# Chapter 4 Space and Media: Digital Umwelten

#### **ABSTRACT**

The tool identified for data collection of this research project is a video game, which makes the topic of the representation of space in videogame an absolutely relevant aspect for the project. This work bases on the statement of Jenkins, according to which "game space never exists in abstract, but always experientially". In the current generation of video games, talking about position of the camera assumes a different value than in film or television language, assuming the meaning of point of view from which the game is visually (and auditory) presented and determines the spatial perspective of a computer game. The most common distinction, with respect to the position of the camera, is between First Person Camera, where space is presented from the perceptive perspective of the player's avatar and Third Person Camera, where the perspective is not directly the one of the avatar. This category, in fact, is very extensive, and poorly lends itself to a single definition. Under the umbrella of Third Person Camera are both perspectives associated with the avatar, but framing it externally (a camera follows the avatar) and those in which the camera is fixed. Moreover, the position of the camera compared to the avatar (from behind, left, right, Orbit Camera, etc.), or with respect to the environment (from above, from a precise point of reference) is not a neutral choice. In the present work, we use the categorization proposed by Britta Neitzel (Neitzel, 2002), which, taking up the work of Jean Mitry about The Aesthetics and Psychology of the Cinema (Mitry & King, 1997), distinguishes between subjective, semisubjective or objectives views. The chapter provides examples of different perspectives, and introduces the concept of Natural User Interfaces, which include movements based on input and output, on discretion, on voice, and evolve towards an efficient use of the senses in the interaction with machines.

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### STORYWORLD, WORLDSPACE, GAMESPACE

The tool identified for data collection of this research project is a video game, which makes the topic of the representation of space in videogame an absolutely relevant aspect for the project.

The opportunity to use digital tools in this particular field of investigation has experimentally established by Berthoz:

We designed a behavioral study in which participants interacted spontaneously with a life-sized virtual tightrope walker walking forward, backward and leaning to her left or right on a rope. Here, we report results showing that participants automatically embodied the avatar's leaning movements. Moreover, the form of the participants' motor behavior (i.e., automatic leaning movements to their right and left when the tightrope walker was leaning to her own right and left, respectively) revealed that participants, using mental imagery, located spontaneously themselves in the avatar body position, suggesting that they embodied the avatar's visuo-spatial perspective in the avatar's body position to take its visuo-spatial perspective, suggesting that embodiment process is not necessarily exhibited by a physically mirroring body posture. We further propose a model of self—other interaction showing how perspective-taking mechanisms may relate on mental body transformation and enabling to deepen the description of the different sorts of inter-subjectivity. (Berthoz & Thirioux, 2010)

Specifically in the context of video games, should be put to the premise of the relationship between space, perspective and virtual environment the consideration that many video games take the first-person perspective as the dominant perspective (FPC - First Person Camera) but at the same time allow to change perspective if necessary (TPC - Thirdh Person Camera), and the habit to switch between the different perspectives is established and considered effective among gamers.

This leads immediately to consider the peculiarities of the idea of space in videogames.

The experience of any space in video games varies depending on the player's presuppositions regarding the forms and limits of game space, the importance and use of a particular space to the game narrative, and the player's vantage point in the space. Once the player learns the conventions of both the geometric

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