

# Motivations of Video Game Users

## Overview of the Literature

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**Abstract**—This study systematically reviews the literature on the motivations of people who generally play video games. It starts with mainstream theories and, then, delves into the main categories of individual motivations. We conclude that each player is a unique individual that is influenced, motivated and mobilized in different ways.

**Keywords**— *videogames, user behavior, motivation theories, motivation categories*

## I. Introduction

The game is a means of entertainment (Ahmed et al 2017, pp. 1-10; Bányai, et al 2018; Columb, et al 2019). It excites a player not only because of the graphics and of the emotions the intensity it creates (Fang & Zhao, 2010) but also because it enables him to develop skills (Bányai et al., 2018; Columb, et al 2019).

The game is also a means of social interaction that is developed in the virtual world (Wei & Lu, 2014; Bányai et. al., 2018; Columb, et al., 2019; Shi et al., 2019). The interaction concerns and involves both other users and the player's avatar (Weiss & Schiele, 2013). In addition, the game is a means of relax and escape from daily routine (Fang & Zhao, 2010; Bányai et. Al., 2018; Columb, et al., 2019; Shi et al., 2019).

## II. Motivation Theories

In mainstream literature there are three theories on the motivations of people who play video games: the Flow Theory, the Uses and Gratifications Theory (U&G), and the Self-determination Theory (SDT).

### A. The Flow Theory

Games are considered fun when they give the user the feeling that he is making decisions, dealing with challenges and acquiring skills. All this creates a flow environment (Nacke, 2012), and games are a welcoming environment to develop relevant experience (Dindar, 2018, pp. 1877-1886). Flow motivates the users to enter an experiential state so desirable, that they enter at regular intervals (Admiraal, et al. 2011, pp. 1185–1194; Huang & Hsieh, 2011, pp. 581–598).

This is achieved when the challenges and skills exceed the level of difficulty. Completing the game's challenges is a reward for the user, who acquires a sense of personal success (Huang & Hsieh, 2011; Nacke, 2012). In these cases, the user is immersed in the activity and creates a pleasant experience (Huang & Hsieh, 2011 pp. 581-598; Reid, 2012 pp. 70-81). In general, there are several prerequisites under which the flow experience works out and which do not need to coexist because each person is affected differently (Reid, 2012, pp. 70–81). Of these prerequisites four are considered as the most important.

The first prerequisite concerns the balance between the challenge level and the user's skills (Wan & Chiou, 2006 pp. 317-354; Dindar, 2018 pp. 1877-1886). The relationship is fragile (Admiraal et.al., 2011 pp. 1185-1194), therefore a satisfactory level of challenges maintains the user's motivation to participate in the game (Huang & Hsieh, 2011). The challenges must commensurate with skills. Users with good skills engage in an activity when the challenges are equally high (Dindar, 2018). Conversely, less demanding challenges may cause boredom when they are inferior to a user's skills. They may cause feelings of anxiety when they are superior to its skills, or apathy when its challenges and skills are limited (Admiraal et. al, 2011; Dindar, 2018).

The second prerequisite relates to a player's feedback and the third to the existence of clear goals such as, life indicators or collections of objects (Wan & Chiou, 2006; Nacke, 2012; Dindar, 2018). Both conditions facilitate the evaluation of achievements and the progress of the player. Progress is made when activities are direct and visible in the digital environment (Nacke, 2012).

The fourth prerequisite, finally, points to the high concentration on the activity (Wan & Chiou, 2006; Dindar, 2018). When a player enters a state of flow, the sense of time is lost and, at the same time, a feeling that it is in control of the activity is created to the extent that the rewards are secondary (Nacke, 2012; Dindar, 2018). Another factor that makes it easier for a player to experience the flow experience is socialization, more specifically, when the opponent in the game is commanded by another person (Nacke, 2012; Dindar, 2018).

## B. *The Uses and Gratifications Theory*

This theory originally refers to motivations for the consumption of media products. It also includes video games (Westwood & Griffiths, 2010). Games are related to the Internet and, consequently, to the media (Wu, et al. 2010). People consume products to meet personal needs (Kim & Ross, 2006; Westwood & Griffiths, 2010; Wu et al., 2010). Understanding their needs, people choose the media they will use by connecting needs and gratifications to the specific media (Luo, et al 2011; Ifinedo, 2016). Thus, an access to the media that offers different goals enables individuals to choose among different sources of information (Huang & Zhou, 2018).

Human needs stem from psychosocial situations and create motivations that influence the use of media (Wei & Lu, 2014, pp. 313-331). For example, games are a source of meeting the needs for knowledge, entertainment and social interaction (Huang & Hsieh, 2011; Gallego, et al 2016). If needs are met, users are likely to repeat the experience (Huang & Hsieh, 2011, pp. 581–598) inasmuch as the interaction creates mental and emotional bonds (Kim & Ross, 2006, pp. 28–40). In the case of the need for knowledge, users are more likely to continue the activity that meets this need (Gallego et. al., 2016, pp. 81–93). But as a whole, each user is different and chooses to satisfy a wide range of needs. In fact, the extent of satisfaction is determined by various psychological and social factors (Wu et. al., 2010; Gallego et. al., 2016).

There are two types of satisfaction. The first is the satisfaction sought by the user and refers to its initial expectations associated with the media. This kind of satisfaction is constantly changing. The second type is based on the satisfaction gained. It points to the user's satisfaction after completing an activity. This type sustains the search for future satisfaction (Gallego et. Al., 2016, pp. 81–93).

The theory of Uses and Gratifications is detailed into five categories. The first concerns the values that a player acquires by achieving a goal. The second relates to self-knowledge, that is, the user discovers different aspects of itself through participating in groups. The third category refers to social benefits and contacts that users of digital networks maintain with each other. The fourth category concerns the enhancement of social interactions through the acceptance of a user by other users. Finally, the fifth category denotes the entertainment through social interaction with other people in a digital environment (Ifinedo, 2016, pp. 192–206).

## C. *The Self-determination Theory*

The theory of self-determination focuses on the social, cultural and psychological aspects of motivation. It deals with factors that impel people to start an action and behave in a certain way (Deci & Ryan, 2015).

In general, all theories focus on finding the set of motivations for a user to perform an activity. However, SDT investigates the types of motivations that lead individuals to an activity (Deci & Ryan, 2015, pp. 486–491). It distinguishes between two types, the controlled and the autonomous. When

motivations are autonomous, a user is given the sense of choice, which is usually associated with positive experiences. When a user feels autonomous it does an activity on its own, to the fullest, because it may find it interesting, enjoyable and intertwined with its values (Gagné & Deci, 2005, pp. 331–362; Deci & Ryan, 2015, p. 486–491). An example of autonomous motivation is the intrinsic motivation, where individuals engage in an activity because it is an interesting and fulfilling fun purpose (Gagné & Deci, 2005, pp. 331–362). On the contrary, controlled motivations include activities create a feeling of pressure and coercion. In essence, these forms of pressure are the rewards that create a sense of control. (Gagné & Deci, 2005; Deci & Ryan, 2015). Both types of motivations stem from the user's intentions, and thus its behavior is determined by the degree to which it feels autonomous or controlled (Gagné & Deci, 2005, pp. 331–362).

Games are used to meet certain human needs. The experience becomes enjoyable for a player as long as the game satisfies most of the needs identified by the theory of self-determination. Among the needs, this theory claims that the most important are a) the need for autonomy, namely the ability to make decisions, b) the need to demonstrate the capabilities which in turn presupposes that the player has some knowledge and c) the need to socialize and develop a sense of belonging (Rogers, 2017; Mills, et al 2018).

However, it is worth noting, that Reid (2012, pp. 70–81) regards this theory as a sub-theory which is related to endogenous motivations and which he calls Cognitive Evaluation Theory (CET). In this respect, it is overall argued that by meeting such needs as those identified by the SDT, the activity becomes enjoyable and motivation is enhanced (Mills et. al., 2018). We now turn in the next section to shed light on the main categories of motivations and how they affect users to behave in a certain way.

## III. Primary Motivations Categories

Motivations are generally divided into two main categories (Chen, et al 2016, pp. 99–119): exogenous and endogenous. Particularly,

### A. *Exogenous*

Exogenous motivations or, in other words, social motivations (Gattig, et al 2017) denote a behavior that leads to fulfillment of goals or acquisition of rewards (Chen et al., 2016). Challenging and rewarding games keep players interested (Sellar, 2004). Rewarding experience leads to a search for more challenges (Reid, 2012). Motivations vary, depending on how a user both self-identifies (Levesque, et al. 2010; Reid, 2012) and experiences feelings of guilt and selfishness (Mitchell, et al. 2018).

Exogenous motivations come in many forms (Guay et al., 2000). In their study Levesque et. al. (2010) report these different types of exogenous motivations starting with that of the "External Regulation". This type is based on the logic that individuals' behavior is basically reward-oriented. They also

try to evade sanctions and external pressures. Thus, when they feel such pressures, they are likely quit the activity, especially when the level of difficulty increases.

Another type of exogenous motivations is the "Introjected Regulation", where individuals' behavior is motivated by pressure. The latter are most often internal and stem from feelings of guilt, or the desire of individuals to prove their worth. Yet another type is the "Identified Regulation". Individuals are as a last resort motivated by identifying themselves with their behavior. Still another type is the "Integrated Regulation". It refers to self-disposition, that is, an individual is committed to an activity because the latter is in itself the reward.

### B. *Endogenous*

Endogenous, also known as voluptuous motivations refer to the pleasure and entertainment that is created by either performing a behavior (Chen et. Al., 2016; Gattig et al., 2017) or participating in an activity (Guay et. Al. 2000; Reid 2012). These positive emotions, namely pleasure, interest, joy and enjoyment, are the consequences of the activity (Levesque et. al., 2010).

Endogenous motivations are not just about positive emotions. In contrast, they include the use of games as a means of managing negative emotions experienced through "immersion" and "escape" (Chen et.al., 2016, pp. 99-119). Being personal, they are shaped mainly by factors relating to a player's life conditions over time (Levesque et.al., 2010; Reid, 2012). In general, endogenous motivations result from the satisfaction of the psychological needs of users. There are three main psychological needs.

The first need is autonomy, which points to the want of the users to perform free-choice actions (Mitchell, et al 2018). The second is socialization. It concerns the need of users to create bonds with each other through interaction (Mitchell et al., 2018). The third need, finally, is adequacy, that is, the need to deal with a challenge that arises through controversy while providing a sense of competence and effectiveness (Levesque et. al., 2010, pp. 618–623; Mitchell et. al., 2018, pp. 323-330). The satisfaction of psychological needs is likely to maximize game participation (Mitchell, et. al., 2018, pp. 323-330).

## IV. **Alternative Motivations**

This section discusses individuals' alternative motivations, the most important of which are as follows.

### A. *Improvement*

The motivation for improvement includes the concepts of "surprise", "learning", "realism" of the environment and "(over) victory". Fun is learning. Thus, player loses its motivation when the game does not provide additional knowledge. At the same time, surprise is associated with the joy of learning. In order to provide a complete experience, the game's world must be realistic so that the experience is close to the real world and appears more useful (De Albuquerque & Fialho, 2015, p. 41).

### B. *Distinction*

The motivation for distinction is related to social interaction. It includes concepts such as "competition", "reward", "comparison", and "discussion" about the game. Players who pursue rewards within the game seek to play with friends as a reward is stronger when someone is watching (De Albuquerque & Fialho, 2015, p. 41).

In this context, players discuss game issues with friends, comparatively demonstrating their skills under competitive pressure (De Albuquerque & Fialho, 2015, p. 41; Bányai et al., 2018, p. 353). Competition is a key motivator by challenging or surpassing other players (Hartmann & Klimmt, 2006, p 92; Fang & Zhao, 2010, p 343; Bányai et. al., 2018, p. 353; Columb et al., 2019, p. 2) and gaining strength (Wei & Lu, 2014, p. 316).

### C. *Immersion*

The motivation for immersion includes the concepts of "fantasy", "search for power", "illusion of reality", "feeling of control" and more generally of "experiences characterized as impossible" (De Albuquerque & Fialho, 2015, p. 41; Shi et al., 2019, p. 292). The motivation is to give player the opportunity to accomplish what would be impossible in an out-of-game environment (Fang & Zhao, 2010, p. 343; De Albuquerque & Fialho, 2015, p. 41).

The game must be realistic, and give an illusion of reality through its virtual design while providing a sense of power and control. Games with these characteristics detract a player's complete concentration and commitment (De Albuquerque & Fialho, 2015, p. 41) and are used as a means of relaxation and escape from reality (Columb, et al 2019, p. 2).

### D. *Decoration*

The decoration motivation simulates players because it offers a relaxing and aesthetic experience. A player spends time distracting itself in an aesthetically pleasing environment. Such games are usually the simulation ones (De Albuquerque & Fialho, 2015, p. 41).

### E. *Empathy*

The empathy motivation, which reflect the feeling of one doing something good, includes the notions of "cooperation", "making friends", "kindness", "justice" and "beauty" (De Albuquerque & Fialho, 2015, p. 42; Bányai et. al., 2018, p. 35; Columb et al., 2019, p. 2). It concerns social games, which have beautiful appearance and collaborative features, and where players meet and interact with friends (Fang & Zhao, 2010, p. 343)

### F. *Grotesque*

This motivation includes the concepts of "cruelty", "ugliness" and "evil". Players are motivated to play such games as they offer them a sense of danger and fear in an artificial context (De Albuquerque & Fialho, 2015, p. 42).

## Acknowledgment

Drawing on the literature, we have so far discussed the main motivations of people who play video games. There are three mainstream theories of motivations: "flow", "uses and gratifications" and "self-determination".

Starting with the flow theory, this paper argues that the theory seeks to explore individuals' psychology when challenges are part of his daily life (Wan & Chiou, 2006, pp. 317-324; Dindar, 2018, pp. 1877-1886). Through this lens, it explains how, a commitment is created with the activity and how all this turns into a source of enjoyment (Dindar, 2018, pp. 1877-1886).

The uses and gratifications theory emphasizes the different needs that each user tries to meet (Wu et. al., 2010; Gallego et. al., 2016). It focuses on different values, self-knowledge, social benefits and entertainment (Ifinedo, 2016, pp. 192–206).

The self-determination theory, claims that the game must have certain characteristics. For example, the need to interact with other players is met only when the game points to characters and plots or offers the possibility of collaboration (Rogers, 2017). At the same time, the feeling of ability and autonomy is achieved in cases where the game, on the one hand, is considered important and, on the other, exercises control over the player (Rogers, 2017, pp. 446–450). Therefore, if these needs are met, players spend more time on playing the game (Mills et. al., 2018).

In terms of player motivations, the exogenous motivations are the result of user behavior. Players are motivated by rewards, and the effort to avoid the side effects of their activity (Levesque et. al., 2010) such as punishment and social pressures (Dindar, 2018; Mitchell et. al., 2018). Exogenous motivations involve social aspects. They satisfy the needs for socialization, social superiority and common identity (Gattig et. al., 2017, pp. 327–332).

Overall, regardless of whether players try to achieve rewards or avoid penalties, exogenous motivations create a sense of obligation through which players are made to behave in a certain way (Guay, et al. 2000, pp. 175–213).

But endogenous motivations reinforce when the game constantly feeds and supports the player by satisfying the need for competence through the challenge of enjoyment and curiosity (Dindar, 2018; Mitchell, et. al., 2018, pp. 323-330). The same is true in cases where the game offers a range of freedom such as the ability to select players (Mitchell et. al., 2018, pp. 323-330). This allows self-expression and creates emotion (Gattig et. al., 2017). Thus, the player feels that it is developing skills while commanding the choice over the type of activity (Levesque et. al., 2010, pp. 618–623). In contrast, games that do not meet such needs as the achievement of rewards, reduce endogenous motivations (Mitchell et. Al., 2018, pp. 323-330). This happens when rewards are given for activities that players find interesting anyway; and as a result, they feel that their autonomy is limited and their behavior is subject to control (Levesque et. al., 2010, pp. 618–623).

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