Master thesis

Video-game narration and visual stylization

Pavel Týbl, graphic design

Mentors: Stijn van Rossem

              Bert Balcaen

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1. Introduction

In my practical master's project I work on a simple platform video-game called *Platitude Route*. Its story is my personal take on growing up, adulthood and chasing your childhood dreams. It is a video-game describing 5 days in a life of a boy, whose birthday is coming, and who is trying to fulfill his dreams before he becomes an adult. In this theoretical part of the project, I would like to add some of the theory and thoughts that helped me to create the game and gave my work a direction.

My "artistic background" lies in graphic design, so my way of thinking about the game itself is from the graphic design point of view. And by that I do not mean only all the attention that I give to the way the game looks. I mainly consider how the game's visual presentation can be used as a part of the whole "system" which is telling the player what is going on in the game, where to go and how to play. How can I use all the audiovisual tools that the game medium offers to transfer some kind of information or thought to the player. The same approach as if I were designing a poster or a CD booklet.

For this reason I design my game as a simple platformer – similar to Mario or Sonic games, but without any traditional "game" elements – like enemies, score, or Win/Lose mechanisms. I design it more as an "explorative" game, where the player advances through the game and by examining the game audiovisual presentation discovers the story and the meaning of the game. Because I focus mainly on the game narrative and the game visuals rather then the "gameplay" I prefer calling *Platitude Route* an "interactive short story".

I avoid any more complex or sophisticated game mechanisms, because it is too difficult for me. Just to design a video game level so it is not too difficult or too easy is a work for experienced game designer, which I am not. So I focus on searching the possibilities how to tell a good story and how to use the video game medium. I do not want to design a game to only kill some time with. But rather create something meaningful and even find out if it is possible to use video game medium artistically.

In this thesis I plan to summarize the theoretical foundations of my practical project and my ideas and reflections on the video game aspects that are the most important for me – the way a video-game can tell a story, what is the video game visuals and how is it created. I want to elaborate on the current state of video game industry, remark some recent events that I feel prove some of my own, or generally accepted

views, and compile the knowledge that I used to determine how to try to make my own game as well as possible.

I chose this topic, because I am really passionate about video games. Not only as a consumer however. I love when a game is unique, when it tells a moving story, when it has great, relatable characters or when it looks stunning. I always like to think about how a game achieved its success or why a certain game was not interesting for me. And last but not the least, I chose this topic, because I have always wanted to create a video-game and find a way to use the medium in my own way, to express my own ideas and feelings. Even after several decades of video-game existence I still feel like their potential is not fully utilized and I believe it is important to try to find new approaches and ways to work with video-games.

In this thesis I will be exploring the video-game narration and its history, specifics and different approaches to it by different developers. I will also try to investigate how much work goes into the video-game visual presentation and how it can be utilized, other than just a "pretty packaging of the game mechanics". For all of that I will be using specialized literature, news reports of some of the important game industry related evens and also a personal meeting with experienced developer from a Disney Mobile Game Studio in Prague Marvin Hill. I write the thesis in a way that anybody can understand the terms – even if they do not usually play games – but at the same time I keep it as informative and precise as possible.

2. Game narration introduction

Video games, as a fairly new medium, face a lot of doubts and questions. People do not know the medium well enough to be able to judge all the possibilities that video-games can bring – to the creator as well as to the consumer.

People love telling and listening to stories. We spend so much time talking to our friends about what happened today at a train station. We watch tens or hundreds of hours of TV series, telling stories with fictional characters. We read books, we visit cinemas, we text each other... all of this just to pass on a story. So I think it is only natural that game developers are finding ways how to tell a story in video-games as well.

What can we define as a story in a video-game? What are the ways used to tell the story? The most obvious answer right now, when we look at the story of the best

selling games of the video game industry, would probably be something like this: the story creates the background for the actions of the player. It gives the motivation to the non-playable characters (NPCs) players meet in the game. And it creates logic and sense in the way game levels or missions are structured in the game. And the main ways of telling the story are cutscenes (short animated scenes, which player watches between levels), interactive dialogues (a conversation between NPCs and the player, where player can choose his responses) or just plain text.

That answer might satisfy some, but I think we can go much deeper than that, especially when we start focusing on other game genres and ways the player can experience a game. What I described in the previous paragraph might describe a lot of the big and well known games from past years – from a simple, linear shooters like *Call of Duty* to big, story-driven RPGs like *Mass Effect*. But because a video-game is not a movie or a book, but much more a set of components and rules[1], we can't forget that a lot of games are able to tell different kind of story in other ways. Let me mention games like *The Sims*, where the player controls a character through everyday tasks and by trying to fulfill his needs and desires plays through a different story every time he plays. We can also discuss the stories that a player witnesses while playing a massively multiplayer online game like *World of Warcraft*, or *Eve online*. And because the basic principle of these games is, that there are thousands of people involved, no one can ever predict what is going to happen – like a huge space battle between two hostile player groups in *Eve online*[2], that involved thousands of players and lasted for several hours.

If we think about a game as a set of components and rules, do games even need a story? There is huge number of games that do not have a story, games that focus only on gameplay, games that used to be played in the arcade and recently moved into your phones and tablets, and that keep you entertained for those few minutes, that you are traveling in the bus. These, so called, arcade games (for example *Bejeweled, Angry birds* or *Fruit ninja*), do not need a story. People do not play these games for plot twists or relatable characters. They just want to have fun. However, even these games often have some basic narrative, to "justify" the player actions – in *Cut the rope*, players want to feed a candy to a hungry monster. That is a plot. A really simple one of that. But I

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1   In the article What is a Game Wolfgang Kramer states, that a game is something that has rules and components, then he adds: "*The components are the hardware, the rules are the software. Both define the game. Both can exist independently from each other, but separately are not a game... A set of components may be used with different rules. A set of rules can be used with different components.*";
What is a Game?. In: *The Games Journal: A Magazine About Boardgames* [online]. [2014-01-04]. Available on:http://www.thegamesjournal.com/articles/WhatIsaGame.shtml

2   *A single mistake started the largest space battle*. In: *PC Gamer* [online]. [2014-01-04]. Available on:http://www.pcgamer.com/2013/07/29/a-single-mistake-started-the-largest-space-battle-eve-online-has-ever-seen/

think that for a simple game it is enough and that it makes the game better. It gives the players something to relate to, some reason to keep playing a bit more. Something to possibly fall in love with. In a simulation game like *Need for speed*, you can just race a few laps, then turn off the game and walk away. But you can also start a "career mode", which might be a simple story about a racing driver getting better or about a fugitive running away from police etc. When people buy a racing game, they usually do not buy it for its story, but they play the career mode anyway, because it gives them a reason to play more. And it can give the game a moral/intellectual/metaphorical scale. I think that the story can make a good game great, and is the best way to have the players really invested in what they are playing.

3. History of the narration in video games

The first video games (like *Tennis for Two* developed in 1958) as well as the first arcade hits (*Pong*, 1972 or *Pac-Man*, 1980) were simple games with unsophisticated rules and gameplay. Even though everyone was thinking about simple game mechanics to be used in never ending, score-based, coin-operated game machines, there were some games that had a setting, allowing the player to "guess" what the story is. In *Space Invaders* (1978) the player quickly understands, that he has to defend his home planet against attackers from outer space and in *Donkey Kong* (1981) save his girlfriend from a dangerous gorilla. In 1980s the first text based adventure games were developed (like *Zork*, 1979) – games that resembled more an "interactive book" than a game. In the eighties, the games also moved from the arcades to the living room, because of the growing popularity of home consoles like ZX spectrum, Atari or Nintendo Entertainment System. Thanks to the growing computing power of the new hardware, games included much more sophisticated graphics, more complex game mechanics, and also stories (e.g. *Ultima*, 1981). Then the increasing power of the gaming hardware brought the possibilities of animation and use of better sounds, which gave rise to the adventure genre – which was focused mainly on the story (*King's quest*, 1984, *Maniac Mansion*, 1987, etc.). In the 1990s the boom of 3D graphic cards brought a technological revolution and a huge emphasis on the technological and visual quality of the game. A lot of game genres died out, or moved to a different platforms (for example platform games, that either tried to use the 3D or moved to handhelds or mobile phones, or adventure games, that almost disappeared and became marginal to the industry).

Since the first 3D games like *Wolfenstein 3D* (1992), or *Doom* (1993), video games developed gradually without another huge, industry-changing revolution. But the development slowly became incredibly complex, difficult, and expensive, which meant, that the big companies became less and less willing to risk and prefer working on a multiple instalments in a series, rather then creating original games. This brought huge game series like *Call of duty* (ten game series, with ten more "spinoff" games for different handhelds or consoles), *Need for speed* (twenty games) or *Grand theft auto* (seven games, eight spinoffs). On the other hand, thanks to the growing power of the hardware and the accessibility and ease of use of the game creating tools like *Unreal engine* or *Unity 3D*, the technological demands on the newer games lowered and the artistic side become more and more important for the developers.[3] As a consequence great games artistically and also story-wise emerged, like *Half-Life 2* (2004), *Bioshock* (2007) or *Shadow of Colossus* (2005). In past few years there was a big development of digital distribution platforms, such as *Steam* or *Gog.com*. These services allow players to buy games online and download them, rather then buying a box with a physical medium in a shop, which makes the game distribution easier for smaller companies. Those distribution services also usually have some "community" functions, so the players can see what their friends are playing, rate games etc. This new way of buying games allowed smaller developers to approach larger audiences. So a new, "alternative" or "underground" scene formed, with small groups of both young and experienced developers working on original titles with very limited budgets. The fact, that the game done by 2 or 3 people needed to sell only few thousands copies to pay for itself, rather then a million, allowed the creators to experiment, work on marginal genres and focus on originality, rather then visual and technical perfection. And so games like *Dear Esther* (2012), *Machinarium* (2009), *Gone Home* (2013), *Superbrothers: Sword & Sworcery EP* (2011) or *Gemini Rue* (2011) arrived to be received incredibly well by gamers as well as game critics.

4. The strength of video game narration

Personally, I love playing games with a good storyline. I enjoy falling in love with the game NPCs and trying to really imagine myself in the place of the main character. So naturally, when I want to create a game, the story and the main message

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3   KOLÁŘ, Jarek. *Game Industry 2: Videohry a vyprávění (Video games and narration)*. D.A.M.O., 2012, p. 124-127. ISBN 978-80-904387-3-6. Translated by the author from Czech.

that my game should send, is probably the first thing that I think about. But when I have the idea for the story, is a video game really the best media to put that story into? Should I just write it into a book, a comic or try to make it into a movie or a short video clip instead?

This is a question I always try to ask myself. Not every story is ideal for a video-game. Some might be much more suitable for other kind of media. But there are several very important reasons, why I think video-games can offer stronger experience to the player, then almost any other media.

Let me just quickly compare the means to tell the story. In a book, the author can use only language, has to describe everything, and then the reader imagines it. In a comic, the reader also sees the imagery and the author can tell some of the story through visuals as well. And in a movie, there is a addition of sound – so parts of the story can be expressed through the music and sound effects. I am comparing these aspects, not to indicate, that film is better then a book. I just want to highlight, that from the creator's perspective, there is much more control over what the viewer will experience in the movie, than in a book. The director of a movie can set up a scene with important plot twist not just by how the script is written, but also with camera angles, colors, actor's expressions and music. And all these aspects can make the viewer experience said plot twist much more intensively.

In a game, the creator has the script, the visuals (even though slightly different from a movie) as well as the sound. But there is more – the player is inside the game. He is not just watching.

And the fact that the player is controlling the events on the screen is not the only form of control the player has over the game narration. In some games, the player has a direct impact on the result of the story. In games like *The Witcher* or *Mass Effect* the player reaches one of many endings depending on the decisions he made throughout the game. For example in *The Witcher 2: Assassin of Kings* (2011) the game story splits in two directions in the middle of the game and then escalates in sixteen different endings. The developers of the *Mass Effect* trilogy (2007, 2010 and 2012)promised to the players, that the decisions they make during all three games, will have a direct impact on the ending of the third, final game. The expectations from the fan–base were huge and when *Mass Effect 3* brought only three different and questionable endings, the backfire from the community was immense[4]. Dissatisfied customers started petitions,

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4   *Protests over ending of Mass Effect 3 show fan investment in story control.* In: *Ars technica* [online]. [2014-01-25]. Available on: http://arstechnica.com/gaming/2012/03/protests-over-ending-of-mass-effect-3-show-fan-investment-in-story-control/

Facebook groups ("Demand a better ending to Mass effect 3" group still has more than 60 000 likes[5]) and some of the fans were not happy even after the developers from Bioware released free DLC (stands for "Downloadable content") which expanded on the endings. This kind of fan devotion shows, how much a player can get sucked into a story, which lets him choose his own path.

Another thing, that video-games have compared to movies is the possibility of having a non-scripted story. By that I mean a story which is "woven into" or created by the gameplay mechanics. An example of that is The Sims, which I already mentioned. The story in The Sims is not a traditional story, with plot twists and strong relatable characters. But it is a story nevertheless – the characters in the game are born (or created) and then age until the inevitable death[6]. And in their life, player controls what they are doing – how they spend their time, what college they attend, what job they do, who they marry etc. It is basically a story of life. And because all the problems, wishes and fears of the game characters are generated "randomly" (accordingly to game rules), this story is never the same. And once a player gets the hang of it, it is really addictive (the proof for that can be the total number of games sold – which was 125 million games by 2010[7]). In this kind of narrative system, the player does not follow the story, but creates it for himself. There are also games which function as a huge sandbox (hence the name sandbox games) where the player is given a game environment (sometimes filled with characters, fractions, mission and other past time activities) and has the freedom to do whatever he desires.

So I claimed that the reasons video-games might have stronger narrative than other media is the control the player has over the story, possibility of multiple endings and the fact that the story can be generated by the game mechanics. But what if it is a classical, linear story, with just one ending, and not much player choice? Is it possible, that such stories are better expressed in movies or books?

I do not think so. When I consider all the great games that had great stories, and managed to express those stories in a "video game fashion" I dare to say, that some of those stories cannot be told in any other way. Let me mention adventure game *Gone Home* (2013) for example. The story of this game is really simple and linear– it describes difficult relations in a family with a teenage daughter who is finding out about her sexuality until she runs away from her parents house. But the way the game lets the

5   *Demand a better ending to Mass Effect 3*. In: *Facebook.com* [online]. [2014-01-25]. Available on: https://www.facebook.com/DemandABetterEndingToMassEffect3
6   The characters in the game have 7 stages of life as desribed on the game wikia page; *Life stages*. In: *Simswiki* [online]. [2014-01-25]. Available on: http://sims.wikia.com/wiki/Life_stages
7   *The Sims turns 10, tops 125 million units*. In: *Gamespot* [online]. [2014-03-29]. Available on: http://www.gamespot.com/articles/the-sims-turns-10-tops-125-million-units/1100-6249485/

player explore the story makes it unique. The player walks around empty house and finds little bits of diaries, letters or news articles that belong to the members of the family. And by exploring the game environment the player uncovers what happened to the family, the background of the family members and their secrets and desires. And this involvement is what makes the player immerse in the game and "bond" with the characters (even if you don't meet them throughout the game). Chris Schilling in his review for the Daily Telegraph wrote: *"In uncovering these secrets, I became so deeply engaged with the narrative and its characters, I breathed a heavy sigh of relief when my fears about a certain potential plot point turned out to be unfounded."*[8] And its not only *Gone Home*, which makes you that deeply invested in fictional characters in a simple story just by the way you interact with the game. Another game I would like to mention is *Passage* – simple online browser game, an experiment with just few minutes of gameplay but really strong climax[9]. And there are still the "AAA" titles[10], which present the story in much less interactive way, with cutscenes and in–game dialogues (more on that in part 5.1) but still manage to "hook" the player for hours. Games like *Mafia* (2002) or *The Last of Us* (2013) have strong, linear narrative and even though some of the game mechanics were critiqued in the reviews, the games managed to get great reviews (*Mafia* has 88/100 critic review average and 9.0 user review[11] average and *The Last of U*s has 95/100 and 9.1 score[12]) – perhaps mainly due to the quality of the story.

And then there is one more strength, that video games have – the environment. In the books or movies, the viewer/reader can always see only what the creator shows him. While in video games, he can wonder around the game space on his own. This allows games to create complex backgrounds for their stories but not to force this "additional information" on the player. But rather let the interested players find the information on their own. And this definitely does not apply only to the games that focus primarily on storytelling. Let me use one very popular online game as an example. In *World of Warcraft* (2004, and expansions in 2007, 2008, 2010 and 2012) the player's main concern is getting experience, gold and items for his character – by doing quests, visiting dungeons and defeating monsters. And to do that, an average player does not really need the story. But the game is set in a fictional world of Azeroth, which has its own history and mythology, described in previous real-time strategy games from the

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8   *Gone Home review*. SCHILLING, Chris. In: *The Telegraph* [online]. [2014-01-25]. Available on: http://www.telegraph.co.uk/technology/video-games/video-game-reviews/10264724/Gone-Home-review.html
9   Anyone can try the game for free at: http://hcsoftware.sourceforge.net/passage/index.html
10 "AAA" or "Triple A" is a term that is used for games with the biggest budgets, promotional campaigns and the highest expectations of becoming a best-seller.
11 *Mafia: PC*. In: *Metacritic* [online]. [2014-01-26]. Available on: http://www.metacritic.com/game/pc/mafia
12 *The Last of Us: PlayStation 3*. In: *Metacritic* [online]. [2014-01-26]. Available on:http://www.metacritic.com/game/playstation-3/the-last-of-us

Warcraft universe (*Warcraft: Orcs & Humans* (1994), *Warcraft II* (1995 and 1996), *Warcraft III: Reign of Chaos* (2002) and *Warcraft III: The Frozen Throne* (2003)) and books, comic books and in future, possibly even a big budget Hollywood movie. And this world is filled with locations, that an interested player might know or played through in previous games, characters that he might have read about, and quests, that are related to the complex mythology of Warcraft universe. So while a casual player just goes to a dungeon to kill "that boss" to get "the +10 agility sword", the Warcraft fans get the references in the environment design, in the quest descriptions or in the name of the items and they know exactly, why it is important for their character to beat that said boss.

5. The linear story

I mentioned the possibility of a non scripted story and its advantages, and also the use of the interactivity of the video-game medium to tell a non-linear story with multiple possible endings. In my own project however, I work on a simple, short linear story game. So why do I do that, when I could do something more interactive? I will sum up my reasoning and the experience I earned so far.

The first reason to do a linear story for me is my background – I am not a game designer. I do not understand game mechanics well enough to be comfortable designing a game system which I could be able to tell a story with. As a graphic designer I am comfortable with photographs, typography, and visual stylization. That is what I used for the narration in my game. And because I am no programmer either, the easiest thing for me is to "pile" all that visuals into a level and let the player experience it. And if I have "static" visuals, and not much game mechanics, I cannot really make anything else then a linear story.

But that does not mean, that I would like to create a nonlinear, or more interactive game and just was not skilled enough to do that. I have the following two main reasons, why I wanted to create a linear story. These are just my personal opinions based on the research I made on the subject and on my experience working on the project.

I think, the easier the structure and scale of the story the more complicated ideas it can express. By structure and scale I mean for example multiple outcomes, branching of the story based on player choice, or for example giving the player more freedom to

play certain parts of the game in the order he chooses. I am not saying that more player choice means worse story. I mean, that the more control the creator has over the result and the course of the story, the more he or she can play around with tiny details, unexpected twists or certain aspects of character development. And the same thing applies to all the other aspects of the game. By having a linear story structure, the creator can prepare great moments in the game by choosing the right music, weather effects, color palette, environment design, character animation – or any other aspect of the game. If the creator leaves some of this up to the player, the most important story moments might end up being just too impact-less. Or worse, the player might not even realize that something important is just happening on his screen. I do not want to claim that linear or nonlinear is better. Both have pros and cons. In my project however, it was far better for me to tell a simple, linear story.

The linear storytelling however has one great disadvantage – the "replayability". It is a quality of the game, which gives the player a reason to play the game over and over again. And in linear story-based games, there is almost no replayability whatsoever. When the player knows the story, all its twists, characters and all the details from one play-through and the game focuses on the story and does not have much more to offer, there is no need to play the game again.

In big budget games, the replayability is a big issue, because a lack of it can cause economic damage to the company. Players like to spend money on games in which they can spend a lot of time. Play time is therefore usually judged in video game reviews, and talked about by gamers. If the game has replayability, it has more play time. It has more "value for money". If the gamers are interested and immersed in the game, they might also spend some money on expansions or DLCs. And then there is the big controversy with second hand games. I do not want to get much into the detail, because to study whether second hand games damage the video game industry or not would be enough for another master thesis. But, we can assume, that the less playtime and replayability, the sooner the game gets sold back into the shop as a used copy, and the less money the developers make from the sales because of that (a lot of game companies are trying to fight the used games with bonus features for the first owner, free DLCs, paid multiplayer for second hand owners and many more ways[13]). In contrast to this stands the popularity of free to play multiplayer games (like *Dota 2*, *League of Legends* or *World of Tanks*), which make a profit because players love to spend hundreds of hours playing them and are willing to pay some small fees for

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13 For example: http://www.ign.com/articles/2013/01/03/report-new-sony-patent-blocks-second-hand-games or http://www.eurogamer.net/articles/2013-05-21-xbox-one-second-hand-games-will-charge-a-fee-to-play

customization of the characters, new heroes or maps. Those games are practically endless, and therefore there is no limit for the time you spend in the game. So the player might get the feeling, that he is getting the best value for money.

In my project, fortunately, I do not need to worry about economic potential of the game and thus can afford to create a short "one-time" experience. I do not want to sell the game and I do not have to care about what the player does with the game, once he is done playing.

6. Ways to tell a video game story

I have described what the narration in a video game is, how is it useful and what are the reasons I preferred linear story over a non-linear. Now, I would like to sum up, how the story in a game can be told. As I mentioned earlier, the creator of the video game can have control over many audiovisual factors and all of them can be used to tell a story, or a part of it.

In 2013, Terence Lee – freelance designer, music composer and game developer wrote an article "Designing game narrative", in which he used a great analogy to describe game narrative, which I will, in short, use as well. He describes a different media and their ways to tell a story using a theoretical "greatest tale ever conceived". If an author wants to tell this story in a book, he needs to "*use words to express ideas, arranging them in ways that draw the reader into the world of the story.*"[14] If the author uses simple sentences, basic vocabulary and clichés, everyone would laugh at the book even if the story is the best ever told.

Let's assume, the writer does a great job and writes the best novel, with the best story. Then a film director is hired to film the novel. He could use the film medium, and the "sensory experience" it brings just by hiring an actor and film him while he reads the novel. That film however would not succeed – even though it is based on the best novel with the best story. But it does not use the proper "cinematic" means to express the story.

And by that logic, when the best movie ever, based on the best novel ever, with the best story ever, is supposed to be made into a video game, the game designer, cannot just cut the film into several pieces and then just paste some unrelated portions of gameplay in between. But that is what we can se in majority of contemporary video games.

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14 *Designing game narrative*. LEE, Terence. In: *Hitbox Team* [online]. [2014-04-05]. Available on: http://hitboxteam.com/designing-game-narrative

6.1 Cut scenes

Especially in big budget, so called AAA games, the usual way to tell a story is to show the player a part of the story as a video sequence after a certain period of gameplay. These "cut scenes" are not interactive and use the same procedures and techniques as films. There are several very good reasons, to tell a story through cut scenes. The writers in the big companies, who usually write for TV or Hollywood as well are not used to the video game medium and write the story as they would for a film. The same goes for gamers as well. The players who are used to watching TV or going to the cinema are familiar with this kind of storytelling. And also, producing this kind of storytelling is just much cheaper and easier than trying to use the media to its full potential. Many video game theoreticians see this as a mistake however. "*Separating story and gameplay because it may seem easier to do than integrating them hurts storytelling in a number of ways (...) it requires the player to shift gears to enjoy both. Gameplay is an active experience; storytelling in cut scenes becomes passive, just like other media.*"[15] claims Lee Sheldon in his book Character development and storytelling for games. And others mention more drawbacks of cutscenes – three different kinds of cognitive dissonance (a conflict in our mind, when we experience two contradicting ideas or beliefs at the same time). The first – ludonarrative dissonance – is when what the story says and what the player does or experiences don't match up[16]. For example, when a main character is shown regretting killing one person in a cutscene, just to kill 20 others in a playable shootout few seconds later. The second is a dissonance of identity – one moment the player IS the main character – he controls all his actions and decisions, just to "jump out" of the character and watch him do something on his own in a cut scene. "*It severely diminishes the importance of your actions if it constantly feels like the game distrusts you with making the important ones.*"[17] And the third kind of dissonance is the shift between interactive and non interactive parts. A shift between game and narrative, between active and passive. It breaks the player immersion in the game, strips away the tension and undermines any emotion the player has experienced in the game. It is often compared to the Intertitles in silent movies – as a "one step back" to a different medium.

I do not want to claim, that all cut scenes are bad. Or that the games that use cut scenes are bad – some of the best games ever created use cut scenes to tell the story. My

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15 SHELDON, Lee. *Character development and storytelling for games*. Thomson Course Technology PTR, 2004, p. 183-184. ISBN 1-59200-353-2.

16 *Designing game narrative*. LEE, Terence. In: *Hitbox Team* [online]. [2014-04-05]. Available on: http://hitboxteam.com/designing-game-narrative

17 *Designing game narrative*. LEE, Terence. In: *Hitbox Team* [online]. [2014-04-05]. Available on: http://hitboxteam.com/designing-game-narrative

point is that there are better ways to tell the story to get the player more interested and immersed and that use the video game medium better.

6.2 Text and dialogue

Written text and dialogues are two things that are very close to cut scenes. The cut scene can be well written, and the dialogues can be well executed and acted, but that is not what I mean. A dialogue can be used in a game in more ways then just in a cutscene. In ways that does not break the game in narrative and playable parts. The dialogue can be interactive. In role-playing games like *Star wars: Knights of the old republic*, or *Dragon Age: Origins*, the player can approach an NPC (non-player character) and start a conversation. In this conversation he has several options for his own responses – he can for example choose whether he wants to be friendly, arrogant, or flirt with the NPC. The chosen options can later have an impact on the events in the game. This way is very similar to what the writers have to do for a cutscene, but it lets the player to keep control over the events in the game.

Another way of using a dialogue in a game, is just to omit the cutscene and let the scene "just happen" in the game, for the player to watch. Great example of this can be *Half-life 2*. In this first person shooter, you will not find any cutscenes. The player is always a part of the game events, never just a "viewer". When two characters want to tell the player something, they just turn to the player character, and say it. It is like a cutscene, that the player can move around in. Yes, there is a drawback – the game designer does not know, whether the player is looking, where he should. Maybe he is watching a sunset through the window instead of an important character describing the story twist. However, Valve, developers of *Half-life 2*, showed us that there is a solution for this as well. The game environment and the scenes can be designed so the player always see what the designer wants, or the player can be "tricked" to look in the right direction. Great example for this is a scene from the first *Half-life 2* expansion called *Episode 1*. The player walks through a huge, collapsing structure trying to turn off a power reactor. To show the player the fact that the structure is in disarray, the designers put a scene in which enemy "helicopter" flies around the player, crashes and explodes. But because they did not use a cutscene, they could not be sure where the player is looking. So they designed the area in a way, that the player has to walk over an exposed "bridge". And right when he steps on it, and triggers the scene, an NPC soldier is stationed in the direction the helicopter comes from. The soldier stars shooting at the player, which makes the player turn to the right direction and see the whole scene to

happen. An it is all designed in the game, using the game mechanics, without ever breaking the player's immersion.

So how about the "text" that I mentioned in the headline? By this I mean every information that is given to the player to read, and not voiced, acted or visualized in any way. Just a simple block of text. And there are several ways to present a block of text to the player using the game itself. For example, in many RPGs, player can discover the background and history of the game world, just by studying the books that are placed in the game environment – this is used in *World of Warcraft* for example. Or in a sci-fi RPG *Mass effect*, player can explore the game universe on his own and discover it through scouting the planets and scanning them for resources. This ways are great for giving the player the freedom to choose the information he is interested in. The game does not force anyone to sit through hours of cutscenes describing every single detail of the game universe, but lets the player discover it on his own. If he is interested.

In my game, I use text as a "substitute" for narrator of some sort. The text is placed in the game environment and describes the events of the game, comments player surroundings or reveals parts of the story. It is something between an inner monologue of the main character and a classic, fairy-tale inspired narrator.

6.3 Environment

"*Game designers don't simply tell stories; they design worlds and sculpt spaces.*"[18] The game environment, and the attention that a designer can pay to every detail in it is probably the biggest difference between video games and any other media.

Game designer prepares the adventure for the player who then has its own way of experiencing it. Similarly to the classic, "pen and paper" role-playing games like *Dungeons and dragons*. The game master designs the quest (storyline) and the players then find their own way in it, by exploring the imaginary environment, interacting with the characters and fighting the battles. All of those aspects tell the player something about the story. For example – the player fights an orc in a forest – it probably means, that the land is not safe. The orc had a banner with the symbol of ancient evil wizard? It might mean, that the wizard is rallying his forces again. Even in this fantasy cliché setup, just with one fight, the designer can tell so much information about the story to the player. And he can do it without any cutscene or a line of text. Just by placing the right gameplay elements at the right time, and paying attention to detail. No wonder,

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18 JENKINS, Henry. Game design as narrative architecture. [online]. 2011 [2014-04-12]. Available on:
    http://interactive.usc.edu/blog-old/wp-content/uploads/2011/01/Jenkins_Narrative_Architecture.pdf

Don Carson, who worked as a Senior Show Designer for Walt Disney Imagineering, compared this techniques of environmental storytelling to the design of rides in Disneyland. "*The story element is infused into the physical space a guest walks or rides through. It is the physical space that does much of the work of conveying the story the designers are trying to tell (...) Armed only with their own knowledge of the world, and those visions collected from movies and books, the audience is ripe to be dropped into your adventure. The trick is to play on those memories and expectations to heighten the thrill of venturing into your created universe.*"[19]

In comparison to the above mentioned "pen and paper" RPGs, a video game is a bit more restricted, because the designer can't let the player do whatever he wants. He needs to set boundaries – the game mechanics. But with the use of the game mechanics and the design of the game world, the designer can do wonders. A great example might be one of my favorite games: *Brothers – A tale of two sons*. The game mechanics are quite simple and engaging – with either stick of a gamepad the player controls the movements of one of the two main characters and with a button, the player can interact with the environment with one of the two brothers. With this simple controls, the player solves some simple puzzles and finds his way through mazes. But the interaction of the two different characters with the environment and the NPCs is what shows the player the attitude of the main characters. When you interact with an NPC controlling a drawbridge for instance, the older brother will try to reason with him, while the younger brother will just make silly jokes and laugh. And its all just a short, scripted interaction in the game. Again, no cutscenes and not a single line of text (there is in fact almost no text in the whole game at all). And through these small events the player gets to know the characters, and starts caring for them, which the creators use in the emotionally stunning finale of the game.

So the player's control over the exploration of the game is crucial. If I go back to the theme park analogy, Henry Jenkins expands on it by writing: "*The most significant difference is that amusement park designers count on visitors keeping their hands and arms in the car at all times and thus have a greater control in shaping our total experience, whereas game designers have to develop worlds where we can touch, grab, and fling things about at will.*"[20]

In my project I use the environment a lot. The main story idea is expressed

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19 *Environmental Storytelling: Creating Immersive 3D Worlds Usings Lessons Learned from the Theme Park Industry.* CARSON, Don. In: *Gamasutra: The Art & Business of Making Games* [online]. [2014-04-05]. Available on: http://www.gamasutra.com/view/feature/3186/environmental_storytelling_.php

20 JENKINS, Henry. Game design as narrative architecture. [online]. 2011 [2014-04-12]. Available on: http://interactive.usc.edu/blog-old/wp-content/uploads/2011/01/Jenkins_Narrative_Architecture.pdf

mainly with the environment – as the main character gets older, the whole environment changes graphically to express his aging. But I also used more subtle hints and clues to tell a short, metaphorical story in each of the game levels. Every one of them is inspired by, or is an allegory of one thing that young kids never understand (politics, society, time..) and when they understand it, they mature. So each level is a "critique" of the adult world, viewed in the contrast with the child main character. So the player can find references to political scandals in the first level, or my personal memories and my misunderstanding of the scale of time in the second level. I tried to tell the story with the visuals of the game, through the design of the smallest details, by playing with the way the player sees the game and its environment. So next to the narrative itself, the game visuals were extremely important for me.

7. Game visuals introduction

Since the first simple programs, that might be considered a "video-game" in 1950s, the medium became much bigger and more complex spawning a huge industry. The video-games industry was estimated to be worth 74 billion dollars in 2011[21], expected to grow to $115 billion by 2015. This means that the games industry is huge, employing thousands of people, and has a worldwide reach.

Choosing a game to buy, based on its gameplay, or how entertaining the game is, however is complicated. The customer cannot always try the game in the store or download a demo version. The reviews in magazines and on the internet are subjective and have limited reach (not every gamer is interested in reading reviews). Therefore the most important medium, that the players judge the game by are image and video – both non interactive, which allow the customer to judge the game only by its visuals. For example in the *Steam* store (the biggest online video game store for PC) and in Apple's *App store* (for applications for iOS devices and MacOS computers) customers see only game trailers , screenshots, short description and user rating to help them decide which game to spend their money on. Anton Frackowski writes on the subject: "*The harsh reality is that we tend to make a decision about a particular game based on screenshots we are drip-fed from the publisher; we then watch a trailer for the game to confirm our initial impression. This means that your game has been judged without anyone even having the chance to play it yet.*"[22]

21 *The Video Games Industry is Worth $74 Billion*. In: *Gamingunion* [online]. [2014-05-04]. Available on: http://www.gamingunion.net/news/the-video-games-industry-is-worth-74-billion--5696.html
22 *The Importance Of Visuals In Video Games*. FRACKOWSKI, Anton. In: *Hold. Start. Select.* [online]. [2014-04-

Because of this, the visual presentation of the game has a huge impact on how well it might be received by the players and how well it sells. And because the game industry is so big and the budgets of the biggest games easily reach tens or even hundreds of millions of dollars (*Grand theft auto V*'s budget is rumoured to have been around $265 million[23]), the game developers, and especially game publishers are very concerned for the way games look and how appealing they are to the players on a first sight. This does not apply only to big budget, AAA games though, but to mobile games and even indie or freeware games as well. Everyone wants to attract the player's attention and make a good first impression, so everyone is trying to find some ways to have beautiful game visuals.

Of course, it is not just pictures and trailers that sell the game. There is also the packaging, advertising, reviews, "buzz" etc., but a lot of this is just marketing ("...*a process leading to launching a new product on the market*"[24]) and even for marketing purposes, its easier to work with a good looking game, rather than an ugly one.

8. Art director

In most video game companies the person responsible for the visuals is the Art director. Art director "*works closely with the Creative Director[25] and the Design Team to ensure that any game project has the best possible visual appeal and attention to detail.*"[26] He supervises the work of concept artists (people designing different visual aspects of the game – characters, locations, weapons, clothes etc.), 3D artists (people working on the in-game 3D models), 2D artists (people working on the textures for the 3D models), environmental artists etc. He is the one person that knows what the overall "feeling" of the visuals is and how to achieve it. "*Participating in the overall vision of the product and developing how the art supports, enhances and innovates is the core of an Art director's job*"[27]. And it is also up to him to stand up for the teams work to the company bosses and also the publishers and producers.

Marvin Hill, art director of Disney Mobile Games Studio in Prague, described

05]. Available on:http://holdstartselect.com/2013/10/31/the-importance-of-visuals-in-video-games/

23 *Grand Theft Auto 5 has now set seven world records*. FLEMING, Ryan. In: *Digital Trends* [online]. [2014-05-27]. Available on: http://www.digitaltrends.com/gaming/grand-theft-auto-5-has-now-set-seven-world-records/#!Q1JAY

24 FALTUS, Jaroslav. *Game Industry 2: 15 pravd o herním marketingu (Fifteen truths about video-game marketing)*. D.A.M.O., 2012. ISBN 978-80-904387-3-6. Translated by the author from Czech.

25 The main "designer" of the game.

26 *Role: Art director/concept art – Sony Cambridge*. WILSON, Jason. [online]. [2014-04-11]. Available on: http://jasonwilson-folio.blogspot.cz/p/concept-art-examples.html

27 *Effective Art directors: Gaming's Something Something*. CAMMARANO, Ben. In: *Gamasutra: The Art & Business of Making Games* [online]. [2014-04-05]. Available on: http://www.gamasutra.com/view/feature/132250/effective_art_directors_gamings_.php

that the management occasionally step in the development process even in a small studio. And they have several reasons for it. The management's primary concern is profit of the company – they need the games to sell, to be able to pay the people that created them. But because most of them are not "creative people", they follow trends and the competition, they prefer what they already know over something new and they do not take any risks. [28] So it is up to the art director not to just make a pretty game, but also to be able to advocate the team's work and be able to come to a compromise with the management. He needs to find the right ratio of originality to marketability. And because there is always a lot of people involved, a lot of people who need to approve the designs, Moby Francke, art director of Valve's multiplayer FPS Team Fortress 2 calls the whole process "*art by consensus*"[29].

Nevertheless, this still does not sum up the art director's role in the design process completely. I've only mentioned the importance of the style of the visuals, but I also need to mention the importance of the function of the visuals.

As I elaborated on in the previous chapter on game narration, there are several ways to tell a story in a game, and one of those ways is to tell it through the visual design of the game environment (and the characters etc.). And the same applies not only to the game narration, but to every interaction with the player. Jason Wilson, art director of Sony Cambridge writes: "*Creating art for games is not just a case of coming up with a bunch of pretty paintings. In my role as art director I need to understand how every design element functions, and how the art and design can work together.*"[30] Just the way the player interacts with a button to open a door for example can tell so much information. Does the game just write a text to tell the player? Or will it show a pictogram in a game specific art style? Will the player just push a button, or does he have to move the mouse in a specific direction? Basically any task in the game has unlimited number of solutions and it is up to the close cooperation of the game designers, art director and programmers, to come up with the best solutions. Solutions that will "*...explain to the player how to interact with the game, how to play it and what its about. That will make the game comprehensible, not just pretty.*"[31]

In his presentation at 2007 Game Developers Conference in Lyon, Viktor Antonov, art director of *Half–Life 2* and *Dishonored* talked about common

28 Based on personal consultation with Marvin Hill on 2013-01-13

29 *Valve's Francke: Game Art Direction In Its 'Infancy'*. VAN ZELFDEN, Evan. In: *Gamasutra: The Art & Business of Making Games* [online]. [2014-04-14]. Available on: http://www.gamasutra.com/php-bin/news_index.php?story=16498#.UHFcQ7u24ys

30 *Role: Art director/concept art – Sony Cambridge*. WILSON, Jason. [online]. [2014-04-11]. Available on: http://jasonwilson-folio.blogspot.cz/p/concept-art-examples.html

31 Based on personal consultation with Marvin Hill on 2013-01-13

misconception of art direction. "*...managers and project leads often perceive visual design as a packaging design for the product. They'll say, we'll have the game, game dynamics, gameplay, we'll make it pretty, and people will like it and consume it... I've seen this in production. A project is planned, and then a 'coating' of art is applied. I'd like to step back to a point, and change this perception if possible.*"[32] He then continued to explain, how games should use their visuals for storytelling: "*In a well designed game, every little piece has a meaning... skillful storytelling is invisible storytelling... Games are consumed through the eyes, and are a visual medium. They should use the language of the eyes, and not have a story pushed on them.*"

This brings me back to *Half-Life 2* – as it is one of my favorite games and is considered to be one of the best games ever made (nr. 16 on a list by Games Radar[33], top 12 PC games by Kotaku[34] 20th highest rating on Game rankings[35] etc.) – therefore I consider it a good enough example. The setting of the game is more or less complex, following the events of the first *Half-Life* (released in 1998) – the earth is colonized by an alien race, with the population enslaved and under control of the Combine (alien soldiers) and the main antagonist – Dr. Breen. And into this environment enters the game protagonist, Dr. Freeman, who joins the "resistance", defeats the alien invaders and overthrows the oppressive system. And for me, the design of the game visuals is astonishing. The game world (a city called City 17 and its surroundings) is inspired by eastern european cities of the soviet era (which emphasizes the totalitarian aspect of the setting) with the addition of somehow "Viktor Antonov trademark" metallic, alien structures (Antonov's style is clearly recognizable when comparing *Half-Life 2* artwork and his other designs, which can be found on his personal online portfolio[36]). Even just the color palette and its contrast between the pastels of the human world and the dark grays and blacks of the alien technology help to visually tell, or support the story of the game. And everything is designed to be functional as a game – so the design was done with the game mechanics in mind. The city must have been done in a way to support linear progress through the missions, the enemies were designed to be easily recognizable for the player. Its been all designed to work technically – with limited hardware capabilities, all with just the first person view, without any cutscenes, etc. And

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32 *GDC Lyon: Antonov Talks Visual Design, Half-Life 2*. In: *Gamasutra: The Art & Business of Making Games* [online]. [2014-05-06]. Available on: http://gamasutra.com/php-bin/news_index.php?story=16475#.UHFdTbu24ys

33 *The top 100 best games of all time*. In: *Gamesradar* [online]. [2014-05-06]. Available on: http://www.gamesradar.com/best-games-ever/

34 *The 12 best games on PC*. In: *Kotaku* [online]. [2014-05-06]. Available on: http://kotaku.com/5878852/the-12-best-games-on-pc

35 All platform, All time, All category search in the database on http://www.gamerankings.com/browse.html

36 Which can be accessed at: http://www.vulkanbros.com/intro.html

that is what the video game art direction is all about – find a way to stylize the visuals to support, or enhance the story, while supporting and enhancing the game functionality and playability at the same time.

9. Stylization

As I mentioned in the introduction, game visuals help to sell the game. Therefore the developers are trying to one up one another by having more detailed 3D models, bigger landscapes or more realistic lighting. But beautiful visuals do not necessarily mean expensive visuals.

Most of the big budget games are trying really hard to create realistic visuals which age really quickly, because of the technological development of modern hardware. Any "realistic" first person shooter from 2013 will be much better looking then a first person shooter from 2008, just because the developers were able to use more computing power for better textures and more polygons.

But a game with original, stylized art style ages much better, because it was not so restricted by technology in the first place. Games like *Machinarium* (2009) or *Geometry wars* (2003), that cost a fraction of the triple-A game budget are still beautiful even when compared to the most recent games. When asked about the art style of *Grand theft auto*, Moby Francke, art director of *Team Fortress 2*, replied: "*That's not an art style to me. It just seems like other games out there. It really doesn't have a uniqueness to it.*[37]" Therefore, I would describe the stylization of the game's art style as a finding of a unique uniformity for the game visuals, other than realism.

I was wondering how is this "uniqueness" achieved and came up with a classification of the ways the game visuals can be stylized in.

9.1 By Technology

Visual uniqueness can be achieved by a usage of certain technology, or special effect in the video game engine. Petr Smílek, currently working for Czech developer Madfinger games, mentions two main types of special effects commonly used in the contemporary video game engines. Particle systems (simulation of a large number of moving particles) and post-processing effects (which are applied as a last step in the

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37 *Valve's Francke: Game Art Direction In Its 'Infancy'*. VAN ZELFDEN, Evan. In: *Gamasutra: The Art & Business of Making Games* [online]. [2014-04-14]. Available on: http://www.gamasutra.com/php-bin/news_index.php?story=16498#.UHFcQ7u24ys

rendering process, to the whole generated image)[38]. He also lists the most common post process effects: Bloom effect („glow" around certain parts of the image – for example highly lit surfaces), Color correction (dynamic change in the color tones, saturation or contrasts during the game – for example as a reaction to the changing lighting conditions), Motion blur (fast moving objects are blurred), Screen space ambient occlusion (adds depth to dark areas) and Depth of field (simulates the blur and focus of camera lens).

Example of games using technology to create unique visual art style may be *XIII*, which used special rendering technique to create strong „cartoon-ish" look, similar to the comic book, the game was based upon. Another example can be for example *Journey*, which uses post-processing effects like Bloom, Motion blur or Color correction to accomplish „meditative", „calm" or „lonely" feeling for the player.

9.2 By artistic technique

While the stylization by technology applies mainly to 3D games, the stylization by artistic technique is possible mainly for 2D games (adventure games, puzzle games, platformer games etc.). This stylization is based on using looks specific to certain art technique like collage, printing techniques or aquarelle painting. Great example of this approach might be games like *Neverhood* (everything in the game is modelled out of colorful clay), *Samorost* (the game environment is a unique blend of photography and hand drawn illustrations) or very recently *Child of Light* (which is all made to look like an aquarelle painting).

9.3 Color spectrum

This is really closely related to the „Color correction" effect, that I mention in stylization „By technology". But while color correction is just a post process effect, by Color spectrum stylization I mean using specific or limited color palette in the whole game visuals. The color correction effect can be one of the ways to achieve this. A game that might be a good example of this approach is definitely *Mirror's edge* (2008). The bright, vibrant colors are not just visually stunning and unique, but are also used to „guide" the player movement through the levels and also support the game story about a „utopian" state with controlling, totalitarian government. *Deus Ex: Human revolution*

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38 SMÍLEK, Petr. *Game Industry 2: Herní 3D engine a moderní grafické technologie (Video-game 3D engine and modern graphic technologies)*. D.A.M.O., 2012. ISBN 978-80-904387-3-6. Translated by the author from Czech.

(2011) can be considered another example. Its art style with yellow/gold glow can be recognized almost instantly.

9.4 Content/story based

As I stated earlier, game visuals should always reflect, support or enhance the game content or story, no matter what the stylization is, if there even is any. But there are some games whose visuals are based around the story, character's background or gameplay of the game. For example, in *Bioshock*, the main character finds a way into secret, underwater utopian city built in the late 1940s. So the whole of the game visuals is designed in Art Deco style. Not just the game environment, but also the game icons, main menu etc. An example from a complete opposite of the "video-game world" can be a game for mobile devices *Cut the rope*. Its main premise is, that you have to feed a little pet monster, which is hiding in a cardboard box. And thus all of the game environment, and the menus etc. is designed as it is made out of cardboard.

9.4 Personal style

This category is debatable and can sometimes combine all of the others. But I think its important to mention, that some games have really strongly stylized visuals in a "personal style" of the art director. This is for example shown in the work of Viktor Antonov, whose work on *Half-Life 2* and *Dishonored* shares many similar features in a same way as the Tim Burton's movies can be easily recognizable just for the way they look.

10. Conclusion

In my thesis I focused mainly on the theoretical background of my practical project, which is a simple story-based platform game. I defined game narration and game visuals as my primary goals. Those two topics were the most important for my practical project and so I summarized the contemporary state of these disciplines in the game development. I explored their history, specifics and different approaches applied by different kinds of developers. I tried to avoid the game mechanics itself, because my game is primarily focused on telling a story through the game environment. I elaborated on the different ways how a game medium can be utilized and theorized about my own

approaches and ideas about the video-games as a whole. I also used this thesis as my own commentary on the work and thought that I put into my project. I also think that I proved that the video-game is a complex but really interesting medium with a potential to express sophisticated ideas and to find new and artistic ways, if it does not do that already.

In the first three parts, I described what is a narration in a video-game and why I think a good story benefits even simple games. I examined the history of video-game narration and its main strengths. Then I went through multiple possibilities of telling a story in a video-game while mentioning their advantages and disadvantages. I also used my own practical project as a reference.

Then I outlined the importance of video-game visuals and the impact the visual presentation of the game can have on the overall success of the product. I characterized the role of the art director in the development process, defined the value of stylization of the game's visuals and elaborated on different means to do it.

The research that I did for this thesis helped me greatly with my practical project, influenced my views and probably even set a course for the projects that I would like to focus on in the future.

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