

Staring Into Abyss: Independent Approaches to Immersion in Video Games: Archimedes

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Abstract

Immersion has always been one of the most important reasons why gamers keep on playing video games. Developers constantly try to surround gamers via graphics, sound, narration, and most importantly, interactivity but, to reach a wider audience, developers, at the cost of sacrificing creativity, are not willing to leave their comfort zone. Independent developers, however, can come up with various ideas and executions to create immersion.

In this paper, my case study will be Archimedes which is an independent game created by Josh Huges. In the context of Archimedes, I will try to examine how the game creates immersion while gradually spreading through the virtual world into our real lives. I will focus on gameplay mechanics, and visual and sound structure to analyze how they are used to create immersion.

1. Introduction

Streetlamps cast long shadows to the streets, only sound is the footsteps of patrolling guards, no moon or stars in the polluted sky, and you, the master thief, try to infiltrate the most dangerous and well-guarded prison in the city. If you get caught, then it is... game over!

Albeit it might not be that well written, this is an example of a text that we might call immersive. So, what is immersion and why is it so important? Even though there is not a specific definition of immersion, we might simply say that it is the feeling when we are surrounded by the text and our engagement with it. According to Taylor “the degree to which the player feels integrated with the game space is a measure of her or his sense of

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‘immersion.’” (2002: 12), Calleja gives a more elaborate definition, putting an emphasis to the difference between video games and other media:

“In the case of a game, we can think of the player as being anchored, via her avatar, in the game world, allowing the game’s environment and entities to react to her. This aspect of games fundamentally alters how the player perceives herself within the world and is not present in literature, films, or personal imagining. When we identify with a character in a movie or book, or imagine we are in the same room as the protagonist, we have no way of altering the course of events, no way of exerting agency. Likewise, the environments and characters represented in these media have no way of reacting to our presence, no matter how strongly we identify with them” (2011:22-23).

Taylor classifies the notion of immersion as diegetic immersion and intra-diegetic immersion. She defines diegetic immersion as “where the player is immersed in the act of playing the video game” and intra-diegetic immersion as “where the player is immersed in playing the game and in the experience of the game space as a spatial and narrated space.” (2002: 12). While diegetic immersion can occur in a film or a novel, “video games also allow intra-diegetic immersion, [...]the experience of the game space through the player-character within that space; wherein the character’s involvement with the space becomes the player’s involvement with the space.” (Taylor, 2002: 12,13). Calleja defines involvement as “a prerequisite to the experience of higher-order cognitive processes such as presence or immersion in much the same way that attention is a prerequisite of involvement” (2011: 35).

Kurt states that immersion is closely related to the concept of a virtual body where the body is “incorporated into images, living them from an intrinsic point of view” due to an “enveloping space created by digital artworks”. (2014: 163).

In their research, Brown and Cairns speak of three levels of involvement: engagement, engrossment, and total immersion. Engagement “is the lowest level of involvement with a game and must occur before any other level [...] the gamer needs to invest time, effort and attention.” (2004: 1298). The second level is engrossment. In this level, the construction of the game should directly affect the gamers’ emotions. (Brown and Cairns, 2004:1299). The third level is total immersion.

“Total immersion is presence [...] The barriers to presence are empathy and atmosphere. Empathy is the growth of attachment and atmosphere [is]

the development of game construction [...] The graphics, plot, and sounds combine to create this feature.” (Brown and Cairns, 2004:1299).

So, total immersion is the game’s ability to hook the player into the game world, it could be via mechanics, gameplay, or narration. Generally, independent and/or art games have little or no narration and –as one should expect from an independent game with next to nothing budget- are not graphically advanced. Yet, those games are as immersive as their AAA counterparts.

Archimedes (Josh Hughes, 2016) is also an independent game that uses real-life interactions to increase players’ engagement with the game, and to make the game more immersive, with unconventional ways from what gamers used to encounter.

2. Immersion in Archimedes

2.1. Game Mechanics

“There is no game” is the motto of Archimedes, and we will try to explain how the game achieves that premise by breaking the boundaries between the game and real life. Archimedes began with a computer boot screen then an operating system called Intra, opens up. This operating system is the game itself (fig. 1).

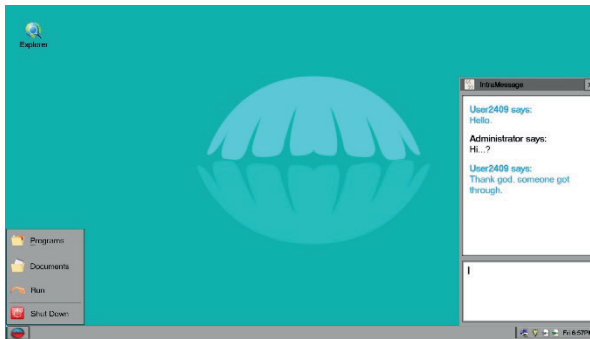


Fig.1. Interface of Intra, OS from Archimedes

The purpose of Archimedes is to make the player believe what s/he just bought is not a game, hence the motto: there is no game. To this end, throughout the game, some unique mechanics are introduced to the player. The main mechanic of the game is the messaging software that connects the mysterious person (User2409) and the player (Administrator). In Archimedes, there is no protagonist as the player identifies her/himself, s/he

plays as her/himself because there is a game yet there is no game, you can't pause it nor enter the options to make some changes.

As the story unfolds, we—as the player—learn that in the cooperation called ARC, a suicide virus causes people to kill themselves. What is important here though, is not the narrative, which is relatively simple, but how we discover the secrets and find out what is going on. First and foremost, players can interact with everything on the intra-interface, like a real OS. For example, User2409 wants the player to open a certain file using a search bar or enter a specific site via Intra's internet browser. Of course, these interactions are not without limitations. Administrator can't browse any site s/he wants or install software in it. But within the game's logic, User2409 explains that it is an emulation of an OS and mainly built for ARC's intercommunication purposes, thus there are very few things it is capable of. This explanation leads to another interesting—and the focus of this work—mechanic: real-world interactions. At some point, the Administrator receives a link and must download the rar file via a real browser, then extract the audio files and listen to them for clues.

Later, in the game, the Administrator must find a specific location, and does that via Google Earth, with the help of the pieces of information which is hidden in Intra. Towards the end, User2409 says that they are cutting down the communication in the ARC and he can't talk via Intra anymore. He wants the Administrator to mail him. What the Administrator needs to do is send a mail through a real internet browser.

Games in general, want to surround players with the game world and separate them from real life during playtime. Players are aware that they play a game, but because of suspension of disbelief, they can easily dive into the game world. What Archimedes does though, on the contrary, is to force the player to interact with the real world to create immersion. So, how does real-world interaction help to make the game more immersive? To analyze this, we must look closely at how narrative and visual/sound structure accompany the mechanics.

2.2. Narrative

Archimedes' story begins when the player starts the game and instead, finds out it is an OS. The game launches like an operating system, there is no intro or menu screen the player can enter and configure settings. While the player tries to understand the game, s/he receives a message from someone called User2409. The administrator (player) gets confused and writes "What? I thought this was a game, where is my game?" User2409 says "It's

an emulation of an operating system called Intra.” Later, the Admin insists and says “Look, can you just tell me how to start playing the game just I bought?” This might be a question all the players who bought Archimedes, ask themselves. User2409 replies to that question saying “There is no game. This operating system is the file you downloaded. I put it on the internet myself. “According to User2409, the only way to reach a large amount of people is by hiding the OS behind a game.

This is where the game and real life began to merge. We –as the players– bought the game and discovered that it may not be a game after all. In fact, the only sign which implies that it is a game is the autotyping. No matter what key the player hits, certain messages appear in the software. To increase the feeling of writing, it requires more than one keystroke, just like typing. If the messages were not scripted and the player had to type certain words to make progress, like in text-based games, then the illusion would be stronger; but for such a game, it would be almost impossible to find the right commands to make progress.

User2409 helps the Administrator to discover what is going on in the ARC, and they find out that an ancient virus has been discovered, it causes suicides and now, it evolves, becomes self-aware, turns itself into a computer virus to spread everywhere, and wipe out humanity. Archimedes takes two cliches and combines them: dangerous virus and evil AI. The output is both organic and inorganic virus, so an ultimate danger to humanity.

The virus is only in the ARC’s computers until the player buys the game and installs the OS. User2409, unknowingly let it loose. Now it can spread everywhere via the Administrator’s PC. But with the help of User2409, they hack the virus and kill it. Then Intra crashes.

The paranoia caused by Archimedes is doubled when the Administrator’s PC is infected. Is the virus real? Is her/his computer really infected? Again, if it is not for scripted messages, that feeling might be stronger.

Another aspect that separates Archimedes from other games is its replayability value because there is none. When we talk about games, replayability is an important issue. When you finish the game and get rid of the virus, the game shuts down.

Whenever you try to open the game, it displays an error: “Cannot locate files, please insert the disc to install an Operating System”. Uninstalling and reinstalling the game doesn’t change anything, you need to delete all the related files. Yet again, Archimedes tries to blur the lines, sacrificing the replayability because there is no game.

Archimedes, despite its simplicity and low budget, has an impressive visual and sound structure, which supports the gameplay and narrative, layering the immersion.

2.3. Visual and Sound Structure

Archimedes' graphical design is based on a Win 95/98 like OS, hence there are no 3D graphics, any sort of environment, or level designs. It has a small amount of sound and there is no background music except one section which we will analyze. Yet, the effect of this simplicity creates a strong feeling of immersion.

First, we need to understand why the developer, Josh Huges, may choose to go with an old OS design. Even the tone of its green background is almost the same as Win 95/98 had by default –except Intra's shell-like logo. It could be approached this matter from several perspectives. First, it is probably the most convenient choice for Huges since it is a very simple design and doesn't take much effort to create. Second, such a simple design makes the game more comfortable for players, so they can focus on what is going on than what is on the screen.

Anyone who works in an area of the visual arts knows that layout affects where the guest will look. This becomes very important in an interactive experience since guests tend to go to what draws their attention. Therefore, if you can control where someone is going to look, you can control where they are going to go (Schell, 2008: 287).

There is one last thing related to this design of choice: nostalgia. Huges constructs his game upon nostalgia, even though the story is a bit worn, it reminds the 80's/90's cyberpunk movies.

When we look at the shreds of evidence about the evolution of the deadly virus, we track down several communication media. Firstly, the player sees letters from 1953 and 1954. The main difference between the visualization of this letter and the letters that players confront during contemporary video games is that this letter seems genuine, it looks like a photograph instead of CGI as in most video games. This situation continues over other evidence's appearances. There are autopsy photographs of real human bodies. The player sees up close certain body parts and autopsy reports. The newspaper's photo in the archives and especially the news website looks real too, surrounded by other catchy news (fig 2). All these design choices contribute to immersion and shape the player's perception of reality.

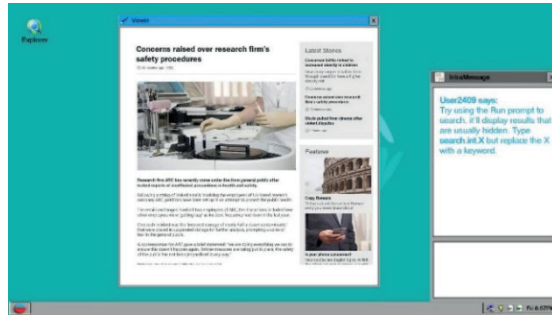


Fig.2. News, SS from Archimedes

Also, there is a change in evidence along the timeline. The letters of 1953 became mail in 2016. So, the player can feel like a detective who is lost in a case whose roots spread through time.

When it comes to the sound and music, there are some moments that we should mention. There are puzzles in the game that the player should solve to proceed. One of them is a keygen that is needed for file encryption. An 8-bit music accompanies the keygen and serves as a piece of background music until the end of the puzzle. There are also music samples in the OS, which the player can click and listen.

Like all the sounds in the game, the usage of the music is diegetic. So, they have “real effects in the game world” and they become “part of the game structure instead of being merely a decoration.”(Ekman, 2005: para. 17). The humming in the background sounds like a PC fan, and there is an alert sound when you receive a message or click sounds. All of them serve one certain thing: to make believe the player that it is not a game.

Just like the visual structure, sound, and music help to evoke nostalgia. In a study, researchers found that “listening to nostalgic songs was associated with both joy and sadness” (Barrett et al, 2010: 401, 402). Thus, Archimedes’ visual design is supported by music. Using 8-bit music was a common practice for software like keygen which originates from online piracy.

“Scene groups would compete to see who could break the strongest copy-protection, who did it first, and who did it best. On launching their cracked versions of software, they would put an intro. Also known as cracktros, these audiovisual shows served to credit the group members who made the crack. It would also be an opportunity to show off their artistic, musical, and programming skills.” (Skjestad, 2022: 6).

So, it is evident that the game targets veteran players who are familiar with old operating systems, old games, and the early days of piracy, thereby creating a strong sense of nostalgia. Even though keygen music and music samples that you can find in a folder have no function or impact on the game, they increase the sense of reality and intent to bring back the memories.

“[...] the strength of nostalgia was most strongly predicted by context (autobiographical salience; arousal; familiarity; elicitation of positive, negative, and mixed emotions), less strongly but significantly by attributes of the person (nostalgia proneness, mood state), and by the interplay between context and person.” (Barrett et al, 2010: 402).

Sound and music –their absence as well as presence- are as important as visuals to immersive game design, so the player can feel “immersed with the story or (imaginary) world, or the identification with a game character.” (Huiberts, 2010:50). They help to create a certain atmosphere. For example, towards the end of the game, due to the virus that began to affect the OS, glitches occur, and a sound accompanies that effect, irritating and startling the player. At the end of the game, the Admin encounters the alien virus. During this sequence, digitalized and organic sounds point out the nature of the virus while creating an eerie atmosphere. Also, sounds provide information about player’s surroundings and lead them to the solution of puzzles, “increase the player’s concentration on the gameplay, contributing to immersion. This happens, for instance, when players need to focus on specific sounds in the game environment.” (Huiberts, 2010: 51). Using sounds and visuals as a key of puzzle solving through real life and constructing the game mechanics upon that, is the last but not least chapter of the study.

2.4. Interactivity

Archimedes’ unique mechanic, as we stated in the beginning, is the real-world interactions. The player, in the role of Admin, must exit from Intra and use her/his real brows to make progress. The first real-world interaction occurred when the User2409 gives a media file link to download a zip file. It needs a password that the player must find out beforehand. In this zip file, there are audio files, containing conversations (fig. 3).

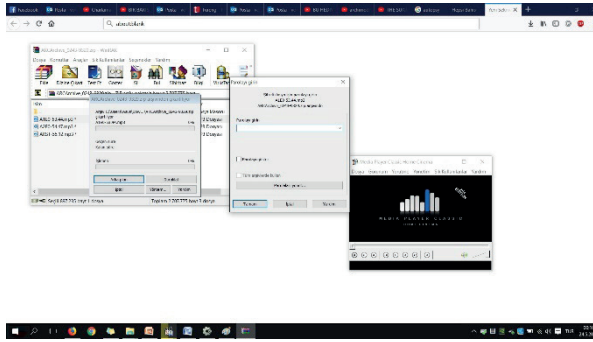


Fig.3. Audio Files, SS from author's desktop

Due to the heavy noise, they are almost impossible to understand. As discussed before, this is an example of diegetic sound. It belongs to the narrative, it has a purpose, and the noise that the sound files contain creates an uneasy atmosphere. Furthermore, their incomprehensibilities lead to another mechanic, one that includes a device besides the computer: a smartphone. Searching the folders in Intra is rewarding as well as entertaining. Finding music samples or notepads are just there for an entertaining and immersive experience but surely don't have any impact on progression.

One of the folders contains a QR code (Fig. 4). When scanned via smartphone, a video that deciphers the audio files opens. To include a smart device as an integral part of the game, exceeding its boundaries of it, can be considered an innovative mechanic. Probably in the future developers are going to use all new media to accomplish their goals.

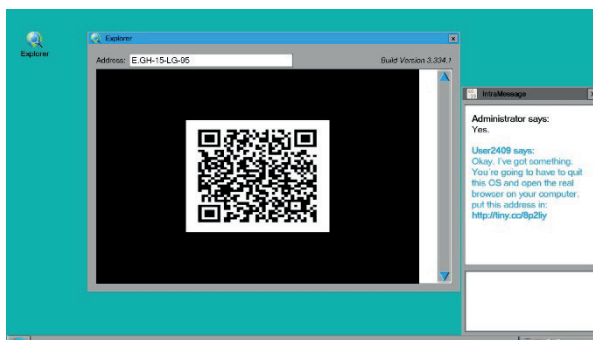


Fig.4. QR Code. SS from Archimedes

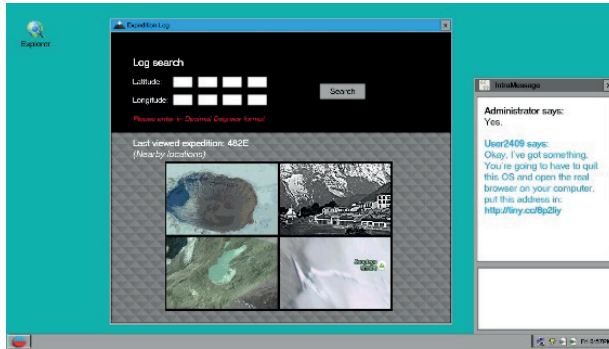


Fig.6. Coordinates, SS from Archimedes

One of the players says, “Excuse me, how am I going to e-mail this person?” then after he pauses and thinks, says “he doesn’t expect me to e-mail him in real life, right?” (Riskrim, 2016). Another player expresses his astonishment saying “What do I do? Oh, I actually have to freak e-mail him! Like in real life, I have to frea...[stops a second] Are you serious?” (JeLlegendz, 2016). These reactions are signs that Archimedes is trying not to pretend, instead, it tries to simulate.

“Simulating is not pretending [...] pretending, or dissimulating, leaves the principle of reality intact: the difference is always clear, it is simply masked, whereas simulation threatens the difference between the ‘true’ and the ‘false’, the ‘real’ and the ‘imaginary’.” (Baudrillard, 1995: 3).

As Baudrillard points out, simulation blurs the line between real and imaginary, so does Archimedes. Simulation, as a video game genre, means that everything in the game is meant to be as realistic as possible to recreate the real-life experience of the given situation. For example, if it is a car driving simulator, the player expects a driving experience close to real life and may use wheel controllers to increase it. But despite how the genre is called, it pretends. It doesn’t blur the lines; the player is very aware of what s/he is playing. A simulation game doesn’t infiltrate into our world and try to simulate it. That is what makes Archimedes a unique experience. Of course, Archimedes simulates reality to a degree, it involves pretending too. But Hugh creates a very familiar interface, an OS that is very similar to Windows. The narrative structure of the game makes players confused if they really bought a game or not, then force them to use a real browser, or a smart device and make them send a mail from their own mail accounts. Even though Archimedes’ playtime is quite short –one hour, more or less- it manages to immerse players with its gameplay.

3. Conclusion

As an interactive medium, video games have their own tools and techniques. Sharing similarities with other media is inevitable, but even then, like in the case of cinematography, video games articulate them by changing their functions. Those tools of the trade and guides to use them are now available for everyone, kickstarting an indie game era.

The Independent game industry is a rabbit hole to explore for designers and gamers. With the help of easily accessible tools that technology and some companies provide, thousands of indie games are released daily. Albeit it brings other problems like finding nonconventional, unique ones among many indie games lacking quality, it also frees the players from the dominance of carbon copy AAA games. Increasing amounts of Indie games are also proof that players are bored and need some fresh air. Within this frame, publishers may reconsider their strategies and sometimes take risks.

Most of the big titles fail to immerse players despite their big budgets and development teams. They focus on graphics and cinematic experiences more and more while overlooking the gameplay.

They don't have the luxury to ignore the main components of a video game if they want to make an immersive game. For example, they have to create the right atmosphere, including appropriate visual design like correct lighting or camera movements, to impression they want to give. But one component shouldn't be chosen over another. If we take a look at Elder Scrolls series for example, we can see how they make their game look prettier over time, but at the same time, they drift away from RPG elements and go mainstream. Modders, as dedicated players, try to bring back those RPG elements.

Immersion is quite an inclusionary term, especially in video games. It is a combination of sound design, visual design, narration, and gameplay. Gamers, as independent developers, are free to explore new horizons and experiment, sometimes they bring new perspectives and approaches to game design.

Archimedes is one of those games. It interacts with real life, forces us to use our smart phones, and visit sites like YouTube, google earth, Mediafire; and makes us write e-mails from our mail accounts. Hugh's little experiment with our perception may lead other developers to explore and exceed the boundaries of video games.

Archimedes also shows that the virtual world might be an abyss, and we are urged to stare into it, knowing that it will gaze back at us. Maybe

someday, we won't know the difference between real life and a video game. But this possibility should not hold us back. We need to explore and expand the potential of this new medium called video games. We need to understand that video games are not just for entertainment, they can convey a message, and they are art forms. They are not just games, and maybe we can repeat the motto of Archimedes here: There is no game!

REFERENCES

- Barrett, Frederick S., Grimm, Kevin J., Robins, Richard W., Wildschut, Tim, Sedikides, Constantine, Janata, Petr. (2010). Music-Evoked Nostalgia: Affect, Memory, and Personality. *Emotion*. Vol. 10. No. 3. pp. 390-403.
- Baudrillard, Jean. (1995). *Simulacra and Simulation*. Michigan: University of Michigan Press.
- Brown, Emily. Cairns, Paul. (2004). A Grounded Investigation of Game Immersion. *CHI'04 Extended Abstracts on Human Factors in Computing Systems*. pp. 1297-1300. Vienna.
- Calleja, Gordon. (2011). *In-Game: From Immersion to Incorporation*. Cambridge: The MIT Press.
- Ekman, Inger. (2005). Meaningful Noise: Understanding Sound Effects in Computer Games. *Proceedings of Digital Arts and Cultures 17*. Copenhagen.
- Huiberts, S. (2010). *Captivating Sound: The Role of Audio for Immersion in Computer Games*. PhD Thesis. Portsmouth: University of Portsmouth
- JELlegendz. (2016). *Craziest Game Ever!-Archimedes*. <https://www.youtube.com/watch?v=-KvEn7dDudA&t=2071s>. 03.08.2023. Online.
- Kurt, Merve. (2014). Corporeal Experience in Virtual Reality. *Mobility and Fantasy in Visual Culture*, L. Johnson (ed.), pp. 162-166. Routledge.
- Riskrim. (2016). *The Evil Virus/ Archimedes*. <https://www.youtube.com/watch?v=olsJnQCAq6g>. 05.08.2023. Online.
- Schell, Jesse. (2008). *The Art of Game Design*. New York: Elsevier.
- Skjegstad, Sander Jacobson. (2022). *The Aesthetics of Demoscene Tracker Music*. Bachelor's Thesis. NTNU.
- Taylor, Laurie N. (2002). *Video Games: Perspective, Point of View, And Immersion*. Master Thesis. Florida: University of Florida.