

THE INFLUENCE OF MUSIC ON THE COMPUTER GAME PERCEPTION

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Annotation. This article is dedicated to soundtrack in the computer games and an important role of music in the perception of the gaming experience. The functions of soundtrack and the evolution of music in video games are analyzed as well.

Keywords: game, computer game, immersion, game experience, composer, sound design

Introduction. Music plays an important role in the perception of a computer game and the gaming experience. Game developers can immerse a player in their game, set an intended mood, improve the storytelling and affect the player's emotions by using soundtrack and sound design. If music is correctly selected, game world will feel more realistic.

Good sound design should inconspicuously affect the player and slowly draw him into the game world. The gamer should not feel consciously the influence of sound design.

The first computer game appeared about 60 years ago. Like early movies, computer games did not have sound, because it was less important in game than vibrant visuals and the gameplay.

Space Invaders was the first video game with sound effects. Sound design in this game was very simple and great. Space Invaders was a successful game partly due to tense and atmospheric soundtrack that helped to create aura of danger. There was not music per se. There were only sirens, creepy peeps and strange noises. When aliens got faster and closer in the game, sounds accelerated and became louder. Because of this, the gamer started to panic and got nervous. Then he wanted to play again to receive adrenaline rush once more. This game is an example of great sound design that strongly affects the player's emotions.

Main part. Music in early computer games has its typical features and special sound: electronic peeps and simple beeps due to technical limitations. Integrated circuits could not play complex sounds.

However, in the mid-1990s memory capacity and processor speeds were improved. The game developers were freed from the technological limitations, which gave the soundtrack in retro games a unique aesthetic. Today, computer game music spans various styles, ranging from energetic rock to calm synthwave [1].

Music constitutes a significant part of computer games and performs many functions. It can perfectly dive the player into the computer game. The player starts to feel like the game world is real. In addition, due to soundtrack, the atmosphere of the game increases significantly. If the gamer turns off the music, he will notice that the amount of pleasure decreased significantly, and the game may start to feel empty and boring [2].

The Subnautica game is a great example of an excellent game music with a quality sound design that completely immerses the player in a game world. Almost all the time the gamer should dive alone and discover unexplored ocean on an alien planet. Lot of tracks are calm and a little melancholic. That is why they perfectly complete the atmosphere of tranquil and loneliness. There are some special sounds in this tracks that sound like a submarine locator or bubbles, which rise up in the water. Thereby, these sounds increase feeling of being underwater.

In addition, scientists believe that the human brain is divided into many different areas, and each performs specific tasks. Most likely, the area of the brain, which is dedicated to deal with nonlinguistic sounds, starts focusing on the music in computer game, which reduces looking for sounds outside the game.

Furthermore, music can act as a «shield of sound», protecting the player from distracting external sounds. As a result, the gamer does not get distracted by noise at home, better dives into the game world and concentrates on the gameplay [3].

If the composer chooses the appropriate tempo, melody, harmony, rhythm and timbre, he will create an intended mood and tone of the game. For example, a tense soundtrack during the battle makes the gamer tensed and a little scared. Calm music can relax the person after the battle. Sad melodies can improve tragic moments of the game and make the player cry. Reversed or distorted soundtrack can scare the gamer and give him adrenaline rush. Energetic and epic music can significantly enhance the game ending [4].

For example, a Doom Eternal game has a great soundtrack that effectively changes the gamer's mood. All tracks are written in a fast hard metal style, and due to it, these tracks make the gamer energetic, tensed and a little aggressive. The player gets more pleasure from fighting enemies in this mood. Moreover, the gamer feels like a powerful hero.

The choice of music is very important to the game experience. If the sound designer chooses the intended soundtrack, it will make the game world more realistic and atmospheric. If he chooses unsuitable music, it will ruin the whole gaming experience. For example, all songs that are played on the radio in Grand Theft Auto game are completely appropriate for the time when the game takes place.

Moreover, music can influence computer games by providing cues to the player. For example, playing tense soundtrack may indicate that a boss fight is close. A sad melody can signal to the gamer that he failed in a task, while a cheerful music can be a sign of the end of the task. For example, a major melody can be played when the player has killed a boss or opened a secret chest [5].

Besides, there are some rhythm games. These games challenge the player's sense of rhythm. In these games all actions should be done to the tempo of music. This type of game cannot exist without soundtrack, because rhythm of music is the key element. For example, «Osu!» is a popular game in this genre. Circles on the screen should be clicked on in the beat of soundtrack playing in this game.

Nevertheless, some games do not need to have any music. For example, competitive computer games like Counter Strike do not have soundtrack because the gamer needs a good concentration and music can distract him. Simulation games often do not have soundtrack, because they strive to represent perfectly reality [6].

Very illustrative case occurred with soundtrack for the Atomic heart game. It's a retrofuturistic utopia, which shows the technologically advanced Soviet Union. The album consists of rock covers of popular Soviet tracks. Nine days after the game's release, the cover of song «Komarovo» took first place in the Yandex Music chart. Other tracks took some places in this chart too. This album became very popular and made a lot of money [7]. Now album «Atomic heart» has 280000 monthly listeners at Spotify. Most popular song from this album has been listened to 11 millions times [8].

It is evident that music in video games has come a long way from simple digital melodies in arcade classics like as Pac-Man and Defender to complex compositions in modern computer games. Game composers gave to the world many legendary tracks [9].

Twenty years ago, the National Academy of Recording Arts and Sciences finally allowed interactive games to compete in the annual Grammy awards. In 2012, the soundtrack to the Journey computer game became the first game soundtrack that earned Grammy Nomination in a category «Best Score Soundtrack for Visual Media» [10].

Conclusion. It is surprising that game music has not been recognized for years, because computer games frequently have beautiful soundtracks, as memorable and great as any another music. It is be hoped that the game soundtrack will finally get the popular and critical attention it deserves.

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