particular, is about building a near future world and exploring the possibilities and consequences of today’s emerging technological research as catalyst for a change. One of the most worrying effect of technology advance is about privacy: individuals, often unintentionally, sacrifice their privacy to provide information about themselves. And the privacy issue will be concern even our body. “Blackbox” is a real narrative device from a near future world. It has the ability to trigger processes of processing, interpretation, understanding and recollection of experiences, events, facts. It keeps safe the same way the memories and the most secret memory. Digging this dystopic scenario we can trace the path of alternative worlds, raising awareness on our future(s).

Keywords: Design Fiction, Future, Privacy, Artificial Intelligence

1. Introduction

If Design is about shaping things; Critical Design is about shaping how things could be. The term Critical Design was first used in Anthony Dunne’s book Hertzian Tales (1999). Anthony Dunne, with Fiona Raby, founded a London-based design studio in 1994, and their practice is centered on Critical Design, a critical theory approach to design.

In Dunne & Raby’s words

“Critical Design uses speculative design proposals to challenge narrow assumptions, preconceptions and givens about the role products play in everyday life”, that’s why we also refer to critical design projects as speculative design. But what means critical? The critical sensibility, at its most basic, is simply about not taking things for granted, but to question and look beneath the surface”.

So Critical Design is a form of social research, and its primary intended outcome is knowledge.

Design as critique has existed before under several guises. Italian Radical Design of the 70s was highly critical: at this time of global revolution and change, artists and designers felt that the world didn’t deserve new architecture and new designs and so produced things like Superstudio’s Continuous Monument: by extending a single piece of architecture over the entire world they could “put cosmic
order on earth”. Or the experiences of Walter Pichler like the TV-Helmet (Portable living room) of 1967: a submarine-like white helmet where the head of the user disappeared into a futurist capsule, focusing him on a screen.

It doesn’t merely formally anticipate the cyber glasses developed decades later, long before the “virtual world” was even discovered. So these are examples of early critical design projects, since they speculate and in certain cases even anticipate.

But what is it for? Mainly to make us think, but also for raising awareness, exposing assumptions, provoking action, sparking debate, even entertaining in an intellectual sort of way, like literature or films. A recent example is the Dunne and Raby’s project “Technological Dream Series No 1: Robots”: a series of artifacts that don’t look like robots but they are, and that’s the point. The idea here is to challenge your assumption of robots, to try and disrupt that overwhelming image of robots.

Therefore the aim of critical design is not just to create products but even more ideas, to design objects that tell stories, even by themselves.

Another approach that uses design in order to explore and critique is Design Fiction. The term design fiction was coined by Bruce Sterling in 2005 but it was Julian Bleecker, artist and technologist, in his 2009 essay that established the idea.

Design Fiction is “a conflation of design, science fact, and science fiction” (Bleecker, 2009), “not to show how things will be but to open up a space for discussion” (Dunne & Raby, 2013). Another definition of Design Fiction is the “deliberate use of diegetic prototypes to suspend disbelief about change” (Sterling, 2012). Diegetic prototypes are an approach to design that speculates about new ideas through prototyping and storytelling.

But how can science fiction be a participant in the practices of science fact? Science fiction can be understood as a kind of writing that, in its stories, creates prototypes of other worlds, other experiences. Designed fiction objects are part story, part material, part idea-articulating prop, part functional software. They come from near future worlds. They are like artifacts brought back from those worlds in order to be examined, studied over.

Therefore “Critical Design” and Design Fiction are a future-oriented activities, whose aim is not just to create products but even more ideas, to imagine possible futures.

2. Methodology

The approach used in the research is the one of anticipation design, a cognitive process of projecting information available in the present into the near future to orient choices and action.
The futurologist Stuart Candy describes different kinds of futures. Probable Futures have to do with what should happen, Plausible Futures are about what could happen and Possible Futures could be almost everything (since few things are impossible). But in between Probable and Plausible Futures, Candy locates the Preferable Futures, the space where affirmative design should act, the kind of future people really want to achieve.

But in the Plausible Futures there’s a bubbling of scenarios where Critical Design and Design Fiction work. Inside this framework a scenario has been built with the tools of forecasting and what ifs.

The scenario is set in 2050: there will be significant improvements in biomedical research, artificial intelligence, nanotechnology, space exploration and human augmentation. A $1000 computer is 1000 times more powerful than the human brain. A manned mission to Mars has been successfully completed thanks to the first man to ever step on Mars.

Giuseppe O. Longo talks about people born in the next future as “Symbionts”: biotechnological hybrids, man integrated with technological prosthesis. That’s why we referred to this scenario as the Symbiotic Era: there’ll be people so addicted to technology that sometimes will led to a parasitic relationship. Microchips are embedded in nearly everything and Ubiquitous Computing is really in every object, like our clothing, our walls, our furniture, integrated into our daily life and connected to everything, yet invisible to the human eye.

3. Results

In science, computing, and engineering, a black box is a device, system or object which can be viewed in terms of its inputs and outputs, without any knowledge of its internal mechanism. But it may even refer to a flight recorder, an electronic recording device placed in the aircraft which collects all the data of the flight, including the conversations of the pilots.

We record our lives all the time and retrace our memories through technological devices. The memories are shared continuously, the intimate space is empty and what is private becomes public and available to everyone. In an age where everything is recorded and in which man’s memory is aided by platforms and devices there will be the need to build an individual apparatus, unique and private where we can store our secret and keep them safe.
Blackbox is a narrative device with an Artificial Intelligence core. Like all narrative devices this has also the ability to trigger processes of processing, interpretation, understanding and recollection of experiences, events, facts. It’s a robot: that is an artificial intelligence device with functions like speech recognition, learning and problem solving. It doesn’t look like a robot, but that’s the point. Blackbox keeps safe the users’ memories and it is accessible only through a personal key that works like a QRcode and consists of a UV ink tattoo, invisible to the human eye but sensible to the ultraviolet light.

Every side of the box has a specific function. On the front there’s a microphone (input component), for the speech recognition and a led bar (output component), that gives a feedback when the machine is talking. There’s also a “living surface”, a pulsing surface that gives the impression that what we have in front of us is a living organism, enhancing the possibility to build a deeper emotional relationship with the machine. On the back there’s a speaker (output component) through which the user can listen to the robot.

On the right side there’s a camera (input component) for taking pictures, a thermal printer for printing the recorded photos and a UV lamp for highlighting the tattooed key on the user’s arm and for getting access to the box. On the left side there’s the viewfinder (output component) for taking pictures.
But how do we access our memories that we stored in our lives? From the top, where we have combination wheels (input component) through which we can set the date of the specific day we want to access the memories.

Below the box there’s an element that has a double function: works as a wireless charger (inductive coupling) and contains the data. It’s the storage memory and it’s removable, so that you can bring it with you (preventing the access from strangers). But also you can decide to destroy it or leave it as an inheritance to your family, leaving them a sort of memory of yourself.

Therefore, the Blackbox project is part of a future scenario and futuristic and dystopian vision of the world. It is a personal item designed to be set in a fictional company, fictitious, undesirable and frightening. One of the most worrying effects of the technological evolution is about privacy. There are many online technologies and practices that people adopt to share text content, images, videos and audio. In this space the individual, often unintentionally, is sacrificing his or her privacy to provide information about himself or herself. And the privacy issue is concerned on our body, since it is the source of our personal identity: the unity of body and mind would be altered by fictional prosthesis that, for instance, could alter the capacity of our memory. Digging this dystopic scenario we can trace the path of alternative worlds, raising awareness on our future(s).
References

Antonelli, P. (2008). Design and the Elastic Mind. New York: Museum of Modern Art.

Bleecker, J. (2006). ‘EKO’s and Theory Objects, or — Why Do I Blog This?’. Near Future Laboratory, 31 January. From http://www.nearfuturelaboratory.com/2006/01/31/ekos-and-theory-objects-or----why-do-i-blog-this/

Bleecker, J. (2009). ‘Design Fiction: A short essay on design fact and fiction’. Near Future Laboratory, 17 March. From http://www.nearfuturelaboratory.com/2009/03/17/design-fiction-a-short-essay-on-design-science-fact-and-fiction/

Bleecker, J. et al. (2010). ‘Design Fiction: Props, Prototypes, Predicaments Communicating New Ideas’. Panel at South by Southwest Interactive, Austin, TX, 13 March. From http://audio.sxsw.com/2010/podcasts/031310i_designFiction.mp3

Candy, S. (2006). ‘The Future of Futurism’. The Sceptical Futuryst, 3 July. From http://futuryst.blogspot.com/2006/07/future-of-futurism.html

Candy, S. (2008). ‘Object-oriented futuring’. The Sceptical Futuryst, 2 November. From http://futuryst.blogspot.com/2008/11/object-oriented-futuring.html

Cuarón, A. (dir.) (2006). Children of Men (Motion Picture). Japan/United Kingdom/United States: Universal Pictures.

Dunne, A. (2006) Hertzian Tales: Electronic Products, Aesthetic Experience, and Critical Design. Cambridge, MA: MIT Press.

Dunne, A. and Fiona, R. (2013). Speculative Everything. Design, Fiction, and Social Dreaming. Cambridge, MA: MIT Press.

Imbesi, L. (2012). Design Comes Out of Industry. New Critical Approaches for Design in the Economy of Post-Production. In: Cumulus Working Papers 27/11, Paris– Sèvres, Publication Series G. Helsinki: Aalto University, School of Arts, Design and Architecture.

Imbesi, L. (2008). Ethics Become Sexy! A critical approach to Design for the right to access to aesthetics and technology in the knowledge society. In: Cipolla, Carla. Peruccio, Pier Paolo (edited by). 2008. Changing the Change. Design, Visions, Proposals and Tools. Proceedings. Torino: Allemandi.

Kubrick, S. (dir.) (1968). 2001: A Space Odyssey (Motion Picture). United Kingdom / United States: Metro-Goldwyn-Mayer.

Manzini, E. (2015) Design, When Everybody Designs. Cambridge, MA: MIT Press

Miller, G. (dir.) (1979). Mad Max (Motion Picture). Australia: Kennedy Miller Productions.

Norman, D. A. (2013). The Design of Everyday Things. Basic Books.

Norman, D. A. (2009). The Design of Future Things. Basic Books.

Spielberg, S. (dir.) (2002). Minority Report (Motion Picture). United States: 20th Century Fox / Dreamworks SKG.

Sterling, B. (2005) Shaping Things. Cambridge, MA: Mediawork / MIT Press.

Wachowski, L. and A. (dir.) (1999). The Matrix (Motion Picture). United States: Silver Pictures / Village Roadshow / Warner Brothers.

Welles, O. et al. (1938). ‘The War of the Worlds’. CBS radio drama broadcast 30 October.

Wired magazine, ‘Found: Artifacts from the Future’, monthly back-page feature. [Collected online at http://futuryst.blogspot.com/2008/09/compleat-wired-future- artifacts-gallery.html]