EasyChair Preprint

№ 11242

Motivation and Flow Experience as Crucial Factors in the Completion of Narrative Games

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November 4, 2023

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ABSTRACT
Keeping players in a video game until its completion has been a challenging task for the industry since there are many reasons for quitting video games. Motivation and the experience of flow are important factors in game completion, as they contribute to the enjoyment and retention of players' attention. Consequently, players who reach a state of flow become highly engaged and motivated to continue playing. Based on this context, this paper reviews the literature on player motivations, the flow experience, and narrative as an element of flow. Methodologically, an analysis of the most completed games between 2020 and 2022 on Steam and Playstation platforms was performed. The results show that the most completed games in 2022 were: *The Last of Us Part II*, *Marvel's Spider-Man*, and *Uncharted: The Lost Legacy*. In addition, a flow and motivational analysis was performed on *The Last of Us Part II* and *God of War* games to understand the elements and characteristics that make them so that the player remains motivated until its completion.

Keywords
video games, narrative games, conclusion, flow experience, motivation

INTRODUCTION
Over the past few years, video games have been rising to prominence and increasing ground as an entertainment media (L. Wang et al. 2021). It is estimated that in 2021 there were a total of 3.24 billion gamers in the world. Asia is the country with the largest number of players, reaching about 1.48 billion video game players (Clement 2022). However, the diversity of personalities makes it impossible to guarantee that a game will be considered interesting and fun by all players (Piton, Blom, and Spronck 2020). Each person understands his or her experience of the game in a unique way, so the response to it is also individual (Kosiński et al. 2018). Koster (2013), argues that from the point of view of video game design, the attractiveness of video games comes from the desire that human beings must acquire knowledge and skills through their experience, that is, learning. In addition to learning, Hamari, Keronen, and Alha (2015) e Boyle et al. (2012), highlight engagement as an important factor for video games, as they are designed to provide engaging activities that maximize time and, provide an urge to play again.
There has been increasing attention to determining what motivates players to continue playing. While a sense of engagement and fun may help designers make better games, it does not provide insight into another key aspect: the fact that players give up playing at a certain point. Therefore, knowing the reason why players stop playing is just as important as the reason why they start a new game (Harrison and Roberts 2012). Following on from this, video games thus presuppose psychological behaviors for

Proceedings of DiGRA 2023

player adherence and maintenance. Recent studies have identified motivation as a cognitive process central to the player experience and a key factor in the design of video games (Tychsen, Hitchens, and Brolund 2008; Inchamnan and Wyeth 2013). Motivation gives purpose and direction to the action of playing, so once started it is motivation that drives players to move forward (Tychsen, Hitchens, and Brolund 2008) and continue in the same game. Additionally, the whole psychological process underlying the total involvement and immersion in video games is directly linked to "Flow". This state, achieved by players, is seen by some authors as a “escape from their concerns in the ‘real world’ by being continually engrossed in a flow-inducing world” (Hull, Williams, and Griffiths 2013, 145). Defined by Csikszentmihalyi (1996), flow is the moment when the player reaches the highest state of gratification of the experience in which he/she is participating. This state can be conditioned by a number of elements such as: level of challenge, the level of skill required, the clarity of goals and feedback, the balance of control and freedom, and the level of immersion (Berube 2019).

Nonetheless, the problem of game completion can also be identified in the domain of narrative. Aristotle (2008) divides his work "The Poetics" into three parts: prologue, episode and exodus, which in other words relates to the beginning, middle and end. From this thought, one immediately observes the need for an ending to any story. Morton (2017), emphasizes the ending as central: “The ending is most important, however, because it is the section of the story that gives the piece its meaning”. The author further adds that a story without an ending is not satisfying because the reader's time is invested for hours to know its conclusion. The ending gives space for the narrative to be clear and logical, it is the moment when the protagonist's arc is completed, and it brings out the purpose and meaning of the story. In addition to the meaning the author refers to, learning should also be included as a positive consequence for the conclusion of a narrative. Charon (2007) argues that human beings absorb, interpret, and respond to stories, resulting in narrative knowledge. This idea fits with the view that meaning is central and knowledge creation and sharing is emphasized. In addition, Remenyi (2005) argues that the act of storytelling is a form of knowledge sharing. In the context of video games, the goal of a good game should be to promote engagement and learning. That said, if the player quits before the game is completed, the player will not continue learning (Karumbaiah et al. 2018).

In this sense, this article aims to find out which are the most finished narrative and story driven open worlds games and what are the characteristics that contribute to their completion. It is important to note that the term "completion" in this article refers to the act of reaching the end of the game's story, not the fact that the player manages to collect everything that the game makes available (trophies, items, etc.). To this end, an exploratory investigation of the most completed video games between 2020 and 2022, on Steam and Playstation 4 (PS4), was conducted, creating a list with the 10 most completed games. Additionally, an analysis of the motivation and flow of the games *The Last of Us Part II* (Naughty Dog 2020) and *God of War* (Santa Monica Studio 2018) was carried out in order to identify which elements enhance game completion.

The article is structured with a literature review that highlights the motivation in video games, the flow experience, and presents a brief theoretical description of narrative as an element of flow. Next, the methodology will show the 10 most finished games in the year 2022, discussing the results found, as well as analyzing two games in terms of motivation and flow. Finally, the article presents the conclusions.

LITERATURE REVIEW

Motivation in Videogames

A major concern in the gaming industry is effectively player motivation (Bostan, n.d.). Motivation can be defined as the set of features of the game that prompt the player to perform specific actions until the final goal is achieved (Malone 1981). For Billieux et

al. (2013) and Brand et al. (2019) motivations in a game are behavioral factors that induce the player to start and continue a game. Ghozland (2007) further adds that "[the players] motivation is the factor that will determine if a player will continue playing after a few minutes, as well as how long he will play and whether he will finish the game".

In the 1980s, Malone and Lepper (1987) identified three categories of motivations that entice players to play: challenge, fantasy, and curiosity. This theory has been expanded to add other individual motivations such as: cooperation, competition, and recognition as interpersonal motivations. Day's (1981) through a preliminary review of the gaming literature realized that people were motivated to play games for reasons such as exploration and learning, creativity, therapeutic purposes, and entertainment, cited by Shu-Hui, Wann-Yih, and Dennison (2018). On the other hand, recently, Yee suggests the theory that players are motivated to engage in online gaming experiences through a combination of intrinsic and extrinsic rewards. Figure 1 exposes the motivation model by presenting six types of motivation: (1) action; (2) socialization; (3) mastery; (4) success or achievement; (5) immersion and finally, (6) creativity (Yee 2019).

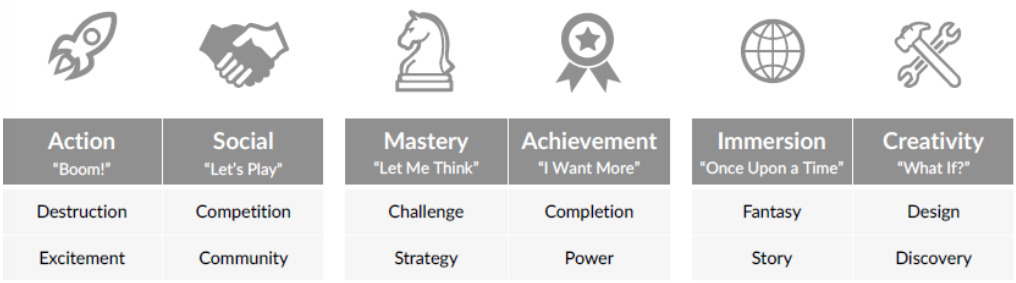

Figure 1: Motivational Model (Yee 2019)

In another strand, Ryan and Deci (1985) explore motivation as an important factor on video games highlighting SDT (self-determination theory). The motivation theory posits that an individual's natural growth tendencies and psychological needs, such as autonomy, competence, and relatedness, can be used to motivate them (Ryan and Deci 1985). It is a macro theory of human motivation and personality that concerns people's inherent growth tendencies and inherent psychological needs (Koole et al. 2019). This suggests that an individual's motivation is built on their ability to grow and develop, and that their needs for autonomy, competence, and relatedness must be met in order to experience optimal motivation (Ryan and Deci 1985; CSDT n.d.). The theory has been named by creators in the industry, such as Michael De Plater who argued: "Empowering players to tell stories, not us telling them (…) We had to give people detailed anchors so their imagination would fill in the gaps (…) We had to understand how much was enough to give…" (De Plater 2015). Tschang (2005) notes that the interactive nature of certain video games makes it possible to create more enjoyable gaming experiences for the player. Additionally, Klimmt, Hartmann, and Frey (2007) argue that users who interact with video games effectively tend to positively experience the gaming experience. Following on from this, the motivation to pursue a given activity such as a game is also dependent on how well an individual balances their skills with the challenge presented, so at that point they encounter the flow experience (Csikszentmihalyi 2000; Keller and Bless 2008), as cited in (Shu-Hui, Wann-Yih, and Dennison 2018).

Flow Experience

According to Csikszentmihalyi (2008), flow is the mental state in which the individual is completely immersed in an activity, characterized by a high level of pleasure and concentration, as well as the feeling of control and mastery over the activity that is taking place. Following on from this, the author exports the theory to games as well. Games are designed to generate a positive effect on players and are most successful

and engaging when they aid the flow experience. Because of the way they are constructed, video games allow participants to achieve a highly enjoyable state of mind and provide a sense of discovery and transport into a new reality (Kiili 2005).
Csikszentmihalyi (2008), presents the Flow graph (Figure. 2) correlating two factors: Challenges and Skills. Briefly, Flow and the graph present in the figure demonstrate the stabilization of emotions such as boredom and anxiety, so as not to tend towards either. In this way, the player will enter the "optimal state" present in the "Flow channel" that makes their cognition completely focused on the experience that is occurring (Zagalo, Carvalho, and Araújo 2016). In addition, flow theory suggests that people can grow professionally and improve their well-being from the moment they enter this state, since it also provides happiness (Csikszentmihalyi 2008). In the context of games the same happens, as the gratifying experience conveys the feeling of pleasure to a player (Malone 1981; Jennett et al. 2008; Pagulayan et al. 2009).

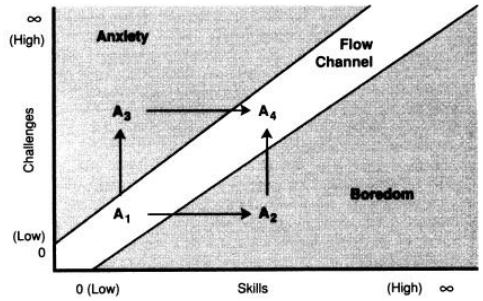

Figure 2: Flow Chart (Csikszentmihaly, 2008, p. 74)

Elements of flow in video games

There are specific elements that have been used to explain and maintain flow. Most of these have been modified by different researchers but tend to include the elements: the level of challenge; the level of skill required; the clarity of goals and feedback, the balance of control and freedom and, the level of immersion. For the flow state to be achieved, not all of these criteria need to be felt by the individual, but absolute concentration on the activity at hand is required, in this case the video game (Shu-Hui, Wann-Yih, and Dennison 2018). Csikszentmihaly, in 1990 argued that for the flow experience to occur in its fullness, when the activity requires: (1) concentration; (2) clear goals; (3) direct and immediate feedback; (4) challenge; (5) feeling of control; (6) lack of time perception. Jones (1998) adapts the elements previously advocated by Csikszentmihaly, specifically for the reality of video games. As can be seen in Figure 3, the author highlights eight elements for the game: (1) something that can be completed; (2) concentration on the task; (3) clear goals; (4) immediate feedback; (5) deep but effortless involvement; (6) control of actions; (7) immersion and externalization to the character and the game environment (Cowley et al. 2008).

Element of Flow	Manifestation in a game
1. Task that we can complete	The use of levels in games provides small sections that lead to the completion of the entire task.
2. Ability to concentrate on task	Creation of convincing worlds that draw users in. The dungeons and labyrinths in Doom II help suspend your belief systems for a time.
3. Task has clear goals	Survival, collection of points, gathering of objects and artefacts, solving the puzzle.
4. Task provides immediate feedback	Shoot people and they die. Find a clue, and you can put it in your bag.
5. Deep but effortless involvement (losing awareness of worry and frustration of everyday)	The creation of environments far removed from what we know to be real helps suspend belief systems and takes us away from the ordinary.
6. Exercising a sense of control over their actions	Mastering controls of the game, such as a mouse movement or keyboard combinations.
7. Concern for self disappears during flow, but sense of self is stronger after flow activity	Many games provide for an environment that is a simulation of life and death. One can cheat death and not really die People stay up all night to play these games. It is the creation of an integration of representation, problem, and control over systems that promotes this.
8. Sense of duration of time is altered.	Years can be played out in hours; battles can be conducted in minutes. The key point is that people stay up all night playing these games.

Figure 3: Elements of Flow and their manifestation in video games according to Jones (1998)

There are other researchers who have mapped the essential elements for building video games in order to direct the player to the flow experience as is the case of Sweetser e Wyeth (2005). From Figure 4, seven elements are visible that follow Csikszentmihaly's base line and adaptation for the game industry as Jones (1998), summarizing them to: (1) concentration; (2) Clear goals; (3) Feedback; (4) Challenge; (5) Autonomy; (6) Immersion and (7) Social interaction. Social interaction was an element added by the author, pointing out that games can create opportunities for social interactions (Sweetser and Wyeth 2005).

Flow Element[a]	Description	Manifestation in Video Games	
	Csikszentmihalyi (1990)	Jones (1998)	Sweetser and Wyeth (2005)
Concentration	A task that requires concentration	Games can have detailed worlds to draw the player into the game.	Games should require concentration and the player should be able to concentrate on the game.
Goal Clarity	A task that presents clear goals	Goals are presented during the game.	Games should provide the player with clear goals at appropriate times.
Feedback	A task that provides direct, immediate feedback	Feedback is included within the game (ex: points, killing enemies).	Players must receive appropriate feedback at appropriate times.
Challenge	A task that is challenging	Games have different levels of task completion and the level of game difficulty can be altered.	Games should be sufficiently challenging and match players' skill levels.
Autonomy	A task that provides a sense of control	Mastery of the control system is important in video games.	Players should feel a sense of control over their actions in the game.
Immersion	A task that alters one's sense of time; merges action with awareness	Players can participate in video games for long periods of time without being aware of the time invested into the game.	Players should experience a deep but effortless involvement in the game.
Social Interaction	N/A[b]	N/A[b]	Games should support and create opportunities for social interaction.

[a]Flow elements were taken from the GameFlow checklist by Sweetser and Wyeth (2005).
[b]Social interaction was not discussed in preliminary descriptions of flow experience.

Figure 4: Elements of flow manifested in video games according to Sweetser e Wyther (2005, 6:4)

Through a more current analysis, Daniel Berube, a professional in the field of video game design, presents seven elements (rewards; clear goals; loss of awareness; loss of sense of time; direct and immediate feedback; balance between the player's skills and the challenge; the controls the situation and the activity) that influence and affect the flow of a video game, as shown in Table 1 (Berube 2019). (1) Rewards: There is a belief that rewards in video games are an important factor in facilitating user engagement and motivation, though, they can also easily compromise gameplay (H. Wang and Sun 2011; Johnson et al. 2018). In addition, they mark progress and are designed to drive player behavior. This element has been thought to drive impact at the level of both "extrinsic motivation (where the activity is undertaken in order to obtain a separable outcome) and intrinsic motivation (wherein the motivation to perform the activity is related to the inherent satisfaction of doing it)." (Johnson et al. 2018, 66). (2) Clear Objectives: The game should contain clear objectives in order to direct the player to know what to do and what to achieve. Clear objectives are central to the player's progression through the game (Berube 2019). A good video game should have multiple objectives (Malone 1981) as they are a form of engagement that provides the player motivation to gradually progress through the game (McGinnis et al. 2008). Berube (2019) also considers the (3) loss of awareness as an influencing factor of flow since flow works to its fullest when the player does not have to focus on what they are doing to achieve an action. Defining it as a state of fusion between action and consciousness. (4) Loss of sense of time: The player is so focused and immersed in what he is doing that he ends up not noticing the passage of time (Berube 2019). Thus, the player's perception of time depends on his or her experience in the game session. Several authors argue that immersion is one of the experiences that can alter the player's temporal perception (Brown e Cairns, 2004; Jennett et al., 2008; Sanders e Cairns, 2010) as cited in (Nordin 2014). Therefore, the experience of the game and the level of immersion will contribute to the player's assessment of whether their perception of time is shorter or longer than the actual game time (Nordin 2014). (5) Direct and immediate feedback: In video games, the player is guided by feedback in order to optimally absorb information and consequently succeed (Berube 2019; Cowley et al. 2008). Csikszentmihalyi exemplified this element with the inclusion of a scoring system. Through this strategy, the game helps the player stay in their flow by providing feedback on outcomes (Sharek and Wiebe 2011). In this way, the player knows what actions influence the score of the game as he progresses in it. adds that this type of strategy is called metagoal, in which he explains that while the main goal of the game may be to finish a level, the inclusion of a scoring system can also motivate players to score as high as possible, thus creating greater interest in the game. (6) The balance between player skill and challenge: The challenge of the activity should be neither too easy nor too difficult so there should be a constant adaptability between player skill and challenge requested (Berube 2019). One of the most powerful experiences in flow is when a person is confronted with a difficult obstacle that he or she considers worth overcoming (Csikszentmihalyi 2008). This overcoming, in the case of games, will subsequently refer to a sense of pleasure and ecstasy. Finally, (7) the player controls the situation and the activity: Berube (2019) emphasizes the importance of achievable goals, i.e., the player feels that he or she can successfully overcome the challenge. This element is related to self-awareness (Schüler and Nakamura 2013).

Flow Element	Manifestation in Videogames
Rewards	Intrinsically rewards are constantly obtained by the player as real and instant rewards.
Clear goals	The players have clear goals and know what to achieves. There's is no question about it and this element is important to be clear for the entire player progression through the game.
Loss of consciousness	The flow works well in video games when the player doesn't have to concentrate on what he's doing to achieve an action. This is the state for the player is the merging of action and awareness.
Loss sense of time	The player is hooked by the activities that he's doing and doesn't realize that the time flies while doing it.
Direct and immediate feedback	The player is guided by the feedback of the game and know what and how much to succeed.
Balance between player skills and challenge	The challenge of the activity is neither too easy or too difficult. The challenge is constantly adapted to the player's skill. Even if this seems to be obvious, this is where most of the game failed and I will explain why later.
Player controls the situation and the activity	The player feels that he can successfully beat the challenge. The objective for him seems reachable.

Table 1. Flow elements per Berube (2019). Table adapted by the author using information available at: Game Developer

As Berube (2019) states, "You should consider that each design decision may impact your game potential to put and keep the player in the flow.", in this follow-up a brief analysis will be made of the importance of narrative games, as games that motivate and mirror the need for flow to keep the player in them.

Narrative as an element of flow

Within the various existing definitions, narrative can be seen as a method in which a story is conveyed to the audience (Bateman 2021). Randall and Harms (2011) argue that an effective narrative is characterized by:

> (…) create a flow that sequences these acts into a narrative arc. They connect the ideas, layer in key themes and imagery, and pace the delivery. Taken together, this process can create an engaging and coherent story that communicates a well-conceived purpose to a particular audience. (p.22)

In the context of games, not all games tell stories (Jenkins 2003) and therefore the existence of narrative can vary from game to game. Non-narrative games do not feature a story and there is a greater focus on gameplay mechanics (Wiltgren 2022). Narrative games, on the other hand, typically feature a storyline with characters and story progression throughout the game. Studies on video games point out that the game itself can be a useful storytelling tool, and this act is a theoretically important aspect of a game (Schmierbach and Limperos 2013). The narrative provides context for the events in a game, which consequently must be believable enough to create immersion and trigger intrinsic motivation to continue playing (Baranowski et al. 2013). According to Chen, Wigand, and Nilan, (n.d.) narrative cannot be explored without including the

experience of flow. Complementarily, Green (2014) argues that transportation into a narrative is like a flow. The experience provides such a rewarding moment for players that some continuously commit their time and behavior to elicit repeated flow experiences (Griffiths and Nuyens 2017), always looking forward to what comes next. "Games are being developed to tell stories, and to make the player feel emotions, and think about real-world issues, and so this is the role that narratives take in video games." (Stone 2019). Thus, narrative engagement and involvement become important factors for the continuity of games just as it is with audiovisual narratives in television or movies, in which the audience gets involved and experiences feelings (Busselle and Bilandzic 2009). Narrative involvement is related to the story experienced during the game and can result in "imaginative immersion" (Ermi and Mäyrä 2005), "narrative involvement" (Calleja 2011) or "narrative immersion" (Adams and Rollings 2003). The desire to know the continuity of the story can create several feelings such as curiosity, suspense and excitement that help the player wanted to continue playing. The use of narrative tools, such as empathetic characters, interesting events, and suspense or wonder based on cause-and-effect moments throughout the narrative, influences the player to want to continue playing and indirectly become involved in the narrative (Schønau-Fog and Bjørner 2012). Zagalo (2020), argues that the meaning of experience that leads to engagement is formed by three crucial elements: the subject, the context, and the artifact, which in turn define engagement flows. These engagement flows named progression, expression, and relation are directly linked to profiles that can be transposed as player profiles in order to understand the justifications for the player's engagement with the game.

Thus, there are several narrative games that achieve success thanks to this component and the engagement that narrative offers, a case in point are the games *God of War* which is characterized by being a game that "containing far less blood and far more narrative, dialogue, character growth, and plot progression"; also *Detroit: Become Human* (Quantic Dream 2018) with "robust storylines the player could actively influence by making specific choices." (Johns 2022) and, *The Last of Us Part II* in which showrunner Craig Mazin commented, "It's an open-and-shut case: this is the greatest story that has ever been told in video games" (Travis 2022).

In short, in its fullness, narrative transports the player into the game experience, so that the player wants to achieve the same goals as the characters, and more importantly, become as curious and interested with what comes next, to see the outcome of the narrative events and conflicts (Schønau-Fog and Bjørner 2012; Bateman 2021).

METHODOLOGY

At the methodological level, the article has in a first phase the intention to find out which narrative and story driven open worlds games present in the market have a higher percentage of completion and, in a second phase, to choose two of the most completed games to make an analysis at the level of motivation and flow.

It is estimated that only 10% to 30% of players complete a game (Richards 2020), and these statistics are presented through analysis of the most popular game platforms today - Steam and PlayStation Network (Matusiak 2016). It should be noted that this completion is not intended for the total completion of the games in which the player conquers all objectives and trophies, but rather the completion of the narrative in which the player finishes the main story, and the remaining objectives and quests are additional to the game.

Thus, to create a top 10 of the most finished games in this aspect, the main video game platforms of today: Playstation and Steam were used initially for data collection (Matusiak 2016). It was requested through the official means of the platforms, the data corresponding to the games with the highest percentages of completion, however no feedback was obtained from Playstation and Steam directed its response to the analysis of the statistics present in the application (Figure. 5). Although, the statistics on Steam

only show the "best-selling games" and the "most played games", so it would be impossible to determine the variable of game completion.

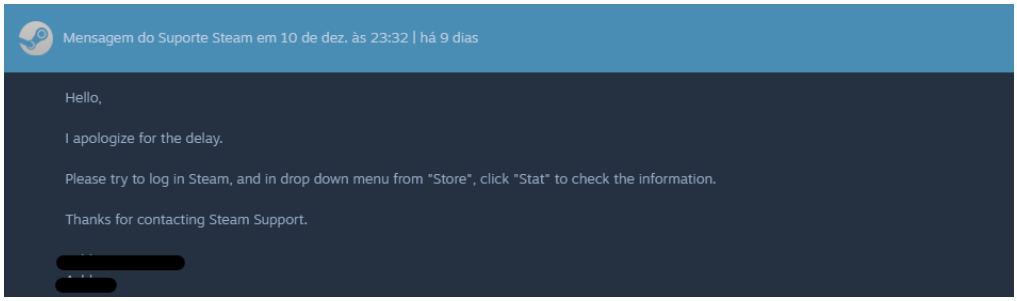

Figure 5: Response received from Steam support

The exploratory research continued for the analysis of statistics already formulated, of the most finished games between 2020 and 2022. It was found that in 2020 statistics were published through Ungeek (Manaloto 2020) and Forbes (Tassi 2020) directed to story-driven and open worlds games, with a higher completion rate for Ps4.
For 2021, data was found in Statista (Clement 2021) which looked only at story driven open worlds with trophies associated with the storyline. Although the data is from March, it was decided to continue analyzing it because no other type of reliable data was found. For 2022 no annual statistics were found to be created, due to the recent end of the calendar year 2022. Thus, for the creation of 2022 data, a detailed exploration of the trophy associated with the completion of history, the games nominated in 2020 and 2021 was performed.
For the data analysis the Steam application that displays the trophies of each game was used and, the PSN Profiles website was used which, despite having no connection with PS and Sony, tracks trophies acquired by Ps VR, Ps Vita, Ps3, Ps4 and Ps5 players.

RESULTS

Through the analysis of the statistics prepared by Ungeek that were later released by Forbes, it was found that in 2020, the most finished game was *The Last of Us Part II* with 58% completion. As can be seen in Table 2, the list of games, has narrative video games, but also open worlds that require narrative for the understanding of the game, such as *Horizon Zero Dawn* (Guerrilla Games 2017).
The percentages show that only five games: *The Last of Us Part II*; *Final Fantasy VII Remake* (Square Enix 2020), *God of War*, *Marvel's Spider-Man* (Insomniac Games 2018) and *Uncharted: The Lost Legacy* (Naughty Dog 2017), achieved more than 50% completion.

Videogame	**Percentage (%)**
The Last of Us Part II	58%
Final Fantasy VII Remake	53.3%
God of War	51.8%
Marvel's Spider-Man	50.7%
Uncharted: The Lost Legacy	50.3%
Detroit: Become Human	49%
Ghost of Tsushima	38.2%
Horizon Zero Dawn	34.2%

Days Gone	34%
Bloodborne	31.9%
Death Stranding	29.3%
Red Dead Redemption II	28.6%
The Witcher 3	26%

Table 2: Most finished games in 2020

For the 2021 data, Statista presented an analysis of the percentage of players who got the trophy regarding the completion of the story in open worlds. Figure 6 shows that *Marvel's Spider-Man* is on the podium with a very similar percentage to the previous year. Subsequently, *Ghost of Tsushima* (Sucker Punch Productions 2020) increased 12% compared to 2020 and, the *Assassin's Creed* saga enters the chart with three of its games. In this case, only the first two games have a completion rate of over 50%.

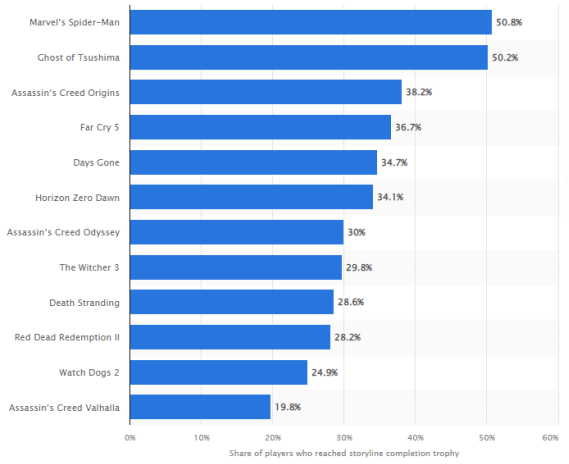

Figure 6: Most finished games in 2021

Using the data collected, a statistic was made in which it was possible to ascertain the percentages of narrative completion corresponding to the year 2022. Due to the high number of trophies per game, a detailed collection of the trophy that completes the story was made. It should be noted that two records were made regarding the data collected on the platforms to ascertain the fidelity of the data. Data was collected between December 3 and 4, 2022, and then between December 30 and 31, 2022 to understand if there was variation between the percentages. Table 3 shows the data collected from Steam and the PSN Profiles tracker between December 30 and 31 so that the data would be as accurate as possible at the end of the year.

Regarding the data collected on Steam, the games *The Last of Us Part II*; *Uncharted: The Lost Legacy* and *Ghost of Tsushima* were not found because they are still exclusive to Sony Interactive Entertainment and Playstation platforms. Regarding the games *Far Cry 5* (Ubisoft 2018) and *Watch Dogs 2* (Ubisoft 2016) no rewards were presented by Steam, so the information will not be available. The most completed games on Steam are *Detroit: Become Human*; *God of War* and *Marvel's Spider-Man*.
Next, the PSN Profiles website provides two types of game tracking: "PSN Profiles" which is about tracking the profiles registered on the website, and "PSN" which tracks all Playstation players. The percentages on PSN are lower due to the larger population

being tracked. This way, the data from the PSN column will be used to create the 10 most finished games.

Comparatively and in general, there is a greater tendency to finish games on Playstation, in this case on PS4.

Videogame	Trophy for finishing the story	% of Steam	% of PS4	
			PSN Profiles	PSN
Last of Us Part II	What I Had to Do	-	76,8%	57,8%
Final Fantasy VII Remake	Destiny's Crossroads	24,2%	52,2%	35,7%
God of War	Last Wish	43,80%	70,6%	47,5%
Marvel's Spider-Man	End Game	43,3%	73,2%	49,8%
Uncharted: The Lost Legacy	Legacy Found	-	71,3%	48,4%
Detroit: Become Human	This is my Story	44,7%	64,9%	46,5%
Ghost of Tsushima	Mono No Aware	-	61,6%	40,2%
Horizon Zero Dawn	10 Vulnerable machine kills	43,6%	62,3%	41,9%
Days Gone	World's End	17,3%	35,8%	14,9%
Death Stranding	Thanks for Everything	19,3%	45,5%	25,3%
Red Dead Redemption II	Redemption	22,3%	43,4%	30,1%
Assassin's Creed Origins	The End	31,3%	53,9%	36,1%
Far Cry 5	Together Forever	-	50,0%	35,7%
Assassin's Creed Odyssey	Odyssey's End	34,7%	51,3%	36,9%
The Witcher 3	The king is dead	23,6%	40,7%	29,3%
Watch Dogs 2	Hack the World	-	43,4%	23,60%

Table 3: Developed statistics of the most finished games in 2022

Having completed the analysis of trophies associated with the completion of each game's story, a list of the ten most finished games was created (see Table 4). The game *The Last of Us Part II*, remains in first place since 2020 as the most completed game. This is followed by *Marvel's Spider-Man* in second place with 49.8%, a slightly lower percentage than in 2021, and then *Uncharted: The Lost Legacy* in third place, with a lower percentage compared to 2020. *God of War* and *Detroit: Become Human* suffer a decrease of 4.3% and 2.5% compared to 2020. On the other hand, *Horizon Zero Dawn* is the game that stands out with the biggest increase in narrative completion compared to the others. In 2021 it had a 34.1% completion rate, while in 2022 it rose to 41.9% (a 7.8% increase). *Ghost of Tsushima* is down by 10% and *Assassin's Creed Odyssey* (Ubisoft Quebec 2018), alongside *Horizon Zero Dawn* is up its percentage of completion, with a rise of 6.9%. Finally, *Final Fantasy VII Remake* and *Far Cry 5* have the same percentage of completion. However, *Final Fantasy VII Remake* was the game with the biggest drop of about 17.3%. On the other hand, *Far Cry 5* only dropped by 1%.

Top 10	
Last of Us Part II	57,8%
Marvel's Spider-Man	49,8%
Uncharted: The Lost Legacy	48,4%
God of War	47,5%
Detroit: Become Human	46,5%
Horizon Zero Dawn	41,9%
Ghost of Tsushima	40,2%
Assassin's Creed Odyssey	36,9%
Final Fantasy VII Remake	35,7%
Far Cry 5	35,7%

Table 4: The 10 most finished games in 2022

To consolidate the theoretical corpus and the results of the most completed games, an analysis was made at the motivational and flow level, to the games *The Last of Us Part II* and *God of War*, since both are the most appreciated games by the gaming community, with the greatest public and critical success (Tach 2018; Byrd 2020). It was verified that the motivation for the completion of these games is directly linked to the Engagement Design theory advocated by Zagalo (2020). Thus, for this analysis the "relation" stream was used since these are games with stories. The stream is composed of six categories (Affinity, Dramatists, Comparability, Empathy, Mimetic Characters, Changes). Table 5 presents the elements and categories of engagement design accompanied with a brief description of the category in the context of games. Subsequently, an interpretation of the categories is presented with the motivation for the completion of the games *The Last of Us Part II* and *God of War*.

Elements	Categories	Manifestation in the context of games
Subjects	1) Affinity	The relationship with human feeling and closeness to beings (characters) who think like us (players).
	2) Dramatists	The players who tend to like humanizing are those who play to the end.
Context	3) Comparability (logic)	Players need to see how others (characters) react in certain situations to learn in the future how to react.
	4) Empathy	Related to comparability, but in a sensory way. Empathy concerns the transposition of the player into the character.
Artifacts	5) Mimetic Characters	Players emphasize plot interaction to characters, creating moments of mimetic interaction, where player choices impact and transform the characters.
	6) Changes	Decision making triggers the changes. Players want to observe the characters change to learn, because from this action the player understands why they change. The changes are central to the player learning about the actions and consequently, about themselves.

Table 5: Table with the elements and categories of the Stream "Relation", described in the context of narrative video games

In relation to the games *The Last of Us Part II* and *God of War*, the 1) affinity is observed when the connection with the character and the sharing of the created reality, makes one develop an affinity and rootedness to the characters until the end. In the 2) dramatists' category, the effort to understand the characters, sympathize with them and simulate their pains and agonies, leads to the motivation to follow the character on their journey to the end. 3) The need to follow the story to the end, implies that the player wants to know what happens, to be able to understand the consequences of the characters' decisions. This experience leaves the player "stuck" in the game to know the outcome of the characters' actions and thus compare it with himself. With 4) empathy, the player feels what the characters feel. In turn it is necessary for the player to also feel the outcome so that emotions are not cut off without proper gratification. In the case of the 5) artifacts, individually, in *The Last of Us Part II* we can observe the category through figure 7, in which we can see the moment when Ellie makes the decision to drown Abby.

Figure 7: Moment in which Ellie reflects on her decision to kill Abby

In the case of *God of War*, a more affective moment is visible between the characters Kratos and Atreus in a conversation regarding their journey (Figure. 8).

Figure 8: A moment of complicity between Kratos and Atreus in a dialogue about their journey

Finally, the 6) changes, this category is one of the most central in a game because this is where players learn from through decision-making. In the case of *The Last of Us Part II*, this change is visible in Ellie at the time of Joel's death. Ellie grew up and became a more mature person, however when she witnessed Joel's death, this experience turned her into an aggressive, violent person which consequently made her create a path of revenge for what happened. In *God of War*, the change is visible with Kratos as he goes for the Blades of Chaos, showing a personality similar to “Kratos of old”, spiteful and violent. These blades were used by Ares to kill Kratos' family, so they symbolize the violence and horror of the event.

Regarding the elements of flow, for the game *The Last of Us Part II* the elements concentration and autonomy named by Jones (1998) and Sweetser and Wyther (2005) are highlighted, as well as the loss of time perception, named by Jones (1998) and Berube (2019). Concentration is felt in that the player is constantly focused on the story and what they must do in the game. The sense of autonomy, gives the player the feeling of realism of what is happening, transporting the player to Seattle; and the loss of time perception is felt during the game due to the involvement that the story manages to convey.
In *God of War*, the elements of flow stand out: immersion (Jones, 1998 and Sweetser and Wyther 2005), rewards (Berube, 2019), and balancing skills with game difficulty (Berube, 2019). Regarding immersion, the game provides an "Immersive Mode" that eliminates graphically unnecessary elements by being completely free of secondary information (such as life bar, item notifications). This option supports the player to enjoy the game cinematically, giving the feeling of teleportation into the scenery. The rewards present in *God of War*, provide better equipment and are motivating means for the continuity of the game's narrative. In balancing the skills with the complexity of the game, different difficulty modes are available according to what the player wants "Give me a Story", "Give me a balanced experience", "Give me a challenge" and "Give me God of War". Different levels of difficulty prevent the player from giving up due to lack of skill, and the player can choose an easier or narrative mode if they wish.

CONCLUSION

This paper focuses on motivation and flow as influential elements in the completion of narrative games. In addition to a literature review, an exploratory investigation of the most completed video games between 2020 and 2022, from Steam and PS4, and an analysis of two of the most completed games in terms of motivation and flow were developed. When discussing ways to keep the player in a video game, there are several

factors that a game designer should take into consideration so that the player does not give up and take the game to completion. Motivation induces the continuation of the game, whether it is through the factor of curiosity, learning or exploration. Also, the flow experience marks this article for its importance in video games. The optimal state results in a time interval in which the player is fully immersed in the game, which helps the player to remain interested in continuing and finishing the game. This experience is formed by a set of elements, and these elements are possible to be used in video game design to foster players' interest. Several authors present proposals of elements for the flow experience, and it is important to understand the various opinions to combine them to respond to the completion of games. Thus, four approaches were verified, by Csikszentmihaly (1990); Jones (1998); Sweetser and Wyeth (2005) and Berube (2019). In this follow-up, it is considered that if the game is developed following these elements, the player may be more likely to reach the end of the game since he/she stays for long periods in the flow state.

The problem of not finishing the game occurs in many different types of games, though it is considered that in narrative video games, the impact of giving up will be greater since narrative games follow a narrative line that must be finished. The narrative provides structure to the game and allows a sense of closure for the player. It also gives the player a sense of investment in the game since they have been part of the story from the beginning. In short, the conclusion of a narrative game is important because it allows players to feel satisfied with the story they have just experienced.

Methodologically, this paper presented an exploratory investigation of the most completed games between 2020 and 2022. The results focused in 2020 on the most finished narrative and story driven open worlds games, and in the year 2021 the data was restricted to story driven open worlds only. Through a detailed search for the trophy that directs to the end of the narrative in all games collected from previous years, a percentage analysis was made of the most finished games. It was concluded through a top 10, that is, of the 10 most finished games, that *The Last of Us Part II* remains the most finished game since 2020 (57.8%); followed by *Marvel's Spider-Man* with 49.8% and in third place *Uncharted: The Lost Legacy* (48.4%).

The data collected shows that the percentage of completion in games is still low, but the most finished games allow the creation of future case studies to study and understand why they are the most finished. What elements does *The Last of Us Part II* have that *Watch Dogs 2*, for example, does not, so that it does not get a higher percentage?

Subsequently, the motivation and experience of flow in the games *The Last of Us Part II* and *God of War* were analyzed through the engagement design method of Zagalo (2020) in which it was realized that when players feel involved in the activity, they are having a meaningful experience. And finally, we analyzed which elements of flow stand out in the same games. These elements establish a direct relationship to the player's will to continue and finish the game.

In summary, an initial analysis was conducted to understand how the elements motivation and flow impact the players to lead them to finish the games. For a future project, it is important to survey players' impressions through interviews to validate if in fact these elements are central to completion. It is also noted that the completion, i.e., finishing the story narrative will depend a lot on the type and motivation and profile of the player. As it is possible to see in the topic "motivation in video games", there are players who are motivated to compete, to collect all the game rewards and thus complete the game or for the challenge, for example. However, for this specific case, it is players with the story/fantasy motivation that will be interviewed for future analysis.

ACKNOWLEDGMENTS

This work is financially supported by national funds through FCT – Foundation for Science and Technology, I.P., under the project UIDB/05460/2020 and under the grant 2022.14590.BD.

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