Chapter 5.1
(Self–) Educational Effects of Computer Gaming Cultures

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ABSTRACT

The goal of this chapter is to emphasize a certain notion of self-induced education, to discuss it in the context of digital games and to provide the means for assessing digital games as well as to give hints on their educational use. In the first section, the concept of "self-education" is introduced and distinguished against less complex learning phenomena. The second section discusses and analyses the different layers of "educational space" inherent to gaming software, providing the analytical means for the further sections. The third section presents and analyses educational aspects of single-player games, while the fourth section adds the socio-cultural impacts implied in multi-player communities. In conclusion, a synopsis is given, which sums up the main educational dimensions and connects them to aspects and analytical criteria, allowing a pedagogical assessment of digital games.

INTRODUCTION

Digital games are still predominantly assessed critically in public discussions because of certain (presumed) negative impacts. At the same time, computer gaming cultures often represent an avant-garde of socio-technological developments in the field of new media. Since the late 1990s, the study of computer games, their possible effects, and their role as new cultural as well as social phenomena has increased (e.g.,

Fritz & Fehr, 1997; Fromme, Meder, & Vollmer, 2000; Greenfield & Cocking, 1996; Raessens & Goldstein, 2005; Vorderer & Bryant, 2006). Additionally, there seems to be "a renewed awareness of the potential of simulations and games among researchers interested in learning and cognition" (Arnseth, 2006), which is related to discussions and projects regarding the "serious" use of digital games in education, training, health, and similar contexts.[1] We want to join this discussion, but to take a specific perspective. Computer games provide educational potential, which is overlooked to a great degree in current discussions about serious games or games for learning. We want to address this potential as self-education. To learn more about emergent social structures and gaming practices means to gain important insights into the limitations as well as possibilities and opportunities of educational uses of digital games. It also means to realize the predominance of informal learning and self-educational processes within this field, and to become aware of the social dynamics these processes form part of.

In this chapter, we will first introduce and discuss our understanding of the notions of learning and self-education, the latter focussing, on the one hand, on the active and constructive role of the learner and, on the other hand, on the idea of a broader change of world views and general framing of recognition (1). Secondly, we will discuss different kinds of educational spaces found in the scope of digital games (2). We shall then exemplify pro-educational structures, first in single-player games (3), and afterwards in community-driven multi-player games (4). The summary recapitulates the main issues of this chapter, offers means for assessing the educational value of digital games, discusses some implications for using games (single-player as well as multi-player games) in educational contexts and arguments for bridging the gap between formal and informal learning environments (5).

LEARNING VS. "SELF EDUCATION"

According to the latest report of the Council of Science and Public Health [CSAPH] (2007), about 70 to 90% of North American youth play digital games. The broad dissemination and great popularity of computer and video games have made digital gaming part of everyday culture, especially—although not exclusively—for children and youth (also see Entertainment Software Association [ESA], 2007). It is therefore not really astonishing that some people are considering the possibilities of taking advantage of this development by adapting and applying digital games for training or instructional purposes. And there are some encouraging results, too. For example, "video games have been shown to have beneficial effects as learning aids within the health care sector" (CSAPH, 2007, p. 3). However, while considerable attention is being paid to this instrumental approach—for example, using digital games for pedagogical purposes—the informal educational relevance of entertaining games is barely ever mentioned.

Our suggestion is to transcend a mere instrumental perspective and strive towards a better understanding of informal learning and self-educational processes in digital gaming cultures. This implies a two-fold extension of how teaching and learning are commonly looked at. The first aspect is to emphasize the active and constructive role of the individual in any process of learning, including changing his relation to the sociocultural world. Pragmatist philosophers and educational theorists such as John Dewey (1925) and George Herbert Mead (1934; 1938) have developed a notion of "experience", which provides a qualified theoretical foundation for this approach to learning and identity development, resulting in new habits and attitudes, in new ways of seeing and interpreting the world. Much of this pragmatist idea resembles the concept of Bildung as developed in German idealist philosophy, especially in G.W.F. Hegel's understanding of the individual as being involved

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