
Heidegger's Notion of Space Applied to Interaction Design*

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ABSTRACT

This paper explores what Heidegger's notion of space mean for understanding stakeholders and for interaction design. It outlines the idea that interaction design can be conceived as organizing and offering perspectives in an experiential interaction space, which is a functional region that determines here, there, near, and far in lived space for an acting agent. Conceiving interaction design as organizing and offering perspectives in an experiential interaction space highlights the interaction moments as they appear to users who reorganize their shared interaction space throughout their interactivity. In this way a concept from philosophy can reframe interaction design and can open new opportunities for reflecting on the nature of interaction design work.

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KEYWORDS

Interaction design; User experience; Phenomenology; Interaction space

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INTRODUCTION

This paper explores what Heidegger's notion of space means for understanding stakeholders and for design of interactive systems. It is suggested that designing interactive systems is to organise and offer stakeholders a perspective on an experiential interaction space, and that stakeholders enter, reorganise, and grasp a finite perspective on depending objects of concern and equipment. This idea reframes interaction design and can open new opportunities for reflecting on the nature of interaction design work. This is an important role of philosophy in relation to design practice. A phenomenological understanding of interaction design turns the attention from the artefacts in themselves to the ways in which people engage with them [4]. It puts the emphasis on a first-person perspective of an embodied interacting agent in lived space [8]. Heidegger's theory of a lived space is a phenomenological theory that can be applied to the analysis of computational things [3, 5]. This paper expands on the idea of designing 'spaces of action' [2], and it has been influenced by readings and commentaries by Arisaka [1], Coyne [3], Malpas [6], and Ruin [7].

EXPERIENTIAL INTERACTION SPACE

An experiential interaction space is in this paper conceptualised as a functional region (Gegend) that opens up for us. It is a ready-to-hand, lived, and embodied space grasped within the finite perspective of an acting agent. It is the phenomenal field and horizon for an agents' interaction, as perceived from a point of view that places some things or some aspects in focus and others in the background of attention. It is, in other words, the everyday lived space that we qualitatively experience.

The experiential interaction space organizes activities and determine the locations of available equipment and objects of concern for us. It is indexical and determines here, there, near, and far from us, and it must be actively discovered to be at our disposal. It is a structured room consisting of the places that are meaningful to us, already before consciously assigning meaning to them. It thus also determines ways of movement for us.

Another fundamental feature an experiential interaction space is how we make things available to ourselves by bringing things close, i.e. how we transcend distance. Interaction that both suspends and establishes distance is called de-severance (Ent-fernung). Arisaka [1] gives an example of how the phone appears available and close in her reaching for it. We bring things close by our interactions, and this also gives rise to remoteness. Put differently, the interactions set up the space. Closeness should be understood here as the closeness in the lived view of the acting agent, and not as the minimal objective distance to the agent's body. For example, we experience that the door is close for us to reach, while the lamp in the ceiling is not close, despite that the objective distance is smaller [7]. Bringing things close and making things available create an actual perspective derived from a frame of possible perspectives offered by the interaction space.

Things can also reveal space as one thing leads to the next, opening up, or bringing things to presence [3]. Heidegger has given an example of a bridge [3, p. 190]: “the bridge reveals the banks and the character of the river, through the way it is reflected in the water and by the way the pylons have to be built to withstand the river’s flow.” It also brings the other bank near. We may think about other designed things in the same way: What do they reveal and bring close, and what do they make remote? Our actual perspective is directional, and this is another fundamental feature of an experiential interaction space. The phone in Arisaka’s example is in a direction from her, which dictates where to face. Specific interaction spaces determine the locations of objects of concern and equipment, which means that they also organize activities through directionality. An interaction space offers a frame of possible perspectives to us, where we are given and take a finite perspective depending on objects of concern and equipment. Our equipment also gives us a perspective, as for example when you see a world of nails when you have a hammer.

By making equipment and objects of concern available to ourselves, we reorganize the interaction space and decide our perspective on it. The region directs us, but we also occupy it and organise the region, through our interactions, to direct us in certain ways in relation to the things and phenomena that concern us. Arisaka (ibid.) gives an example of her left-handed work area, where anyone would have to reach for the mouse, the pen and other things on the left-hand side of her computer and move them to the right side if one is right-handed. Other people and their needs and possibilities are also of concern to us. Others are co-considered even when they are not physically present. An interaction space is thus aligned both with the considerateness that guides our dealings with others, and with the circumspection that guides our dealings with equipment. When several people share the same interaction space, they also re-structure each other’s perspectives on the shared region (Arvola, 2014). In relation to mediated communication, Coyne [3, p. 169] writes: “What brings proximity is not the mediation of electronic communications per se but the proximal region brought into being through our concern at the moment.”

However, our concern is not only with the present moment, but also with what is being possible (Möglichsein), or what we understand the potential to be in terms of changing the state of affairs. The phenomenological interaction space we find ourselves in, is a meaning structure that is already there. It is always understood in some way, and this understanding has a fore-structure with three components: fore-having, fore-sight, and fore-conception. Fore-having (Vorhabe) operates first and is what is given in the situation, and in the meaning structure that we have in advance. Fore-sight (Vorsicht) is to, with caution and care, employ a perspective through which we perceive the interaction space and get a first sight of things. This fore-sight suggests a direction that reach out towards a fore-conception (Vorgriff), which are the concepts that are already decided in favour to understand the things at hand. Understanding is accordingly never without presuppositions, and it builds on what is given in the situation and on the taken-for-granted. This points towards the hermeneutical circle of that we are always in and cannot escape, but the notion of a fore-structure highlight that the important thing is not to get out of it, but to enter it in the right way. Our experience of the interaction space also depends on our attunement (Befindlichkeit) to the mood (Stimmungen) of the situation.

For example, it can be the happiness or the dullness of everyday life. Depending on our mood we will experience the interaction space quite differently. The mood is something we can put more or less weight on, but it is something that comes over us, and it is part of how we are thrown in the present situation. The mood is not only how we feel right now, but it is also a vital component of how the world is disclosed to us. The present mood can be affected, but it is already there to run away from, to seek out, and to maintain. It is not just something that colours the experience, it is rather different possible variations of how the world presents itself to us. Every attunement brings its way of understanding the world. Hence, the present interaction space is disclosed to us in a certain mood, and in an understanding within a meaning structure that includes a fore-structure of the present as well as the potential. However, for us to be able to disclose the structure of the interaction space into a meaning-whole (Bedeutungsganzes), we need to articulate the mood and the understanding through talk (Rede). Talk is what makes the use of language possible, and it brings the world into a meaning-whole for further interpretation and reflection.

Finally, not all interaction is meaningful. Heidegger uses the term 'falling' (Verfallen) to describe an inauthentic mode of being. It is characterised by a focus on one-self in everyday concerns with others in crosstalk, ambiguity, and curiosity for something new to occupy one-self with. It is a restless distraction without respite, and an opposite to the attentive moment. Falling is driven by anxiety (Angst), and by ignoring our possibilities and just doing the same as everybody else without further thought of the authentic situation we are in. Yet, it is to a high degree the mode of our everyday life. Especially, as we today are falling through endless streams of updates on Facebook, Twitter, Snapchat, or some other social media network that is popular today.

CONCLUSION

Heidegger's notion of space can reframe the understanding of user experience and of the role of interaction design. It means conceptualizing interaction design in terms of an experiential interaction space. In summary, it is a functional region that designers set up for users and other stakeholders. It offers a frame of possible perspectives and an orientation to the users who grab finite perspectives depending on their objects of concern and equipment. The perspective places some things, or some aspects, in focus and others in the background of attention. The interaction space that designers set up decides accordingly the locations of objects and equipment as well as an orientation with respect to the users. The locations and the orientation then dictate users' moves in the interaction space, while users make things available to themselves, which in turn reorganizes the interaction space. The experiential interaction space is also disclosed to the user in a certain mood, and through an understanding within a meaning structure that includes an already existing structure of the present as well as of what is being possible. It is brought into holistic meaning by the user through articulation and talk but can also be falling into an inauthentic self-centred restless distraction. To conclude, a phenomenological notion of a lived space for action provides a rich conceptual framework, but it has not yet been put to use in interaction design and user experience. This is the focus for a future research agenda.

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