

Human-Centred Design – An *Other* View

Marc Steen

TNO Information and Communication Technology

PO Box 5050

2600 GB Delft, The Netherlands

+31(0)15-2857277

marc.steen-at-tno.nl

ABSTRACT

This paper is about human-centred design (HCD). It is argued that there are two tensions fundamental to HCD: 1) the tension of combining the contributions of researchers/designers versus those of end-users; and 2) the tension of combining the concerns for a current versus a future situation. Several ideas of philosophers Levinas and Derrida, their ideas about other and otherness, are applied to look differently at HCD and to explore the ethical qualities of doing HCD.

Keywords

Human-Centred Design, Principles, Practice, Ethics.

1. INTRODUCTION

This paper is part of my PhD research project in which I study one human-centred design (HCD) project in which I work myself. My role is hybrid and somewhat ambivalent: with one hand I practice and advocate HCD and with another I study two HCD projects critically and draw attention to the difficulty of doing HCD. The goal of my research is to provide an alternative story about HCD. I wish to “deconstruct” [3] HCD, to open its “open the black box” [7], in order to explore the ethical qualities of doing HCD.

2. HUMAN-CENTRED DESIGN

The principles of HCD appear to be simple: 1) the active involvement of users for a clear understanding of user and task requirements; 2) an appropriate allocation of functions between users and technology; 3) iteration of design and evaluation processes; and 4) and a multi-disciplinary approach [5]. Researchers and designers who do HCD attempt to come out of their “ivory tower” to interact with (future, potential) end-users “out there”. The goal of such cooperation is to articulate better user requirements, which, in turn, lead to products or services which better match end-users’ needs and preferences [6].

However, it is not easy to bring these principles into practice. My participant observation in two HCD projects provides several examples for this. In one project [12] we cooperated with police officers as (future, potential) end-users; we did several observations and a number of workshops with them. Each such interaction resulted in a gradual shift of the project’s goal and focus. This is thought to be good practice in HCD: end-users influence upon the project. However, it is also shown how we unintentionally missed several chances to learn about police work, because of our focus on developing and evaluating an innovative telecom service. We could, for example, have listened better to police officers talking (during lunch) about not wanting to wear new woolen trousers, which management wants them to wear. Such stories can tell something about police officers’ professional identities and how management and innovation work within the police. In the other project [11] we cooperated with informal carers as (future, potential) end-users. In this project cooperation

between team members was difficult. We did several seemingly redundant activities; interviews and workshops were conducted several times and decision making was slow. This was probably caused by the different project team members’ approaches: some draw from social science and are concerned with describing a current situation; whereas others have design backgrounds and are concerned with envisioning future situations. Furthermore, the end-users were mostly not allowed to participate themselves; they were represented instead, by the different project team members.

Here are two fundamental difficulties and associated tensions within HCD, in a nutshell: 1) the difficulty of organizing cooperation between researchers/designers and end-users and the tension of combining their respective contributions to the project – this is the difficulty of researchers/–designers to be open towards end-users and to learn from them [10]; and 2) the difficulty of creating a novel design and the tension of combining the concerns for a current versus a future situation – this is the difficulty to envision a future situation based on what happens in the present, the difficulty to invent [4].

Based on a literature study of several HCD methods it is suggested that these tensions are fundamental to many (if not all) HCD methods, such as participatory design, ethnographic fieldwork, the lead user approach, contextual design, co-design and empathic design, and that different methods seek to solve these difficulties and tensions differently [13].

3. AN *OTHER* VIEW

I would like to suggest looking at these tensions from a philosophical perspective, by drawing selectively from the ideas of French philosophers Levinas and Derrida.

I propose to look at the difficulty of researchers and designers to be open towards end-users and to learn from them via Levinas’ idea of the “grasp”. Levinas suggests that when I gather knowledge I tend to reduce everything to concepts that I am already familiar with. I “transmute” every Other, for example an end-user and what he or she tells me, into the Same, into my own way of thinking and the ideas which I already have [8, pp. 11-13]:

“The knowing I is the melting pot of such a transmutation. It is the Same par excellence. When the Other enters into the horizon of knowledge, it already renounces alterity. [...] the I of knowledge is [...] the melting pot where every Other is transmuted into the Same.”

When I gather knowledge from or about another person, I grasp what I see and hear of that other person, and pull that into my own world, into my own framework – “knowledge remains linked to perception and to apprehension and to the grasp even in the concept or the Begriff, which retains or recalls the concreteness of the grasp” [9, p. 152].

Furthermore, I propose to look at the difficulty of envisioning a future situation, of making design decisions which must lead to an innovative design. Derrida argued that only in a situation without rules, where one cannot use knowledge or apply rules, can one make a genuine decision [2, pp. 147-8]:

“The only decision possible is the impossible decision. It is when it is not possible to know what must be done, when knowledge is not and cannot be determining that a decision is possible as such. Otherwise, the decision is an application: one knows what has to be done, it’s clear, there is no more decision possible; what one has here is an effect, an application, a programming.”

Derrida argued that invention cannot happen via programming or the application of rules; such would only result in “invention of the same” [1, p. 55]. True invention can only happen if we try to be open towards otherness, if we “prepare for it”, if we “allow the coming of the entirely other”, and this requires a kind of passivity – “No doubt the coming of the other, if it has to remain incalculable and in a certain way aleatory (one happens onto the other in the encounter), escapes from all programming [1, p. 55-6].

My references to Levinas and Derrida are meant to draw attention to the ethics of doing HCD. With “ethics” I do not mean to talk about what is morally good or bad, and certainly not to prescribe what to do. I would like to argue that doing HCD has ethical qualities, *not* that doing HCD is good or bad, and *not* that there are good or bad ways to do HCD. The meaning of “ethics” which I wish to invoke is that of ethics which happens in-between people, as something which happening already. My suggestion is that practitioners of HCD, like me, can become more aware of or explicit about such ethical qualities when we do HCD.

I feel attracted to the suggestion of Van de Poel and Verbeek [14] to talk about engineering ethics based on empirical, specific and contextualized studies of engineering or practice. And, if I open the “black box” of my HCD practice, I don’t see an empty box, but a box full of ethics [15].

4. RELEVANCE

I would like to revisit the original ambition of HCD: researchers and designers come out of their ivory tower and interact with end-users in order to learn mutually and to jointly create innovations. However, in our attempts to learn together with end-users we tend to make grasping gestures, we destroy the other’s otherness – and learn nothing which we did not know yet. And in our attempts to organize a project and to make progress we apply all sorts of rules, we try to program invention – and cannot create anything out-of-the-box, out of our own rules and programs. I see HCD as fragile: I see it’s principles as beautiful, and I see its practice as vulnerable. I would like to explore how this “other” view on HCD (outlined above) may help to bridge the gap between principles and practice.

My proposal is to continue to do HCD, but differently: more aware and explicit about its ethical qualities.

5. ACKNOWLEDGMENTS

My PhD/DBA research is part of the Freeband Communication research programme and is sponsored by TNO Information and Communication Technology. I would like to thank my fellow project team members for their kind cooperation in my research.

6. REFERENCES

- [1] Derrida, J., "Psyche: Inventions of the Other," in Reading de Man Reading. L. Waters and W. Godzich, Eds. Minneapolis: University of Minnesota Press, 1989.
- [2] Derrida, J., *Points: Interviews, 1974-1994*. Stanford, CA: Stanford University Press, 1995.
- [3] Derrida, J., "Letter to a Japanese friend [original 1987]," in A Derrida reader: Between the blinds. P. Kamuf, Ed. New York: Columbia University Press, 1991, pp. 270-276.
- [4] Haddon, L. and Kommonen, K.-H., "Interdisciplinary explorations: A dialogue between a sociologist and a design group," University of Art and Design, Helsinki, 2003.
- [5] ISO, ISO 13407: Human-Centred Design Processes for Interactive Systems. Geneva: ISO, 1999.
- [6] Kujala, S., "User involvement: a review of the benefits and challenges," *Behaviour and Information Technology*, vol. 22, no. 1, pp. 1-17, Jan.2003.
- [7] Latour, B., *Science in action: How to follow scientists and engineers through society*. Milton Keynes: Open University Press, 1987.
- [8] Levinas, E., "Transcendence and height [original 1962]," in Emmanuel Levinas: Basic philosophical writings. A. Peperzak, S. Critchley, and R. Bernasconi, Eds. Bloomington and Indianapolis: Indiana University Press, 1996, pp. 11-32.
- [9] Levinas, E., "Transcendence and intelligibility [original 1984]," in Emmanuel Levinas: Basic philosophical writings. A. Peperzak, S. Critchley, and R. Bernasconi, Eds. Bloomington and Indianapolis: Indiana University Press, 1996, pp. 149-159.
- [10] Muller, M. J., "Participatory Design: The third space in HCI," in *The human-computer interaction handbook: fundamentals, evolving technologies and emerging applications*. J. Jacko and A. Sears, Eds. Mahwah, NJ: Lawrence Erlbaum Associates, 2002, pp. 1051-1068.
- [11] Steen, M., ""Our need is to do something about that problem" -- Studying how researchers and developers interact with informal carers during an innovation project," 2006.
- [12] Steen, M., ""We don't want woollen trousers" -- Studying how researchers and developers interact with police officers during an innovation project," R. ten Bos and R. Kaulingfreks, Eds. 2006, pp. 644-666.
- [13] Steen, M., Kuijt-Evers, L., and Klok, J., "Early user involvement in research and design projects – A review of methods and practices," 2007.
- [14] Van de Poel, Ibo and Peter-Paul Verbeek, "Ethics and engineering design," *Science Technology & Human Values*, 2006, 31(3), pp. 223-36.
- [15] Winner, Langdon (1993), "Upon opening the black box and finding it empty: Social constructivism and the philosophy of technology," *Science Technology & Human Values*, 18(3), 362-78.