Interplay between UCD and design management in creating an interactive platform to support low carbon economy

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TESS (Towards European Societal Sustainability) is a three-year research project receiving funding from the European Commission to study the potential for community-led initiatives to help deliver a low carbon, sustainable future. More specifically, TESS is interested in how existing initiatives (e.g., projects working with renewable energy, car sharing, community farming, ...) can be evaluated and supported in order for them to scale up and have wider societal impact. An interactive platform to connect the project stakeholders (researchers, industry, government, NGOs) is one of the key components of TESS.

This paper documents the interplay between user-centred design and design management in creating this platform. In particular, the author organized a series of workshops where theoretical approaches and techniques from both user-centred design and design management have been applied to design an early-stage prototype of the interactive platform.

The research question behind this paper is: How can design management complement user-centred approaches in the early stages of the design process?

The paper will show how adopting a design management approach helped the participants of the workshops in broadening their perspective. In particular, through a design management lens, participants could reflect upon organizational and economic constraints of the project and thus refine their first prototype of the interactive platform for TESS.

Keywords: user-centred design; design management; personas; low carbon economy; EU-funded projects.
Introduction

This paper reflects upon the outcomes of some design workshops I initiated and facilitated within the scope of TESS (Towards European Societal Sustainability), a three-year EU-funded project in the area of sustainability started in 2013.

TESS targets the following questions: (a) How can innovative, grass-roots green initiatives lead to the transformational changes required to meet stretching carbon targets and wider community objectives? (b) How can the wider emergence and success of such initiatives be supported?

In order to explore these questions, TESS seeks the active participation of a wide range of community-led initiatives (e.g., projects working in the areas: renewable energy, car sharing, community farming, recycling, building cycling tracks, compensation of CO2 emissions...). As highlighted in TESS’ first press release:

“Participant initiatives can expect:

- An Internet mapping platform to register and promote their initiative to funders, partners and other communities;
- Support with assessing their current and potential environmental and socio-economic impacts;
- The opportunity to network with and learn from other socially or technically innovative projects across their country and wider Europe;
- The ability to contribute to shaping policies that support community-led sustainability; and
- Access to other influencers at local, national and European level including policy makers, researchers and the media.”¹

Whilst specifically addressing the community-based initiatives, TESS is also oriented to other stakeholders (Freeman & Reed, 1983; Freeman, 2010), which – in a broader view – affect or are affected by the work of these initiatives: local, national and international policy makers and government bodies, industry, research institutions and general public. For example, TESS takes into consideration that community-based initiatives might need the strategic support of policies and government actions, or might benefit from the interest of industry, or might want to team up with

¹ Press release produced in December 2014, by the TESS consortium.
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academia on joint projects. The needs and the interests of the grass-roots initiatives oriented towards low carbon economy and their potential to scale up or out and have a greater impact are strictly entangled with the agendas and actions of other societal stakeholders. As Bettencourt and West argued: “To combat the multiple threats facing humanity, a 'grand unified theory of sustainability' with cities and urbanization at its core must be developed. Such an ambitious programme requires major international commitment and dedicated transdisciplinary collaboration across science, economics and technology, including business leaders and practitioners, such as planners and designers” (Bettencourt & West, 2010, p. 912).

A web-based, interactive platform to connect TESS’ stakeholders will be a crucial component of the project. This interactive platform will not only contain reports, white papers and webinars produced by the research centers and organizations that are part of the consortium 2, but also:

- An interactive map of small-scale social innovation initiatives across Europe
- Some collaborative functionalities for the community-based initiatives (and possibly for other stakeholders), where the users can collect, discuss and share their experiences
- An online tool, which the community-based initiatives can use to evaluate their score in terms of carbon reduction

As a member of the consortium, I am in charge of designing this interactive platform 3. In the spirit suggested by Bettencourt and West, I decided to set up a process where the characteristics of this interactive platform are co-designed together with some representatives of the final users of the platform. Instead of a traditional top-down design process, I applied a collaborative process and invited a large number of stakeholders to design the interactive platform in a participatory way (Simonsen & Robertson, 2013).

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2 TESS is coordinated by Germany’s Potsdam Institute for Climate Impact Research, with collaborating partners, The James Hutton Institute in Scotland, Universitat Autònoma de Barcelona, Spain, Università degli Studi di Roma La Sapienza, Italy, Oulu University of Applied Sciences, Finland, University Stefan Cel Mare Suceava Romania, T6 Ecosystems s.r.l. in Italy and Climate Futures in Scotland.

3 Here and in the rest of the paper I use the first person as I led the interaction design activities for TESS. Interaction design activities were a component of a dissemination and communication strategy defined and implemented by other TESS partners, such as Potsdam Institute for Climate Impact Research, T6 Ecosystems, The James Hutton Institute and Climate Futures.
In particular, I organized a series of collaborative workshops where theoretical approaches and techniques from both user-centred design and design management have been applied to build an early-stage prototype of the interactive platform. Activists, policy makers and researchers participated to these workshops and had the chance to apply techniques such as rapid prototyping or wireframing to design their own version of the interactive platform. This process was not specifically tied to a single location, but organized across nomadic workshops that saw the participation of a distributed network of stakeholders coming from at least 18 different countries, from Chile, Colombia, Canada, Korea to several EU countries. The prototypes created in one workshop were presented and discussed in other workshops held somewhere else, thus igniting and sustaining conversational processes across different sites.

This paper presents some reflections on a specific dimension of these workshops: the interplay between methods and techniques coming from user-centred design and design management. The more specific research question behind this paper is: How can design management complement user-centred approaches in the early stages of the design process?

The paper will show how adopting a design management approach helped the participants of the workshops in broadening their take on the project. In particular, through a design management lens, participants could reflect upon organizational and economic constraints of the project and thus refine their first prototype of the interactive platform for TESS.

This paper therefore claims that the interplay between user-centred design and design management can be beneficial for the field, the processes and the practice of interaction design, especially when dealing with complex and ambitious projects facing big economic and societal challenges such as environmental sustainability.

Theoretical framework

Multiple definitions, theoretical frameworks and methods have been proposed for user-centered design, design management and interaction design. Since a thorough review of all the positions is beyond the scope of this paper and since the distinction between user-centred design and

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4 The wireframe is an initial layout that represents the basic elements of a user interface: "The wireframe is a bare-bones depiction (as the name suggest) of all the components of a page and how they fit together" (Garrett, 2002, p. 128).
interaction design is debated between different design communities, I will here only present some of the concepts that have been central in my study.

Kumar and Herger provide an introductory definition of user-centred design: “User Centered Design is a philosophy that puts the user, and their goals, at the center of the design and development process. It strives to develop products that are tightly aligned with the user's needs” (Kumar & Herger, 2013). Authors such as Donald Norman, Bill Moggridge and Bill Buxton are generally credited as important figures in user-centred design (Bainbridge, 2004; Buxton, 2007; Halse, Brandt, Clark, & Binder, 2010; Moggridge, 2007; Norman, 2013).

Nowadays, user-centred design and the very notion of user are crucial components of interaction design projects like TESS.

Löwgren and Stolterman propose this conceptual framing: they define digital artifacts as “artifacts whose core structure and functionality are made possible by the use of information technology” (Löwgren & Stolterman, 2004, p. 7); interaction design is consequently defined as "the process that is arranged within existing resource constraints to create, shape, and decide all use-oriented qualities (structural, functional, ethical, and aesthetic) of a digital artifact” (Löwgren & Stolterman, 2004, p. 5). The notion of use is a key element in both sentences. Löwgren and Stolterman continue by defining as user: "a person who will be using the digital artifact when it is implemented" (Löwgren & Stolterman, 2004, p. 7).

In the specific case of the digital artifact for TESS (its interactive platform), we can identify multiple users: from a member of a bike-sharing initiative in Copenhagen, to a policy maker from the European Commission or to a researcher in a department of environmental sciences, just the name a few examples.

A user-centred perspective would put the needs and desires of these users at the center of the design process.

Design management would look at this same design process from a different angle.

McBride, Chairperson of Design Management at Pratt Institute, sees design management as the “identification and allocation of creative assets within an organization to create strategic, sustainable advantage” (Best, 2006, p. 200). Although this is only one of the many views on design management (see for example: Best, 2006; Cooper, Junginger, & Lockwood, 2011), generally speaking the organizational dimension is a key element of the field. Design management tends to focus on the managerial and
organizational dimensions of design, from how to lead creative teams, to how to ensure the economic and financial viability of a design project, up to how to measure the success of design outcomes, just to name a few of the areas generally covered in literature.

In the specific case of TESS, for example, some design management components would refer to how design is strategically used by the organizations that are part of the consortium, or how the process of developing the interactive platform is managed throughout and beyond the project.

Several authors have explored the interrelations between user-centred design and design management. Svengren Holm analyzes how user-centred design can be a strategic resource for design management (Svengren Holm, 2011). Johansson and Woodilla point out how some studies in user-centred design adopt a “more holistic view” that intersects with organizational studies (Johansson & Woodilla, 2011, p. 467). Dunne elaborates on how user-centred design can be beneficially used in management education (Dunne, 2011). A good number of papers from the 2013 Cambridge Academic Design Management Conference\(^5\) and the 2012 DMI International Conference in Boston\(^6\) reflect upon how user-centred design is an important part of the strategic approach advocated by design thinking and design management. Holmlid argues that design management offers a broader outlook - that also includes a focus on the business and operational dimensions - to organizations that perform user-centred design or interaction design work (Holmlid, Lantz, & Artman, 2008; Holmlid, 2006). Holmlid is also a researcher in service design, which also offers an interesting transversal view on the organizational components of design projects (Meroni & Sangiorgi, 2011). Buchanan – with his interdisciplinary viewpoint across design, information systems development and management - claims that it is nowadays crucial that design education offers students the tools to adopt an organizational perspective and, citing a specific project work carried out with his students, realizes that “there was a missing component that had to be there, that designers had to understand the relationship to organizations” (Buchanan, 2011).

This paper is positioned along this line of thinking and, in particular, aims at offering an original contribution to the design research community by:


\(^6\) [https://www.dmi.org/dmi/html/conference/academic12/academic.htm](https://www.dmi.org/dmi/html/conference/academic12/academic.htm) accessed March 6, 2014
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(1) Carrying out and documenting empirical work (a design workshop) that shows the potential of combining user-centred design and design management at an early stage of an interaction design project;

(2) Presenting some reflections upon the interplay of the two approaches and how this interplay is particularly important when dealing with complex projects, such for example the ones addressing economic and societal challenges related to environmental sustainability.

In the next paragraph I will describe a workshop in more detail.

A workshop and its outcomes

In the workshops I have conducted for TESS, I have used both methods coming from user-centered design, such as personas and wireframing, and processes from design management, such as budgeting and diagrams mapping the stakeholders’ needs and desires from an organizational standpoint. The economic dimension is described as a core component of operational design management (Borja de Mozota, 2003) or one of the fundamentals of design management (Best, 2010). As for the organizational dimension, methods to describe how organizations use design in their strategic activities or how design can help creating strategic alliances among different organizations have also been presented in literature (see for example: Bamford, Gomes-Casseres, & Robinson, 2003).

I used this mixed approach with the explicit goals of defining the requirements of the interactive platform for TESS and elaborating its user experience design up to a first set of prototypes.

Throughout the course of 5 months (from December 2013 to April 2014), several design workshops have been conducted for TESS, either face-to-face or via Skype. Some of these workshops were reserved to internal partners of the consortium, whilst some other ones were specifically addressed to external stakeholders.

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7 Personas are fictitious descriptions of final users and are employed in the design process as a way of representing potential needs and desires of users (Nielsen, 2013).
I present here the outcomes of a specific design workshop held at the Politecnico di Milano in January 2014. I called this workshop ‘Design Management Lab’.

About 20 people, mostly students from the Master’s Programme in Service Design at the Politecnico and professionals from external design companies, teamed up in 4 different groups and worked for two days - 16 hours in total - in order to get to a first proposal for the user experience design of the TESS interactive platform. Each group worked independently and, at the end of the second day, presented their final results to the other groups and to a final jury, composed of some representatives of TESS and a user experience designer from Google.

I chose to describe here this workshop as it was specifically aimed at gathering a group of designers – coming from different background: service design, industrial design, graphic design, interaction design – and at leveraging their expertise to reflect upon the user experience design of the TESS platform.

The Design Management Lab was structured as follows:

First day
- Initial briefing about TESS and user-centred design methods (1 hour)
- First design cycle aimed at producing a first set of wireframes for the TESS interactive platform (7 hours)

Second day
- Presentation of design management (30 minutes)
- Collective exercise on budget (30 minutes)
- Collective exercise on organizational stakeholders’ mapping (1 hour)
- Second design cycle aimed at re-working and finalizing wireframes for the final presentation (5 hours)
- Final presentation: each group had 15 minutes to show their work to the jury

The structure of the workshop was based on an iterative process with two design cycles. During the first cycle, the participants mostly adopted methods coming from user-centred design. At the end of the first cycle, the participants were exposed to a design management perspective. The

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insights emerging from this new viewpoint gave the participants the occasion – during the second cycle - to go back to the drawing board, rework and finalize their presentations.

My main interest here is to show how the interplay between the two perspectives – user-centred design and design management – allowed the participants to broaden their take on the project and further develop their reflections on a suitable user experience design for the TESS platform. To show how the participants gained this broader view on the project, in the next paragraphs I present the different design outcomes produced during the first and the second design cycle.

**The first design cycle: user-centred design**

The first day started with a 1-hour long briefing, where I introduced the TESS project also using a PowerPoint presentation and some videos. I subsequently divided the participants into 4 groups, with approximately 4 or 5 people per group. I then handled a short document synthesizing the briefing to each group. The briefing was structured as follows:

<table>
<thead>
<tr>
<th>Briefing for design activities for TESS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TESS</strong> is a three-year, European-wide research project. It aims to reach an understanding of the potential for community-led initiatives to help deliver a truly sustainable, low-carbon future.</td>
</tr>
<tr>
<td>The main research questions are: How can innovative, grass-roots green initiatives lead to the transformational changes required to meet stretching carbon targets and wider community objectives; how can the wider emergence and success of such initiatives be supported?</td>
</tr>
<tr>
<td><strong>TESS</strong> is seeking the active participation of a range of community-led initiatives, whether focused on food, energy, transport, waste or with a wider agenda to build community resilience.</td>
</tr>
<tr>
<td>Participating initiatives can expect:</td>
</tr>
<tr>
<td>• An internet mapping platform to register and promote their initiative to funders, partners and other communities;</td>
</tr>
<tr>
<td>• Support with assessing their current and potential environmental and socio-economic impacts;</td>
</tr>
<tr>
<td>• The opportunity to network with and learn from other socially or technically innovative projects across their country and wider Europe;</td>
</tr>
<tr>
<td>• The ability to contribute to shaping policies that support</td>
</tr>
</tbody>
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community-led sustainability; and
- Access to other influencers at local, national and European level including policy makers, researchers and the media.

**TESS: Our goal**
Our goal is to help TESS in designing a website/an interactive platform that hosts useful functionalities for the stakeholders interested in TESS.

We do not need to get to a final graphic layout for the platform, but we have to:
- Outline content and functionalities of the platform
- Design some sketches of the home page and key internal pages

The overall budget for designing and developing the platform is about €600,000.

At the end of the second day (8 January 2014 at 16.00), we will meet (via Skype) Katja Firus and Antonella Passani (in charge of the Communication and Dissemination activities for TESS), Alessandro Suraci (a visual designer from Google) and present our work.

The activity will be organized in two cycles:
- **First cycle (first day):** you can employ strategies and techniques from UCD in order to:
  - Define your users (e.g., through a set of personas or other suitable techniques)
  - Define a preliminary version of the information architecture (e.g., through a basic site tree or other suitable techniques)
  - Design a first set of wireframes
- **Second cycle (second day):** you will refine your design materials after a presentation and some exercises oriented to highlighting a design management approach.

As facilitator, I split my time among the four groups, sitting with them, answering their questions and offering advice.

Most of the participants were already familiar with design methods and had already worked on similar tasks.

Most of the groups (3 out of 4) segmented the process in a sequential way, working collectively on the following tasks:
- They started creating a set of personas
- They sketched out a preliminary diagram representing the information architecture of the interactive platform
They created a first set of mock-ups

In another group, participants decided to split the tasks, so that whilst some people were taking care of the personas, some other people in parallel were working either on the information architecture or the mock-ups.

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**Figure 1.** First design cycle: A slide showing some personas produced by one of the groups during the workshop.

**Figure 2.** First design cycle: Wireframe representing the home page of the interactive platform, produced by one of the groups during the workshop.

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### The second design cycle: user-centred design + design management

The second day started with a brief introduction on design management (about 15 slides, containing some definitions and key themes).

We then collectively worked on two exercises to expose the participants to a design management approach:

- A rudimentary version of the budget
- A stakeholders’ analysis: in this exercise, we analyzed the viewpoints of the organizations vs. the individuals usually represented as personas.

Sometimes, the personas depict stereotypical characteristics of single users that might not be aligned with the organizations they are part of. We made a practical case. All the groups created a persona representing the policy makers interested in TESS. All the groups portrayed an enthusiastic policy maker sitting in her office in Brussels, happy to fund TESS and eager to support community-based initiatives in low carbon economy (e.g., see
Figure 1). There might be some truth in these representations, but the dynamics of such a complex organization as the European Commission warn against overly optimistic depictions, and the enthusiastic policy makers may have to navigate across the tense and conflictual landscape of politics. Especially at the high levels of political power, where the interplay with economic power is significant, promoting and supporting governmental actions and policies for sustainability is still a matter of compromises. Within this scenario, the question is how the TESS interactive platform can support policy makers in their daily – probably conflictual – activity within their organizations.

Another important element that emerged from the analysis of stakeholders is that it showed the need to reflect upon the relationships among different users. During the first day, whilst creating the personas, the workshop participants mostly created fictitious representations of single, isolated users. The relationships among different users (or different personas) were not represented. The stakeholders’ analysis showed to the participants that a web of relationships connects one organization to other ones and – in a systemic way – the user’s actions are entangled into complex dynamics of organizational dependencies.

It is here important to clarify that during the second day I did not present information on TESS that I had not already shared on the first day. Rather, the two design management exercises allowed the students to interpret the same briefing in a different way. The results of the application of this design management perspective were:

(1) All the groups reworked on the information architecture. Whilst the first day they just piled up ideas for a lot of potentially interesting and useful functionalities for the TESS platform, the second day they realized that the economic resources did not allow developing and maintaining all the proposed functionalities. Consequently, all the groups had to scale down their proposals.

It is here important to clarify that the first day I already gave the participants a rough idea of the budget they could count on, but it is only on the second day - when we worked together on a more analytical budget - that the participants more clearly realized the amount of economic resources that could be allocated for the actual design and development. It came as a surprise to most of the participants that, out of the entire budget, only part of it could go to the actual development of the interactive platform, whilst a significant percentage of it had to cover costs that were not immediately visible (e.g., the impact of taxation over the personnel net
monthly costs, or the project management costs, or the overhead). As already mentioned above, the participants of this workshop were mostly designers and the majority of them did not have previous experience with budgeting.

(2) The stakeholders’ analysis also showed a different angle to the participants. The immediate results were:

(a) A group decided to abandon the personas and they worked instead on a quite complex visual representation that did not show individual users, but organizations (initiatives, general public, etc..) and some of the interactions among them.

(b) Another group realized that the differences between the various segments of the expected users of TESS were so significant to justify the creation of two different interactive websites: one targeted to researchers and policy makers, another one targeted to community-based initiatives and general public.

Figure 3. Second design cycle: Diagram representing TESS stakeholders.
Figure 4. Second design cycle: Site tree representing functionalities of the specific TESS website for community-based initiatives and general public.

(c) Another group re-worked on the format they had previously used to represent personas, labeling it as a ‘quick customer journey’ and adding some more details that could – at least partially – illustrate the more complex scenario emerged from the stakeholders’ analysis.
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At the end of the second day, all the groups presented to the final jury, which appreciated some of the ideas and offered constructive feedback.

**Discussion**

Before entering into the discussion, I want to acknowledge some limitations of this study.

Firstly, although the methods used in the Design Management Lab have been also replicated in other workshops, I only describe here the outcomes of a single workshop. As such, the paper is grounded into a single example and is therefore insufficient to draw any definitive conclusion. Although I could see common patterns emerging from several workshops I conducted, a more consistent investigation is needed. At best and as of now, this study only offers some contributions that open up for further explorations.

Secondly, the methods used in my workshops are not paradigmatic and do not represent the only way of doing user-centered design or design management. I chose the specific methods presented above having in mind an audience for the workshops that was not (always) composed of
participants with skills and experience in design. It was also important to choose methods that could be applied and used within the relatively short duration of the workshops (few hours).

In spite of these limitations, I still think that my study can offer some reflections on the research question I presented in the initial section of this paper: How can design management complement user-centred approaches at the early stages of the design process?

First off, I want to clarify here that I am not arguing that either user-centred design, design management or even interaction design should stay on top of the others, but I am rather suggesting that they offer different perspectives on the design process. I am claiming that by adopting different vantage points designers can have a clearer picture of the design situation. When I use the notion of interplay, I want to highlight the processual dimension of this activity of deliberately changing viewpoint. I see the interplay between user-centred design and design management as an iterative process, where, for example, the designer starts with some techniques from user-centred design, then adopts the design management approach, then goes back again to user-centred design and so on, in a process where the two views keep interacting between each others and thus influence the design outcome. In my specific case, this interplay happened at an early stage of TESS, when the project was still quite open and therefore could more easily accommodate inputs coming from different perspectives. It might be the case that this interplay can be also beneficial at later stages, especially when the interactive project is structured across different cycles of design/development and therefore can be refined over time.

The user-centred design techniques that have been employed in the first cycle of my workshop (such as the personas) are oriented to representing users at an individual level. Several scholars expressed their concern about the way users are sometimes represented with these techniques. There are at least three important components of this critique:

1. The representations of users can be naïve or too stereotypical (Chapman & Milham, 2006; Djajadiningrat, Gaver, & Fres, 2000). Nielsen - who has worked and studied personas for a long time - in a recent paper co-authored with Storgaard Nielsen, documents how some Danish firms enact theatrical representations (e.g., through role-play or the use of masks) in order to enrich personas (Nielsen & Storgaard Nielsen, 2013). These role-play activities enhance the understanding of the final
users for both actors and spectators, since they create greater empathy and depict some of the interrelations among the final users.

2. The practice of user-centered design and the representation of users generated by it happen in a socio-political context, where inequalities of power and special interests might be at play. Halse, for example, warns against the idea that the representations of users in user-centred design are neutral, detached and accurate snapshots of reality (Halse, 2008). These representations are created in contexts where dynamics of power and authority might play an important role (e.g., imagine the case of a big multinational corporation headquartered in North-America – like Microsoft - that routinely employs user-centred techniques to create interactive products or services massively distributed at a global scale).

3. These first two points show once again how user-centred design needs to be complemented by an organizational view. Representing the final user as a persona is an important design technique to keep in mind the final audience, but the audience is not composed of users that act as isolated individuals. Users live and act within organizations and organizations live and act within a wider context where they have to interact with other organizations. The sphere of autonomous decisions and behavior of the individual user is strictly entangled with organizational and wider societal dynamics.

It is for these reasons that I advocate for the interplay of user-centred design and design management. Design management allows reflecting upon the organizational, structural, systemic, economic level of the design process. In terms of scale, it is like design management operates at a different level of zoom compared to user-centred design and allows for a broader view. At the same time, user-centred design offers a closer perspective and as such can be more easily operationalized during the design process.

Again, I am not stating here that a specific viewpoint or technique is better than another, but my claim is that all these perspectives should be taken as complementary ways for deepening the understanding of design activities.
Although during the first day of the workshop I had warned the participants about some of the possible limitations of user-centered design techniques such as personas, it is only on the second day - when they had the chance to apply a design management perspective and techniques and then go back to another design cycle - that they fully saw and experienced these limitations.

**Final remarks**

As a concluding remark, I would like to go back to the original claim I stated in the first section of this paper, namely that the interplay between user-centred design and design management can be beneficial for the field, the processes and the practice of interaction design, especially when dealing with complex and ambitious projects facing big economic and societal challenges such as environmental sustainability.

Adopting views and techniques from design management would allow interaction designers (and perhaps also other kinds of designers) to better grasp the complexity of real-world problems as strictly entangled with dynamics of power and authority. I suggest that this approach would better prepare designers to acknowledge the economic and socio-political dimension of their work and – potentially – to operate in a more transformational way when dealing with big societal and environmental challenges.

Binder et al. suggest embracing a design perspective focused on the notion of “design things” (Binder et al., 2011). The original etymology of the word *things* refers to the governing assemblies in ancient Nordic and Germanic societies. Things were collaboratively decided within these assemblies. In Binder et al.’s words, “designing things” means embracing the idea that design should be a venture where a plurality of diverse and conflictual points of view is represented and where this plurality also becomes a socio-political ideal that a designer should struggle for.

In my opinion, the interplay between user-centred design and design management and the way this interplay would equip interaction designers are steps into this socio-political orientation.

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