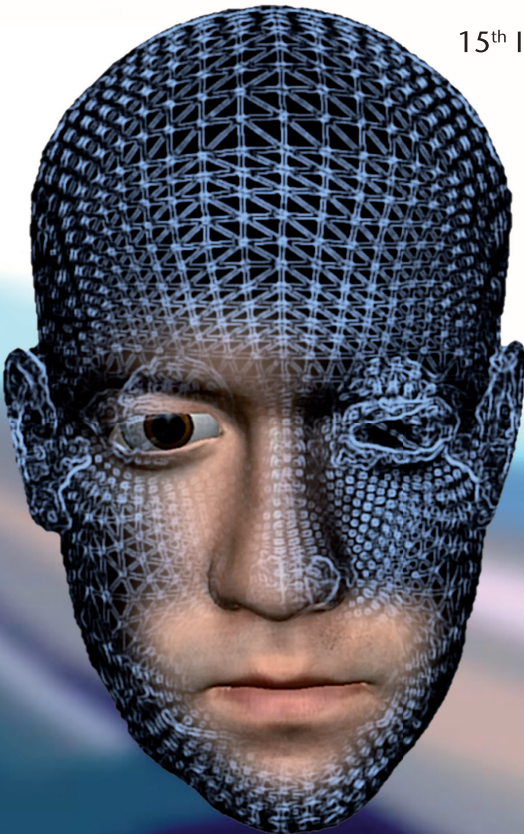# Anna Felnhofer
Oswald D. Kothgassner
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Challenging Presence

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Anna Felnhofer, Research Associate at the Department of Applied Psychology and Director of the Virtual Reality Lab at the University of Vienna, Austria; Guest Researcher at the TU Eindhoven, NL.

Oswald D. Kothgassner, Research Associate at the Department of Applied Psychology and Director of the Virtual Reality Lab at the University of Vienna, Austria; Guest Researcher at the TU Eindhoven, NL.

Presence in Action: An Updated Overview of an Action-based Approach to Presence

Anna Spagnolli

Abstract. While the emphasis is often placed on measuring the intensity of the sense of presence in a mediated environment, presence research and applications would also benefit from researchers' investigating the configuration of the presence experience from a qualitative point of view. Qualitative methods can shed light on what it is like to be present in a certain place and, vice versa, what the place in which one feels present in a given moment is. In my talk at ISPR 2014, I will provide an overview of the theoretical arguments and empirical psychological evidence leading to an action-based approach to explaining and studying the sense of presence in a (mediated) environment from a qualitative point of view. By way of the specific examples that I will use to illustrate my argument, I will convey the notion that this approach represents a good resource not only to understand presence in computer-mediated environments, but also to approach mediated presence in general, using whatever tool supports it.

Keywords. Qualitative methods; Action; Presence

Corresponding author
Anna Spagnolli
Dipartimento di Psicologia Generale
Università degli Studi di Padova
via Venezia, 8 – 35131 Padova
T: +39 049 8276644
anna.spagnolli@unipd.it

Affiliation:
[1] Department of General Psychology, University of Padua, Italy

Two main arguments are at the basis of an action-based approach to presence. The first argument is borrowed from recent theories in the area of philosophy and human geography; these theories maintain that the meaning of a place and the identity of the individuals inhabiting said place are interdependent (Casey, 2001) and set action as the principle around which this interdependence is organized (Harvey, 1973). In this way, the sense of presence is located in the pragmatic dimension of human experience, and the space is opened to study presence by observing action. The second argument stems from the remark that mediation is not an exceptional experience, but rather a typical condition of human beings, who have always relied on cultural artifacts to evolve and transform the environment. Human cognition builds on symbolic and material resources, most of which are located outside the human body but are somehow incorporated into it (Clark & Chalmers, 1998; Cole, 1996; Dreyfus, 1991; Hollan, Hutchins, & Kirsh, 2000). Therefore, the study of presence should account for the relationship between the characteristics of the presence experience and the affordances of the environment mediating such an experience.

These theoretical arguments can count on a great amount of empirical evidence; psychological research confirms that humans build their relationships with the environment by acting in it and that tools can be included into the boundary of the bodily space. An especially eloquent example is represented by the studies on the rubber hand illusions; this study shows that a non-biological artifact can be included into a perceptual-

motor loop, creating the illusion that the limb being rubbed is one's own (Ijsselsteijn, de Kort, & Haans, 2006).

Another vivid piece of evidence refers to the shifting confines of the peri-personal space, namely the space located within the area of reach of the human body (Gamberini, Seraglia, & Priftis, 2008). Far objects, including digital objects, can be re-coded as collocate within the peripersonal space if the user is able to act upon them with a tool.

The above arguments and empirical evidence set the bases for investigating the quality of the presence experience by observing the action in a mediated environment. One object of investigation can be the practices through which users construct their spatio-temporal co-presence in a certain environment and the way in which these practices evolve: the way the entrance in the environment is built, prepared, and justified; the duration of the stay; the timeliness of the responses to the events; and the limits to the availability to other people present in the same environment. To unveil these practices, ethnographic observation and conversation analysis are particularly suitable approaches (Licoppe & Inada, 2012; Spagnolli & Gamberini, 2007; Spagnolli, Scarpetta, Tona, & Bortolatto, 2008). Another object of qualitative investigation could be the configuration of the space in which the user feels present. In fact, the shape and contours of this space are often taken for granted, but what the real space where the mediated action unfolds is needs to be discovered, not assumed. To this goal, the spatial affordances used by the actors while exploiting a certain tool could be studied. One provocative case I would like to use here is street space and how presence (and co-presence) in that space is mediated by the vehicle one is driving. This analysis of driving as a mediated presence also shows the flexibility of an action-based approach allowing one to account for presence in different settings and with different media.

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