DESIGN FOR NEXT

Proceedings of the 12th
European Academy of Design Conference.
Sapienza University of Rome, 12-14 April 2017
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edited by
Loredana Di Lucchio, Lorenzo Imbesi, Paul Atkinson

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Contents

EDITORIAL

SV **Conference track contents**

SXXV **Foreword** *Paul Atkinson*

SXXVI **Introduction: Designing a Design Conference** *Loredana Di Lucchio, Lorenzo Imbesi*

SXXVIII **Keynote speakers**

SXXIX **About**

SXXX **People**

SXXXII **Conference Tracks & Track Chairs**

S1 **Design for Next Challanges** *Loredana Di Lucchio*

S9 **Design for Design** *Lorenzo Imbesi*

CONFERENCE TRACK CONTRIBUTIONS

S16 **Design for Next Aesthetics**

S411 **Design for Next Economy**

S732 **Design for Next Education**

S1558 **Design for Next Environment**

S1978 **Design for Next Health**

S2592 **Design for Next Industry**

S2858 **Design for Next Society**

S3643 **Design for Next Technology**

S4171 **Design for Next Thinking**

S4671 **Workshops**

S4726 **Posters**

DESIGN FOR NEXT TECHNOLOGY

S3643 **A data-driven approach for understanding Open Design. Mapping social interactions in collaborative processes on GitHub** *Massimo Menichinelli*

S3659 **A Framework for Capturing Creativity in Digital Fabrication**
Georgi V. Georgiev, Iván Sánchez Milara, Denzil Ferreira

S3669 **A Heuristic for Improving Transmedia Exhibition Experience**
Vashanth Selvadurai, Claus Andreas Foss Rosenstand

S3683 **A study of the relationship between personalised 3D printed 'Souvenirs of Place' and public perception of modern architectural heritage.** *Samantha Forster, Katherina Vones, Constantia Anastasiadou*

S3696 **Adopting the Unknown through the Known Supporting user interaction of non-idiomatic technologies in exhibitions through known idioms of conventional technologies**
Peter Vistisen, Claus Pertou Østergaard, Rameshnath Kala Krishnasamy

S3707 **:Blackbox: A Design Fiction research project**
Alfonso Tiberio, Lorenzo Imbesi

S3713 **Collaboration and exchange between "Craftsman" and "Designer": Symbiosis towards Product Innovation.** *Handan Temeltaş*

S3724 **Conceptualising Kinaesthesia – Making Movement Palpable**
Lise Amy Hansen, Wendy Keay-Bright, Damian Milton

S3735 **Crafting the Digital: Developing expression and materiality within digital design and manufacture** *David Grimshaw*

S3749 **Design and Planned Obsolescence. Theories and Approaches for Designing Enabling Technologies.** *Matteo Zallio, Damon Berry*

S3762 **Design problem analysis and process. A case of technology-augmented problem decomposition in analysis and understanding of public space** *Awoniyi Stephen*

S3776 **Design Thinking Applied to Data Storage Innovation: A Case Study**
Maliheh Ghajargar, Giulio Mangano, Alberto De Marco, Roberta Giannantonio

S3789 **Designing The "Next" Smart Objects Together With Children**
Seçil Uğur Yavuz, Nitzan Cohen, Roberta Bonetti

S3801 **Designing the Next Generation of Connected Devices in the Era of Artificial Intelligence**
Alexander Schurig, Colin George Thomas

S3811 **DIY: polar fleece as a new material for handmade artefacts.**
Beatrice Lerma

S3824 **Effect of Digital Age on the Transmission of Cultural Values in Product Design**
Betül Aybala Çakmakçıoğlu

S3837 **Empathy Workshop: When Project team and Pilot Users Exchange Experiences**
Maliheh Ghajargar, Lucia Longo, Eleonora Gargiulo, Roberta Giannantonio

S3849 **Fiction and Physicality: a designerly approach towards complexities of emerging technologies** *Yeup Hur, Miriam Sturdee, Migeul Bruns Alonso, Panos Markopoulos, Jason Alexander*

S3863 **Flying with data: Openness, forms and understanding.**
Nick Dulake, Ian Gwilt

S3873 **From Design for One to Open-ended Design. Experiments on understanding how to open-up contextual design solutions** *Francesca Ostuzzi, Lieven De Couvreur, Jan Detand, Jelle Saldien*

S3884 **From respect to change user behaviour. Research on how to design a next generation of smart home objects from User Experience and Interaction Design** *Yichen Wu, Margherita Pillan*

S3899 **Humans, Machines and the Design Process. Exploring the Role of Computation in the Early Phases of Creation** *Philippa Mothersilla, V. Michael Bove Jr.*

S3914 **Interaction design applications for museum spaces. New exhibit paths driven by a Bluetooth sensor's system** *Claudio Germak, Sara Khan*

S3925 **Interaction design for cultural heritage. A robotic cultural game for visiting the museum's inaccessible areas.** *Germak Claudio, Giuliano Luca, Lupetti Maria Luce*

S3935 **Interface and Data Biopolitics in the Age of Hyperconnectivity. Implications for Design** *Salvatore Iaconesi*

S3945 **Jamming as a design approach. Power of jamming for creative iteration** *A. Tece Bayrak*

S3954 **Lifelogging in User Experience Research: Supporting Recall and Improving Data Richness** *Mattias Arvola, Johan Blomkvist, Fredrik Wahlman*

S3966 **Making and Unfinishedness: Designing Toolkits for Negotiation** *Michael Smyth, Ingi Helgason*

S3975 **Museum Experience Design: A Modern Storytelling Methodology** *Federica Dal Falco, Stavros Vassos*

S3984 **My Boy Builds Coffins** *Gianni Denaro, Lorenzo Imbesi*

S3996 **Research through provocation: a structured prototyping tool using interaction attributes of time, space and information.** *Jaime Rivera, Tom MacTavish*

S4009 **Rethinking the Role of Design within the Technological Advancements in Biomimetics and SynBio** *Toufic Haidamous*

S4019 **Silk Road: A Reference. Creating public architectural intervention in the context of education & technology.** *Marcus M. Farr*

S4038 **Speculating the Possibilities for Remote Collaborative Design Research. The Experimentations of a Drawing Robot** *Catherine Normoyle, Rebecca Tegtmeyer*

S4052 **Technological Research and Invention In The Industrial Design** *Mario Buono, Sonia Capece*

S4065 **Textile Connections E-textiles to enhance connectedness for older adults experiencing loneliness** *Sara Nevay, Christopher S.C. Lim, Gary Gowans*

S4076 **The cocktail party effect. An inclusive vision of conversational interactions** *Isabella Loddo, Dario Martini*

S4087 **The future of print design relies on interaction** *Marco Neves*

S4101 **The Map As An Object of Service Design** *Qian Sun, Hyunyim Park*

S4120 **'The Robots are Coming!': Perennial problems with technological progress** *Paul Atkinson*

S4132 **TXD. From Traceability to Experience Design in Fashion Accessories Production.** *Elisabetta Cianfanelli, Gabriele Goretti*

S4146 **Using Design Fiction to Inform Shape-Changing Interface Design and Use** *Miriam Sturdee, Paul Coulton, Jason Alexander*

S4158 **When Your Toaster is a Client, how do you design? Going Beyond Human Centred Design** *Leon Cruickshank, Nina Trivedi*

About

Sapienza University of Rome, which was founded in 1303 by Pope Boniface VIII in Rome, with its 115,000 students and 4.000 professors and researchers, is one of the oldest universities in the world and a top performer in international university rankings thanks to the 63 Departments organized in 11 Faculties that drive high levels of excellence in several fields of knowledge.

The Department of Planning, Design, Technology of architecture (PDTa), within the Faculty of Architecture, manages the Research and Didactic activities in the field of Design in Sapienza.

The Design Degrees in Sapienza are:

- the Bachelor Degree in Industrial Design (taught in Italian);
- the Master of Science in Design and Visual and Multimedia Communication (taught in Italian);
- the Master of Science in Product Design (taught in English).

Moreover, an interdisciplinary PhD Program in 'Planning, Design, Technology of architecture' is managed by the Department PDTa offering 12 positions per year.

The Design Research is supported by two University Laboratories:

- Sapienza Design Factory (SDF), focused on Product Design for Industry 4.0;
- Photomedialab, focused on Communication Design.

The **European Academy of Design** (EAD) was formed to promote the publication and dissemination of research in design through conferences hosted by different educational institutions in Europe and the publication of proceedings, newsletters and a journal. It was also formed to improve European wide research collaboration and dissemination.

The EAD was formed in 1994, to improve European-wide research collaboration and dissemination and to promote the publication and dissemination of design research.

The Academy is headed by a committee of leading academics from across Europe, as well as from North America and Australia.

To date, the Academy has hosted twelve international conferences.

Since 1997, The Design Journal had been published in association with the European Academy of Design. This refereed journal, published four times each year, provides a platform for the dissemination of design thinking and research. It aims to encourage discussion across traditional boundaries between practice and theory, and between disciplines defined by working media, materials and areas of application.

The Academy also publishes the proceedings of its conferences.

Membership is open to all of those interested in design research, whether academic, student or practitioner.

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:Blackbox: A Design Fiction research project

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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 this 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 doesn'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.

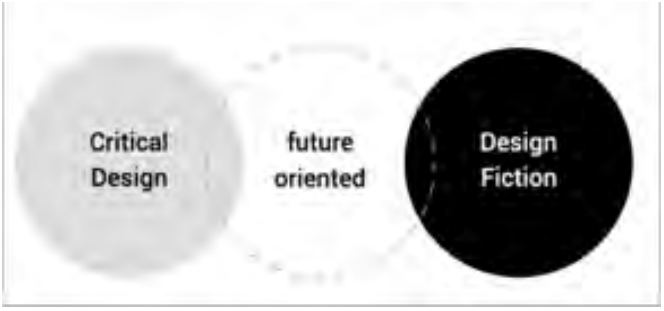
Therefore the aim of critical design is not just to create products but even more ideas, is to designed objects that tell stories, even by themselves.

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.

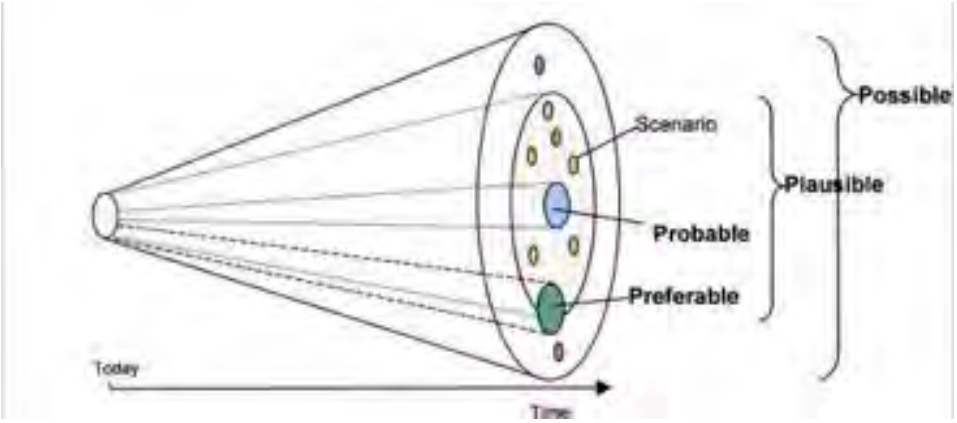
Therefore "Critical Design" and Design Fiction are a future-oriented activities, whose aim is not just to create products but even more ideas, to imagine possible futures.



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.

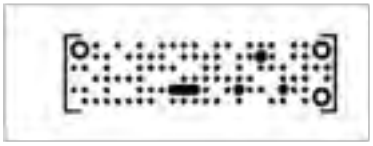
Giuseppe O. Longo talks about people born in the next future as "Symbionts": biotechnological hybrids, man integrated with technological prosthesis. That's why we referred to this scenario as the Symbiotic Era: there'll be people so addicted to technology that sometimes will led to a parasitic relationship. 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.

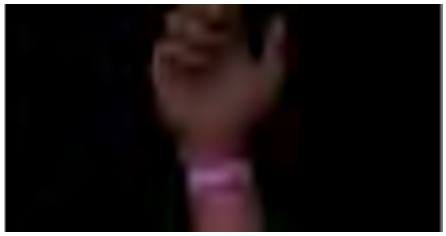
3. Results

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.





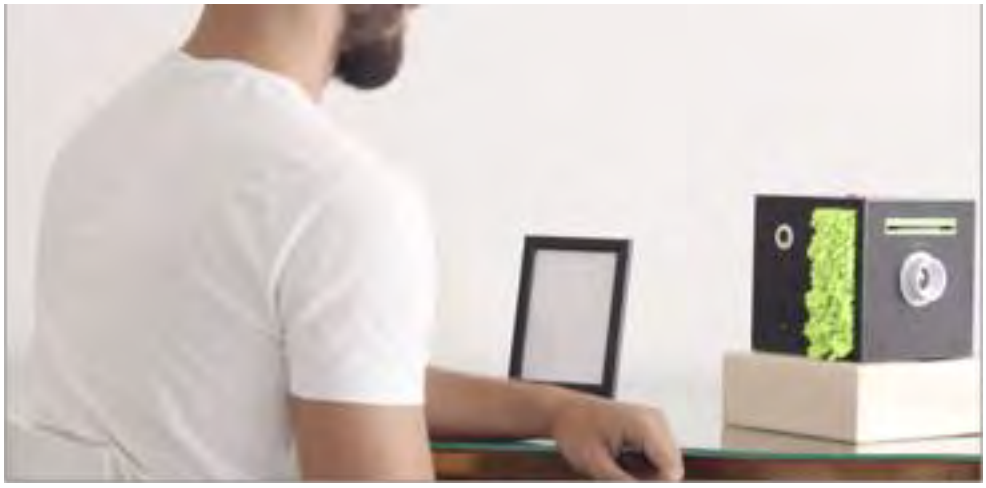
Every side of the box has a specific function. On the front there's a microphone (input component), for the speech recognition and a led bar (output component), that gives a feedback when the machine is talking. There's also a "living surface", a pulsing surface that gives the impression that what we 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) trough 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 sacrifying his or her privacy to provide information about himself or hersself. 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).



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