The Resurrection of Permadeath: An analysis of the sustainability of Permadeath use in Video Games.

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A research paper submitted to the University of Dublin, in partial fulfilment of the requirements for the degree of Master of Science Interactive Digital Media

Declaration

I declare that the work described in this research paper is, except where otherwise stated, entirely my own work and has not been submitted as an exercise for a degree at this or any other university.

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Abstract

The purpose of this research paper is to study the past, present and future use of Permadeath in video games. The emergence of Permadeath games in recent months has exposed the mainstream gaming population to the concept of the permanent death of the game avatar, a notion that has been vehemently avoided by game developers in the past.

The paper discusses the many incarnations of Permadeath that have been implemented since the dawn of video games, and uses examples to illustrate how gamers are crying out for games to challenge them in a unique way.

The aims of this are to highlight the potential that Permadeath has in the gaming world to become a genre by itself, as well as to give insights into the ways in which gamers play Permadeath games at the present.

To carry out this research, the paper examines the motivation players have to play games from a theoretical standpoint, and investigates how the possibility of failure in video games should not be something gamers stay away from.

Through the application of theory extracted from the literature review in the areas of player motivation and player attitude to failure, several findings have been made.

The findings of this study conclude that from a theoretical point of view, Permadeath offers the player something that cannot be found in other games, and is promising alternative to the more traditional game types, of which there are many.

In many ways, the use of Permadeath in games is the most appropriate solution to aid in immersing players within a virtual world, however acknowledgment is made that further study is required in order to shape a firm empirical basis for these findings.

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1. Introduction

1.1 Background

Within the realm of videogames, the risk of the permanent death of the player's character has always been one of the driving components of play. It assists in creating, sustaining and even propagating player immersion. In this research paper I have chosen to look at the occurrence of Permadeath in video games. In particular, I have decided to give a definition of Permadeath and its various incarnations and an overview of the history of Permadeath in video games, before exploring more recent manifestations of it. The aim of this is to investigate the role Permadeath has played and now plays in contemporary video games. To contextualise this, I have decided to break this research paper down into a literary review and three sections, which look at the following:

- What is Permadeath and what is its appeal?
- How has Permadeath been used?
- Do people want to play Permadeath Games?

The literary review will provide the reader with the knowledge needed to fully understand the deductions of later chapters. To begin, I will go into detail about the basic needs that games fulfill for players, before discussing the theory of gamers enjoying failure because it helps them to learn how to play games. Finally I will briefly cover the Flow Channel theory, which describes the perfect state of "fun" for gamers to be in when playing.

Prior to looking at how Permadeath has been implemented in video games and exploring player classifications, it is vital that we define what Permadeath is, as well as the various types of pseudo-Permadeath that are out there. Once established I will explore its appeal, as there are many differing opinions on the merit of including Permadeath in games. I will explore the reasons for Permadeath's appeal by applying the needs of gamers to games with Permadeath. The issue of Permadeath in multi-player games will then be debated using pro and con arguments.

After defining Permadeath and discussing it's appeal to gamers in both single and multiplayer games, I will provide an extensive overview of the history of Permadeath and its inclusion in

games. The chapter will discuss how Permadeath was treated in the earliest video games, going through the ways in which developers strove to allow players to save their game progress. It is important to know how developers created ways to avoid Permadeath in order to compare how Permadeath became nothing more than a difficulty with it's re-emergence as a game type on its own. The chapter will also explore the many ways in which the ability to save have lead to great advancements in game design and development. Finally I will look at a case study of self-imposed Permadeath, which shows that Permadeath is something that gamers do in fact wish for.

After exploring the history of Permadeath in videogames and the ways it has been used, the final chapter will look at the reasons that players enjoy playing Permadeath games and whether or not people want to play them. Initially I will look at and example of a Permadeath mod that grew in popularity and was eventually turned into a full standalone game, which shows that there is certainly a market for Permadeath games. Permadeath will then be discussed in terms of it's use as an attractive feature for online multi-player games, as one of the more popular types of game that Permadeath is being developed for, but what will also be explored is the types of game that Permadeath might not work as well in.

2. Literary Review

2.1 Introduction:

For the literary review, I have chosen to look at what motivates players to continue playing video games, using Tekovsky's theory on the basic human psychological needs that games let us fulfill (Tekofsky, 2010). I will go through each of the needs individually, giving brief examples of the needs within the context of gaming. I will also detail the rewards these needs give to players as they fulfill them and how that makes the games more enjoyable for the player.

The second section of my literary review will look at the research that has been done involving the players reaction to failure in gaming, and where they like to lay the blame when failure does happen.

Finally, I will briefly discuss the Flow Channel theory (Csekiszentmihalyi 1990), which explores the balance that games need to maintain in order to keep the player involved and engaged. The theory has been questioned and altered since it's inception, and i will look at

one example, where it was altered to better reflect the pattern in which gamers like to play games.

2.2 Gaming Motivation

According to Shoshannah Tekofsky's theory of gaming motivation, there are 11 basic psychological needs that are fulfilled by playing video games. People play video games to try and fulfill at least one of these needs, though it is possible that people want to fulfill multiple needs at the same time, and that over time their needs change.

These 11 basic needs are:

- Gaining knowledge
- Gaining and improving skills
- · Regulating emotions
- Caring for loved ones
- Optimal Choice satisfying the senses with pleasant inputs (sights, smells, sounds, etc.)
- Competing for rewards,
- Co-operating for rewards
- Feeling competent
- Persevering through hard times
- Creating tools
- Managing danger

People play games not only to fulfill these needs, but also for the rewards their fulfillment offers. Tekofsky states that there are three types of rewards to be achieved from fulfilling one or more of these needs; achievement, recognition and satisfaction. The model in Figure 1 shows which need offers which reward.

2.2.1The Reasoning

The model assumes that all healthy humans have a number of basic needs that they are motivated to fulfill for their own benefit, and that these needs have become part of human nature. In video games we can see these basic needs being fulfilled, and identify three major psychological rewards for their fulfillment:



Figure 1: The 11 basic needs that can be fulfilled by gaming grouped by the sense of reward they offer(Tekofsky, 2010).

Achievement

The sense of achievement is the most obvious reason a person would play a game. By beating a level or a particularly hard boss, the player feels that they have achieved something, and done so in a fun way.

Recognition

This is the feeling the player obtains when they do something that earns them the regard of others. The player earns the respect and admiration of other players by aiding them, cooperating to achieve a common goal or by displaying their skill with an impressive feat.

Satisfaction

Satisfaction can be achieved in games when the player successfully fulfills a basic psychological drive. When the player sets themselves a goal (often outside the normal gameplay parameters of the game) and then completes that goal, they achieve a sense of satisfaction from getting something done. These goals may be something that the player feels they have to do in every game they play, such as to explore every corner of the game area. The player might not achieve anything in the game for doing this, but if they didn't do so, they would feel that they might have missed out on something. It is not uncommon in video games to see people simply "killing time" by completing an essentially useless task that they have set for themselves.

2.2.2 Fun & Relaxation in video games

It is important to distinguish that Achievement, Recognition and Satisfaction are the rewards that the player gets from playing, and that the concepts of "fun" or "relaxation" from playing games are feelings the player gets from fulfilling their needs and being rewarded for it.

2.3The 11 Basic Pschological Needs

Knowledge

Reward: Achievement - The requisition of new knowledge in a video game gives the player a sense of achievement. This learning process can come in many forms, from reading maps to deciphering puzzles or simply from exploring an unfamiliar environment. The player doesn't know beforehand whether the information will ever be useful to them in the game, but the fact that they have it gives the player the feeling of being better prepared to proceed further in the game.

Skills

Reward: Achievement - Skill acquisition is similar yet fundamentally different from the players need for knowledge. Skill is the ability to apply the knowledge learned thus far in the game in an effective manner, which can be as simple as pressing a certain pattern of buttons at the correct time, or the development of hand-eye co-ordination and reflexive playing techniques needed to complete certain games.

Competence

Reward: Achievement - The player feels like they have achieved something when their skill level is high enough that they are now able to easily complete challenges that gave them difficulty at an earlier point in the game. Being able to take down fifty of a certain enemy in second, when at the beginning of the game taking down only one of the same enemy took considerable skill, gives the player a feeling that they have improved. The difference between the need for competence and the need to acquire skills is that the sense of competence comes from the skills having already been learned, and the player is simply able to enjoy using those skills with little or no effort.

Perseverance

Reward: Achievement - This refers to the player not giving up on a task despite its level of difficulty. Many video games require the player to keep trying to complete a task until they have essentially memorized every step that needs to be taken, with very little margin for error. Players will always feel the achievement is more substantial if they have played past the point where they wanted to simply give up. This is part of the appeal of the harder difficulty settings in video games.

Creation

Reward: Achievement - There are many games that allow the player to create whole worlds or simply to personalise characters in whatever manner they wish. Players feel a sense of ownership and pride over what they have created, regardless of the quality of their creation.

Danger Management

Rewards: Achievement & Satisfaction - Games often threaten the player indirectly through the avatar they control or the worlds they manage. Managing these dangers successfully can give the player a sense of relief that a danger has been avoided, as well as a sense of achievement that in a small way they have yet again beaten the game. Many video games are made to simulate dangerous situations, and by managing these situations correctly the player satisfies their need to survive.

Competition

Rewards: Achievement & Recognition - Video games allow the player to be competitive in two different ways: indirect and direct competition. Score comparison devices such as leaderboards show the player's rank in certain games compared to other players, which drives the player to improve their rank, whilst the inclusion of gaming achievements allows players to directly compare their game progress with others. Direct competition is when the player takes on other players either online or by using the games split-screen capabilities.

The sense of recognition comes from other players seeing your gaming score or losing in a direct match.

Cooperation

Rewards: Achievement, Recognition & Satisfaction - Co-operation plays a very important role in many video games, both online and offline. In online games, players can join guilds and teams and work together with them to achieve goals that they would not be able to complete on their own. Playing with the same group of other players over a period of time can create a social network where the player is recognised for their deeds. Gaining more social status is also a form of achievement for the player.

Caring

Rewards: Recognition & Satisfaction - Players feel the need to care for things in the game that they feel responsible for, and games often give the player something that needs to be looked after in the proper manner in order to progress in a certain aspect. Many video games tap into this by making the player take care of their avatar, such as *Little Big Planet*, where the player's avatar looks happy or sad depending on how he has been used in the game recently. The player can see that their personal avatar looks "unhappy", and goes about making the avatar "happy" again by doing certain caring tasks that make the avatar appear happy once more.

Optimal Choice

Reward: Satisfaction - Optimal Choice is the term used to describe the appreciation of beauty in all its forms, but lacking the cultural connotation of "art". Video games can be perceived as beautiful in many ways, such as the quality of the graphics, the texture details visible and the music and audio elements of video games, all of which enhance the player's gaming experience, which makes them return to the game to satisfy the same need.

Emotional Regulation

Reward: Satisfaction - Emotional Regulation is the idea that people are always trying to feel as well as they can, but often feeling well in the short term obstructs feelings the same way in the long term. Emotional regulation can also be difficult because people often have conflicting or unclear desires. Tekofsky assumes that emotional responses are there to motivate people to do what is most beneficial to them, such as fear making a person run away from threats, and anger drives people to protect themselves and their rights. With this assumption, emotions are an instantaneous survival instinct that encourage people to take certain actions before they even have time to think things through.

Tekovsky suggests that emotional regulation can be further split into three types: Escapism, Catharsis, and Experience Simulator.

- **Escapism** The act of self distraction from real-world problems. Playing video games can be demanding on the player, requiring all their mental attention, thus allowing the player to forget about everything but the game that they are forced to focus on.
- Catharsis Players might have certain urges from the real world that they can act upon in a gaming world without consequence, such as destroying things when they are angry, or killing countless enemies to take out their frustrations.
- Experience Simulator Video games can simulate a huge variety of experiences
 that the player would otherwise never get to do in the real world. Video games are
 probably as close as players are going to get to racing formula 1 cars or saving entire
 nations from tyranny. They allow players to pick a desirable experience and step
 directly into it, thus satisfying the player's appetite for excitement, exploration, or
 whatever they feel that they lack in daily life.

2.4The Types of Failure in Video Games

Failure can be described as being unsuccessful at specific tasks in a videogame, but it is the punishment that comes after the failure that properly shows the extent of the failure. Though not all failure is punished in games, such as bumping into a wall, there are various degrees in which the player might be punished. Failure at a task might simply mean the removal of an opportunity to progress in the game in a certain way, while failure at other tasks might mean the death of the player's avatar and the loss of all the items and experience points they have collected up to that point so far. Juul (Juul, 2014) distinguishes the four different types of punishment for player failure as:

- Energy Punishment the player loses energy, bringing them closer to life punishment.
- **Setback Punishment** The player has to replay a part of the game or loses some items/experience that they have accumulated.
- **Life Punishment** Loss of a life (players often have more than one), bringing the player closer to setback punishment or game termination.
- Game Termination Game over. The player will start again from the very beginning.

A loss of energy leads to the loss of a life for the player, and if they lose too many lives it could lead to a setback in their game progress, which could even mean a complete end to their current game in the case of games without the ability to save progress. With this perspective, all in-game failures translate into setbacks for the player, as the use of the player's time and energy is the most important currency for enjoying video games.

According to the psychological *attribution theory*, people tend to attribute the reason for certain events happening to certain causes. Harold K. Kelly distinguishes between the three types of attributions that people often make regarding an event involving a person and an entity (Försterling, 2001):

- Person The event was caused by the person themselves, and their level of skill or their disposition.
- Entity The event was caused by the entity because of it's own characteristics.
- **Circumstance** The event was caused by things such as luck or chance, or also by and extraordinary effort from an individual.

In the case of failing at a certain task in a video game the player may decide that the failure was due to:

- 1. Person The players own level of skill in the specific game might not be high enough to complete the task. The player places the cause of the failure on themselves, believing that they are not good enough at this particular video game.
- 2. Entity The player places the cause of the failure on the game itself, perhaps believing it to be unfair, or purposefully designed to frustrate.
- 3. Circumstance There could be unaccountable factors for the player not being able to complete the task, such as the gaming pad being faulty, an unfortunate chance occurrence in the game, or simply the bad night of sleep the player had the night before. This type of cause is important because the player equates the failure to something outside of their control as well as not blaming the game developers, giving them cause to go back and attempt the task once more in hopes that the circumstances will be different this time.

Juul developed the hypothesis that energy punishment is being used commonly in video games because it makes the cause of the particular failure less obvious to the player. If the

player can identify the single identifiable mistake they made that brought about the failure, the player attributes the failure to their own performance in the game. However if the failure comes about because of a number of small mistakes, the player is less likely to feel as responsible for the failure and is less likely to experience failing as an emotionally negative event.(Juul, page 2)

2.5 Do players prefer to not feel responsible for failure?

In collaboration with the game company Gamelab, Juul developed a prototype game designed specifically to gather data on the player's perception of failure. The game was essentially a combination of Pac-Man (Namco 1980) and Snake (Gremlin 1977), where the test players used the mouse to control a snake avatar that grows in length as the snake collects pills all the while trying to avoid the smaller opponents. The player could also collect a special power pill that allowed them the ability to attack the opponents for a short period (see Figure 2).

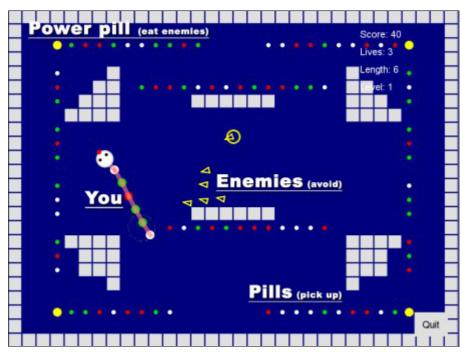


Figure 2: Prototype snake-game used for the test (Juul, 2010).

The reason an original game was developed was so the test could give an unbiased insight into the test player's initial learning experience when playing a new game, and so there would be no tester with previous experience of the test game.

For the test, the game was split into two modes:

- 1. Energy Punishment The snake would lose a piece of it's tail when hit by an opponent.
- 2. Life Punishment The player could only make one mistake and they would lose a life.

The player had three lives in both modes, and both had four levels that were balanced, so the two games were equally hard. However, after an initial offline test using 9 gamelab employees, it was decided to use only the energy punishment mode for a larger test group.

The second test was done online using 85 players who were asked to play the prototype game and answer a questionnaire after. Based on player performances, their responses were placed into three categories, and the players that were most positive towards the game were the ones that had completed the game, but had lost some lives in the process (see Figure 3).

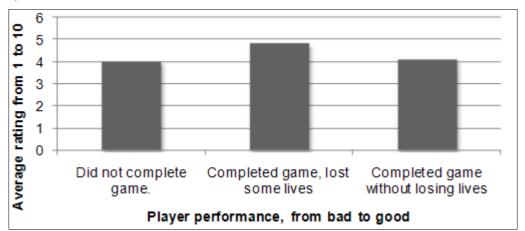


Figure 3: Player rating of the prototype game as a function of performance (Juul, 2009)

These results run parallel to the game design imperative that a game must be neither too hard nor too easy, as argued by Fullerton, Swain, and Hoffman (2004, p.269), and also do not conform with the common idea that the better a player does in a game, the more they

enjoy it. The players were also asked to choose the reason why they had failed or succeeded, with their answers split into six categories based on attribution theory.

The results (seen below in figures 4 & 5) showed that player were more likely to report being responsible for success in the game ("figured out how to play right") than admitting being responsible for their failures ("made a mistake"). This demonstrates a common phenomenon of attribution theory called *attribution asymmetry*, where players are more likely to attribute success to their own skill and characteristics while they attribute failure to external factors (Fosterling, 2001.p.87-91)

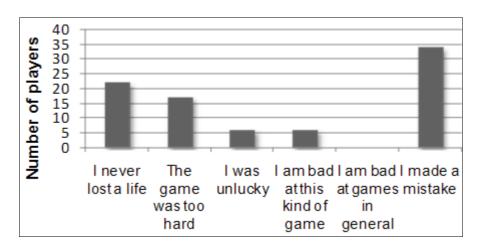


Figure 4: Where players attributed failure. (Juul, 2009)

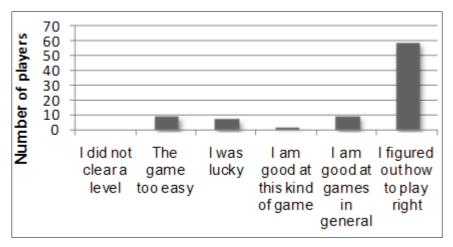


Figure 5: Where players attributed success. (Juul, 2009)

These results answer the question as to whether players prefer to feel responsible for their own failure, or at least the negative emotions they feel with those failures are cancelled out by other factors. The results also run parallel to a study where the players played the bowling mini-game of *Super Monkey Ball 2* (Amusement Vision, Ltd. 2002). The players gave a positive reaction to falling off the playing surface (a death punishment), but exhibited negative reactions when shown a replay of the same event (Ravaja et al. 2005).

2.6 The True Desires of Players

Juul's research unveils another complexity of player psychology in that failure and difficulty are important to the enjoyment of a game. This corresponds well with Michael J. Apter's reversal theory, which suggests that "while people seek low arousal in regular goal-directed activities, such as work, people seek high arousal (challenge and danger) in activities they perform for their own intrinsic enjoyment, ie. games" (Kerr & Apter 1991, 17).

It should also be noted that this study supports the idea that failure is not an opposite to winning, but adds depth to games, giving players the opportunity to improve their skills and adjust their strategies. In essence, the player's desire for balance in videogames is also a desire for variations in the challenges and difficulty of games, and essentially that *Failure* adds content (Juul, p.10).

Juul offered several contradictory considerations from the results of the testing, indicating that games should be both difficult and easier for the player than they are (Juul, p.8):

- 1. The player does not want to fail (makes player sad, feels inadequate).
- 2. Failing makes the player reconsider his/her strategy (which makes the game more interesting).
- 3. Winning provides gratification.
- 4. Winning without failing leads to dissatisfaction.

The first and third point suggest that for the player to enjoy a game, it must be easy, but points two and four suggest that games must not be so easy that the player will never fail. The oppositional nature of these points displays a striking similarity with the optimum game flow pattern of the Flow Channel theory for games.

2.7 The Flow Channel Theory

The Flow Channel theory is the standard psychological explanation for the player's desire for game failure and challenge (see figure 6). According to the flow channel, the challenge level of a given activity forms a channel between states for anxiety and boredom in which the player is in the attractive *flow* state (Csekiszentmihalyi, 1990).

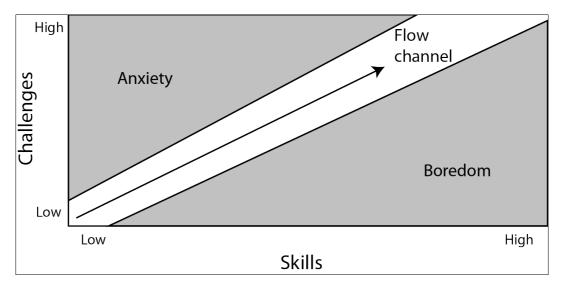


Figure 6: The player remains between boredom and anxiety.(Schell, 2008)

This flow channel does not display the contradictory nature of the desires of players when they play a game, instead it shows a straight line along the flow channel, with the challenge level never getting closer to anxiety or boredom. Noah Falstein (Falstein, 2005) refined the theory, saying that the difficulty of games should vary in waveform along the flow channel, with the game sometimes being a little easy and sometimes a little hard. This irregularity in difficulty causes the player to remain engaged in and enjoy the game more because they are more likely to experience both failure and success (see figure 7).

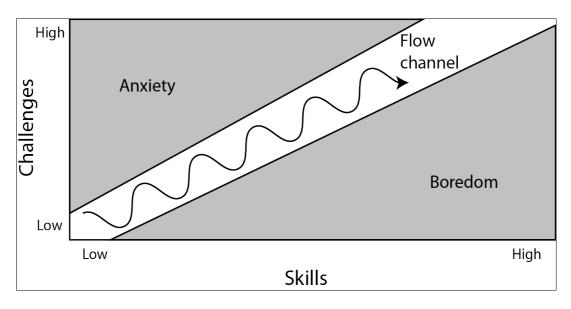


Figure 7: Falstein suggests the player should move back and forth between anxiety and boredom. (Schell, 2008)

2.8 Conclusion:

It is obvious that the basic psychological needs detailed above can be fulfilled in video games, and how the rewards that come from their fulfillment are what keeps people playing video games. Recognition, achievement and satisfaction drive players to keep playing games in a cycle that should only end when the game runs out of ways to fulfill these needs. We are also shown the way in which players view failure as part of the gaming experience. The results of the study show that players prefer to fail as long as they know the reason for their failure, giving them the opportunity to alter their strategies in the future. The game flow channel theory shows us how players like to be both challenged in videogames, but not all the time, as seen in the wave at the centre of the flow channel. This section gives us an overview of what makes games attractive to people, and the reasons that players continue to play games.

3. Defining Permadeath

3.1 Introduction

This chapter introduces the reader to the basic concept of Permadeath, and what the addition of Permadeath brings to video games. Once Permadeath has been defined, the types of pseudo-Permadeath used in video games will also be discussed. The appeal of Permadeath in games will then be discussed, applying the player's basic psychological needs to the way in which Permadeath games force the player to play, as well as a brief look at how Permadeath games allow players to fail and still succeed in the game. Finally, I will discuss the use of Permadeath in multiplayer games, laying out the pros and cons of its inclusion.

3.2 What is Permadeath?

When the topic of "death in video games" is discussed, it is necessary to define exactly what type of death is being talked about because, although the idea of death seems a simple enough concept, there are many permutations of death that a player can experience. The "death" of a game character normally occurs when their health reaches zero, in which case they enter the state of death, at which time a "Game Over" screen is most likely displayed. A common feature of video games is allowing the character to return to the game world, sometimes to the point that they were killed with the implementation of a setback punishment (loss of collected items or experience), or the player themselves can load the game from the last point they saved their progress and continue as if the death never happened. In almost all virtual worlds, it is made very easy for the player to change their characters state from being dead to alive once more.

Permadeath, or "Never-to-return" death (Bartle, 2004) does not consider an in-game death to simply be a temporary state that the character is in until they return to the game in some form. Instead, Permadeath means that the player can never return to the same game with the same character ever again, and regardless of the progress made or items collected, the character that "died" is gone forever.

3.3 Pseudo-Permadeath

Death appears in many forms in video games, and is more often than not something that the player can come back from, allowing them to "revive" their dead avatar using some form of in-game magic or technology that has been specifically designed for that purpose. Though the player's avatar might have died, the player is able to recover some or all of the avatar's items and characteristics. These types of death offer the player at least some kind of guarantee that they will not lose their investment (time, skills, money) in the game if they make one or too many mistakes. Using these types of death makes the player feel that game death is less lethal than it could be, and can often give the opportunity to prepare for the possibility of death.

3.3.1 Death Insurance

This type of death gives the player the ability to bring their avatar back to life at the spot where they died, but often at the cost of their assets (money, equipment). The character can be brought back to life as often as the player needs or wishes, but each time it happens they lose more assets, which can lead to the player having very little or no game items or currency remaining. Games such as *Resident Evil 2* (Capcom 1998) do the opposite, allowing players to save, and to respawn from that save point if the avatar is killed, but the player is only allowed save a certain amount of times.

3.3.2 Clone Insurance

Some games allow the player to prepare for the possibility of the death of their character by storing items, weapons or experience at specific places within the game. *Minecraft* (Mojang, 2011) lets the player create chests to store items they might need at a later point in the game, because their avatar could be killed between then, dropping everything they have on them. The game *Face of Mankind* (Duplex Systems, 2009) went a step further, making the player create at least one clone of their avatar at a specific facility (see Figure 8) before going on a guest, or they would suffer the avatar being lost forever if a death did occur.

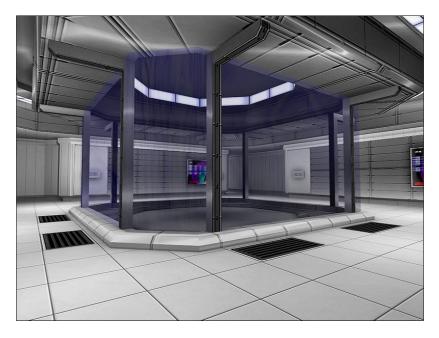


Figure 8: Face of Mankind's Cloning facility offers players extra lives (duplex Systems, 2009).

3.4 Conclusion:

After this chapter, it should be clear to the reader the different types of Permadeath that exist in video-games, as well as the ways that some games claim to be Permadeath games, but are instead a variation of Permadeath.

4. The Appeal of Permadeath

4.1 Introduction

Permadeath games offer the player something that that they cannot get in any other type of game, the possibility that at any moment everything they have worked for could be lost forever. It is because of the nature of the permanent death of the avatar that many Permadeath games have a survival element, such as *DayZ* (Bohemia Interactive 2013), where players start with nothing, and must stay alive as long as possible while fending off zombies and trying to not get shot by other surviving humans.

In order to do this the player must be constantly on guard and expect an attack from any direction at any time, because if they are killed they lose everything they have collected in the game so far, and must start again with nothing. The player must also search for food to feed to their avatar because as time goes by they get hungry, and can die from starvation (see Figure 9). The constant threat of Permadeath forces the player to play with extreme caution, as the avatar can die very easily, but the player must also maintain a sense of urgency because if left unfed for too long the avatar will die anyway.

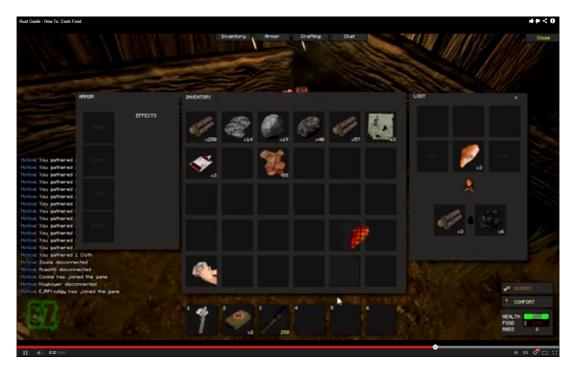


Figure 9: In *Rust*, the player uses a fire to cook raw chicken for their avatar to eat (EverythingZombies, 2014).

This type of play pattern runs parallel to Falstein's derivation of Flow Channel theory, as the player must balance the speed at which they play with how carefully they must play, putting the player in the attractive flow channel between boredom and anxiety. As reddit user xwgpx55 states: "Nothing says fun like knowing that you will lose everything if you die" (Xwgpx55, 2013)

4.2 Permadeath Fulfills Needs

Using *DayZ* as an example, we can see that Permadeath games also offer the player the means to fulfil some of their basic psychological needs as described by Shoshannah Tekofsky:

- Caring The player must look after the avatar they use to play the game, because if they don't there is a possibility of losing the character altogether. Not only does this mean avoiding harmful elements, but also ensuring that the avatar is fed regularly
- Danger Management The player must weigh the consequences of every possible action and decide whether to take risks or not. Successfully managing danger when at risk of Permadeath gives the player a sense of relief and achievement for surviving as long as they have.
- Perseverance There is no doubt that everyone that plays Permadeath games such

as *DayZ* has died at some point and had to start again. By starting again, the player exhibits perseverance, knowing that there is a high probability that they will die once more, and yet they continue to play for as long as they can.

From the literary review, Juul's theory on how players enjoy feeling responsible for their own failures also explains part of the appeal of Permadeath games. Permadeath makes the player very careful when it comes to risk management, essentially allowing them some control over their avatar's fate. Then, if a mistake is made and the avatar dies, the player knows the reasons behind the failure and can adjust their strategies the next time they play. Juul also concluded that winning after a failure is what players really want from games, and Permadeath games offer the player plenty of chances to fail, meaning that achieving a win feels even better for players.

4.3 Permadeath in Multiplayer Games - Pros and Cons

There are a variety of ways in which players can play with other players both online and offline, and the implementation of Permadeath into these games can drastically change the way players interact. Having the risk of completely losing your game progress because of the deeds of another player causes players to be much more cautious of getting too close to others. There are both good and bad aspects of having Permadeath in a game, which can be divided into pros and cons:

4.3.1 Pros

Enhanced Emotional Response

Playing a game with the constant threat of Permadeath over the player's head enhances the feelings a player gets when playing video games. The joy of surviving an event is much more intense when the player knows that if they hadn't survived, their game would have been finished forever, as well as the player's fear of this happening being heightened.

Replay Value

In games where death is permanent, the player is unlikely to explore the entire map before their eventual demise, or to complete every single quest in one life. This means that death is not always the end for players, as they can restart the game and play the game an entirely different way this time around. Dying permanently gives the player a chance to play as a different avatar with different attributes, an option that most games already offer (starting a new game), but players stick with the avatar they've already made progress with. Permadeath allows the player to discover the best way to play through trial and error, letting them find the perfect play method before putting in a lot of play time.

Risk Creates Immersion

The risk of Permadeath in video games is the same risk humans live with their whole lives, knowing that at some point they have to die and there is no return to previous saved progress. Permadeath games simulate this natural law of real life, and there's nothing more immersive than real life. Playing the game, the player is constantly exposed to risks that could permanently end the progress of a character, and taking every precaution possibly immerses the player in the task of survival, and thus the game world.

4.3.2 Cons

The player's reaction to death

How players reaction to dying in a Permadeath game can vary, depending on the investment they have made with their avatar and their own disposition. Players can feel real loss for their dead characters, causing them to leave the game and possibly not return for fear of being reminded of their failure to protect them. Gamers who have experience playing online multiplayer games that do not feature Permadeath might play a Permadeath game in the same manner as a non-Permadeath game, which most likely would lead to their death, and them leaving the game because of it's supposed difficulty.

The need for strong content

Multiplayer games with Permadeath need to offer the player good content for them to pass the time and lots of it. Just like in other multiplayer games, if players become bored by the activities the game offers, there is a strong possibility that they will create their own activities instead, which often consists of praying on other players. The difference with Permadeath multiplayer games is that if players are being hunted by other players, there is a risk of them losing all their progress simply because another player has become bored.

Griefers

PvP combat (player vs. player) in Permadeath games means that players can kill each other if they need to, but often player's appear whose sole objective seems to be to permanently kill as many other players as they can for no reason other than their own amusement. In games that lack Permadeath, such as *Grand Theft Auto 5* (Rockstar Games, 2013), hunting down other players just to do so is encouraged because it basically costs the players nothing. Avatars in games with Permadeath however, mean a lot more to players because of the risk of losing them completely, so griefers can cause entire game sessions to end because no one wants to play with an unreasonable player.

4.4 Conclusion:

The appeal of Permadeath is heavily discussed in this chapter, and how the basic needs of the player are fulfilled in a way that other games simply cannot offer because failure in Permadeath games means that the player has to fulfill all these needs again. This risk of having to repeatedly fulfill the same needs again because of the death of an avatar actually involves the player more in keeping their avatar alive, although when the player does experience failure, they can apply new techniques and strategy to the game.

The chapter also dealt with Permadeath as a part of multiplayer games, and laid out the good and bad aspects of its inclusion. While there are negative possibilities of having Permadeath in multiplayer games, much of the cons are to do with the actions of other players, which can vary largely with the people being played with.

5. The Evolution of Permadeath

5.1 Introduction:

This chapter will detail the ways in which Permadeath has appeared in video games since their very beginning. The first section will discuss how early video games treated the idea of death and how Permadeath was essentially forced into games because the technology to save progress did not yet exist. The reader will then learn about the various ways developers came up with to take Permadeath out of games so the player might have some evidence that they played games, including the use of high scores, passwords and checkpoint systems. The notion of saving a player's game progress fully is discussed in the next section, as well how being able to save changed how games were both created and played. Finally, the reader will be shown how Permadeath is being used as just another difficulty mode in some video games, and how some players are taking it upon themselves to play games in the spirit of Permadeath in order to give themselves a greater challenge.

5.2 Obligatory Permadeath

Death, in some form or another, was a very common game experience in most early video games, especially in coin-operated arcade games which made up a large portion of the gaming platforms available to gamers at the time. Common practice gave the players three game lives for one credit (\$.25 in the United States), and once they ran out of lives and consequently credits, their gaming session came to a close. Game-death was an eventuality because, unless the player had an unending supply of credits or extraordinary skill, they would always be shown the game-over screen in the end and have to restart again from the very beginning.

The player had to play these games from the start every time because the video game machines lacked the ability to save any game progress, meaning that the earliest video games were essentially forced Permadeath games. This meant that players played the games knowing that once their turn ended, that was it, and they could never continue that game ever again. This limitation forced players to play every game as if it were the last time they could, because technically they would have to start a whole new game the next time

they played.

This idea of the death of the player's avatar has been in video games since the beginning of video games. *The Oregon Trail* (MECC, 1974) featured death as a large part of the gameplay and story, with the possibility of a large contingent of the player's party dying whilst undertaking their wagon-journey west towards the new frontiers of the new world (North America). Throughout the game, the members of the player's party could die from various causes, such as measles, snakebite, typhoid or dysentery.



Figure 10:The Game-Over screen of *The Oregon Trail (Ryan, 2010)*

Death was not only something that just happened in the game however, it was also used as a way of punishing the player for their mistakes. If they proved themselves to be especially inept at playing the game, their own character could die, thus ending the game altogether (see Figure 10).

5.3 Cheating Permadeath

It soon became the goal of game developers to come up with games where the player would be able to show some evidence of their game progress, and within a decade, many new ways to cheat Permadeath were invented:

5.3.1 High Scores

Space Invaders (Taito, 1978) is known as the first major game to not be merely a playable electronic representation of something else, using it's own game logic instead of an external simulation logic (Kaiser, 2011). It was also one of the first games to implement a high score board, where the top ten highest scores achieved by players were displayed along with their initials when the game wasn't being played, and the highest score is displayed at all times during a game session (see Figure 11). This introduction of a competitive aspect in the game was hugely popular with gamers because it gave them access to evidence of the highest scores achieved. Players now returned to the arcades to try and beat the current high scores and compete with each other to be the best.



Figure 11: The player's score is displayed (top-left) next to the highest score (top-middle).(Mrshadovski, 2013)

The mechanic of saving high scores are still very limited however, saving only a small amount of high scores to be displayed, and if the power to the machine is disconnected, the score-board is lost. Players are also limited to the amount of credits they can feed the machine, and no matter how far they get in the game, once their lives are gone, they must start all over again.

5.3.2 Checkpoints

Checkpoints in video games allow the player to respawn after a death event at specific points in the game that the player has already reached, thus enabling them to not have to start from the very start of the game if they die.

Checkpoints on the screen

In games such as *Moon Patrol* (Irem, 1982) the player navigates the surface of the moon using a buggy, and upon reaching certain poles upon the track, the player is notified that they have "reached a checkpoint". From there on in that playing session, the player knows that if they lose a life, they will restart at the last checkpoint they reached, and not at the beginning of the level.

Levels as checkpoints

The completion of a level in video-games is often treated as reaching a checkpoint, so players don't have to replay a level they've already completed if they die in the next one. Using the levels as checkpoints divides the game into manageable sections, as well as giving players a chance to rest at periodic intervals before they must continue to play.

Checkpoints and Time Bonuses

Some games such as *Out Run* (Sega, 1986) have a timer mechanic, where the player is given a certain amount of time to reach the next checkpoint, at which point extra time is added to the timer (see Figure 12). If the player is unable to reach the next checkpoint before the timer runs out, the game ends. This mechanic encourages players to reach checkpoints as quickly as possible in order to extend the gameplay time as well as adding tension and urgency to the situation, forcing players to drive faster beyond their natural desire for competition (Giantbomb.Com, 2014).



Figure 12: The time is extended after the player passes a checkpoint (Hardcoregaming101, 2012).

5.3.3 Passwords

One way some video games allowed the player to save their progress (to a certain degree) was by issuing a password to the player which could be used in the future to let the player return to that point in the game. These passwords were most often displayed at the end of levels so the player could jump right into the beginning of the next level, or if the player received a game-over screen, they would just have to enter the password to return to before where they died.

Passwords given by some games such as *Chip's Challenge* (Atari, 1989) allowed the player to jump to the password's corresponding level but the state of the avatar or any items collected in previous game sessions were not included in the save (see Figure 13). More complicated games however, could give longer passwords which, through an internal algorithm, would correspond to some factors of the previous game's state, allowing the player to continue their personal game. Theoretically, the Password Save System (PSS) would allow the player to load extremely complicated save files based on their previous game session, but the more complicated the game, the longer the password would have to be, and over a certain point of complexity the system becomes impractical.



Figure 13: Chip's challenge displays a four-character password to access the first level (Upload.wiki, n.d.).

5.3.3.1 Advantages of Passwords

The use of passwords to record game progress does offer some advantages to the player:

- There are almost infinite amounts of password combinations that can be generated to retrieve a game in a certain state, so theoretically, the player can have infinite amounts of save files.
- Players can share passwords with each other, allowing players to access parts of games that they did not/ could not get to themselves. Players can also share passwords that unlock secret items or power-ups to play the game with.
- Players can pick and choose where they want to play from. If players record the game
 passwords somewhere, they have the ability to access any level in the game by
 simply inputting its password.

5.3.3.2 Disadvantages of Passwords

The Password Save System does, however, have several disadvantages:

- The place where the passwords are stored could be lost by the player and is susceptible to damage, meaning that the player could lose all of their game progress by simply losing a piece of paper.
- Password complexity and human error can cause the game files to be difficult to access. Passwords can often consist of over 20 characters, increasing the chance of the player transcribing it incorrectly from the screen, or inputting it incorrectly, neither of which allow the player to access their game.
- Password save systems can't hold more than a few variables which makes them impractical for variable- oriented games such as sports games,RPG's (Role Playing Games) and strategy games.
- They also lack the ability to save records of the game such as "fastest time" or "highest score", personal records that the player might wish to save.

5.4 How saving changed the meaning of Death in Video Games

Not having the ability to save in Video games meant that people had to do their best at the game with every try in order to achieve the highest score possible, and that every game the player began was a new attempt at beating it, and most importantly, it meant that the player had to start at the beginning of the game every time.

In February 1986, Nintendo released *The Legend of Zelda* (Nintendo, 1986) in cartridge form on the Famicom Disk System. Using battery-backed memory, the game allowed players to save their progress, turn off the system and, an indefinite amount of time later, load the same file and continue the game at exactly the point they saved. This internal battery acted as a bookmarks for their game progress, and introduced a huge amount of gamers to the new idea of saving, selling over 6.5 million copies (Tang, 2004).

Players no longer had to insert more coins in order to continue their game if they lost enough lives to warrant a game over punishment, instead they could simply re-load from where they last saved the game and try a different strategy. If that strategy failed, they could go through the same process and try again an unlimited amount of times. At any point the player could pause the game, and save their progress, or retry from where last they saved (see Figure 14).



Figure 14: The pause menu offers the player a chance to save (Hiddentriforce.com, n.d.).

Death was no longer such an obstacle that needed to be avoided for players, who could now try and fail at a task as many times as they wished because they knew they had the ability to return to the last place they saved their progress.

5.4.1 Playing over time

This new save ability literally changed how games could be played completely. Players could now start a game and play the same game continuously over an extended period of time, whether it be days or weeks, an experience they couldn't get on a machine in an arcade. The player could now be the same incarnation of the game character every time they played, allowing them to forge a personal connection with their avatars. The player could now immerse themselves in the role of the characters of the games plot, making the *Legend of Zelda* (Nintendo, 1986) the first real Role-playing game (RPG).

Game developers learned fast that saving was something gamers wanted to be able to do, and started adding the ability to save to more games. Knowing that gamers would now play a game over multiple sittings, developers began making games with much longer gameplay such as *Final Fantasy* (Square 1987). This game made the player wander aimlessly in it's virtual world looking for random monster encounters to level the character's up. This grinding was necessary for the characters to become powerful enough to beat the game's many bosses (see Figure 15), and the process took a lot of time. Luckily, with the ability to save, the player could jump in to the game at any time, fight a few monsters, gain some experience, save and leave the game again.



Figure 15: The characters have to be powerful enough to beat the difficult enemies (Hardcoregaming101, n.d.).

5.4.2 Saving allows Personalisation

The ability to save introduced huge possibilities in terms of personalisation of virtual characters and worlds. No longer would the player have to use the same avatar every time they played a game because if they altered the avatar's appearance, saving meant the avatar would remain the same for the next game session. Personalisation was not simply aesthetic however, saving allowed players to customise the game characters to their own preferences, which could be saved and used again. The player's need to care for something is fulfilled by maintaining their avatar's health and appearance (Tekovsky, 2010). As technology improved, developers added more and more ways for players to have their own unique gaming experiences that could be loaded up and played as often as desired.

5.4.3 Saving allows exploration

As well as creating games with longer stories, developers needed to make larger worlds to suit the longer gameplay, and it does seem that they see it as a competition to build the biggest virtual world. This sense of competition in a very small market drove developers to "create increasingly rich and elaborate video game experiences. Better graphics; bigger worlds; prettier music; actual storylines" (Miller, 2010).

Gamers can now explore vast swathes of countryside and mountains, save their progress and continue from there at another time. Because of this, some games adopted storylines and gameplay that were not as linear as older games. Players were now able to revisit locations or choose from multiple paths to finish the game and were encouraged to discover all the secret and hidden things the developers put in the game, as a secondary collection objective. Saving progress of what the player has already gained is very important, indeed almost all gamers, including myself have had experiences involving lost or corrupted save data that caused much frustration.

5.5 Permadeath as a difficulty mode

Permadeath is often included in video games as an optional difficulty mode. Alongside "easy", "medium" and "hard" modes, games such as *Minecraft* (Mojang 2011) give the player the option to play a world on "Hardcore" mode, in which the player has only one life, and once it is lost, the player can never play in that world ever again, outside of buying another *Minecraft* account. Similarly, *Batman: Arkham City* (Rocksteady Studios, 2011) offers the player a mode called "I am the night", where the player plays through the normal story mode, but if the avatar (Batman) is killed, all game progress is deleted and the player must start again.

What's interesting about this mode is that the player can only access it once they have completed the story mode on another difficulty, meaning that the developers intentionally restrict the player from playing in Permadeath mode until they have acquired some experience of playing the game first.

5.6 The Nuzlocke Challenge

The Nuzlocke Challenge was conceived by 4chan user Nuzlocke, who, while beginning a replay of *Pokemon Ruby* (Game Freak, 2002), decided to try and make the game more challenging, because he had played it so much that he felt it had no more to offer. He applied two rules to the game and stuck to them rigidly (Nuzlocke, 2010):

- 1. He could only capture the first Pokemon he encountered in each new area.
- 2. If a Pokemon fainted he would consider it dead and release it.

The limitations the first rule placed him under, regarding which pokemon he could capture, made him play using pokemon he would normally not have chosen to use, which were more common and generally weaker than the rarer pokemon. Having to use them forced him to play in a way that slowly levelled them up, but also in a way that they would never be in danger lest he lose everything he had worked for. Essentially raising his pokemon from weak to strong forged a bond between him and his pokemon, which he detailed in the form of comic strips on the 4chan v/ideogames forum.

The second rule, where he considered any fainted pokemon as dead applies a Permadeath philosophy caused him to experience not only a game of increased difficulty, but also a game where he now cared deeply for his pokemon companions and played much more cautiously to ensure their continued safety. As we've seen before with other Permadeath games, Nuzlocke's psychological need to persevere through failure, and his need to care for his pokemon grew very strong when he played the game as one with Permadeath, because he knew he "could lose them at any point" (Nuzlocke, 2010).

Having tried this challenge, I found the self-imposed rules made the game very difficult, especially when compared to the low difficulty level of Pokemon games in general. Applying Permadeath to such a game completely changed how it has to be played, and as with many other Permadeath games, the learning curve was steep and unforgiving, causing me to restart the whole thing an hour after I had begun. After this initial failure, I was much more wary of the all the ways in which I could lose pokemon, because before there was only the

risk of them fainting in battle, meaning I couldn't use them again until I healed them or brought them to a healing centre. The Nuzlocke challenge however, meant that a fainted pokemon was a dead pokemon, and pokemon dying essentially meant that I was playing terribly, which forced me to change my methods so that that wouldn't happen again.

5.7 Conclusion:

After completion of this chapter, it should be clear to the reader how Permadeath has been included and excluded from video games since video games came into existence. As video games evolved from simple 2D games into massive 3D worlds, the idea of Permadeath seemed to be laid by the wayside, with the player's being allowed to save their progress whenever they felt like it. The ability to save progress did certainly allow for the creation of games of immense detail and size, but at the price of the player ever truly feeling at risk because they could always reload their save game.

Self-imposed Permadeath, as seen in Nuzlocke Challenge, is where players apply Permadeath rules to games to make them more challenging, and the popularity of this movement should be noted, showing that Permadeath in games is certainly something that gamers, or at least a small amount of gamers do want.

6. Permadeath - A New genre of game

6.1 Introduction:

The purpose of the chapter is to show the reader how Permadeath has become something that is now in the mainstream of gaming. It chapter shows the growing popularity of Permadeath in games, as seen in the zombie mod created for ARMA II (Bohemia Interactive 2009), and how it's huge and surprise success led to the creation of a game where one of the main features is Permadeath, something that hasn't been seen in games before. The section will detail the reasons behind it's creation, as well as the way the player has to try and survive both the elements and the in-game enemies.

Permadeath in group games will be discussed using the example of *Rust* (Facepunch Studios, 2013). In it, large groups of players with no skills or items group together in order to survive, leading to the creation of interesting social systems, which will be analysed using Tekovskys model for the basic psychological needs of the player.

The next section will discuss the types of games that Permadeath would most suit, and also go through the reasons that players might enjoy Permadeath games over others.

6.2 DayZ - From mod to standalone

Modding games has become something that more and more people are doing, allowing players the ability to alter both the visual and gameplay settings of games. Players often publish their own mods online so that others can play them. *ARMA II* is one such game that has been modded quite a lot, because of its simulation-style gameplay and its large virtual world. One such mod, called *DayZ Mod* (Hall, 2012) placed the player online, in a massive post-apocalyptic world and gave them only one objective: survive.

Dean Hall, the mod's creator, came up with the idea for the mod whilst on a survival skills exercise with the New Zealand Army. He was injured during the exercise and being forced

survive on his rations and supplies gave him the idea to create what he called an "anti-game" (Hall, 2012). He called it this because it in order to get the sense of realism he desired, he thought he would have to break some of the common conventions of game-making, such as providing balance, and an easy learning curve.

"What if I put the player in a situation that is essentially hopeless where every part of the world is out to get them and if they make one mistake that mistake could cost them their character's life?"(Hall, 2012)

There are several enemy types that can cause the player harm in *DayZ mod*, such as zombies or bandits (the other players) but encounters with them are few and far between. The most urgent need the player must deal with is making sure their avatar doesn't die from the huge variety of ways humans can die in real life. The avatar can receive bone fractures from strong blows or falls, succumb to infections from untreated wounds, or even collapse from low blood pressure. The player must also monitor the avatar's hunger and thirst needs, and scavenging for food and keeping the avatar at the right body temperature are what the player might be doing the majority of the early stages of their game. The player has to learn to focus on immediate goals before they can consider long-term strategies (Harman, 2012).

Having to take care of an avatar in order to be able to do greater things in the future simulates how human needs couldn't be ignored in a zombie apocalypse, and the realism of this feature immerses the player in the virtual world even more. This human need was something that players hadn't seen as the main feature of a game for a long time, but was apparently something that gamer's enjoyed immensely, with over 1.7 million people (Hall, 2012) downloading the mod The mod was so popular in fact, that in order to play it, players had to buy *ARMA II*, which put the 2009 game on top of the 2011 game charts for several weeks (Rose, 2012).

6.3 Permadeath as a main feature

Due to the immense popularity of the mod, it was inevitable that a full game would be developed. The creators of the original ARMA II hired Dean Hall as the head developer on the project, and in early 2013, a *DayZ* (Bohemia Interactive 2013) standalone game was released, selling over 172,000 copies in it's first 24 hours (Sharkey, 2013). The standalone version of *DayZ* featured several new additions such as new vehicles for the player to use,

and a larger variety of food and equipment, but most the most notable addition was the creation of a huge game world designed to simulate the post-apocalyptic world in which the player must survive. The world introduced many different towns, factories and facilities that the player could explore, but the main objective of the game remained as the players own ability to survive as long as possible.

The Permadeath aspect of the game, combined with online multiplayer creates some very interesting situations when players encounter each other in the game, and having played the game, I know that these situations can get very tense. Players often employ the policy of shoot first, take their stuff and don't ask questions, so when a new player is encountered, there is a period of time taken to discover if they are a friendly or not.

6.4 The effect of Permadeath on group play

In *Rust*, a game that allows up to 40 players per server, players start with nothing but a rock in their inventory, not even any clothes. Because of this, it is not uncommon to some across large groups of wandering naked players, who have banded together to survive as long as they can, knowing that having numeric superiority their only weapon in a violent encounter with a player/plays that are better equipped. In some cases of this happening, social systems have arisen, made to regulate how these large groups operate within the virtual world. One such system known as the Penis Brothers, operates on the principle that every player starts out equal (naked), and regardless of items accrued, should remain equal (naked) to remain a member of the brotherhood.



Figure 16: The Penis Brothers in *Rust* initiate a new member to their ranks (Normaldifficulty - Youtube, 2014).

New players that the group discovers as they traverse the games landscapes are given the option to remove whatever clothing their avatar is wearing (if any) and are initiated into the group with a ritual involving a long line of naked avatars (see Figure 16). Failure to remove clothing can lead to the poorly armed Penis Brothers brutally attacking the clothed avatars until they either die or comply.

It appears that interaction with other players is a source of great entertainment in Permadeath games, because there is always a tension surrounding the fact that any death that occurs means the end of a player and everything they have worked for so far. The basic need for cooperation seems to be fulfilled to an even greater degree in Permadeath games because of this constant risk. Working together to just survive or to create something, when the option to kill and just take another player's equipment must give players an immense sense of reward. Combining their resources and energies, players can also share knowledge and skills with each other, fulfilling the players other psychological needs.

6.5 Permadeath - Where to use it?

There are number of game types where the implementation of a Permadeath feature would not work as well as in other types, but there are also game types that would be vastly improved by Permadeath. I will detail the best uses for Permadeath in modern video games:

- Games without a story RPG's often include the Permadeath option, so the more
 dedicated players can test themselves at the highest difficulty available. But the very
 nature of Permadeath in games expects the player to die, and probably very often,
 while RPG's rely on the player playing through a story, something made impossible if
 when their character dies, they must start the story again.
- Survival Games The use of Permadeath in survival games makes them exactly that, regardless of the other features the game offers. The risk of the permanent loss of the avatar forces the player to play much more conservatively, immersing them in a world from which their character must be protected. What is interesting, is that the game Rust (), began development as a zombie survival game.
- Competitive Games Any games that put the player up against the skills of another
 player could be given Permadeath aspects. Having the harshest penalty for failure
 possible in games makes players alter how they deal with competition, knowing that
 they are not simply playing to win, but also playing to not lose, a concept that appears
 in very few types of game.
- Strategy Games Games that require the player to plan ahead in order to succeed
 are perfect for Permadeath to be added as an optional mode. While differing from
 regular games, such as possibly lacking a single avatar for the player, games such as
 Civilisation V (Firaxis Games 2010) could be played using Permadeath, ensuring that
 the player makes only the most perfect moves in order to survive. For this type of
 application of Permadeath, the player should be restricted in how often they can save
 their progress, so that the penalty of failure is great.

6.6 Where not to use Permadeath

Due to various factors, the use of Permadeath does not suit every game that it could theoretically be applied to:

• Story-driven games - These games are designed for the player to experience the story that the developers have customised for the maximum enjoyment of the player,

- adding Permadeath to this can remove the persistence of the player to progress through the story because they keep dying and have to start from the story's beginning. "It's no good if you built this amazing story with a fantastic climax if many people don't even get to that climax." (Burgun, 2013)
- Collection-based Games Games such as Farmville (Zynga 2009), where the player
 is continuously completing tasks in order to add to their stats are games that would
 not work well with a Permadeath component. The whole concept of adding stats to
 what the player has achieved so far would be moot if the player had to start over
 anew with every serious failure made.

6.7 How Permadeath affects player enjoyment.

According to the Game Flow channel theory, players most prefer being in the attractive channel between boredom and anxiety when playing games. However, Permadeath games seem to challenge this theory, instead placing the player much more on the anxiety side as they play (see figure 17). Why is it then, that Permadeath games have become so popular with gamers?

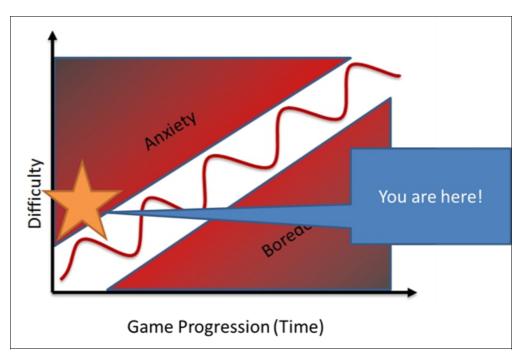


Figure 17: Permadeath gamers place the player into the anxiety section (BertyBeatle1 - Photobucket, n.d.).

If we look at the basic psychological needs detailed in the literary review, we can see several that players are able to fulfill in Permadeath games, such as caring, perseverance and competition. The player has to care for their avatar, persevere when their avatar has died, and compete with other players for resources. Fulfilling these needs awards the player with satisfaction for proving their own skill level to themselves as well as with the recognition that comes from interacting other players.

We can also apply Juul's theory on the way in which player's enjoy failure because it allows them to change how they play in order to better succeed in games. Permadeath certainly allows players to fail enough for the player to alter their strategy, but I believe the severity of the penalty for failure in Permadeath games forces players to drastically rethink how they play the game after just the first death, and this severity immerses the player even more into the game.

I know that when I played *DayZ* for the first time, my character starved to death before I encountered anything that could help or hinder me in the game. This happened because I was unfamiliar with the game and was unaware that I should have spent the whole time scavenging for supplies and equipment, but upon respawning I knew that the way I had played before would not work, and that I would have to play differently in order to survive.

6.8 Conclusion:

After this chapter is is clear that Permadeath has become something more than just a difficulty mode in games. Developers are using it as a main feature, forcing those who have little or no experience with Permadeath to play in a manner that they have never played before. It is important to note the types of games that Permadeath works well with, and where it doesn't.

In the section detailing how Permadeath affects how players enjoy games, we can see that Permadeath games let the player fulfill basic psychological needs that other games do not, or do so in a superficial way. The threat of real risk to the player's avatar makes the idea of failure both part of the game, and while players do not wish to be killed, they know that it is not the end of the world, and should offer a new perspective on the game.

7. Conclusions:

I began research on this topic to try and answer whether or not the recent surge of permadeath in video games is simply something that will be around for a short while, or if it is a new type of game type that will remain. To answer this question, I split my research into sections that could separately answer the three questions I pondered in the introduction:

- What is permadeath and what is its appeal?
- How has permadeath been used?
- Do people want to play Permadeath Games?

Chapter one gave and extensive definition of what Permadeath is, as well as the many types of pseudo-permadeath that have been used in games, which led into the study of the appeal of permadeath, which is dealt with in chapter 2. Looking at the ways in which Permadeath games fulfill the basic psychological needs of the player, it appears that Permadeath games offer the player a way in which to fulfill those needs that other games cannot. The need to care for their avatar is heightened when playing a Permadeath game, because the player knows that if they fail at the task, the avatar is lost forever.

Chapter two also dealt with Permadeath as a part of multiplayer games, and laid out the good and bad aspects of its inclusion. It seems to me that much of the downfalls of including Permadeath in multi-player games comes from the attitude held by a certain group of players, who want to kill other players, no matter what it takes, just for the sake of annoying them. While the need for strong content to keep players from going this direction is made, I also feel that there will always be a certain small percentage of the gaming population that exists only to annoy the rest. These types of players (Griefers) seems to be drawn to games with Permadeath, where they can do the most damage to other players' characters. In my opinion, they can only really be overcome if more and more players start playing these games, thus lowering a player's' chances of meeting one of these sadistic individuals.

Chapter Three details extensively how permadeath has always been a part of video games in some form or another. I believe that there is a generation of video game players who remember still playing the earliest video games that gave the player no safety net at all, which the ability to save does. The chapter shows all of the ways in which developers gave the player the ability to avoid Permadeath, and how permadeath was essentially downgraded

to nothing more than a difficulty setting for many games. I think this shows that there was always an audience for Permadeath games, because otherwise why would the option be included? There are always gamers that want to go a step further with games in terms of difficulty and it is no surprise that applying Permadeath to a game is the next logical step for them.

The Nuzlocke Challenge, which I attempted myself several years ago, also displays the general desire for players to be able to play games that they are highly competent at, but in a way that's different to how they played the same games before. Turning *Pokemon Ruby* into a permadeath game is certainly one way to play a highly familiar game into a truly unique experience, which I think is something gamers want more and more, considering the oversaturation of the video game market.

Chapter Four focused on the way in which Permadeath has basically become a genre in itself, with the amount of Permadeath games that have been released recently or are in development. I feel that the sheer popularity of games such as *DayZ* and *Rust* could certainly be attributed to the novelty factor, there being very few games similar to them on the market, and Permadeath being something that most games try their best to avoid. However, and this is what I believe, there is certainly evidence to suggest that these games are only now filling a void in the games market that has existed for a long time. Players *want* permadeath in games so they can test their (in game anyway) survival skills, which is something that most gamers don't get to do very often.

This chapter goes through the game types that Permadeath would be best suited for, showing why certain types of game could benefit greatly from the introduction of Permadeath, whereas in other game types, Permadeath would be a useless and possibly negative addition.

Overall, I feel that the future of Permadeath games looks promising, and if the sales figures of *DayZ* and *Rust* are an indicator of the possible popularity of Permadeath games in the future, Permadeath might finally claim it's rightful place as a staple game feature for game-developers to offer players.

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