

# **THRILLS AND CHILLS: EXPLORING THE WORLD OF HORROR GAMES**

**Elena NIDELCU<sup>1</sup>, Tatiana MIHAILOVA<sup>1</sup>, Ana-Maria TIMCIUC<sup>1</sup>**

<sup>1</sup>*Department of Software Engineering and Automation, group FAF-222, Faculty of Computers, Informatics and Microelectronics, Technical University of Moldova, Chisinau, Moldova*

\*Corresponding author: Elena Nidelcu, [elena.nidelcu@isa.utm.md](mailto:elena.nidelcu@isa.utm.md)

**Abstract.** *Horror games can offer players a unique and immersive experience by tapping into their fears and creating an intense sense of tension and suspense. However, there are both advantages and disadvantages to playing these games. One advantage is the opportunity to experience a thrilling and exciting adventure in a safe and controlled environment. Horror games can also provide a sense of accomplishment and empowerment when the player successfully navigates through frightening situations.*

**Key words:** *fear, games, impact, lightning, music, stress.*

## **Introduction**

In today's world, horror games are becoming increasingly popular among children, teenagers, and adults. They are attracted by high-quality graphics, fascinating plot, and good musical accompaniment, but their impact on the human brain is still under discussion. Some people think they cause aggression in children and make them more violent. Others argue that quality horror games give the player the opportunity to "understand" what is happening, which is often no less frightening than the screamer itself, which in turn develops as a creative component of the person, and a willingness to the equally dark mysteries of real life. So, in this article we will discuss about what is horror games? What is their use and harm? How and by whom are they created?

## **The Yin and the Yang of Horror Games.**

In this section we are going to examine both sides, the positive and the negative effects of horror games on players.

### Positive effects of horror games.

#### *a) Reduced stress, improved mood and well-being.*

During such games we are so passionate about the development of the plot that we are more immersed in virtual reality than in real life, so what we experience throughout the game, it gives us pleasure to be able to overcome another obstacle we face. At this point, our body produces a number of hormones that include dopamine and serotonin. They are known as happy hormones, which make us feel better and raise our spirits and reduce stress. Horror games help release these chemicals, which act like an adrenaline associated with struggle or flight. It plays a significant role in reducing anxiety and depression. When it comes to real-life situations, they help us reduce stress and deal with it more easily without making us act spontaneously.

#### *b) Increased empathy:*

Horror games can also boost empathy by permitting players to undergo fear and anxiety in a secure and controlled environment. This can help players gain better insight into and empathy for others who may experience similar emotions in real life.

Improved emotional regulation: Playing horror games can also improve emotional regulation skills. While playing, players must learn to manage their fear and anxiety, which can translate to improved emotional regulation in actual life.

*c) Enhanced social interaction:*

Horror games can be a great way to connect with individuals who share similar interests. Multiplayer horror games, specifically, can build camaraderie and teamwork among players.

Increased confidence: Lastly, playing horror games can boost confidence levels by enabling players to confront their fears in a safe setting. As players overcome challenges and obstacles in the game, they may feel a sense of accomplishment and increased confidence that can carry over into other aspects of their lives.

Negative impact of horror games.

While scary games can offer various advantages, they may also have adverse impacts, mainly for individuals who are delicate or susceptible to specific types of content. Here are some of the possible negative consequences of horror games:

*a) Desensitization:*

Regularly playing scary games can lead to desensitization, which means that players may become less responsive to frightening stimuli over time. This can be problematic because it may lead to a lack of empathy and sensitivity towards real-world issues and events.

Sleep disruptions: Playing horror games before bedtime can disturb sleep patterns and lead to nightmares and other sleep-related issues. This can have negative impacts on physical and mental health, including decreased cognitive function and mood disorders [1].

*b) Aggression:*

Some research suggests that playing violent video games, including horror games, may increase aggressive thoughts and behaviors in some individuals, especially in children and adolescents. However, further research is necessary to confirm this effect [2].

*c) Triggering traumatic experiences:*

For some individuals, scary games may trigger traumatic memories or experiences, leading to emotional distress and even post-traumatic stress disorder [3].

### **Crucial Principles for Creating Tension in Horror Games**

One of these principles is isolation. Humans feel safe in groups as they always lived in communities for our survival. Therefore, to maximize the agitation and the discomfort of the person, creators must do them away with their comfort zone.

The second is lack of resources. By limiting the gamer, the player is always alert of it and it becomes a new bother in the already worried mind. But is primordial to get the right balance. Too much of similar care makes player to get used to it and the level of tightness will become low priced.

As previously mentioned, achieving balance is crucial in horror games. This principle also applies to lighting. As game developer Daniel Jones notes, darkness has the power to conceal the most terrifying monsters, and this applies to horror games as well. However, it is important to find the right balance between too much and too little lighting. Darkness can effectively tap into our inner fears of the unknown, but a game with insufficient lighting can be frustrating and unenjoyable to play. In fact, the same principles that make lighting effective in horror movies can be applied to horror games as well, with six key areas, defined by a game developer that contribute to the scare factor [4].

- Uplighting
- Silhouette
- Spotlighting
- Underexposure
- Harsh light (hard light, chiaroscuro)
- Prominent and projected shadows

It may sound like a given, but one of the crucial elements that sustains suspense and keeps players engaged in a horror game is delivering the unexpected. For instance, moments where the player anticipates an encounter should occasionally yield none, while corridors that were previously

safe might now pose a threat. The primary objective is to keep the player in a constant state of alertness. However, it is essential to note that the word "occasionally" is significant here, as balance and moderation are key to ensuring that unexpected events do not occur too frequently. After all, the unpredictability factor is diminished when it happens all the time.

### **The Mechanics of a Horror Game**

#### *Schema and horror:*

Game play involves the player matching their actions to the game's affordances in exchange for the system granting them an emotional experience that falls within a certain range. In other words, the player can only perform a limited number of extremely basic activities that the algorithm has predetermined. At this point, we can assert that gameplay schema takes over: if it sufficiently looks, sounds, and feels like a game, and we are familiar with playing games, we do not need to learn the system from scratch because, to a certain extent, our expectations about the affordances supported, are automated. In other words, we are aware that we must align objects with the vanishing point and press the corresponding button, that horizontal movement is the norm, that we cannot walk or shoot through walls, that the majority of the environment is hostile, that our ammunition supply will likely decrease over time, etc. Of fact, the concept of describing gameplay using a schematic or cognitive model is not new. Perron [5] explicitly bases his description of gameplay as a "heuristic cycle" on Neisser's cycle, pointing out, for instance, that the schema not only establishes expectations but also serves as a model for action. Understanding what can happen is not enough; we also need to know what our part of the deal is and what kinds of action (perceptual, interpretive, and real) we need to engage in order to complete the circle.

However, as was previously mentioned, these concepts are not solely tied to the system; we can also extend cultural frames past the domestic and into the horrifying. Carroll [6] points out that the true definition of terror is a particular response to its contents, and this is undoubtedly related to the referential level as well as our understanding of frames and schema. There are two different levels of potential impact. We often have an instinctual negative reaction to deformity and decay, and we undoubtedly work with an underlying schema regarding threat and danger. These reactions may be natural, or tacit, to specific stimuli, and they have their roots in both culture and evolutionary psychology. Furthermore, many terrifying creatures and circumstances result from a breakdown in regular categorization or a lack of knowledge [7]. Because darkness impairs our ability to perceive, stress and uncertainty might thrive. Death is not a desirable result.

#### *Co-opting Schema as a Gameplay Device:*

The Systems Benefits of Horror. Let's begin with the most straightforward benefit of applying horror paradigm to gameplay: agents. The essential concern with agents is not necessarily AI, but rather the attribution of agency to action: the player's perception of the agents' intelligence [8]. The great majority of FPS agents have humanoid appearances and behaviors put upon them. We may see the direction they are facing, take an active stance toward them, and project our motives and contextual knowledge of the world onto them. This is a direct co-option of tacit schema.

Similar to this, there is a benefit to adopting many of the horror-related schemas in regard to the surroundings that are shown. A breakdown in knowledge or comprehension, an awareness of the limits of the reasonable and manageable, and a realization that these limits have been crossed are the foundations of horror. Similar to this, many FPS games certainly all those that make no attempt to be historically accurate quickly transcend the standard by introducing factors that overtly challenge the avatar's controllable, well-known reality. This disruption goes beyond the traditional crisis-to-resolution model of narrative and is presented in a way that emphasizes the relationship between avatar and metamorphosis, which is suggestive of an underlying horror theme. Once more, we can

refer to Carroll's description of horror and observe that he includes impurity and danger as constitutional parts. As a result, whenever we witness a breach in reality, we should be on the lookout for these very particular methods [9].

### Conclusions

In brief, though scary games can be amusing and offer numerous advantages, they can also produce adverse impacts on mental and emotional wellness, particularly for those who are delicate or at risk to certain forms of material. It is crucial to take into account personal restrictions and potential hazards before participating in horror games and to obtain assistance if required. By understanding the principles that create tension in horror games, developers can continue to create innovative and engaging experiences for horror game fans. As technology continues to evolve, it's exciting to think about what the future of horror games may hold.

### References:

1. DISALVO, D. *Playing Violent Video Games: Good or Bad?*, [online] [accessed 23.02.2023] Available: <https://www.psychologytoday.com/us/blog/moral-landscapes/201011/playing-violent-video-games-good-or-bad#:~:text=First%2C%20in%20violent%20video%20game,feel%20rewarded%20for%20helping%20others>
2. FERGUSON, C. J. *Do Violent Video Games Make Kids More Violent?*, [online] [accessed 16.02.2023] Available: <https://www.psychologytoday.com/us/blog/evidence-based-living/201807/do-violent-video-games-make-kids-more-violent>
3. GENTILE, D. A. *Negative Effects of Video Game Play*, [online] [accessed 13.02.2023] Available: [https://link.springer.com/referenceworkentry/10.1007/978-981-4560-50-4\\_13](https://link.springer.com/referenceworkentry/10.1007/978-981-4560-50-4_13)
4. JONES, D. *7 essential ingredients horror games have to build tension*, [online] [accessed 13.02.2023] Available: <https://www.gamedeveloper.com/audio/7-essential-ingredients-horror-games-have-to-build-tension>
5. BERNARD, P., "The Heuristic Circle of Gameplay: The Casa of Survival Horror", *Gaming Realities: A Challenge of Digital Culture*, Fornos: Athens. [online] [accessed 23.02.2023] Available: <https://www.ludov.ca/documents/publications/Perron%20-%20Heuristic%20Circle%20of%20Gameplay%20-%20Mediaterra%202006.pdf>
6. NOEL, C. *The philosophy of Horror Paradoxes of The Heart*, London: Routledge. (1990)
7. DANI, C. *The Gothic Vision: Three Centuries of Horror, Terror and Fear*, London: Continuum. (2002)
8. DAN, P. "Trigens Can't Swim: Intelligence and Intentionality in First Person Game Worlds" *The Philosophy of Computer Games 2008 Proceedings*. (2008)
9. MILTON H., NORMAN P., and ALESSI E. "Presence as an Emotional Experience" *Medicine meets Virtual Reality: The Convergence of Physical and Informational Technologies: Options for a New Era in Healthcare*. (1999)