Interaction and space in the virtual world of *Second Life*

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Abstract

Interaction takes place in a spatial context and in many ways is influenced or shaped by this context. Interaction also discursively creates space. There are buildings and rooms that are designed to facilitate specific forms of interaction as for instance in the case of lecture theatres, seminar rooms or assembly halls. The architecture of such rooms, including not only their shape but also the arrangement of furniture and technical equipment, provides affordances that facilitate and structure lectures, class-room discussions and debates. Moreover, interactants position themselves in space to establish co-presence and joint attention. In online virtual worlds, the spatial context of interaction has to be graphically recreated. The various aspects of this context, however, are selectively re-created. Some of them serve similar functions as in physical life in that they facilitate or structure interaction while others merely serve as flags to indicate the type of interaction the participants are engaged in. In this paper we analyze the recreation of interactional architecture and spatial positioning in one specific virtual world, i.e. *Second Life*, in order to explore the ways in which the interactants deal with the differences between physical life and virtual life.
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1. Introduction

Interaction and space are interrelated in multiple ways both in physical settings and in virtual online settings. Interaction takes place in space – in real-world architectural or natural surroundings, or in artificially created surroundings of computer applications. Furthermore, space is discursively created in the process of communication. In physical life there are many purpose built spaces that facilitate specific forms of communicative interaction. A lecture theatre, for instance, provides seating for an audience, a position for a lecturer where he or she can be easily seen and heard, a blackboard or a screen for the visual display of additional information and so on. A doctor's surgery is purpose built to enable the interaction between a doctor and a patient. There are chairs for the comfort of the interactants, situated in a way that makes communication easy and guarantees privacy. Some recent research has started to dissect such affordances of physical settings and to study their impact on the communication that takes place within these settings. Hausendorf and Schmitt (2013) use the term ''interactional architecture'' to refer to the architectural organization of space which enables or supports certain types of communicative interaction (see also Hausendorf, 2012, 2013; Plüss and Walti, 2014). In artificially created virtual worlds such settings and their affordances are often imitated and re-created even if they are not

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necessary for interaction in the virtual world to take place. In the present study we want to show that this analytical perspective is not only relevant for the physical context but also for settings that are established in virtual space, as for instance in a virtual world such as *Second Life*.

Virtual worlds are computer-generated environments that rely on graphics implying three-dimensionality and that can be accessed via virtual bodies called 'avatars'. Within these worlds, physical spaces are virtually recreated in the form of landscapes, buildings or objects. The three-dimensional space is visually rendered on the (two-dimensional) computer screen. Through such recreations, not only spatial structures that we know from physical life are transferred to online spaces but also the communicative activities and some of the affordances that go along with these spaces. In *Second Life*, for instance, users have created lecture theatres, seminar rooms, cafés or clubs that are modelled after physical life and where lectures, seminars, poetry readings or parties take place. When avatars congregate in *Second Life* in order to take part in such communicative activities, they orient themselves in the quasi three-dimensional space of the two-dimensional computer screen in ways that are partly inherited from the traditional ways of orientation in physical space and partly established in entirely new ways. It turns out that only some of the affordances from physical life are reconstructed while others are ignored.

In this paper we will explore the interrelation between interaction and space in a virtual environment and in particular the ways in which constructed virtual space (virtual interactional architecture) facilitates, structures and flags specific forms of interaction, and the way in which language users organize space through their interaction. Which communicative affordances of the physical world are re-created in the virtual world? And what purpose do they serve in the virtual world? Are they needed to enable or facilitate a specific form of interaction? Do they help to structure the interaction in some way? Or do they merely serve as iconic flags that signal the type of interaction that can take place in a particular space?

As a case study we will use the virtual world of *Second Life*, a computer-driven, simulated three-dimensional virtual world inhabited by graphic avatars (see e.g. Boellstorff, 2008; Berger, 2012; LaPensée and Lewis, 2014; Martin, 2014; Abdullah, 2015; Locher et al., 2015). Its current popularity no longer reaches the levels it enjoyed in the early years of its existence in the 2000s. But it still claims over 45 million residents and more than 39,000 residents online at the time (http://gridsurvey.com, accessed 2016-03-03 21:35:02 SLT). It serves as a useful testing ground because it is user driven, in the sense that it is largely the users themselves who determine the make up of the communicative settings (landscapes, buildings, etc.) and the types of communication that take place in these settings.

In the following section, we will briefly introduce important aspects of *Second Life*. In Section 3, we review some of the literature on interaction and space that is relevant for our purposes. Section 4 will then focus on the specific data that were collected for this study, and it will briefly introduce the methodology of our analyses. In Section 5, we focus on the ways in which architecture facilitates, structures and flags specific forms of interaction in virtual life (interactional architecture) and how interaction itself creates interactional spaces. Our case study will show the ways in which interactants jointly enact a lecture and moderated discussion in an improvised setting and thereby turn this setting into a makeshift lecture theatre.

2. The virtual world *Second Life*

Second Life is an online virtual world, which in many respects resembles Massively Multiplayer Online Role Playing Games (MMORPGs), but it differs from these in that it is not a game in the normal sense of the word (see Bennerstedt and Ivarsson, 2010:203). There are no tasks or objectives that are determined by the platform, and there are no temporal cycles with beginnings and ends that are typical of many games. The platform is continually accessible, and users are free to explore it as they wish. It is accessed via virtual embodiments (avatars) that take three-dimensional shapes (see Abdullah, 2015). These may be anthropomorphic, zoological shapes, fantasy shapes or shapes of everyday objects. It is useful to make a terminological distinction between the physical users who sit at their computers, the virtual identities they assume within *Second Life* called residents, and the shapes that embody the residents in the virtual world, i.e. the avatars. Some users strive to give their avatars an appearance that imitates their own. Boellstorff (2008) provides a striking example. According to the reproduction on the book cover, the avatar Tom Bukowski that he used for his ethnographic exploration of *Second Life* bears an uncanny resemblance to the author of the book. Generally, however, the physical appearance of avatars bears little or no resemblance to their users (see Frohwein et al., 2008 for a detailed study of the ways in which the appearance of avatars influences the way in which they are approached by other residents).

The avatars are controlled by mouse-clicks or via the arrow keys on the keyboard. They can move back and forth, sideways, up and down. They can jump, run, fly or be transported via a process that is called teleporting, which takes the avatar almost instantaneously from one location in *Second Life* to any other place in this world (see Yus, 2011:chapter 4; Boellstorff, 2008; Berger, 2012; Locher et al., 2015). The avatars are part of the interface through which users sitting at their computers can interact and communicate with each other. *Second Life* offers a whole range of interactional affordances for the users to communicate with each other. Some of them are language-based and only loosely connected