

THE PROSOCIAL BEHAVIOUR OF ADOLESCENTS IN ONLINE VIDEO GAMES. A LITERATURE REVIEW

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Abstract: *In the proposed article, starting from some theoretical considerations, we will explore the relationship between the use of online video games by adolescents and their prosocial behaviour. We intend to study how the prosocial behaviour of adolescent cooperation is influenced in interactions from online multiplayer gaming networks, what is the motivation and what are the factors that determine the participants to have cooperative behavior. Moreover, if these practices in the online environment strengthen the relationships between adolescents, do they interfere in the daily social life? The current studies are not conclusive regarding the effects of video games on adolescents and many of them express the authors subjectivity. That's why it is worth exploring the positive effect of using online games. In my research I started from the result of an OMNIBUS study where I was involved in Romania, Bihor County in 2019, with over 4000 students aged 13-14 years. One of the questions that the study raises is the following: If the practice of cooperating, as a form of prosocial behaviour in online is common in multiplayer games, can this positively influence the prosocial behaviour of everyday life?*

Keywords: *online video games; adolescents; prosocial behaviour; cooperation*

Introduction

In the current context of our lives, it became an increasingly common practice to use social media online. Currently, there are hundreds of online social networking sites, where we interact, to learn, exchange ideas or messages, play video games, or simply, we want to catch up with the news.

A special category is the social networks that are created in the field of online multiplayer gaming (Granic, Lobel & Engels, 2014). Online video games are now more accessible and manage to create more social media than ever before. When we study adolescent practices and behaviors in correlation with the video game consumption, it is important to have an interdisciplinary approach, in which we base ourselves on theories and knowledge from different fields: sociology, psychology, communication sciences.

At the base of the study are facts collected through OMNIBUS Research, a project coordinated by Prof. Univ. Dr. Habil Adrian Hatos, realized at the University of Oradea, with the support of the Bihor County School Inspectorate and the Bihor County Center for Resources and Educational Assistance. The research was carried out between November 2018 - February 2019, among the

eighth-grade students from Bihor county, on a sample analyzed by 4261 students (sample made 4708 students, from 155 schools).

Following the data processing, in the chapter "Online behavior, the question *"I was asked or circulated annoying or offensive messages (eg words, pictures, videos) about me on the Internet, in places where other people could see them"*, 71.5% of the students declare that they have not had such experience in the last 12 months (they were not the target of this form of bullying), while only 17.1% state that these things happened to them. The 12.6% difference states that they do not know.

This result, at least in Bihor County, rise a legitimate question: *Is cyberbullying in the online communication space a reality or just a myth?*

With this question, we turned to studies of literature specialist, aimed at prosocial behavior cooperation of adolescents in online social networks that are created in multiplayer online games, as well as theories that can fund the proposed research.

1. Teens and video games

The virtual environment is the place where the adolescent feels freer than in the real world, communicating easily with peers and developing relationships. Forbidding a teenager access to the Internet is an aggression for him (Tisseron, 2010).

If adults feel the need to escape in a game or TV show, the same thing happens with teenagers; they want to run away from problems, forget about them, projecting themselves into a parallel world, where they can experience the emotions of high intensity, which have the great advantage of not having negative consequences in reality (Velicu, Balea & Barbovschi, 2019). A child or adolescent finds comfort in front of the monitor and console and because video games feed their self-esteem. This is where he receives messages of encouragement (much needed), weapons, points of life, congratulations from other teammates, when the game is online (Bavelier et al., 2012). Equally valuable are the positive reviews and comments that players receive when they are live. But how do teens cope with the need for landmarks and identity? When, for example, someone feels marginalized in real life (at school, in the family), the temptation to change the world or to display and lead a new life in a masks shelter is very high. In any gaming network no one really knows who you are. In World of Warcraft, for example, no one knows if you are a teenager misunderstood by the family, a battered child or a humiliated student. If there is a risk, given by the consumption of games or social networks, in any form, at this age, it is related to the identity of adolescents, which is still uncountured, confused, unstable.

2. Relationship with adolescents and the need for group membership

One of the needs that people feel is the need to be accepted by others, in the company you feel accepted and can share your emotions and feelings. The groups of adolescents formed are easily comforted, uniting members who share the same interests (Bray, Krongold, Cooper & Lebel, 2015). This need generates affective-sympathetic relationships, in which we express preferences or affective rejection towards different people.

In the context of studying prosocial cooperation behavior, it is useful to know the adolescents' needs to belong to the group and the preferences regarding the relationships. An overview of the preferential relationship practices, specific to adolescents, highlights the fact that dyad relationships are integrated into a network of relationships with congeners, structured into formal and informal groups. Friendship is a source of validation and reinforcement of pro-social behavior, the protective thread of the risk factors, the development has the moral and social adaptation (Salanki, 2014: 112).

Amid mental development, cognitive and social capacity, establishing friendly relations of adolescents is becoming increasingly important. In this stage of life, adolescents are trying to assert themselves as personalities independent of the family environment and need the support of friends to validate their own choices (Barr, 2018). Reciprocity and cooperation between friends gives those involved a sense of fulfillment and confirmation of acceptance regarding belonging to certain social networks (Pânișoara, Sălăvăstru & Mitrofan, 2016). Finding appreciation and care from friends has a positive effect to the formation of self-image, to self conception and contributes significantly to the creation of the socio-emotional strong enough to deal with possible negative experiences within certain groups (Bukowski, Motzoi & Meyer, 2009).

3. Adolescents' practices on social networks and effects on sociability

Some studies (Reid & Weigle, 2014) show that in relation to the continuous development teenagers are defining the speed and variety of practice and preference for online media. Rapid exchange of short replicas, which sometimes take the form of baffles, is a common practice of adolescents. This practice is also reflected in the way of online communication of adolescents, with short, fast replies, on various online social networks. Over time, it was observed that adolescents' appetite for diversity and speed developed concurrently with their preference for multitasking.

For most researchers, it is unclear whether the environment created for instant communication influences adolescents' preference for an alert

communication variant or, on the contrary, certain applications are designed as a necessity that meets their need. Possible influence is mutual (Pabian & Vandebosch, 2016).

The practice of multitasking has undergone major changes, in the last year, among adolescents. If in the 90s, 16% of adolescents used several means of communication simultaneously, after the emergence of web 2.0 technology. it has grown a lot, almost doubling, according to Valkenburg and Piotrowski (2018: 251). Among teenagers and beyond, it is common practice to use multiple devices, communicating with people, playing video games, listening to music or commenting on various posts. The large volume of information with which we are bombarded, as well as major changes in the media landscape, forcing us to develop this practice.

A relevant example in this regard is the practice of video games, where gamers performing multiple operations at the same time, are paying attention to a lot of visual information.

In order to understand social media correctly in relation to the mechanism of adolescent, culture, assuming attitudes, practices, behaviors, it is important to consider their age particularities, as well as different theories, regarding social media consumption (Crone & Dahl, 2012). Recent studies show that adolescents spend, on average, more than 6 hours a day in the social-media space (Rideout, 2015; Valkenburg & Piotrowski, 2017). These data are also confirmed in Romania, following our OMNIBUS research, from 2019, where, in Bihor county, the average time used by adolescents on divergences (cumulative) is 6.23 h / day (MERPAS, Doctoral School of Sociology, Oradea, 2019).

According to Robu and Pruteanu study's (2017) offline video games ranked third, at a distance of 1.27 points from the average rank for online games. This indicates that adolescents prefer online games, rather than offline ones. One of the explanations is that online games are much more attractive in terms of quality, in addition, offering greater opportunities for socialization (Robu & Pruteanu, 2017).

There are studies that, based on the contextual and mediation variables, have concluded that the use of video games has a positive impact on the sociability of adolescents. (Strasburger, 2016). For example, consumers in the long term experts experience more social contacts than those who use short term these social channels. Visible is the difference regarding the positive impact that the use of networks and social online to MMOG has the capacity for social integration (Huebner, 2012: 26).

4. Short analysis of online gamig

Video game creators and other specialists argue for the educational potential of educational games, invoking the intrinsic pleasure and motivation of consumers as the main levers through which learning and cognitive skills can be facilitated (Connolly, MacArthur & Hainey, 2012).

If there was only one category (action games), today, the Gamespot.com Web site has classified games into more than 30 genres, which in turn are classified into more than 130 categories. According to Klug and Schell (2016), there are nine archetypes of players, depending on the motivation behind the gaming activity: *Competitor, Explorer, Collector, Ambitious, Joker, Director, Storyteller, Artist, Craftsman*. (Klug & Schell, 2016). This classification shows that behind the use there are several needs, which make the games so attractive, which determine the participation of adolescents in online games (Valkenburg & Piotrovski, 2018: 215).

Multiplayer video games, such as League of Legends, Dota 2, Counter-Strike, GTA, Team Fortress or others, have gained more and more users. The reasons for the use are different: the desire to read, entertain or the desire to socialize.

The report released in 2016 by *The European Mobile Game Market*, shows that the number of people playing video games exceeds 2.5 billion worldwide. In the United States alone, over 64% of the population play video games, with the average age of players being 33 years for men and 37 years for women.

According to Entertainment Software Association (2017), in the US, the average age of people playing video games is 34 years (Granovetter, 2017).

It is less known that most gaming applications have, in recent years, integrated a system of censorship of trivial language, so that such messages cannot be transmitted in written language. This limitation generates a positive effect, causing users to avoid indecent / obscene terms. Although it acts in a limited way, this communication policy can generate prosocial attitudes and practices among users (Quwaider, Alabed & Duwairi, 2019: 579).

5. Prosocial behavior in video games

In the study of prosocial behavior on online social networks, in multiplayer video games, it acquires forms such as: help or cooperation. Beyond the positive effect that gaming generates on cognitive development, as well as on mental health, team spirit is reinforced, whether we are talking about online games with multiple teams or even offline co-op games, which I suppose the existence of a minimum group. (Cole & Griffiths, 2007: 581). It is the place where you help and they help you in return. Players work closely in the same team, where each player has their own skills, strengths and limits. Surely, their development, through the practice of cooperation, will have positive effects in time, in life.

6. Reciprocity in online video games, from the perspective of Generalized reciprocity theory

Online prosocial behavior is voluntary behavior, aimed at the benefits of others or promoting harmonious relationships (Van Rijsewijk et al., 2016).

Erreygers (2018) states that there are two explanations for these findings: The *theory of generalized reciprocity* (Erreygers, Vandebosch, Vranjes, Baillien & De Witte, 2018) and "The spiral consolidation model" (Schrier, 2016). The prosocial behavior of people in social interactions in groups is influenced by their expectations regarding positive and reciprocal behaviors from other members of the group. Therefore, according to the theory of reciprocity generalized, when people are treated positively by others, they will have a prosocial behavior. This phenomenon happens in online gaming networks or any other online network that involves interactions, in different membership groups and cotext (Erreygers et al. 2018: 4).

The norms of mutual prosocial behavior can quickly develop in online social networks, people practicing mutual exchange. Some authors conclude that this process can be even more prevalent online than offline as online actions have the potential to reach a wider audience and to be witnesses long after you have actually occurred, compared with the actions offline (Nicola, 2019: 35).

There have been distinguished two forms of reciprocity: direct and indirect (Rankin & Taborsky (2009), Erreygers et al. (2018)). The prospect of direct reciprocity means "you pay" back to someone after you've received a favor. As it concerns indirect, generalized reciprocity, this implies "payment in advance", that is, giving a favor, before receiving one's favor.

Some authors have shown that widespread reciprocity also occurs in the online environment (McLure, Waskonn & Faraj, 2000), Przybylski & Weinstein (2016), Erreygers et al. (2018). In the study of cooperative behavior, in the specific context of video games, Greitemeyer and Cox (2013) concluded that video games can grow and can contribute later to the development of cooperative behavior (Erreygers et al. 2018). Moreover, in researching the specific behavior of cooperation in the context of video games that contain violence, but involve cooperation, users can later develop prosocial behavior (Velez et al., 2014: 626).

7. Towards a culture of multiplayer video games

Its first in 2008 video games have been a task reserved only for a certain category (gamers), but has become an ordinary entertaining activity, which was open to everyone.

The rhythm at which the video game market is developing, as well as changes in graphics and design, are perceived as a challenge by young users (Bresler, Oltman & Vallera, 2018). It is common practice for online video game players to be very concerned about not acquiring the latest video games, applications, peripherals so that they reach a higher level of performance, regardless of whether we are talking about children, teenagers or adults (Roberts & all, 2004).

It is difficult to talk in a generalized way about video games, about a profile of players from all over the world and about their culture. This is because we deal with differences in content, graphics or design, as well as other elements. For example, a game like *World of Warcraft* (Blizzard Entertainment, 2004) on a PC is very different compared to playing *Call of Duty* (Activision, Infinity Ward, 2003 - until now) on a game console, which, at it is completely different to play, for example, the *Candy Crush Saga* on a mobile phone or *Life Is Strange 2* times *Game of Thrones* (Rich & all, 2012).

However, the way that video games are played and experienced in the UK is very different from how it does and is located experimented or social, for example, in Thailand (Schrier, 2016). Video game culture is diverse, complex and constantly evolving. However, as we can discuss at a certain level about the contemporary nature of "British culture" or "Romanian culture", we can outline a study area in the direction of a gaming culture.

In recent years, computer games have increasingly replaced traditional games as entertainment activities, having a significant and transformative impact on the way we spend our free time. Multiplayer games involve engaging in various tasks that activate many processes and psychic activities (De Lima, 2018: 36).

We consider it useful to refer to some practices of gamers, in Massively Multiplayer Online Games type networks, for at least two reasons: first, because of the intense media coverage in recent years about the "evil that video games produce" and, then, because there are relatively few studies have examined what are effectively teenagers doing in online videogame networks (Squire, 2016: 21).

8. Myths, perceptions and attitudes towards the idea of gaming

Few researches have studied how people's attitudes towards online video games are formed. Przybylski & Weinstein (2016) shows that perceptions of these virtual spaces of entertainment varies systematically across the population, according to socio-demographic factors such as age, and according to the exposure and experience with gaming technologies.

In the study "Educational video games revisited: Perspectives from parents, gamers, and specialists", Drugaș & Ciordaș (2017) catching the differences of perspective, between parents, gamers and psychologists, the research is revealing a negative attitude towards the educational video games of the non-players, in general, people with little or no experience in the virtual world. However, players are, in large part, for gaming phenomenon, listing among the advantages of playing satisfaction and gain in terms of cognitive skills and IT (Drugaș & Ciordaș, 2017: 70).

The same research shows that players have estimated the highest percentage of parents playing video games with their children, and psychologists have given the lowest estimate. The risks and benefits identified by the study participants and declared are: dependence, lack of social

interactions and health problems as risks and development of cognitive skills as benefits. (Tisseron, 2010).

Among the myths that generate the reluctant attitude towards video games are: the risk of confusion between reality and the virtual environment and the player who closes himself. Studies like Zimmerman's talk about potential risks, but they are influenced by the personality type of certain players and not by the specificity of this activity itself (Bresler, Oltman & Vallera, 2018).

9. Fear of the effects of video games - a fear of unknown

Lack of knowledge often gives rise to fear. Also, the ignorance of games is due to some parents' fears regarding gaming, but also to harmful errors (Tremel, 2011).

For many parents who have not grown up with their devices in front, video game screens are the ones that most often cause them anxiety. Their biggest fear is that addiction to games will inevitably lead to school failure and social failure (Wright, 2014).

Generation X parents find it hard to understand their passion for video games or that they might have something good in them. The attitude can be justified by the fact that they did not have the opportunity to experience the fascination of the games, and the games did not contribute to their formation.

The parents of Generation Y (Millennials) watch video games more openly than older generations. For them, the image of the child with the hand on the joystick or the eyes glued to the screen is not foreign. They do not worry about the idea of risk or addiction (Connolly, Boyle & Hailey, 2011).

In the United States, over 64% of the population plays video games, including Indie and MMOG games, with the average age of players being 33 years for men and 37 years for women (Przybylski & Weinstein, 2019).

There is a gender difference in the consumption of video games online, which shows that boys are more engaged in MMOG than girls, while they spend more time than boys in Indie games (Bresler, Oltman & Vallera, 2018). At the same time, boys generally spend more time playing video games online (Pew Research Center, 2017).

The results of other studies confirm gender differences in terms of predisposing him to gaming addiction, boys this developing is more than girls (Phillips, Rolls & Griffiths, 1995; Tazawa & Okada, 2001; Ahn et al, 2014).

10. Do video games make teenagers more aggressive?

As more and more violent video games take place in the virtual marketplace, we wonder if teens and children playing such games could become more aggressive. There have been enough studies Przybylski and Weinstein (2019) conducted a study of 1004 adolescents, of both sexes, in the

United Kingdom, in which they tracked the relationship between violent video games and aggression to date, but the results are inconclusive.

Adolescents were asked questions about video games, such as "how much they played", "what types of games were involved" and "rating of games". They were also asked if they thought the games made them more aggressive, especially immediately after they played. Parents were asked similar questions about the video games played by the child and the perceived aggressive tendencies. In contrast to previous studies, this research also included parents' perception of gaming influence.

The results of the study show that neither adolescents nor their parents observed an increase in aggressive behavior that could be linked to violent video games.

Data indicate that adolescents who use violent video games do not develop antisocial behavior. They note that, during the course of the games, angry outbursts can be noticed, sometimes even in adolescents playing alone and sometimes in multiplayer (co-op) cases, but the researchers reported these reactions as normal behavior that occurs during competitive play (Przybylski & Weinstein, 2019: 8).

The researchers conclude from this study that there is not enough evidence to confirm the hypothesis that adolescent aggression is influenced by the use of video games.

11. Positive aspects of using video games

Regarding the effect of the use of video games, especially those of action and strategy, they generate advantages in several general cognitive fields (Bavelier et al., 2012).

Another advantage is improve output memory and visual short-term, cognitive space, the spatial resolution of vision or reaction (Green & Bavelier, 2007)

Przybylski & Weinstein (2019) pursued in a research to empirically study the relationship between exposure to violence in video game contexts and behavior in everyday life. To eliminate the degree of subjectivity that may influence adolescents' personal perception of aggression, the authors involved parents in assessing the perceived aggressiveness of children. The results of the study show that engaging in violent activities in video games does not adversely affect adolescents' behavior (Przybylski & Weinstein, 2019: 13).

Wright & Li (2011) looked at the beneficial effect of online prosocial behaviors among individuals receiving it. For example, some recipients feel the relief of stress after receiving small "gifts", bonuses, materialized by points, lives or new characters or abilities (eg: with advancement at the higher levels of the game you receive new powers). Positive personal experiences, coupled with positive feedback from teammates grow self-

esteem by strengthening it is positive and we know its cooperative behavior (Wright & Li, 2011, Quwaider, Alabed & Duwairi, 2019: 580).

There are a variety of opportunities to cooperate and assist in the multiple facets of multiplayer video games (Wright & Li, 2011), (Ferguson & Garza, 2011). These interactions and the motivations behind them are worth investigating, in an attempt to better understand the prosocial behavior of adolescents in social gaming networks.

The problem of immersion in video games has aroused the interest of the scientific community in recent years, suggesting that the use of games in an instructional-educational setting, not only is not harmful, but can facilitate learning, stimulate motivation for learning and develop cognitive skills (Allbaracin & Shavitt, 2017). The fact that digital games develop certain skills, has generated optimism that using in the educational process, through a new, useful, attractive and cooperative didactic approach could increase school performance (Cannoly, MacArthur & Hainey, 2012). Modern theories of effective learning, moreover, suggest that learning is most effective when it is active, experimental, concrete, problem-based and transmits immediate feedback (Boyle, Connolly & Hainey, 2011). Video games offer activities that include all of these features.

Attractive take on the car's exercises such games on children and adolescents parties, the general euphoria of players who fail however to fulfill in a balanced way all the duties and responsibilities every day, without abusing video games are nothing but some normal responses, which occur when a person practices a hobby (Drugaş, 2014). For a child who grew up and developed in an environment adapted to expectations and for sure, the chances of using video games in a constructive, beneficial way are much greater. Conversely, if the environment at the beginning of the development was not a stabilizing one, it may happen that the use of these virtual spaces might be different.

Video games can generate a lot of different learning experiences, such as context-based learning or discovery learning. Among the many benefits of video games is the facilitation of social learning that occurs in online networks where users interact. This type of learning sends us to the Theory of sociocultural training structures and to the concept of "social constructivism", the vision developed by Vâgotski (1971), which emphasizes the social nature of knowledge. According to him, in learning it is important to the social nature of knowledge, cognitive construction of the person being performed in a variety of intact contexts where teenagers engage in joint activities and where they can learn during the conversation conversation, build-to each other. The cooperative approach to learning is anticipated by this theory (Mooney, 2013).

In interacting MMOG networks, frequently, users must create solutions to various problems and to share, to communicate more in decision-making as a whole (Curry, Mullins & Whitehouse (2019). Another benefit in MMOG games is the distribution of the responsibilities of the participants in the

gaming networks, stimulating the need for interaction and cooperation (Aronson & Patnoe, 2011).

Morris et al. (2013) suggest that video games used in the educational process have the potential to facilitate learning both in terms of content accessibility, but also in the attitude towards learning, as intrinsic motivation increases (Morris et al., 2013).

Conclusions:

Teens' preferences for certain online video games change over time, depending on their interests, relationships and willingness to try the new challenge. The relationships created in the online gaming environment often follow patterns from reality, in both cases adolescents being primarily animated by the desire to socialize, the pleasure of playing games and the desire to belong to a group. Sometimes relationships online social element of adolescents are supported reciprocity in exchange for positive messages, of cooperation or assistance, this effect is also reflected in real life.

Virtual spaces that allow for in-game interactions, and not only, encourage teens, cooperating, to share with real-life friends about things they would not have the courage to communicate face to face. Like personal exposure in real life, personal exposure in the online space between teammates within the same group causes closeness, cooperation, trust. The principle is simple: when we cooperate or help, we challenge others, in turn, to have cooperative and helpful behavior. These online practices can positively influence the prosocial behavior of adolescents in everyday life.

One of the limitations of the study regarding prosocial behavior in the online environment is given by the fact that in cross-sectional/prevalence approaches, cross-sectional, a sample of the reference population is examined, "at one point" (Babby, 2010: 431), being difficult to understand the changes of prosocial behaviors, in time, in context. This is because the motivations behind the behaviors may change.

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