



Video Games in Education: an Analysis beyond Prejudice

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Abstract

The use of video games has given rise to a long debate, involving scholars and public opinion. Those who look suspiciously at videogames advance medical, psychological and sociological explanations. Furthermore, video games would favor the development of an autistic dimension and of antisocial behaviours, especially in minors. The authors of the present essay believe that video games can significantly contribute to the strengthening of intellectual faculties and constitute an important learning opportunity. This would also be valid in the case of so-called violent video games, such as First Person Shooters and fighting games, which, by putting players in extreme situations and ethical dilemmas, can be rightly included in the best tradition of the coming-of-age story.

Key words: video games; violent video games; education; bildungsroman; FPS;

1. Introduction

Over the years, the connection between video games and aggressive behaviours has often been at the center of the public debate. In particular, there are some theories [1] that are usually mentioned when it comes to this connection:

the *General Theory of Arousal*, according to which video games would increase the level of excitement of the player, who would then transfer this increased energy in the actions he performs in daily life. By virtue of this mechanism, violent video games would foster aggressive behaviours;

the *Theory of Social Learning*, which argues that behaviour is learned through the imitation of attractive patterns and related rewards. In violent video games, players identify themselves with the characters of the games and receive prizes linked directly to the execution of virtual violent actions (e.g. the allocation of points following the killing of opponents): this mechanism would encourage the transfer of such actions into the real context;

the *Theory of Catharsis*, which can be traced back to the studies of Feshbach and Singer [2], claims, unlike previous theories, that the vision of violent contents helps to inhibit the possibility that aggressive conduct is effectively determined in real life.

There are some studies that seem to confirm that there is no scientific evidence to support the association between video games and juvenile crime: in particular one study [3] - conducted by researchers from Villanova University and Rutgers University - deals with the relationship between the consumption of action games and the commission of crimes. This longitudinal research is based on four comparative analyses carried out in the United States:

- changes in sales of violent video games and in the number of violent crimes from 1978 to 2011;
- monthly changes in sales of violent video games and crimes from 2007 to 2011;
- the volume of online searches for guides and solutions for violent games and the number of violent crimes from 2004 to 2011;
- violent crimes following the publication of three very popular video games: *Grand Theft Auto: San Andreas*, *Grand Theft Auto IV* and *Call of Duty: Black Ops*.

The study overturns the common belief that the spread of violent video games leads to an increase in aggressive and criminal actions and reaches the opposite conclusion: in the six months following the introduction of the above-mentioned games on the market, there has been a decrease, and not an increase, in the number of offences.

2. An educational interpretation of violent video games

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Nevertheless, violent video games can be also considered through an educational point of view, which is an unusual perspective - at least in Italy. In fact, thanks to their characteristics, these games - which have a strong appeal to new generations - can be considered important educational tools, such as books and films. The presence of ferocious images, of aggressive behaviours or extreme situations are not indicators of harmful education; on the contrary, the chance to experiment death into a "protected" environment or to "live" challenging contexts can be related to the classical tradition of coming-of-age story.

Indeed, the presence of violent and cruel images and contexts were used also in fairy-tales to stimulate ethical or social reflections. In this regard, it would be enough to look at the fairy-tales of Grimm brothers, Charles Perrault and many other authors to discover how the use of the aesthetics of violence and immoral behaviours is a constant: in *Little Red Riding Hood*, *Hansel and Gretel*, *Snow White*, *Rapunzel*, *Bluebeard* (prototype of the serial killer) one could find without excessive effort a sample of deviated conducts (up to zoophilia and cannibalism) and death is punctually associated with blood and sadism. Yet, over the centuries, these stories have been used to get the children fall asleep or to give them the first moral or educational precepts; the same coming-of-age story speaks the language of physical and moral violence.

From *The confusions of young Törless* (Musil's famous literary debut, whose plot is characterized by torture and physical and moral abuse), to *Una vita violenta* by Pier Paolo Pasolini, to the *Pulp* season of the 1990s, to the dystopias of Margaret Atwood, Emma Cline or Donna Tartt, coming-of-age story, in its various meanings, does not spare the reader from explicit and brutal plots and settings. Secondly, the violent events experienced by the characters, from *Bildungsroman* onwards, generally correspond to tests to be overcome, from which to learn lessons and recognize, if necessary, their mistakes. This layered structure is easily traced in the architecture of violent video games, where very often players can level up only after killing a monster that hampers their passage. The monster symbolizes an evolutionary stage necessary to achieve full mastery of the game (and, metaphorically, of life).

While the modern coming-of-age story is allowed to leave definitively the idea that it is not necessary to protect the reader from the banality of daily evil but, on the contrary, it is possible to develop a moral sense from the observation of both evil and good, this is generally denied to violent video games. At the international level, indeed, there is no lack of researches that highlight how violent video games offer children the opportunity to explore virtually and without consequences ethical issues such as war, violence, death [4] and war-themed video games [5], allowing or requiring players to play the role of soldiers on different sides of the conflict, can make them more aware of the human and social costs of war.

Moreover, studies dating back to more than a decade ago [6] show that children who play violent video games, from the age of 7 years, would be able to easily distinguish between virtual violence played in the context of a game and that acted in the real world.

Here, we will examine, by way of example, some action and violent games in which it is possible to find, in our opinion, educational elements.

Fallout (1997-2015): violent action RPG (Role Playing Game), is considered by experts one of the best video games of all time and is set in a post-apocalyptic future, the result of devastating nuclear conflict with which ended a long war to grab the last deposits of oil and uranium. The setting of the game, with pronounced stylistic references to steampunk, recovers with extraordinary effectiveness some classic topics of science fiction literature and lends itself to being used to read in an engaging way issues such as war, the struggle for possession and management of resources, the limits of development, the possibility of a nuclear holocaust, totalitarianism and to think about the power relationships that inevitably reproduce in every community. But it is also an opportunity to highlight and appreciate, as in the best coming-of-age stories, those actions based on cooperation and solidarity that can be decisive for the salvation of mankind. Not by chance, in the end the protagonist of the game manages to retrieve the spare part for Vault thanks to the Ghoul, derelict mutants who live in the sewers of Necropolis.

Undertale (2015): is acclaimed by the critics as one of the most innovative games ever designed, especially for the accurate representation of the characters. The main protagonist is a child, struggling with the exploration of a mysterious underground world, inhabited by monsters that hinder his ascent into the sunlight. The feature that makes *Undertale* an extraordinary formative tool is the possibility offered to the player to choose whether to kill the monsters or to overcome them peacefully, inducing them to give up combat. It should be noted that the latter choice is the most technically penalizing, forcing the player to make greater efforts to reach the goal, so as to highlight the cost of the ethically correct options. The decisions taken have direct consequences on subsequent events, including a

series of alternative finals: a *non-violent* one, envisaged if no monster has been killed; a *genocidal* one, envisaged if all monsters, including bosses, have been killed; and the *soulless* one – the most significant - activated if a previous round of play has been chosen for the genocidal ending and the subsequent one for the pacifist ending.

Watch_dogs (2014): is an open world action game developed by Ubi Soft with a strong cyberpunk connotation and is based on a highly topical plot - the threats to privacy and the importance acquired by sensitive data for the control of people's lives - and has the hacker Aiden Pearce as its protagonist. *Watch_Dogs* manages to deal with issues such as social control, the colonization of the Net by companies and surveillance agencies, the despotic function of algorithms and repeatedly places the protagonist before the ethical dilemma of death, until pushing him, in the final scene, to a monologue on the impossibility of deciding who should survive or not and a substantial abjuration of murder as an instrument of justice.

Call of Duty (2003-2018): probably the most popular series of first-person shooter games, in which players are completely immersed in the context of war and have the opportunity to experience the fear and surprise of an air attack, the claustrophobia of the trenches, the wait before the moment of contact with the enemy, the anxiety and powerlessness of finding themselves in front of a stronger opponent. The first-person view, the realistic sounds, the very high graphic level allow the player to identify himself with the character. In this regard, *Call of Duty*, the violent video game par excellence, becomes a sophisticated empathetic device, which allows the player to safely experience situations of great emotional impact.

Conclusions

We hope that this brief review has served to question the assumption that the educational mission should not be recognized to the entire gaming universe but, only to the so-called serious games, a category in which are included those games whose main purpose is not entertainment. In our opinion, action and violent games, due to their high rate of emotional involvement and the topicality of the issues proposed, are equally powerful training tools that, thanks to their sophisticated architecture, can catalyze the attention of the new generations and deserve greater consideration in the pedagogical field.

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