ABSTRACT

Many studies show that video games require attentive and interpretive capacity to generate complex cognitive skills in the gamer and they can be transferred to other contexts, such as school. In this paper, the authors do not aim to investigate the contents of the player’s thinking, but rather his/her way of thinking. In this scenario the teacher becomes a worlds’ maker, who provides his/her students with the tools allowing them to partake in the co-building of multi-tiered worlds, which requires not only the ability to get access to intangible information but also a skillful management of media interfaces. In this way, the click of the mouse becomes the action par excellence that allows each individual to contribute synergistically to the realization of the digital habitats. The ultimate goal is to search, in the learning processes activated by the video games in both the authors and the lemming, those features that make the learner a self-knowledge builder. Such “socio-cultural grammar” influences the writing and interpretation of messages, turning every individual into an author, who’s often unaware of the “scriptwriting culture” that inhabits all the possible media worlds.

Keywords: Author and Lemming, Learning Processes, Technology, Video Games

1. INTRODUCTION

The history of mankind shows that the technological change cannot be stopped; on this side, Ray Kurzweil (1999) argues that the progress is unstoppable and that any attempt to deny the progress of “positive technologies” will not hinder the progress of the dangerous ones. This means that technology will be much more available than most people will expect.

In recent years, sophisticated video games have emerged as controversial harbingers of a new age of immersive, interactive and ubiquitous Computing. Video games are played not only on game consoles, like Playstation 4 and Xbox One, but also on mobile devices, smartphones and social networking platforms.
Video games are very attractive to adults and children. In Italy, for example, recent surveys have shown that the sales of video games overtake those of books and movies; more than 25% of five-year-olds and also children over five years of age play video games. A player spends an average of two hours per day playing Playstation, Nintendo, Wii and other game consoles.

In the UK, more than 31 million people are gamers and average young people have spent 10,000 hours gaming by the age of twenty-one. By 2016 the number of gamers in the world will increase from 1.21 to 1.55 billion people; a strong impulse to this growth will be determined by mobile gaming: the video game market on smartphones and tablets will grow exponentially, in fact sales are expected to increase by 20% and 50% respectively. Italy ranks in the third place in Europe for tablet gaming spreading and 18 out of 21 million people prefer social gaming (Newzoo, nd).

The proliferation of games and the increasing number involvement of users involved has deep implications for the entertainment industry, but this phenomenon also offers new opportunities for understanding the teaching-learning mechanisms and training. Technologies are extensions of our being; we are permeated with tools that become more and more “part of ourselves” everyday. Through these prostheses we rediscover, explore and describe ourselves. Paul J. Gee (2008) affirms that video games contain learning principles that, if applied also to school, can significantly stimulate and improve the teaching method, the approach to the studying process and the students’ outcomes. These aspects contain fundamental principles that determine a significant and long-lasting learning process: motivation, interaction, instant information, production and action, problem solving and socialization.

In these processes creativity comes into play both in the search for a solution to the problem and in looking for alternative ways to achieve the aim of the game. In these dynamics, the role of the author emerges in all his expressiveness. Being an author means to exercise conscientiously his/her own leadership, selecting resources and gaining skills with increasing complexity, in order to manage a high number of information aimed at achieving a specific objective. The lemming, instead, allows players to be dragged into the vortex of the network without exploiting critically and consciously the potentially available resources.

Recent research shows that the games stimulate an active behavior which can be observed by analyzing the choices made during the game. Jane Mc Gonigal (2011) in a recent study on the influence of games and gamification on society says that the playful features can facilitate the understanding of the present world and encourage virtuous social behaviors. She argues that: “a game is an opportunity to focus our energy, with relentless optimism, at something we’re good at (or getting better at) and enjoy. In other words, gameplay is the direct opposite of emotional depression” (McGonigal, 2011, cap. 1, par. 3).

Games can improve and make more bearable those experiences that don’t gratify a person enough, attaching a more “heroic” meaning to the performed actions. Gamers have become expert problem solvers and collaborators, and use games to positively face every aspect of life: from personal to social ones. People who will be able to understand, design and play games will hold at least one of the main key to success in the future.

2. THE DYNAMICS OF VIDEO GAMES AND COGNITIVE PROCESSES

The video games’ dynamics support the multitasking processes by stimulating the problem solving skills, since there are always goals to be achieved and obstacles to be overcome. The management of the actions to be carried out in order to reach the different goals leads us to take decisions very rapidly and changes, at the same time, our cognitive structures. Derrik de Kerckhove (1999) has described how the instrument the human being has at his disposal can
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