Vision Labs: Seeing UCD as a Relational Practice

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ABSTRACT
Relational aspects in user-centered design, UCD, are largely overlooked in the literature. We use criticism of UCD to facilitate a discussion of how discourse, activities, and materials give shape to user involvement in design activities. Drawing on experiments with the workshop format for devising innovations and creative solutions with users, we introduce some criteria and points of interest in the development of a workshop format we call Vision Labs.

Categories and Subject Descriptors
H5.m. Information interfaces and presentation (e.g., HCI): Misc., K.7.m, The computing profession, Misc.

General Terms
Design, Theory

Keywords
UCD, user-centered design, workshop, critique, methods, methodology, innovation, relational aspects, socio-material practices, processes

1. INTRODUCTION
This paper investigates, primarily in theoretical language, the pragmatics and background motivation for a method-in-progress we call Vision Lab workshops. We place this type of workshop within the widely dispersed field of User-Centred Design (UCD) since it involves users in the creation of ideas and inspirations that feed into a design process. The paper, and the inclination to work constructively with methods and techniques for user involvement, takes outset in our critique of the criticism of UCD that has been stated by influential practitioners and researchers within the field of HCI [1], [2], or [3]. One of the overriding issues that this criticism takes with UCD is the way in which UCD seemingly overemphasizes the importance and benefits of the direct participation of users in a design process. Direct user involvement and “asking users what they want”, some of the critics argue, leads to conservative, unexciting, and often useless designs because users, unlike designers, have no expertise in understanding their “real” needs or real-life requirements. Besides, so it is argued, users tend to have a limited imagination in terms of coming up with truly unique, innovative technical solutions. Such arguments are also implied in one of Jacob Nielsen’s oft-quoted motto that “users are not designers and designers are not users [4:12-13]. We propose that claiming, “users are conservative” or even “users are not designers” is the result of a specific construction of the user and merely one particular view on UCD that is too narrow. We believe that a critique of UCD should be constructive and not merely dismissive of the whole design philosophy of UCD which can be formulated as a process of bringing users closer to the design process and using the users in collaborative settings in order to not merely rely on abstract models or representations of use. By focussing on the relational aspect of UCD, by understanding how designers and users mutually shape the results of a user-centered design process, we show how a reflective methodological stance can push the field of UCD forward.

The Vision-Lab workshop is a format we are currently working with, studying relational aspects of UCD. For the empirical research, grounded analyses of two pilot workshops held with different participants, with different purposes, and in different settings, were conducted. A grounded empirical study of these cases examines how different user discourses, activities, and materials had an impact on the progression and result of the workshops. This was done to support our interest in understanding the relationships taking place in workshops as co-constitutive activities rather than the outcome of a specific set of, say, demographics of users with specific competences, specific ways of lacking, and specific idiosyncrasies.

2. UCD FATIGUE?
What UCD is about is of course a very volatile discussion and we will not begin to define in detail what UCD is since we find such a discussion inherently futile. Suffice to say that UCD is about, in one way or another, having users participate in a design process. The criticism of UCD seems to echo what we believe is a spreading UCD fatigue that is gaining some momentum. It is as though we, in the design community, have grown weary of the old axioms of “listening to the user” and “putting the user first”. We are not actively defending the term UCD in this paper, although the connotations of the user rather than use might in itself prove important for any kind of work that has experiential implications. We do, however, argue that creative problems or innovative impasses do not reside in a design philosophy that entails having users participate in design efforts. Rather, such problems can be seen to reside in the metaphors and discourses we use to describe the meeting between users and experts and those with which we construct the user as an asset in design.

2.1 Users as Containers of Information
We have identified a central perspective in the budding UCD critique that points to a widespread conception of users as “containers” of specific forms of competence. This conception of the role of the user in the design process has led to a strong, dismissive critique of UCD that questions the potential of engaging users directly in the design process. When
Constantine speaks of the “conservative bias” of users engaged in a user-centred design process [1], we argue that this is employing a specific, tacit construction of “the user” and arguably of “user-centred design”. This conception is also tacitly underlying the truisms that “the user is not a designer and the designer is not a user”). The conception distinguishes sharply between who is what in a design activity, and inhibits an understanding of UCD as relational – as something that has a mutual direction. In Constantine’s conception, users seem to have a kind of psychological propensity towards conservatism, a trait that echoes the construction of the user (or actors) in some recent innovation studies (e.g. [5]).

Of the more contentious assertions in Constantine’s think piece, the three most prominent ones are arguably that “users are inherently conservative”, “user inputs put the brakes on creativity” and “user-centred design might not be design at all” [1]. All three are problematic assumptions. Not because they challenge the relatively under-problematised way in which user-centred design has gained prominence within the Interaction Design and HCI communities, but because they are based on certain assumptions about the relations between users and professional designers and the way in which input from users or the collaboration between users and designers can and should be used. Thus Constantine argues that when asking, “whether users really need something, the answer tends to be yes, regardless of actual importance or demonstrable impact” [1]. He concludes that engaging users directly in the design process is highly problematic, misleading and tends towards detractions from the designers potentials in creating inventive and innovative systems and solution for clients. Similar contention with regards to user involvement as an inherently conservative practice is reiterated in for example consumer research [6]. While the answer to the above mentioned question might indeed be “yes” and while such a “yes” might indeed be inherently worthless and used anyway as a motivation for taking a certain direction in a design process, such an answer taken for granted in this way is only a symptom of a failed methodology or a misguided design practice if we choose to maintain a fully naïve understanding of what is happening when users meet with designers around a design project. It is useful to think of the problem as residing in what Agre [7] discusses using the notion of “generative metaphors” inherent in the various approaches to the human and technical sciences. Thus, for instance, if we consistently use a computational metaphor to describe the human mind and cybernetic metaphors to describe the human motor-cognitive system’s ongoing relations to the world, we will miss out on opportunities to design for other aspects of the user – experience, enjoyment, satisfaction, and so on. In the case of Constantine’s version of “naïve” UCD, the metaphor is perhaps not clearly computational but tends towards treating the subject of the design process (that is, the user) as something from which the designer can draw out information to support or discard her or his design decisions. The generative metaphor for the user becomes a “container of information”, the generative character of the metaphor making it subsume activities according to that metaphor. Design activities come to be centred on attaining information from the user, specifying user requirements in a monological process: “tell me what you need/want and we’ll build it”. Collaboration as a mutual process is avoided in favour of a purely operational approach that treats users as discrete sources of information rather than partners. Interpretation and reflective appropriation of the data from meetings with users are suspended in favour of a literal acceptance of the verbal reports from the user. Such a conception is also apparent in Norman and Draper’s blanket definition of user-centered design from 1986. They suggest that the user has a great deal of power in the design project, and they write that “The needs of the users should dominate the design of the interface, and the needs of the interface should dominate the design of the rest of the system” [8](emphasis added).

From a positivistic scientific point of view, a construction of the user as a container of information is logical since the ideal form of data from this perspective is unambiguous and requires no interpretation in order to be meaningful. Yet if we treat UCD as a highly interpretative practice – where the interviewer or the designer does not pretend to be a tape recorder [9] that merely captures what is said in a discussion – UCD becomes a completely different thing.

Thus we agree with Constantine that if UCD is approached in a naïve way, if the user as he or she is constructed within UCD does become merely a container of information that the researcher or practitioner can draw out by asking or probing, UCD will become useless and fail to deliver its promise of being centred on the person, on the human user, and arguably harmful to any kind of innovation or creativity. However, if we are to provide a constructive critique of UCD, we argue that the focus should be on the method itself, the metaphors, activities, techniques, materials and other constructive (and performative) artefacts that are put to use within the method rather than only on the user as an object in her or his own right. The question should not be what the user can or cannot do or to what degree the user is able to “think out of the box”, but how the framework around the user (the discourse, the activities, and the materials) is co-constitutive and gives rise to specific forms of data, to specific utterances, specific observations and interpretations. Thus, problems in putting UCD to use can be approached as related to the kinds of metaphorical or metonymic (that is, partial) descriptions we use to describe or understand the user.

Another objection that should be levelled against the UCD criticism, particularly against formulaic propositions such as “the user is not a designer and the designer is not a user” is that sometimes, and arguably increasingly often, users are indeed designers. The current focus on user-driven design (even if it, taken to its extreme, merely reverses the problem that we are examining in this paper), as well as similar concepts such as design for “hackability” shows sensitivity towards innovation potentials in everyday use. As the Finnish innovation researcher Ilkka Tuomi [10] argues, our culture has a tendency to construct narratives around major breakthroughs and innovations as if they were the work of one man(!), systematically overlooking the socially embedded nature of creativity and disruptive ideas.

3. SOCIO-MATERIAL PRACTICES

If we want to further develop UCD as a discipline and a design philosophy, and if we believe that direct engagement with users is valuable to a design process, we argue that it is crucial to study the mutuality of user-driven activities in a design process, both in terms of relations between the human partners (i.e. users/people and experts) and their relationships to the setting wherein the design activities take place. In order to begin to understand the kind of mutuality that takes place during such activities, the notion of socio-material practices and the theoretical underpinning that inform the term is helpful. Central to the socio-material framework is the argument that materials
and objects (in a very broad sense) have agency. As such, user-driven activities are mutually determining arrangements of users, designers, prompts, instructions, expectations, observations, notes, and reports with the aim of generating some kind of practical output in terms of evaluations, walkthroughs, documentations, or inspirations in order to advance a design process. Star and Griesemer [11] have developed the widely used notion of “boundary objects”, objects that act as supportive interfaces for different kinds of organization and coordination. This can be in the form of artefacts (materials such as whiteboards, clay, crayons, documents), but also categories and categorizations, perceptions and definitions of authority can function as boundary objects. Studies in a development team have shown how objects such as wire frames provide useful, flexible boundary objects [12]. But also the very meeting of users and designers in a UCD project may be viewed as a unit of coordination, expectation, and interpretation that gives rise to certain forms of activities, outputs and documentation etc. To some extent, our area of interest is similar in nature to what Lundberg et al. [13] call “design perspectives”. The difference lies mainly in the way that the issues presented here are themed around the constructive artefacts of the meeting between users and designers (an artefactual design perspective), not the horizon or mindset of the designer her or himself.

4. VISION LABS

The Vision Lab method, currently a method-in-progress, is an attempt at stimulating a more reflective practice within the field of UCD, and at the same time experimenting with and developing new techniques for user centred design. We propose the need for a user-centred design method that

- Takes its outset in a clearly stated expression of the discourse of the user
- Recognizes and constructively takes advantage of the relational nature of direct user-involvement in design work, including the mutually shaping arrangements of materials, instructions, prompts etc.
- Has focus on process when aiming for product
- Gives rise to constructive ambiguity and interpretational space in the process of feeding data into the actual process of developing interactive products and services (i.e. what the user says is not necessarily to be taken for granted).
- Inspires innovative and creative solutions that are also appropriate, satisfactory, and fulfilling for users

For initial observation purposes, we set up two different workshops on mobile services that ran on very strict, preformatted scripts by the organizers. The primary intention with these workshops was to get an initial understanding of possible factors that should be identified as themes in further research. Both workshops were documented in photos and field research notes. Additionally, the first one was documented with video.

The first requirement was, in our research, met by observing the differences between two workshops where the primary goal of the first workshop was innovation and the second was themed directly around a direct meeting between designers and users. The second and third requirements was met by carrying out initial observations and by developing theories from the workshops. The fourth and fifth requirements will be met by close, ongoing interaction with the industry partners taking part in the study.

4.1 Workshops

4.1.1 Workshop 1

In the first of the pilot workshops (with 24 Information Management students in four groups) we used the participants’ imaginations as starting points for new innovations and service concepts on mobile devices. The participants were initially prompted with images of state-of-the-art mobile services as well as an open-ended list of possible conceptual areas. Phrases such as “handheld devices and therapy”, “Finding your way in life”, and “e-banking on the street” were shown to the participants to stimulate their imagination and creativity. Throughout the workshop they were given a range different tasks with different materials to report in (clay, paper, individual scenarios – “how would YOU use the service?” discussions) culminating in a “pitch” exercise where the group leaders were to present the final idea in a brief stand-up pitch.

4.1.2 Workshop 2

In the second workshop (22 participants) with an industry partner within the field of mobile way finding services (mobilePeople), we designed activities around a strong notion of “partnering” when brainstorming for new innovations and concepts within the area of mobile marketing. Rather than attempting to stimulate the imagination of the developers, activities took place in small groups that included “regular”, non-expert users and developers, marketing experts, and project leaders from the company. These groups were tasked with coming up with one idea for an innovative mobile service. The activities throughout the day were themed around “partnering” with the users, and some activities were implicitly designed to “tear down the wall” between experts and users. For example, users were encouraged to interview the experts, both on personal issues (e.g. “where would you like to travel right now?”) and on professional areas (e.g. when taking a downtown walk looking at public commercials: “what is good about that poster?”, “how does this translate to what mobilePeople does?” etc.).

4.1.3 Workshop findings

The results from our analysis cannot be generalized, but the findings serve as a basis for our ongoing research. It provides us with an informed position from where other workshop formats and different constellations of user-relations will be tried out and analyzed.

One researcher, using an open coding scheme and affinity diagrams, did the analysis of the two workshops. Workshop 1 was done with non-expert, end-users exclusively. The primary goal for the activity was innovation in the field of advanced mobile services. Primary among our observations was that “wild” but also somewhat vague ideas that came up early in the process tended to get watered down towards the pitch phase. It seemed that there was an implicit wish in all the groups (working independently from each other) to come up with technically and socially viable designs that were immediately appealing to the audience. The concepts that the participants came up with suffered from the “conservative user” syndrome since they reiterated ideas and concepts that are currently being developed (such as mobile banking scenarios, mobile handsets as remote control etc.). From our initial analysis we attribute this to the way in which individual exercises (a handwritten “personal story with new technology” task) and the “pitch” format shaped participants expectations of the outcome. The participants seemed to look for something that could be
marketed. The written “personal story”, so we noticed, tended to be about the more conventional ideas that had surfaced in the brainstorm. This, we argue, points to the way in which the written, individual report was biased towards relatively well-known technological territory.

Workshop 2 was explicitly designed around a theme of “meeting the others”. Mutual relations between end-users and designers were a stated focal point for the workshop. Exercises included the users being invited to interview the professionals. Primary among the findings was that the partnering perspective offered the professionals a chance to reflect on their own practices (e.g. by being asked questions by the users). This created the opportunity for the practitioners to think outside the boundaries that they are normally confined to. The idea and concepts that were produced in the workshop fell well outside the normal business areas of the company, but stimulated discussion internally. In the workshop, however, the mutual relations faded somewhat throughout the sessions. We attribute this to a lack of articulation of the relation early on in the process. Many of the activities throughout the day sought to get a mutual process going, but a more manifest expression of the relation we sought to create could arguably have been a more optimal point of departure for the activities.

From the analysis of the workshops we have identified the three optimal point of departure for the activities.

- The user discourse: how is the user understood? What and whom is the user understood to be? Deciding from the outset what discourse and what associated metaphors should be used to describe the user can be a useful resource. Primarily, we believe that there is a profound difference between a construction of the user as a piece of information, as an artifact, and as a partner. Another possible distinction could simply be between user and person. In the design process, treating users merely as users provides different results than treating users as persons which implies a more contextual view on life-situation, needs, social factors, agency and so on.

- Activities: how are users involved in the activities, what role to the activities play? That is, designers should ask what kinds of relations and reports activities promote. The traditional interview can promote a relation that can be characterized in terms of “information in/information out”. A successful user/expert collaborative workshop process tends towards co-creation of knowledge.

- Materials: what kinds of materials are provided for the different activities? How do they possibly influence the relations between participants and the way knowledge is treated? Using a phenomenological distinction between attending-to and attending-from, we can begin to discern what materials require direct awareness (this could be written reports during the workshop, for example the writing up of individual scenarios) and what materials enable other kinds of activities (for example sorting exercises that enable more collaborative efforts where cards or post-it notes becomes structures that enable discussion).

5. CONCLUSION

We find that direct user participation in design efforts is valuable. However, UCD does seem to have overlooked the relational aspects of working with users in favour of treating users as “sources of information”. We propose that it is possible, even beneficial, to reflect on how structures around direct user involvement give shape to outcomes and usefulness. In our further work on the method, we will begin to build the structure that will become the Vision Lab workshop around the issues discussed above. We do not intend to provide a rigid structure or a script for holding Vision Lab workshops, but we expect the Vision Lab format to be a solid framework that highlights relations and continuities in the user/expert interaction.

6. REFERENCES

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