Developing empathy through single-player video games

What makes an emotional video game and why designing for emotions is important.

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Preface

A few weeks ago I talked with a peer of mine, in her early twenties, a role-model university student. I mentioned I had spent the previous day on playing video games. "Like the ones that you shoot people?" she asked, and for a while I didn't know what to reply. I was really sad that for an educated person around my age video games are synonym to violent shooters. There is such a broad variety of video game genres that do not even include violence at all, yet the ones that non-gamers are most aware of, and picture as representatives of the medium are the most violent ones. There is the reason for that though - media love to speak about violence in video games, especially the ones involving shooting human enemies with guns. For many people not familiar with video games on a daily basis this is what builds their vision of the medium. Incidentally, those games are also among the most successful ones and have a large audience, so it is not entirely a case of media making a fuss about a small thing. On the other hand, there exist multiple other games, with worthwhile content, which, unfortunately, are never broadcasted to such an extent.

This problem has existed for several years (especially since quality of realistic graphics have significantly improved), both game enthusiasts and researchers tried to raise awareness about video games, yet as the case above shows it does not seem to be working. Right now, we might be on a verge of video game revolution, though, as more people get access to creating digital games, which contributes to expanding the medium much beyond the shooter games. So-called indie games, built by small teams, are getting more and more popular over the recent years. Fairly often they are simple and do not require extensive training and building specific skills, therefore allowing easy entry for people not familiar with games. As a result more people are playing digital games and are getting aware of the fact that the medium is not only about "pointless" violence, shooting and killing others (in fact many of the shooter games have decent storylines, but this fact it very often obscured by the negativity).

Please notice how I'm calling them "digital games", as opposed to earlier used "video games". That is simply because digital games are not synonymous to video games, same way as video games are not synonymous to shooters. Video games are just one kind of digital games. As with any other field, there are some hierarchies and terminology related to the medium. I'm going to introduce more in the further part of the thesis. There is no clear scientific taxonomy of the genres and types of game, and many definitions base on "common gamer knowledge" and personal understanding or even preferences. To give an example, I do not consider mobile games as video games, *World of Warcraft* or *Starcraft* are not exactly video games either, in my opinion. They are digital games, though, computer games. Some could probably argue about that, as there are no clear borderlines, and for many computer games and video games are the same thing. Nonetheless, I want to make clear how I define video games, for the purpose of this thesis. The way I like to think about it is that video games are more associated with gaming consoles, but it doesn't prevent them from being played on a computer (and many do that); whereas computer games explicitly require mouse and keyboard as tools for controlling the gameplay (e.g. playing *Starcraft* on a gaming controller is not really possible due to the game's complexity and need for accuracy). This is by no

means any definition, just my understanding and classification of video games, which I am going to base on in this thesis.

Even though, I will mostly focus on characters and storylines, these are not the only concern of video games. Those are the areas where I see video games are lacking in, whereas the others such as mechanics, challenge, and general interactivity are already at a very high level. I would like to suggest shifting focus and improving the less good parts to let them reach the level of the better parts.

When I started playing video games it was the storyline aspect that got me involved. I still remember the first hours and days, trying to fight enemies and constantly losing. My reason for trying so hard was that I wanted to know the story, because I was getting involved with the characters. When I read a book and really want to know what happens next I tend to flip pages, read several paragraphs towards the end of the book; it's the same with watching movies at home. But it is not possible to do that in a game. I had to progress through the missions to unlock the story, and that required building skills and dedication. At the beginning it was incredibly hard, I was sure I'd give up mid-way and not finish the game. In time I noticed my skills get better. Eventually, I completed the game. Before I knew it I was starting anew on a higher difficulty. This way I made my way up to the highest difficulty, which I never had even wished about completing. As I struggled to unveil the story I was also building skills; I liked being presented with challenges, and I loved the satisfaction of overcoming them (together with in-game rewards).

Among all the enjoyment from tackling the challenges, I appreciated re-playing the story, seeing the characters again and again, finding depth in their motivations for action – just like while reading a novel or watching a movie, without the possibility to "cheat" and see the ending, and with the added benefit of interactivity and increased immersion.

Until today, I play mostly single-player games, which means that I'm not directly facing other people and I am not compared to them. I also noticed that playing alone allows me to immerse more in the story and understand it better. While playing with a friend I tend to get insecure about my performance (it has been proved that playing with/against a friend is most motivating and challenging (Ravaja, Saari, Turpeinen, Laarni, Salaminen & Kivikangas, 2006; Donovan, Hirsch, Holohan, McBride, McManus & Hussey, 2012), or someone sometimes simply make a funny comment, disturbing the atmosphere. The deciding factor for a game purchase for me is just the same as in a case of a novel or a movie: *What is the theme? Will it show me something new? What are the characters? Will I be able to like them? Can I identify with them? What is the universe? Is it interesting to me?*

I am sure that there are people who would agree with me on that statement. Just like books are to be enjoyed in private, some video games are too. This doesn't mean that I want to enjoy them in total exclusion. It is amazing to be able to discuss your favorite game with a friend, or a stranger within some community, and seeing that they care just as much as you do! Again, it is not much different from discussing books, movies, any other media or hobby with a like-minded individual.

There is nothing really wrong with video games per se, and I believe they can make us better people, by providing richer experiences. But in turn we also need to take care of

making video games better, not only visually, so that other people can see more in them than overflowing violence, and accept it as a valid mass medium, or a form of art and expression.

Very often in the thesis I'm going to use pronoun "we", indicating "we, gamers" or alternatively "we, human beings" in a broader scope. Due to general public disapproval of video games (especially the violent ones) many people do not even want to get to know the medium, therefore we, gamers have much more perspective on the issue. It also causes us to become very protective of video games, not wanting to share them with other non-gamers. However, as *Extra Credits* team reasonably pointed out – no medium have suffered from conducted research (Portnow & Floyd, May 2012). Quite the opposite, the research has expanded the genres and audience of a medium, which we, gamers might find a bit overwhelming, but it has also contributed to increase in quality of the medium. "But as videogames become more familiar, they also become less edgy and exciting. This is what Ecko means when he talks about demystification. Over time, media become domesticated, and domestication is a mixed blessing. On one hand is allows broader reach and scale. (…) On the other hand, it makes a once exotic, wild medium tame and uninteresting." Bogost (2011) points out.

I love video games and I do want them to become better, smarter and more intelligent, without excluding the fun and entertainment factors. Some games proved very well that a game can be very intelligent while being really silly, but not immature-silly (e.g. Borderlands 2). That is also why I will try to explain how video games function, so that no one feels excluded from understanding, what is good about them, and what needs to be improved.

I believe games have encouraged me to creatively approach problems, and try to find my own solutions that work through trial and error. Therefore, I would like risk stepping away from the very formal scientific tone, and try to share my enthusiasm towards video games, while trying to critically comment on good and bad points in modern video game design.

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Abstract

Video games are one of the most popular entertainment media in the world of today. They also divide the audience and researchers between those who like them and find positive aspect and those who hate them and find negative aspects. Video games, specifically single-player video games, have significant potential to influence our attitudes and behavior, which is often neglected by the main gaming industry as well as research. Thanks to recently emergent and quickly developing indie game market the future of video games starts showing new promises, as they include experimental ways of gameplay and storytelling. In this thesis I focus on specific aspect of that influence – emotions. I try to explain what those games can learn from each other and why we should care about designing video games for emotions.

1   Introduction

Gaming is one of the most popular pastimes these days, as millions of people worldwide are spending on average eight hours a week, playing video games (ESA, 2013). Over the years the gaming industry has grown to be a large-scale one, with billions of dollars revenue (Walker, 2014). The popularity of games itself implies how much potential influence they have on our lives. Modern video games are often more of a case of highly interactive movies rather than collection of pixels based on simple rules. The advanced technology allows game characters to have human-like expressions, physical features, and natural movements; the boundaries of game graphics are pushed more and more each year, with thousands of specialists working on creating impressive visual experiences (Vikramaditya, 2014). Gaming industry is a serious one, even though its produces not-so-serious games.

Yet, writing about video games is difficult. The medium is constantly seen as a waste of time (Walker, 2014), as fun for the sake of fun, unless directly stated it is for educational purposes (Bogost, 2011). Despite a growing number of scientific articles on the topic, many people still find it hard to acknowledge that video games are meaningful in our lives. Jane McGonigal (2011) outlines the reality of video games, and how common gaming became in the world of today. She presents two possible scenarios: one, where gamers are the outcasts of the society who retreated to fantasy worlds of games, and another, where gamers are integral part of the society, applying their strengths learned from game world to the real world. She asks fundamental questions of "*Why would we want to waste the power of games on escapist entertainment? Why would you want to waste the power of games by trying to squelch the phenomenon altogether?*"

Basing on that mindset, in this thesis, I would like to focus on how modern video games can positively influence our perception and interactions in the real world. The main goal is to direct the attention of researchers towards single-player video games and inherent benefits of playing them, rather than providing wholesome research documenting said benefits. I would like to present the potential of video games to instill empathetic behaviors in people, thus

teaching us in being human, and as a result using video games in different way it has been done so far.

To support my researched topic, I would like to start with quote from *How to Do Things with Videogames* by Ian Bogost (2011):

> *Technology neither saves us nor condemns us. It influences us, of course, changing how we perceive, conceive of, and interact with our world. McLuhan calls a medium an extension of ourselves, for just this reason: it structures and informs our understanding and behavior.* [...]
>
> *The medium is a message but a message is a message, too. Instead of ignoring it, we ought to explore the relationships between the general properties of a medium and the particular situations in which it is used.*

Video games, being such a popular mass medium as they are, have a big potential of influencing our lives. They are highly-interactive pieces of software operated by ordinary people, and that is why I believe they belong to Human-Computer Interaction (HCI) field, and as such, they should be paid closer attention by HCI researchers. HCI takes interest in how people interact with technology and how they are influenced by it; in my opinion video games fit in that description very well.

Most recently, in academics, video games are the basis for the concept of gamification (Deterding, Sicart, Nacke, O'Hara & Dixon, 2011) – that is, taking elements commonly used in games and applying them to non-game pieces of software. One potential use of gamification is in motivational design.

Motivational design is supposed to influence our actions and push us towards positive changes, in e.g. lifestyle. Often, it is used for encouraging physical activity or a healthy diet – things that people are not particularly willing to do without gratification. Elements used would be for instance achievements, badges, etc. – some nice visual rewards acknowledging our effort and motivating to maintain the activity.

Another use of video games' power are educational games, trying to teach students through fun. Unfortunately, those games are often created by people with no passion and understanding of video games phenomenon, who tend to focus too much on educating and too little on aspect of enjoyable gameplay present in non-educational games (Portnow & Floyd, May 2012).

I believe that video games have even more potential than that. To discover it, we need to focus not on taking elements out of games and moving them to non-gaming environment, but on creating more meaningful games that educate us in different ways.

Motivational design helps us stay healthier, educational games make us take in knowledge more efficiently, but none of those is concerned with basic humanity – learning to build relationships, coping with life's hardships, or being compassionate to other humans around us. In fact, the previously described concepts [gamification, motivational design] are more likely to trigger competitiveness rather than co-operation or helpful behavior.

Therefore, my question is: can video games make us become better humans, who are more motivated to understand others, and to offer help to those in need, by providing experiences not available through any other medium? And if so, how can they do that?

In order to answer these questions I am going to focus modern linear story-based western video games. Those games might or might not require advanced skills, and unlike in case of other games the enjoyment and emotions come from the story and character development rather than the game's mechanics and visuals. Narrowing the area even more, I would like to limit the research to single-player games only, thus eliminating any external influence on experience coming from interacting with another person.

To my knowledge, the issue of emotions within single-player video games has not been previously discussed in research. In the recent years the focus has been placed mostly on the social aspects of gaming, which aims to counter the earlier research on the negative aspects of playing violent video games (Granic, Lobel & Engels, 2014). There is, however, very little said about benefits of playing video games that are not social, and next to nothing in concern to importance of empathetic emotions and morals in story-based linear video games.

In such a research obtaining data from the gamer community (the users) is extremely important. To do that I have created an online survey, published at several gaming-related communication platforms, among them GOG.com forums and social networks (i.e. Facebook, Twitter). The participants were to provide their definition of an emotional video game, answer simple preference questions as well as list examples of games they consider emotional. Those titles have later been concatenated and ten most often mentioned ones were taken into further consideration to be used as examples in the thesis.

Unlike in other research, which focuses on children and teenagers, my primary group of interest consists of older teenagers and young adults. Despite common belief, they are not the main demographics of video game players, which according to statistics (ESA, 2013) is over thirty years old. Those young people, however, usually do not have many commitments beside school or job and can afford playing video games casually more often (Griffiths, Davies & Chappell, 2004). They are also in the process of discovering what they want to do with their lives, going through a lot of stress and pressure (Neff & Mcgehee, 2009); they need to learn how to cope with certain social and personal situations, as they enter adult life and become more independent. That makes it particularly important to provide high quality fun that can reach out to audience's emotions.

2 Background

The following section aims to summarize and clarify some base concepts of commercial video games to the people not familiar with video games. I will describe different types of games and genres, to clarify understanding of the entire thesis. Much information included in this section could be considered "common gamer knowledge", and therefore might be lacking proper sources. I would also like to note that this section is complimentary and it is not within the main scope of the research, it just strives to describe the world of video games.

2.1 Video games, emotions and user experience

In case of video games user experience plays ultimately most important role, as games developers always emphasize the "new experience" offered by their game, during the reveal. Part of user experience is emotions (Norman, 2005). However, we do not buy games because

they are useful in the same way as other pieces of software are - we buy them to have fun, because games are developed to entertain us. In this context it can be said that usability plays secondary role. However, poor usability can significantly lower the quality of entertainment (Respondent #4, Appendix 2a), and overall experience. To refer to standard HCI concepts – user experience in video games is slightly different from usual often explored form in academics of that field, as it does not concern only interfaces but also many other factors that influence emotions and thus experience.

In HCI we talk about emotions triggered *by* and *towards* the product, as Norman (2005) describes in his book. In terms of video games we, of course, can develop emotions of attachment or disgust towards a specific game, but the reasons for that do not necessarily depend on usability and visual aesthetics.

In standard HCI we focus on triggering positive emotions like happiness, productivity, satisfaction (Norman, 2005). We do not design for feeling sadness, anger, powerlessness or bitterness. Yet those emotions are part of our everyday lives, and we all know they can become overwhelming.

As we are surrounding ourselves by items which are supposed to make us happier, technology which allows us to present ourselves to people in most favorable way we decide on, this technology is mediating and replacing human connections (Cohen, 2013) we become devoid of variety of other emotions and capacity to understand others (Respondent #5, Appendix 2b).

Norman (2005) stated that we prefer aesthetically pleasing things, and that in their case we are more forgivable of their other faults. Does this apply to game design as well? Can we talk about user experience in the same scope? Is the emotional design Norman talks about same for game design and non-game design? The answer is yes, and no. The nature of games is two-fold. Undeniably, games are pieces of software that require some level of usability and appearance, and that is where Norman's emotional design is applied. On the other hand games often convey story, similarly to a movie or a book. In this regard they appeal to entirely different emotions than those described by Norman. Immersion is the keyword here. Sometimes games are made to make us cry (Perry, 2006), due to the in-game events rather than anger and hate towards the product.

I would like to call them *external emotions* and *internal emotions*. External emotions are the ones coming from the visceral and behavioral levels (Norman, 2005) of a product, in this case – a game: does it run smoothly? Does it have nicely arranged menu? Is the action latency between pressing a button and action on the screen satisfactory? Those things fall under mechanics and general visuals, and they can certainly trigger a multitude of emotions, like anger, frustration or disgust if something is wrong or blissful satisfaction when everything works like it should and we see there is order in the world.

Game developers mostly mastered the art of appealing to visceral and behavioral levels. They know how to appeal to their public and encourage people to buy the game and enjoy it. The internal emotions (and thus reflective level) are an utterly different case, though. Like in books, they come from unveiling the story, learning about the world and relating to the characters. However, because of additional element of interactivity present in games, poor

storyline is more forgivable (Respondent #1, Appendix 2a), and thus, game developers take advantage of that fact often trading meaningful content for mechanics (Respondent #4, Appendix 2b).

Hunicke (2014) tries to inspire game developers to think more carefully about games they design, and focusing primarily on the audience – the gamers, as human beings, who are going to experience the game and the way they experience it, "*instead of thinking about them as eyeballs, or as downloads and installs, or even walking wallets, you're thinking about that person, that customer as people, people like you, maybe even your friends and family* [...] *people who we want to genuinely care about.*" Even though, caring about the audience does not mean the game is emotional, I believe it is the first step. In this sense identifying and empathizing with the audience lays grounds for creating an emotional experience.

2.2 Gamers

Video games, unlike any other medium, earned a name for their audience – gamers. Usually a name like that refers to a profession, for instance there are singers, painters, researchers, teachers. Someone who listens to music or watches movies on a daily basis does not call themselves a music *listener* or a movie *watcher*. Bogost (2011) wrote a chapter called "The end of gamers" where he discusses that odd phenomenon, and states that the term "gamer" will eventually disappear as everyone will become a gamer, making the terms trivial and unnecessary, similar to how listener or reader are not used these days unless in a specific context. However, as it is now, "gamer" is still an existing valid term used to refer to people who play video games on a regular basis.

For many non-gamers (that is people who do not play video games), a representation of a gamer is that of immaturity, freeloading and not contributing to the society. In addition to that, gamer is seen as a person retreated from the real world into a fantasy game world, unable to break the "addiction" (Portnow & Floyd, May 2013). Because of media, gamers are also often linked with violent behavior, supposingly influenced from violent games. In case of tragedies such as school shootings media eagerly look for culprit's relation to video games (Nizza, 2007). Research does not unanimously prove it neither right nor wrong; both arguments for and against video game violence influencing actions exist, yet those against video games seem louder and attract more attention. However, it is worth mentioning that violent video games have imposed age limit, which is often ignored by both children and parents (A Video Game Retail Veteran, 2013), and last but not least – not all video games are violent.

Shifting focus to demographics, it is not children and teenagers who are main gamer demographics, as many may expect. McGonigal (2011) presents some statistics:

- *69 percent of all heads of household play computer and video games.*
- *97 percent of youth play computer and video games.*
- *40 percent of all gamers are women.*
- *One out of four gamers is over the age of fifty.*
- *The average game player is thirty-five years old and has been playing for twelve years.*
- *Most gamers expect to continue playing games for the rest of their lives.*

With that in mind, I would like to focus on adult and young adult gamers rather than youth. Such group, despite being so numerous, is often neglected in research, which is concerned with children and teenagers (Bavelier, Green & Seidenberg, 2013; Granic, Lobel & Engels, 2014; Chen & Chen, 2013).

2.3 Mechanics, aesthetics, feelings

In this part, I would like to explain key elements of video games. In order to do that I will use a model suggested and explained by Robin Hunicke (2012), a game designer, and a spokesperson of meaningful video games designed for feelings. The MDA model divides game components into three categories:

- Mechanics – the set of rules of a game, e.g. how the character moves and what kind of combat is allowed: melee, ranged, both or neither. Mechanics are very often discussed in game reviews and they are defining feature of game genres, e.g. action games are usually based on combat and fast movement.
- Dynamics – how the player interacts with the rules, and what connection the player creates with the game world, and what is the context of the activity of playing a game, e.g. in some there is mechanism allowing the player to quickly dodge enemy attacks, if dodging is faster than running the player might choose to use that method outside combat to achieve better completion time.
- Aesthetics – what atmosphere is created though visual and audio means, and what the resulting experience we are left with after playing is, e.g. dark surrounding and eerie music might create the feeling of fear, but sunny surrounding and silent music might create feeling of calm and comfort.

Another issue is narrative, which is part of the aesthetics. Narrative is the story the game presents and subsequently the game world. Very often games use cinematic inserts (so-called *cutscenes*) to present the story, taking the control away from the player (who may only allowed to skip them), and focusing on the happenings in the game world that involve the main character. However, that is not the only valid way to present the narrative, and some oppose the idea entirely (Bain, 2013). Games like *Gone Home* or *Journey* present the narrative through surroundings and meaningful items hidden in the world.

All those three components influence feelings, and they should create a synergy, suggesting that feelings and emotions cannot be fully influenced relying only on one of them.

2.4 Types, genres and classification

As any other media digital games can be classified into various types and genres. The classification presented in this section is based on "common gamer knowledge" and only serves the purpose of explaining in simple terms what the differences between particular types of games are for people not familiar with the medium, in order to facilitate the understanding of some concepts further in the thesis.

Figure 1 presents a simple breakdown of digital game types at the highest hierarchy level. There are computer games and console video games (which appeared slightly later then computer games, on a specialized devices – gaming consoles), fairly recently web browser flash games came to market and even more recent are mobile games to be played on our smartphones or tablets. I am interested in first two kinds, that is computer and console games. Within computer games we can distinguish genres that do not appear on consoles, very often due to their complexity, such as massively multiplayer online (MMO) games (e.g. *World of Warcraft*) or advanced real-time strategy (RTS) games (e.g. *Starcraft* or *League of Legends*). The other type of games are video games, which generally provide some story, for a player to unveil, they can be played on both a computer and a console (unlike computer games, which cannot be played on a console).

computer	video	mobile	browser
AAA		indie	
single-player	co-op	multi-player	MMO
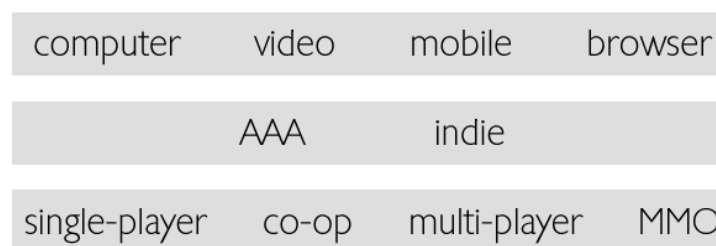
Figure 1. Types of digital games

In the next level there is a simplified division into AAA and indie games, which primarily refers to game's budget and size of the team. AAA games are high quality games, where AAA is equivalent to A++ (as in a grading scale); those games are created by big companies and have tens of millions of dollars budgets (Superannuation, 2014). One of the most recent AAA games *Destiny*, is said to have a budget of 500 million dollars (Kuchera, 2014). On the other side are indie games, created by individuals or small teams (usually not exceeding twenty people). The budgets are significantly lower, e.g. *Braid*, a puzzle indie game had the budget of 0.2 million dollars (Superannuation, 2014). Subsequently, the level of graphics and mechanics also differs, while AAA games strive to achieve photo-realism and impressive visual experience, indie games are much simpler (figure 2 depicts a comparison between a AAA and indie game). Naturally, AAA games are also bigger in terms of world size, time of gameplay and mechanics. An average linear single-player AAA action game is between 10 and 30 hours long, while indie games can take as little as few minutes to several hours (usually no more than 10 hours).

Figure 2. Comparison of visuals in AAA game (Tomb Raider) and indie game (The Novelist)

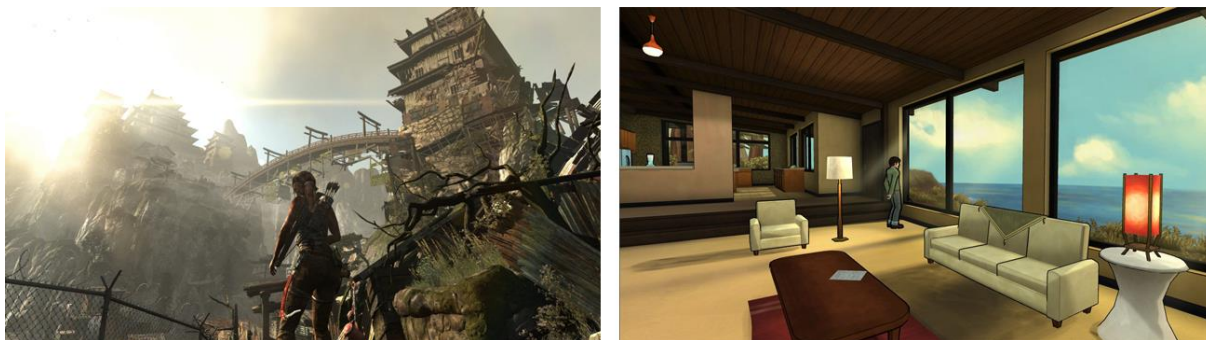Normally, a game will take one only characteristic of each level. However, with the last level some games can combine two of them as separate modes. Many modern action games include both single-player campaigns and multiplayer matches, where players compete online against each other (in teams or individually). Some games offer a co-operation (co-op) mode as an alternative to single-player mode, where the game's content (narrative and story flow) is the same in both cases. Co-operation usually allows up to four players, while multiplayer matches are around 8-20 people. Most co-op and multiplayer games support player communication through in-game voice services.

Yet another level is linearity of the game. A video game can be linear or non-linear. Many of the action video games are linear, meaning that in those games the character starts at point A and finishes at point B, but it does not close the path for variety. *Dishonored*, is an example where the gameplay style determines the outcome, rather than direct choices. Unlike in role-playing games (RPGs), in *Dishonored* the players play as a pre-defined character and follow pre-defined narrative. Players do not create their own story by going through a series of choices, rather than that they create their experience based on how they approach given story and character. The events in *Dishonored* are fixed and the player cannot influence them, however he or she can influence the atmosphere of the world. The game offers two endings, what does not follow standard linear-game recipe. However, since the branching happens at the very end, over 90% of it is linear.

Coming to the game genres classification, mechanics are the defining feature. I already mentioned RPGs; those games allow a variety of choices, including creating a custom character, and hundreds of hours of gameplay to be shaped by the player. Investment in the customized character and substantial amount of hours lays grounds for building an emotional attachment with the game or in-game items, which instead of being based on the story may be based on player's long-term involvement in the game.

Other game genres include for instance (more complete genre breakdown is shown on figure 3):
- shooters, where the player needs to aim the gun and shoot the enemies,
- stealth games, allowing to sneak behind the enemies and quietly take them down, or let them live,
- platformers, requiring the character to jump from one ledge to another,

- hack and slash games, where the player leads the character to fight through waves of enemies.
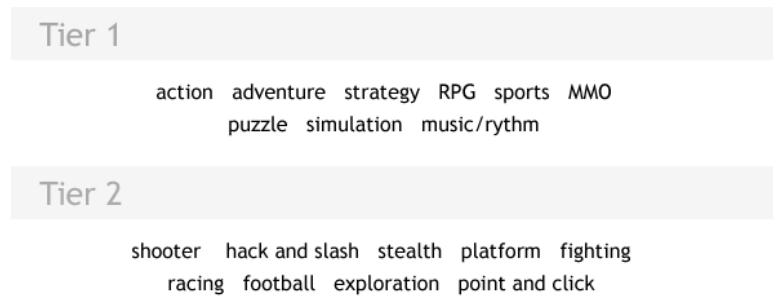

Tier 1

action adventure strategy RPG sports MMO
puzzle simulation music/rythm

Tier 2

shooter hack and slash stealth platform fighting
racing football exploration point and click

Figure 3. Game genre breakdown

3   The Problem

A common issue with many video games these days is that they rely mostly on mechanics rather than feelings. Stories tend to be negligible in the long run, characters forgettable, and experience short-lasting (that is, limited to the time spent on playing the game). However, some people seem to not be bothered by that as long as the game runs smoothly and looks nice. The division comes from different expectations and preferences of players, and the fact that games can be played in multiple ways and everyone can choose their pace. Nevertheless, many modern video games are being overtaken by visual and mechanical aspects, and even though some of them provide over fifty hours of experience[1] it is difficult to create a memorable bond with the character the player is controlling or the game as a whole.

In order for gamers to relate to the characters and get truly immersed in the game's world and the story the characters need to be "armed" with real expressions, reactions and past. By expressions I do not mean the high-detail recreation of facial expression, but rather dialogue and behavior (Voegtle, 2014). Such characters, in turn, facilitate triggering real emotions in us, who play the game; emotions that would feel towards another human being. Those are what I described as "internal emotions": happiness towards character's success, sadness due to their loss or death, empathy. It is not about depicting them visually as close to real-life people as possible, it is about showing that they have a personality, strengths, weaknesses and fears. Very often game's protagonist is a muscular male, a soldier, trained in combat, on his lone quest to bring justice to the world, through whatever means necessary (Anthropy, 2012). Yet we know nothing about him. Does he have friends or family beside his job? Does he have any hobbies? Anything he does in his free time? Those little things that makes us human, and not robots with highly functional artificial intelligence only fulfilling orders and completing the assigned work. One of Steam users commented in a review to Broken Age: "*A spoon in this game has more personality than most AAA game protagonists.*"

Of course, games enable us to experience what we cannot in real life: flying on a spaceship fighting aliens, sneaking behind enemies as an assassin to fulfil a contract, feeling invincible. They give us sense of power we do not have in the real world, and that is the allure of video

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[1] Selected games on HowLongToBeat.com (i.a. Assassin's Creed III, The Elder Scrolls V: Skyrim)

games. In the large majority of single-player games the protagonist always wins; but at what cost? That last part if very often neglected. Who was he in the first place? What really motivates him to action? What choices brought him to where he is now? And how those choices influenced him and the world around? Regrettably, very few games deal with those issues.

Similarly, very few games make the character feel ordinary and fragile, not fearlessly fighting in heroic battles as one of "the chosen". Games where instead of the promise of success failure is an acceptable outcome are extremely rare. In most games failure comes in a form of character's death, and is not permanent; if the character dies the player gets the option to resume from the last checkpoint[2] and continue to work towards scripted success. But what happens if the character survives yet fails to save the world? Most games do not offer such scenario. The problem is not easy continuation, but lack of alternate solution or consequences of failure reflected on the game world.

The emergence of indie market caused many unconventional games to appear, unconventional in that they do not follow the same proved formula used by AAA titles. Thanks to that we get to experience more down-to-earth games, where the character is not a space-marine-super-soldier saving the universe, but a writer on a family retreat to overcome a writer's block (*The Novelist*) or a college student coming home after a year abroad (*Gone Home*). Obviously, not all of those games are worthwhile and meaningful or emotional (e.g. *Goat Simulator*), and we should not forget that games are supposed to be, first and foremost, fun to play and provide entertainment. However, it is commendable if they, while being fun and entertaining, offer some more value, like invoking empathetic emotions towards the character.

One would think that since the issue of character depth is mentioned fairly often these days, the game developers have started listening to those voices. However, a new AAA game, *Destiny*, released in September 2014, deals with exactly that issue, as pointed out by a YouTube reviewer (Vargas, 2014). He comments on game's lack of meaningful story in single-player mode, gameplay being repetitive and uninteresting to play for a long time, as there's little value to the world. But on the other hand, the game is considered visually stunning and feature advanced and convenient mechanics. For the purpose of this thesis, I am glad for being able to present such a recent example, showing that the problem of games designed for feelings, with in-depth character is important, and still not solved yet, as game developers put visuals and mechanics ahead of the narrative.

To conclude this section, I want to present my research questions:
- Can single-player action-adventure video games positively influence our attitudes, perspectives and behavior and educate us in being more helpful and understanding towards other people?
- What is an emotional game?
- Why is it important that video games are designed for inducing emotions?

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[2] Checkpoints are a common practice in modern games, they temporarily save character's progress (usually location) and status (e.g. new abilities or items), facilitating the player to continue the game in case of character's death. Checkpoints are predefined by developers, and occur in fixed locations (e.g. doorways to the next area, special checkpoint posts).

- Through what means can they do that?

3.1 Emotional video games

"Emotion" itself is a very ambiguous concept. Even though we generally understand it, it is particularly difficult to define (Desmet, 2003). Desmet (2003) offers a following definition:

> *Emotions are best treated as multifaced phenomena consisting of the following component: behavioural reactions (e.g. retreating), expressive reactions (e.g. smiling), physiological reactions (e.g. heart pounding), and subjective feelings (e.g. feeling amused).*

In the context of this thesis the key component of emotions is the subjective feeling the gamer has while and after playing a game. Of course, other components exist, and further in the thesis I will consider games that can make us cry (Perry, 2006) which, according to the above is an expressive reaction component. Nonetheless, I would like to focus on those subjective feelings and how they can influence our attitudes and behavior as well as the way we approach gameplay. As Desmet (2003) pointed out, despite their subjectivity we have a general understanding of what emotions are, and therefore we can distinguish the feeling of happiness from that of sadness.

I published an online poll, asking gamers how they would define an emotional game, amongst other questions. Most respondents were able to describe what they understand through the term, and their definitions followed the same track. Based on those answers I would like to present a combined definition of an emotional game:

> *An **emotional game** is a game that has the power to evoke a strong emotion in the player and puts it as the developer's primary focus. It can make the player happy, sad and angry, but not in terms of rage or frustration due to gameplay mechanics. A game that explore the fullness of the human condition, utilizing drama and comedy as tools of storytelling in place of visceral action, making the player feel like what is happening is important, through approaching more serious or intimate subject matter and story development, fleshed out and believable characters that have motivations and flaws like real people allowing the player to really grow attached to them and understand them. An emotional game also encourages better-than-average writing and isn't afraid to try new grounds in storytelling or conveying emotion through different means than usual. Type of gameplay doesn't matter.*

With that in mind, "emotional" will never become a main game genre, nor I would wish it to become one. In section *2.4 Types, genres, classification* I described hierarchy of video games, and said that genres are defined by mechanics. Emotions are not mechanics, therefore "emotional" should be considered as a subgenre independent of the mechanics (figure 4). One poll response in particular describes it very well: *The gameplay should be constructed with this goal [evoking emotions] in mind. (Most games are made the other way around: the designers create some gameplay mechanics, and then throw some story on top of that).* Robin Hunicke (2014) suggests the same thing to game developers – create a story before or alongside the mechanics.

Figure 4. Basic game genre breakdown. One genre does not exclude another, for example action-adventure or shooter stealth games are fairly common.

Emotional games allow us to learn empathy and experience feelings and situations we might never do in our everyday lives (Respondent #5, Appendix 2b). After all, that is another reason for playing video games – experiencing things otherwise impossible. If designed properly, single-player video games can show us how to interact with people without interacting with them, and without even being aware of that. Since, in games, unlike in books or movies, it is us who control the characters, we can influence the future or at least think we can (Portnow & Floyd, October 2013). Our emotions are one of the factors of decision making (Zeelenberg, Nelissen, Breugelmans & Pieters, 2008), and games give us safe environment for experimenting and testing possible outcomes (Portnow & Floyd, October 2013).

However, as mentioned in section *2.1 Video games, emotions and user experience*, emotions are inseparable part of the medium, given game's main purpose of providing a challenge or relaxation means we will find satisfying. Just to clarify the context I would like to explain what is not an emotional game, or a non-emotional, in the scope of this research.

Video games are often accused for being violent (Coeckelbergh, 2007), as many the genres involve some sort of combat (explained in section 2.4 *Types, genres, classification*), and require the player to kill enemies. However, that is one of the reasons why we, gamers like playing video games (Griffiths, Davies & Chappell, 2003). Yet it does now take away the possibility of the game being emotional. Some of the most-often mentioned games such as *Mass Effect*, *Bioshock*, *Fallout* or *The Last of Us* are very violent, but they still have been classified as emotional due to the value presented by their story and characters.

A non-emotional game, in this regard, is one that does not provide enough depth and capacity to empathize with the character. Such a game is focused on the external used experience coming from visuals and mechanics, rather than identification with the characters and their world. A non-emotional game does not require us to consider our morals and does not present consequences of the choices made, which should have impact on the game world. In other words, a game where the sole purpose is to kill enemies without hesitation, or run from point A to point B in the fastest time possible is not emotional according to this thesis.

3.2 The research gap

There is a number of research about how shooters and action games enhance our reaction time and perceptiveness and how MMO games influence co-operation and strategic thinking. However, those benefits usually concern only multi-player, human-versus-human competitive play. Single-player games have not been discussed in research as often.

Moreover, similarly to game developers, researchers seem to focus on mechanics rather than aesthetics and subsequent long-lasting feelings (unless to prove negative influence). The studied feelings are those of happiness, satisfaction, attachment and relaxation due to games' interactivity (Granic, Lobel & Engels, 2014). Moral and empathetic emotions are rarely mentioned. Most importantly, research on positive behavior change caused by playing video games is lacking as well. Usually it refers to children studying school subjects more eagerly in a form of a game (Chen & Chen, 2013) or players becoming more helpful in real world after playing MMO games (McGonigal, 2010). And in addition to that, most articles tend to focus on children rather than adults, and therefore topics related to adult life, that children would not understand (e.g. topics like depression, employment or sexuality).

Therefore, to my knowledge, there has also been no previous research dealing with benefits modern linear story-based single-player video games. In my thesis I try to investigate one aspect of the potential benefits, which is feelings and experience lasting beyond the gameplay time, leading to positive influence on player's attitudes or behavior.

4 Methods and process

The process of research has been divided into two main parts: resource study, and empirical study. I have started with empirical search on what gamer community considers as emotional games. Literature study followed next, together with video material study. In order to obtain data I found lacking in literature, I created an online poll, which resulted in a list of games considered emotional. I proceeded with trying to experience some of the most often mentioned games, as well as those presented in literature. In the meantime I was gathering data from all possible sources on the Internet, such as forums and reviews.

4.1 Literature study

The literature study was necessary in order to get to know related research conducted by the academic community. I have selected a number of scientific articles, and relevant chapters in books concerning video game design.

In regards to the scientific articles, I have used several methods. The first of them which provided me with 20 articles was a broad search through Google Scholar using the following keywords: single-player, empathy, young adults, emotions, moral, games, and various combinations of more than one keyword, and their derivatives. For the most searches the time range has been set to articles newer than 2010, if the results seemed unfitting and outdated otherwise (e.g. talking about non-digital games or highly technical aspects like gaming engines). The date has been set to 2010 because of the focus on modern games rather than those which are no longer played as much. Sometimes this restriction has to be lowered due to lack of results.

Firstly, I evaluated the appropriateness of the article's title, so that highly-technical articles such as *Real time game loop models for single-player computer games* were filtered out. Secondly, when an article passed through keyword-title filtering but the title was not clear enough, I proceeded with reading the abstract to reassure that the researched topic is related to mine. More than ten articles have been dismissed this way. Thirdly, I read the first sections of a selected article and decided whether or not it is truly related (e.g. video games are considered an addition by some people, and therefore I wanted to investigate the topic of susceptibility to addiction among teenagers; however, the article focused on use of drugs and other substances that cause chemical change to the body causing physical addiction which is not applicable in my topic). Four articles needed to be discarded at this point. Most of the articles collected using this method concerned video games, while some of them regarded only the information about the target group or other keywords.

The second method applied to searching for literature was following the references used in the most related articles in the scope of my area of concern. When I found an article interesting as a whole, I would have read the list of references, and evaluated their title (like in the first method), year of publication and the format (scientific article, a book or a digital source). If the reference was a journal article, published in a later year than 2000 (due to scarceness of references published after 2010), I searched its title via Google search engine and evaluated its usefulness by reading the abstract. Three articles have been found and included in the thesis using this method.

The third and final method applied to scientific articles was a search on ACM digital library. ACM offers a wide variety of journals, among them the ones I found appropriate were *ACM Transactions on Computer-Human Interaction (TOCHI)* and *Journal on Computing and Cultural Heritage (JOCCH)*. The latter is a fairly new one, dating its first issue to 2008. Therefore, I browsed the full list of issues and articles. For consistency reasons I applied the same time range to TOCHI, which dates back to 1994 thus much longer than JOCCH. Within that time range I have also browsed full list of issues and articles they contain. The applied keyword filter accepted words such as game(s) and emotion(s). There were only seven articles fulfilling that requirement (four from TOCHI and three from JOCCH), out of which two passed to the final selection (both from TOCHI). The remaining five have been discarded based on their insufficient relation to the researched area after reading the abstract.

Another type of literature were books, or selected chapters out of them. Two books (*The Rise of Video game Zinesters* by Anna Anthropy, and a collection of *World of Warcraft* articles by the title of *Digital Culture, Play, and Identity: A World of Warcraft® Reader*) and one author (Ian Bogost) have been recommended by my advisor. In regards to the recommended author, I searched for his books available locally at the university library, there were two books related to my interest (*How to do things with video games* and *Persuasive Games*). Moreover, due to his impact on the field of human-computer interaction, I have also read selected part from *Emotional Design* by Don Norman, as the title seems related to some extent. I have also selected parts of *Reality if Broken: Why Games Make Us Better and How They Can Change the World* by Jane McGonigal after listening to her TED talks; the book treats mostly about social and multiplayer games therefore only sections about video games in general were applicable (same case with *Persuasive Games* by Ian Bogost).

4.1.1 Video material

In need of more insight from game developers, I considered *TED talks* a valuable source of information where game designers and researchers can present their findings. In order to find related material I searched for keyword "games" at ted.com specifying result type as "talks". Five talks of approximately 20 minutes length have been found after executing a search at ted.com with the keyword "game" and selecting talks about video games.

Another influential source was a YouTube channel *Extra Credits*, which provided insight into video game structure, their problems and possible solutions. The web show is created by three people associated with the gaming industry, and often discusses the use of games in education and influence of games on the player. They aim at raising public awareness about video games. One of the show's creators said: *"Nobody's going to make better games if the consumer doesn't demand better games"* (DigiPen, 2013). The episodes included in the research have been chosen based on relatedness of the content to my area of concern, e.g. episodes about making educational games or creating characters and story.

4.2 Empirical study

It is impossible to talk about games excluding the gamers' community; therefore research involving gamers was essential. The empirical study consists of two main parts: one of them is "user study" where I asked gamers for their opinions, and the other part is personal research which aimed at educating myself about the emotional games by playing them, to test if they can stimulate my emotions (even though emotions are subjective some scenes are aimed at inducing very particular emotions, e.g. we can distinguish a sad scene from a happy one). In this section I also mention non-scientific sources and indirect ways of getting information, such as reading gamer's comments on forums.

4.2.1 User study

Due to not being able to find certain facts as confirmed in the related scientific articles, I carried a user study in order to obtain some background information. The first method was a casual conversation with peer gamers. The goal was to understand if and why they like emotions being included in video games. The second method was web-based survey concerning emotional games.

Focused conversations

Emotions and attitudes towards them are highly subjective, i.e. someone might like sad emotional scenes, while another person hates them. The goal was to obtain first-hand background information on why or why not gamers like emotional scenes, in order to diminish my bias and expand the point of view. I asked six long-time gamers (four females, two males) in their mid-twenties, who have played video games for over 15 years. The communication happened online, using various instant messengers, including Facebook chat (transcripts available in Appendix 2a), Steam chat (in Appendix 2b) and Xbox Live Party voice service (lack of transcription due to impossibility of sound recording). The choice of service was based on the respondent's preference and availability. I have also considered creating a message board or a "shoutbox", where all respondent could have been invited to discuss the issue. I decided against it, as I believed more personal approach would be better.

All conversations had a friendly tone, as I was addressing my friends, and believed that more formal or official method would not provide me as much information about their personal insight into the matter, reducing tension from the feeling of being interviewed.

The question asked was following: "Why do we, people, like dramatic scenes in games (and other media)? Consider an example of [*Resident Evil 6 / Borderlands 2 / Devil May Cry 3*][3] scenes. Did you like them? Why do you think game developers decided to include them?" I have chosen the games that I had knowledge of, in order to be able to understand the answer knowing the context. It is worth noting that all three games mentioned are not entirely emotional, being respectively third-person shooter, first-person shooter, and hack-and-slash genre, but all of them include highly emotional and dramatic scenes.

All the participants have been informed about the purpose of the conversation, and asked for consent to include their responses in the thesis.

The survey

The second part of the user study was a web-based poll completed by 139 gamers (105 males and 32 females, 1 response was discarded). The survey consisted of three background questions (gender, age, gaming frequency), and five topic-related questions, asking about gamers' preferences and their definitions and examples of emotional games. Similarly to the conversation described above, the poll was aimed at getting general insight into gamers' opinions about emotions triggered storyline design in by the games. I could not find relevant study on this topic.

The background questions about age and gaming frequency were originally aimed at filtering responses outside the target group. However, it turned out that with this sort of very general questions target age group did not differ much from the outside of the target group (30 years old and more). The question nonetheless was used to compare the group of young adults against older adults. In regards to gaming frequency, at the time of planning the poll my target group were gamers who play video games on a daily basis resulting in over 10 hours per week gaming time. After several discussions and videos (mentioned in the previous section) I decided to expand that group in belief that everyone can be influenced by emotions in video games. The question was left in the poll in case I decided to go back to the original idea.

The remaining topic-focused questions asked the respondents to provide a definition for "emotional games". Since the term is not widely spread, I wanted to test how universal the understanding of it is. The responses were also to be used in forming a final definition. The next three questions were multiple-choice questions asking whether gamers: 1) liked sad scenes in video games, 2) liked moral choices in video games, 3) preferred to play as good or evil character, if given the choice. The final questions asked to list at least two titles of video games they considered emotional to provide truthful results as to what is considered an emotional game.

In order to obtain satisfactory amount of answers, the poll has been advertised on Twitter, Facebook and three gaming forums (Genki's Game Gab, Adventure Game Studio, and Good

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[3] Each respondent received a question with a different game title to relate to, based on their familiarity with one of the three titles.

Old Games forums). Since the results had to be later analyzed by only one person, the poll was available for one week, until enough results were gathered (more than that would be difficult to process within the given time limit).

Personal experience

Unlike in a case of a typical research which requires familiarity with related literature, research in games requires knowledge of games. I believe that discussing a topic requires a level of understanding of it. Getting to know the medium, and particular representatives of the genre, was obligatory to be able to present the topic properly. It is impossible to give an insightful comment on one of the medium's genres without mentioning a few titles of relevant games. The game titles become references in this regard.

Since games have the advantage of being more interactive than movies or books, it is particularly challenging to build that understanding based on just reading about them and watching information videos. Therefore, in order to explore the topic of emotional games and gain enough understanding to evaluate the user responses as related or not, I tried to get familiar with several games considered emotional or informing morals. To find these games, I put myself in a role of a gamer interested in playing an "emotional game", therefore, Google search was the most natural and obvious choice. From there I listed game titles mentioned and discussed on various forums and gaming websites (e.g. IGN, Gamespot).

In some cases it was not possible to test the games personally due to either game's length or platform's unavailability, therefore in several cases so-called "let's plays"[4] were used. Since games are a fast-developing medium I focused on the most recent ones, as those are the ones gamers are most likely to play, and they show the direction of the development. Table 1 below presents the game titles I familiarized myself with for the sake of this research.

Table 1. List of games tested for research

Title	Year	Gameplay length[5]	Platform availability
9.03m	2013	0.2 hour	PC
Broken Age	2014	3.5 hours	PC
Dear Esther	2012	1.5 hours	PC
Depression Quest	2013	1 hour	PC/Web browser
Gone Home	2013	2.5 hours	PC
Journey	2012	2.5 hours	Play Station 3
Spec Ops: The Line*	2012	7 hours	PC, Play Station 3, Xbox 360
The Cat Lady	2012	8 hours	PC
The Last of Us*	2013	20 hours	Play Station 3
The Novelist	2013	3 hours	PC
The Walking Dead	2012	11.5 hours	PC, Play Station 3, Xbox 360
Wolf Among Us	2013	5 hours	PC, Play Station 3, Xbox 360

* Only watched, without playing.

As it appears in the table most of the tested games were rather short games, usually belonging to the "indie" market which thrives on PC, more than on any other platform. Big commercial games such as *The Last of Us* take significantly more time. *Spec Ops: The Line* is

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[4] Videos recorded by gamers and uploaded on YouTube service showing the entirety of the gameplay.

[5] According to How Long To Beat (howlongtobeat.com)

another AAA game of substantial length, yet in this case I limited myself to watching only the cinematics from the game, presenting the story (limiting the time to 1.5 hours). This method caused much more confusion and troubles with properly understanding the story, rather than in case of watching or playing the entire game. Taught by this experience, I decided not to personally investigate *Max Payne* and *Mass Effect* series (despite them being considered emotional), given both series consist of three games of 7-25 hours gameplay each, and it is recommended to get to know all of them to understand underlying emotions. Instead I relied on expert opinion, of a person who played those games.

I would like to, however, stress that those are not the only titles considered emotional. As an avid gamer myself, I have experienced several other emotional games and emotional moments in games over the years, such as *Brothers: Tale of Two Sons*, from the more recent titles. Those games were not included in Table 1.

Other

Naturally, I have also encountered various articles by game journalists, top lists created by gamers, reviews and comments by both parties in text or video form. I have not applied any specific method to find them other than Google search, and browsing the "related" sections on the websites. My research is greatly about subjective opinions and feelings, therefore limiting myself to selected services would be damaging to the amount of data collected.

4.3 Narrowing down and selecting games

As described above, there is a multitude of game types and genres, and due to that a selection had to be made to choose which ones will be included in the research and which will not.

The list of games classified as emotional has been generated based on the public online poll (described in the next section), author's own experience and gaming community opinions (message boards, videos, articles). The list grew long and eventually had to be shortened only to the most relevant titles. The selection process was difficult and based on the following requirements.

Single-player

This video game type has been chosen as first. The research in the recent years focused mostly on multi-player video games, and their social aspects (Ravaja, Saari, Turpeinen, Laarni, Salaminen & Kivikangas, 2006; Donovan, Hirsch, Holohan, McBride, McManus & Hussey, 2012). I would like to focus on the games context outside of that immediate social context. Therefore, all multi-player games have been rejected. Some games offer both (single and multi-player) in which case only single-player part was taken into account.

Western

After discussing the issue with peers we came to realization that western (American and European) and eastern (mostly Japanese) games approach emotions entirely differently, to the extent that some eastern games become difficult to understand at times for us who belong to the western culture. Therefore, the next selection step was to filter out eastern games (e.g. *Metal Gear Solid*, *Final Fantasy*), and focus more on western ones which are culturally more

understandable to us. However, it is difficult to be impartial as some of the eastern games are pioneers of sorts in the emotional sub-genre (e.g. Ico and Shadow of the Colossus are often referred to when speaking about inspiration for emotional games, so it is difficult to eliminate them, disregarding their influence).

Linear

Non-linear games offer multiple choices and can lead to drastically different experiences for players, depending on the choices they made. I want to focus on games which strive to provide similar experience to everyone (however, it will never be exactly the same experience, because of emotions being subjective). Most importantly, I wanted to include games where story is predefined from beginning to end with very slight variations, if any at all. Moreover, non-linear games (like RPGs, e.g. *Skyrim*) allow the player to build investment in the world due to time spent in the game, since due to non-linearity the player can focus on side tasks (e.g. collecting items available in the world) rather than main storyline progression.

Action

Choosing this genre is of secondary priority. I aim to suggest that games belonging could benefit greatly from including emotions. Action games are also often blamed for displaying extensive violence, therefore I would like to present a solution that would help to alleviate the accusations. Many games included in the study do not belong to that genre, further proving the shortage of action games designed for emotions.

Modern

Since the goal is to influence the future games, the current games are the starting point of the change. I believe that analyzing modern games is more important than analyzing old games. Therefore, I have chosen to focus on games that are no older than 10 years (that is released in 2004 or later). On the other hand, it is worth remembering that old materials can teach valuable lessons as well, if they involved appropriate content (for the study). However, they are not the main concern.

Story-based

Not all games involve a story, some games like sports games (e.g. racing, football) only provide interactive entertainment. For the purpose of this thesis, however, my main focus is narrative and character development, which in this case are the tools for inducting emotions. That is why games selected for this study include a substantial storyline. I would like to note that a story may be presented in different ways, not only through cinematics and text, music and surrounding can also be used to convey a story.

To select games for the study, after obtaining full list (from researching the community opinions, submissions from the survey, examples given in some of the talks, and previous personal experience) I wrote them all down on strips of paper and tried to assign into categories. Figure 5 presents that part of the process (games in the three right-most groups have been discarded due to not fulfilling the requirements described above).
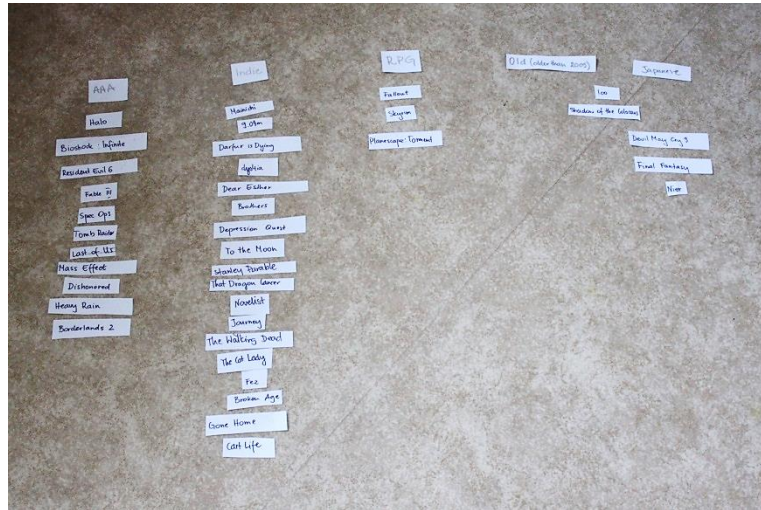
Figure 5. Process of selecting games for the study.

5 Related research

Video games have been studied many times over the years, unfortunately, biased towards proving the negative impact they have on children and adolescents (Thalemann, Wolfling & Grusser, 2007). Not only has the research never truly focused on fully-functional adults playing video games for entertainment, but it also neglected one of the most common and best-selling (ESA, 2013) game genres, which are non-shooter action video games. Morals and emotions within video games have been discussed only very recently and very scarcely. The research listed in this section is fundamental for the topic I am concerned with and therefore will be described in more detail to explain underlying concepts and motivations.

On the topic of emotions Gao et al. (2011) acknowledge the existence and importance of emotions during gameplay. They come up with a solution to measure the emotions in real time, in order to affect the player's experience, by adapting the game's pace and atmosphere in accordance to the perceived emotions. The effective way to measure emotions indeed poses a problem, as it has been pointed out by Desmet (2003). According to him, at that time each instrument for measuring emotions measures only one of four components (behavioral reactions, expressive reactions, physiological reactions, and subjective feelings). He developed PrEmo, which is a tool for measuring subjective feeling towards a product. The user has to choose between with fourteen facial expressions of basic emotions represented by animated characters, where seven of them are considered positive and the other seven – negative. User studies have shown that users preferred communicating the emotion through image rather than text, and Desmet stated that seeing an image encourages the user to re-evaluate his or her feelings. Obviously, this method is not applicable to measuring emotions during gameplay, since it cannot be done simultaneously, without losing focus on the game.

Gao et al. present the method which is based on physiological reactions rather than subjective feelings, and tried to implement it in a non-obtrusive way. The platform of their concern is a mobile device with a touch screen. They claim that a method, where the game

can recognize players feeling judging by the pace and type of strokes could be useful in enhancing the experience of mobile gaming. They focus on basic four emotions: boredom, relaxation, frustration and excitement. Similar project, mentioned by the authors, has been done earlier by Lv et al. (2008 mentioned in Gao et al., 2011) concerning a pressure keyboard and typing style. They recognized six different emotions: neutral, anger, fear, happiness, sadness and surprise with the success rate of 87.7%. That discovery in particular would be applicable to video games, since it spans the most common feelings during gameplay, and would work especially well applied to a game controller. The problem is if the success rate would be the same, sincw games have varying pace of their own, requiring the gamer to adapt the pace of button presses respectively. Nonetheless, such research is important as is acknowledges the influence of real-time emotions on user experience.

Zeeleberg et al. (2008) presents how emotions have impact on decision making. Games in general constantly require us to make on-the-spot decisions, be it fight against many smaller enemies, or against one big "boss" or avoiding taking damage by jumping at a right moment (very important in platformer games). As Zeeleberg et al. state decision making is an emotional process, and it cannot be truer in regard to video games. The authors mention emotions exist in relation to other people such as empathy, love, anger, shame and guilt. Those emotions are the reasons or consequences of our decisions, and it has been discovered that the impact of emotions on behavior is fairly systematic. They also give a very good explanation of emotions as momentary experiences:

> *Emotions are acute, they are relatively momentary experiences. This differentiates emotions from moods, that typically last longer, and from more general affect. Emotions are about something or someone: you are angry with someone; you regret a choice, etc. Emotions typically arise when one evaluates and event or an outcome as relevant for one's concerns or preferences. One does not become emotional over something trivial.*

The authors sum up that emotions make us prioritize our behavior based on our concerns and preferences, and mention a finding that disgust reduces risky decisions.

Despite Zeeleberg's critique for that finding, there are situations in which it is applicable. Young and Whitty (2011) present a view on morals within single-player gaming and how disgust becomes a measure of morality and influences our actions. They do, however, argue that it should not. Young and Whitty go deep into morals of single-player video games, address the taboos and ask troublesome questions for the reader to contemplate. Their biggest concern is the transcendence of "real world" morals into gamespace, and debate whether or not we should be allowed to experience everything in a game. As an example they use rape, which is a universally morally condemned act in the offline world, and ask if the act is equally morally wrong within the gamespace, where no one gets hurt. That is where disgust as a measure is applied by most people based on social conditions. User study has shown that:

> *Even when it was clearly stated that no harm occurred to anyone, the participants nevertheless inferred that harm must have occurred; an inference which was often accompanied by a sense of anger and moral condemnation.*

The authors further explore the topic that it is not about what is morally wrong or right but about what the player able to psychologically deal with such moral freedom. It is an extremely intriguing and interesting insight in the contingency between the "real world" and gamespace. There have been proofs for and against video games causing violent behaviors in people playing them, and everyone will choose their preferred side. Is the same true for morals? If the offline world morals transcend to gamespace, can morals from the gamespace transcend to the offline world? Young and Whitty present the question of "*how could one be psychologically healthy if one is morally deficient?*" and counter it with "*if a player in a game virtually rapes a computer-generated character but never commits the rape offline, is that person morally deficient?*" They try to direct the focus of the future research to the individual's identity and their need for psychological parity with the character rather than the morality of the action itself.

Let us go back to the topic of emotions. Blasi (1999) presents the link between emotions and moral motivation by stating that "*moral understanding cannot fully explain moral motivation*" and referring to "moral emotions", that is sympathy, empathy, guilt, etc. Similarly to Young and Whitty, Blasi focuses on trying to provide explanation for moral motivation based on the emotion. This does not mean stating that emotions produce moral behavior, but they are acknowledge to influence behavior in general due to their connection to drives, needs and goals. Blasi quotes Frijda's "*No concern, no emotion*" which relates very well to the point I am trying to make about character and story design in video games. Furthermore, he encourages contemplating what motives emotions reflect rather than what effect they cause, although, most theories suggest otherwise (emotions seen as causes, not reasons). He comments on intentionality of emotions and how it helps us understand them in social interaction: "*Emotions do not simply arise and exist as psychological events; they are also evaluated and justified by the average person as reasonable and fitting*". Therefore, we can discern, for instance, whether a situation is appropriate to laugh (which does not mean one's actions will follow that reasoning).

> *An emotion is appropriate and rational, if it corresponds to one's perception and appraisal of the situation in which arises, and if perception and appraisal fit the situation (…) Fear is appropriate and rational when it arises in response to a dangerous situation, perceived as dangerous and therefore related to the person's concern for self-protection. (…) Guilt has a moral meaning, because or if it originates from, reflects, fits with the perception of the situation guided by the person's concern for morality.*

The point that he is trying to make is that moral emotions are or should be intentional. We evaluate the situation and adapt the emotion. But morality comes from shaping the natural emotions and motives, what is not an in-born feature of human being. Instead we learn it over time, and if we choose to amplify an emotion of compassion we can either engage in more moral actions or refrain from immoral actions. And finally, Blasi states that "*feeling guilty for acting against our moral values seems to be an essential part of caring about our morality*".

Coeckelbergh (2007) focuses further on moral emotions, and explores possibility of developing empathy in video games. The research concerns mostly violent video games,

based on the example for *Manhunt* and *Grand Theft Auto* (GTA). The author compares video games against Naussbaum's rules concerning empathy, originally intended for books. He argues that video games and books are not different from each other in the message they carry as a medium. He starts the discussion by describing research proving that violent video games influence behavior, yet later on he states that "*there is always space for human freedom*" and asks why games are seen as particularly morally problematic.

The most interesting part of this research is close study of empathy and how it may be influenced by video games. The author takes a standpoint that video games create good environment for developing empathetic emotions, similarly to literature, but with the benefit of their interactive nature. Based on Naussbaum as the main source he defines empathy the following way:

> *Although empathy can involve putting yourself in the shoes of a very happy parson, the term is often applied in the context of suffering (…) In most cases, we are aware of the differences between ourselves and the sufferer, there is no identification (…) One both imagines what it is like to be in the sufferer's place and, at the same time, retains securely the awareness that one is not in that place. We can use empathy with or without (feeling) compassion.*

This definition sums up very well what is generally understood by empathy. However, as stated in the beginning, it does not need to only refer to negative context of suffering and result in compassionate emotions. Empathy lets us understand people who are different from us, and *how* they are different and similar to us. Again, referring to literature and its capability to transport us to another world or character's life, we observe similarities in both media. Video games encourage exploration, which includes also moral exploration.

Coeckelbergh discusses many important issues encountered in video games, not only violent ones, such as immersion from identification with the character, which he states is easier in digital games because of the interactivity aspect. Therefore, he moves onto the significance of killing another player in the virtual world (being aware that controlling the other character is another person, not a computer). He comments on how virtual world becomes more and more high-fidelity towards the "real world" it is based on, and how people "trained" in that virtual world can adapt comparable attitudes outside of it. In case of violent games it can lead to "un-training" the empathy for other human beings, especially that most games do not link actions or choices with appropriate consequences (e.g. he mentions that some games reward killing innocent bystanders). The author goes as far as to stating that we are faced with world-scale disaster on a daily basis through news-providing media, which we are not adapted to deal with causing us to decrease capacity for empathy, and violent games make it even harder to develop empathy. As a remedy, he suggests linking violent acts with non-rewarding consequences, and quotes Kingsolver saying that violent acts in fiction "*must be embedded in the story of its consequences*", which, unfortunately, many games do not apply. After all, "*we cannot leave our character on the doorstep when we enter the world of the game*".

Lastly, among all the hurdles with morals and emotion identification, we cannot forget that video games as a medium is supposed to provide fun. Granic et al. (2014) collected all the proof on positive influence of video games in one place. They talk about various aspects of

benefits from playing video games, including emotional benefits, mostly in concern to the players' feeling of satisfaction triggered by the medium. One of the statements is that games make us happier, and that sort of positive emotions on a daily basis are extremely important, as they can help us broaden the sense of what is possible and motivations for actions. Moreover, games they give us sense of control, which leads to a hypothesis that what we are experiencing similar positive outcomes in the offline world, such as increased motivation in the face of failure. Vallerand et al. (2003) acknowledges the positive influence of harmonious passion on our attitudes. The also present the concept of obsessive passion, in which passion disturbs our lives rather than help them become structured. Wang et al. (2008) refers to that concept by carrying a study on passion in digital online gaming among secondary school students. They find out that in regards to gaming, people more likely to execute obsessive passions are parts of large groups of gamers where pressure to play is external, while others, not belonging to such communities are more likely to execute harmonious passion. In regards to single-player games, external pressure is less often therefore encourages the hope for most players expressing harmonious passion rather than obsessive.

For those unfamiliar with gaming, Granic et al. (2014) provide an overview of the medium, together with a chart (figure 2) classifying game genres, their representatives and properties (complex/simple, social/non-social). Even though their research is mostly mentions children, many statements are age-independent. It is also irrelevant in the case where they discuss cognitive benefits from playing shooters, since those sort of games are not supposed to be played by children. They use the positive effect of games on people playing them in order to convince parents and other people that games are not as perilous as they seem, and adults playing them maybe have indeed inhibited some behaviors (positive ones) thanks to this sort of entertainment.
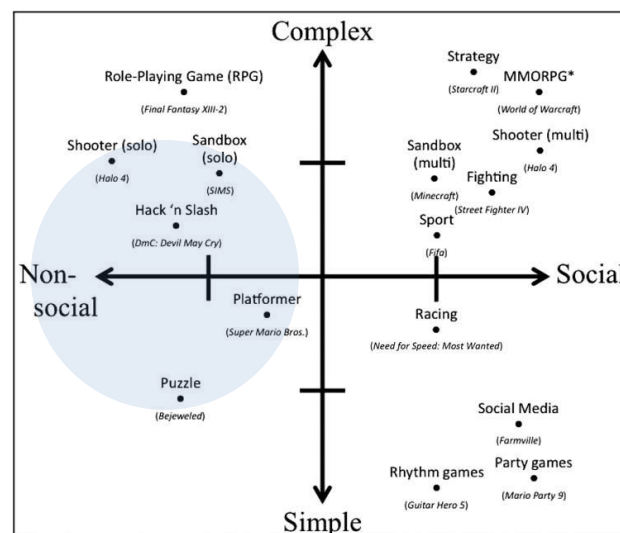

Figure 6. Game classification chart by Granic et al. (2014) with marked area of concern of this thesis.

Further they focus on the topic how games can be used in mental health interventions due to their potential to influence behavior. In the digital age games are much easier accessible than specified medical care. It does not mean games are supposed to replace help of

professionals, but games can be delivered to areas where access to medical staff is difficult, and potentially they would also help individuals who shy away from visiting a psychiatrist.

6   Emotions in video games

This section focuses on the design component of aesthetics (described in section *2.3 Mechanics, aesthetics, feelings*), and how it can be used to create emotions in the player. Emotional parts in video games are not uncommon, and one respondent (Respondent #2, Appendix 2a) said he would not play games if they did not have any emotional influence; however, emotion-driven games are an entirely different case and, hopefully, a new developing trend. Do we need them? Do we even want them? The following section will answer those questions and provide examples of emotional games to date, and the analysis of emotional game components.

6.1   Gamers versus emotional video games

The underlying secondary question in this thesis is "Why do we like emotions and drama in media at all?"; I proceeded to ask a few people that question[6] independently of their relations with video games. What I heard in return is that it is about "artistic expression" and "exploring aspects of humanity" and that large part of music and poetry are devoted to emotional stories. Drama gives stories and characters much more realism, admits another person, which might be why we tend to consider it as "fun". Artistic expressions have been in our culture for many hundreds of years, and in schools we are taught about them and to understand them. Perry (2006) mentions how emotions are one of the central concerns in video game industry, and that there are debates on whether or not video games can make us cry. Emotions, those of sadness, hope, empathy can enrich our experience with the medium; and according to another person, they have more impact on our ability to remember a particular book, movie or video game more. It is not unheard of that artist create to leave their imprint on the world to be remembered by something. However, despite Perry's claims about emotions being a concern in games, it seems rather uncommon to come across an emotional video game.

Online survey which supports this research asked participants whether or not they liked sad scenes in video games. 78% of respondents said they did like them, while one of them commented that only under condition that they fit the flow of the story and are not forced. Most likely that comment could be generalized to other responses as well. Surprisingly, only 2% (3 people) said that they do not like them, while the remaining 20% were neutral towards the issue or have not experienced such games. That indicated that emotional games are desired. As one of the respondents accurately pointed out "*The word "emotional" will mostly be applied to a specific range of emotions*", but it does not mean only sad feelings, it just signifies emotional experience on another level, the example might be a quote from Respondent #2 (Appendix 2a): "*I love some of the characters I love their relationships and some of the things the characters say/do which are positive and happy make me want to punch the air*". Another person commented "*happiness isn't really an applicable emotion to*

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[6] The question was asked informally and therefore the responses have not been recorded.

get out of games - playing Doom makes me feel happy, but I wouldn't call it an emotional game". In this case, the author of the comment refers to the traditionally-understood user-experience happiness, and discards it as a valid emotional state, therefore confirming my assumption about internal and external emotions. However, some video games can induce true happiness on a deep level, such as *Gone Home*, where as the player unveils the story he or she builds hopes because of strong empathy towards the main character, and eventually experience strong happiness to the point of "tears of joy"[7]. For many people, only investment in characters can cause such emotional experience (Appendix 2a).

Table 2 presents results of the poll concerning emotional games titles, listing most voted games. Full list consists of nearly 200 individual titles. Over 75% of them have been mentioned only once or twice, and therefore were not further researched for verification of relatedness.

Table 2. List of top 10 most mentioned game titles in the poll.

#	Title	Votes
1	The Walking Dead (2012)	23
2	Mass Effect series (2007-2013)	20
3	To the Moon (2011)	17
4	Bioshock: Infinite (2013)	11
5	Heavy Rain (2010)	10
6	The Last of Us (2013)	9
7	Brothers: A Tale of Two Sons (2013)	7
8	Journey (2012)	6
9	The Cat Lady (2012)	6
10	Tomb Raider (2013)	6

Some results have been removed due to not complying with the restrictions described in section 4.4 Narrowing down (e.g. localization of development team or game release date). Full list is available in Appendix 5.

6.2 Designing for emotions

After providing the proof that emotions in video games are indeed desired, I would like to focus on the next question which is: what are the components of an emotional video game. Despite some claim emotions cannot be designed (Hassenzahl, 2004), it is not entirely true, especially in the case of games design, which are quite unusual products. Even though, emotions are highly subjective, we have a general understanding of them; they can be manipulated, and game developers may, at the very least, try to design *for* emotions, meaning that a scene or a character aim to cause some emotions, whether is sadness, happiness, like or dislike. Some of those get very opinionated, for example some might express strong dislike towards a character whose morals they do not find appropriate, whereas, for others the same

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[7] Mentioned by user of GiantBomb forum (http://www.giantbomb.com/gone-home/3030-38327/forums/did-anyone-else-have-this-moment-spoilers-1449191/)

character may be relatable and likeable one. Characters can be designed to be loved or hated or be controversial. The mood is less partial.

6.2.1 Setting the mood

There are various elements that can influence the mood. The game's setting might play crucial role on its reception as emotional or not. Some say that "*Fallout* is like *Skyrim* but with guns instead of swords"[8], yet there is a fundamental difference in the worlds. *Fallout* has been listed as emotional by more people in the survey, as opposed to *Skyrim*, despite the latter being newer and currently more popular in the community of gamers (Beaudette, 2014). The setting of *Fallout* is a post-apocalyptic, destroyed world where people live in poverty and experience hardships. On the other hand, *Skyrim* is set in a rather prosperous fantasy world, where people's biggest threats are dragons, as opposed to bandits and environment in *Fallout*. Therefore, the player is more likely to feel compassion towards suffering people in *Fallout* and try to help them, making the game an emotional experience.

Hunicke (2012) talks about designing for emotions in *Journey* and finding ways to induce a feeling of fear or awe; she mentions music as one of the key components. The same belief is shared by another critically acclaimed game developer David Cage (2010), who says "we believe that music is about fifty percent, if not more, of the impact of the images" Commenting about the music for *Heavy Rain*. Not surprisingly, gamers also comment about the meaningfulness of music. One respondent refers *To The Moon* as an example, while another comments on *Skyrim*. "*The entire scene is set to a perfectly fitting musical score that really puts you in the moment*" said another person, about *Halo Reach*. From that it can be inferred that music has the ability to manipulate our emotions and set the mood desired by the developers.

It seems to be widely acknowledged part, as games like *Dear Esther*, *To The Moon*, *Brothers: A Tale of Two Sons* and above mentioned *Journey* use the music to tell the story. Music can significantly enhance the emotional experience (as it did for *Halo Reach*, and *Skyrim*, according to respondents) even when the games are not particularly emotional taking the wholeness of the gameplay. That particular music at that particular moment may have decisive influence on whether or not we will remember the experience as emotional.

6.2.2 Making characters feel human

In the talk titled "*We Care a Lot*" Robin Hunicke encourages the game developers to think of gamers as people, that could be as close to them as their families, instead of thinking of them in terms of downloads or as walking wallets. She believes that caring for the target group will help creating better games, with better characters, that will provide the games with an positive emotional experience.

It has been pointed out that females feel more invested in females characters (Griffiths, Davies & Chappell, 2003; Appendix 2a), which the industry does not portray very often in realistic light (Sarkeesian, 2013), and it is believed that realistic female character is more difficult to create (Portnow & Floyd, 2013; Anthropy, April 2012). Few video games manage to create a believable female character, but the add-on to *The Last of Us* called *Left Behind*

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[8] Also became an Internet meme http://www.quickmeme.com/meme/3s3n6h

has gained particular recognition in this aspect (Hudson, 2014). However, the representation of female characters could probably generate enough discussion points for a separate thesis.

Many video games lack relatable characters, for many reasons. Most common one is idealization. Despite emphasis on photo-realism of modern video games, developers seem to focus on creating characters with idealized bodies and personalities.

We do not see weak and fragile characters in video games. And there is a reason for that, idealized characters are empowering and help us become someone else and get away from the ordinary lives. It is one of the reasons for playing video games (Gayomali, 2011; Poels, Kort & IJsselsteijn, 2012) and it should not be taken away entirely. Instead, I would like to suggest a "rise to power" scenario, where the character starts weak and ordinary but gains abilities over time. This strategy has been used in the 2013 reboot of *Tomb Raider*, where the well-established video game heroine Lara Croft is shown as full-of-doubts inexperienced-in-combat young researcher during a field work. We observe her growth in strength as she needs to find ways to survive.

Some other games (e.g. *Far Cry 3*) also use "rise to power", however, unfortunately, very often the character ends up clichéd and overall stereotypical. A less direct "raise to power" can be observed in *The Last of Us*, the main male protagonist starts as an ordinary man single father of a 12-year-old daughter, working as a carpenter in construction industry – nothing special. In a tragic turn out of events his daughter is unjustly and accidentally shot when he tried to protect her. After that even narrative jumps twenty years ahead, and Joel, who lost his daughter, is shown as a capable man skilled in survival in the crumbling, infected city. The same game also depicts the "rise to power" of Ellie, the second main character, a fourteen-year-old girl who over time learns essential skills and is eventually is put to a test and proves herself as capable, earning gamer's affection.

Of course, "rise to power" is nothing new in video games, and is the base for most RPGs, such as *The Elder Scrolls* series, however it is usually implied that the character was special from the beginning, what serves as a reason to imbue them with superhuman or magical powers. Many video games would have started at exactly that point twenty years after, or make the character build inhuman skills overnight in despair from the loss; *The Last of Us* differs by not following that pattern, and thus gains top reviews by succeeding in creating a strong base for a believable character.

Nearly unheard of is a situation where the character starts weak, and does not build far superior or superhuman skills. One of such games is Heavy Rain, in which a happy ordinary family life is disrupted by a car accident in which one of their sons die. Two years later the other son, the only remaining one, gets kidnapped by a serial killer. The father, driven by guilt (for letting both boys out of sight), sets his goal to find the son no matter what, and goes through a series of painful tests set by the killer. Even the character's mental strength starts to crumble, proving he is just an ordinary man. The game portrays the extent of human motivation without making the character look superficial.

Another game where a weak character does not evolve is *Broken Age*, a recent point-and-click game. The male protagonist is shown as weak, ruled by his overprotective parents, teenage boy. Over time he frees himself from the parental control, but still stays childish and weak. The female protagonist in the same game, on the other hand, is shown as strong,

capable and independent, rebelling against her family's expectations of just looking pretty she aims at becoming a warrior (without inhuman skills). Nonetheless, there would be more such examples to be found in point-and-click games, since unlike action video games they do not usually involve direct fights against an enemy, focusing more on solving mysteries, therefore not requiring super-human characters.

Another essential aspect of a believable character is the script, characters' voiced reactions to events and dialogues with people. Even though, all scripts, unquestionably, are written by humans, it does not mean they consist of natural expressions that helps to create believable characters. More often than not characters end up being stereotypical, speaking lines full of clichés lacking freshness and credibility. Unusual well-thought-out scripts, such as *The Last of Us* and *Uncharted* series are extremely rare. Humans tend to be sarcastic, and comment on actions and mumble in random moments every now and then, outside of the "main events" of talking with other people. Characters in games do not do that very often, that is where *The Last of Us* sets example again (Voegtle, 2013).

In *Gone Home* script and voice were critical parts of the experience, as the story is being told by the character that is not present in the course of the game, despite being the main character. The narration comes in a form of a diary, whereas player's emotions are invoked by the voice and intonation of the narrator. Similar case if presented in *The Novelist*. However, *Brothers: Tale of Two Sons* and *Journey* have proved that the characters do not even need to speak a human language, as long as they are able to communicate in some vocal way.

6.2.3 Building relationships

A well-written believable story also shows the relationships between the characters. Of course, in any of the games the main character is never truly alone, but their relationships usually depict dependency on each other (superior - lower rank, commissioner – executioner, etc.) rather than friendship or affection.

Similarly *Shadow of the Colossus, Ico* and *To the Moon* focus on the characters' relationship, making the games very emotional (Weidman, 2013). *To the Moon* is not concerned with the playable characters' relationship, however, instead it focuses on a third-person's relationship in retrospect by exploring their memories, as it is in case of *Gone Home* as well. *Dear Esther* is also based on a retrospective story, however, narrated by the main character, and addressed to the mysterious Esther, as he speaks about his friendships and life memories.

However, affection is not the only character credibility-enhancing relationship that invokes emotions. In *Brothers: A Tale of Two Sons*, we get to experience the adventure of two teenage boys directly involving entire family. Both characters are simultaneously playable, and even though they do not communicate in any particular language the developers aimed to make their relationship and story clear to the player. Going together through the hardships of an unexpected adventure and their mutual support for each other is the reason why the game is emotional. *Resident Evil 6* among other games, shows the unfortunate emotional developments of the sibling as well as brothers-in-arms relationships in which they are forced to fight each other to death despite their bond.

There is also previously mentioned *Heavy Rain* centering on a story of a particular family. An even more real and down-to-earth story is presented in *The Novelist* – a game in which the player observes the daily lives of a family and discovers their desires, and makes decisions shaping their lives. An unusual mechanism in this fairly simple game is characters saying casual "hi, how are you?" when passing each other in the staircase, or that they stop to talk for a while, like real people would, unlike in other games where the characters speak only during scripted cinematics.

6.2.4 Showing consequences

In real life we are forced to constantly make decisions, about nearly everything, from whether or not we want to eat breakfast in the morning to the choice of future career. Unlike other media games give us agency to make our own choices (Portnow & Floyd, September 2013). In linear video games, usually, those choices do not significantly differ from one another, but even a decision about speed of movement and whether the character should run to the left or to the right is a valid gamer's choice. Not every choice will end up in a success (maybe the character will end up in a dead-end street and need to backtrack) as well as not every choice will have same impact level of consequences.

Let us focus on moral choices first, which do not seem particularly common in games. In most violent games the player is supposed to kill the enemies before they the controlled character, so the player does not consider the moral consequences of such action, after all, it is a fight for survival. Sometimes, however, games present us directly with a moral choice. According to the poll 94% of respondent said they faced a moral choice of some sort and liked it, while only 4% did not like it, and the rest have not played relevant games.

Whenever the player is faced with a moral choice they are prompted to evaluate their own morale and act according to it or oppose it (Respondent #4, Appendix 2a). Interestingly, 16% of asked would have chosen the "evil path", which most likely goes against their morals, while 84% would choose the "good path". One could argue that the "evil path" might be more exciting, however, some of the games explicitly favor the "good path" (e.g. *Dishonored*). Nonetheless, choosing the "evil path" might mean exploring one's morals, in a safe environment (Young, Whitty, 2011). Some respondents have expressed their doubts about choosing the side; however, the question was utterly hypothetical, and aimed to test how much players want to explore morals.

In regard to moral choices *Mass Effect* is one of the prime examples. Despite being classified as RPG, *Mass Effect* if fairly linear, allowing the developers to tell the same story to every player in the same way. This technique is called illusion of choice, and it suggests the player is making a meaningful decision, whereas the events in the game are already predefined and follow the same path (Portnow & Floyd, October 2013). Nonetheless, there will be smaller differences as consequences of player-made choices, in for example, relationships with other characters. In the above mentioned examples choices depend on our emotions towards a character or group of characters, which can be related to Zeelenberg et al. (2008) discussing the link between emotions and decision-making. Some games, e.g. *Fable III* or *Star Wars: Knights of the Old Republic* color the choices and explicitly show which choice is morally right and which is wrong in the game world, having the player consciously

choose between the options. Small moral choices in games can make the game more investing on an emotional level, as has been shown by the results of the survey.

Bioshock Infinite has also given some choice to the player, where the consequence was the reaction of the character following the playable character. *The Walking Dead* – the most emotional game, according to the poll (table 2) – features choices as its main mechanics. From the same developer, *Wolf Among Us* follows the same mechanics, yet in a different setting. Those choices might not have much influence on the course of actions, however they can significantly influence character relationships.

Some games, such as *The Novelist* or *Depression Quest*, are set in the modern world of ordinary people, and there are no "evil" or "good" paths, yet there are moral choices. Those are related to satisfying the needs of either a friend or a partner, or one's own. Only one choice is allowed, and it will result in one of the sides feeling neglected. However, those are the decisions we have to deal with in real life, and they are at various levels of severity. Those games allow to test those levels.

As pointed out by Coekelbergh (2007) it is essential to show the player that choices have consequences, especially in case of violent games. *Execution*, a short game mentioned by Anthropy (2013) shows the consequence of player's choice to shoot a non-playable character with a gun by depicting the character full of gunshot holes after the game is restarted.

One of the most interesting examples of showing consequences of actions is *Spec Ops: The Line*. Unlike some of the previously mentioned titles, this game is fully linear. It is a regular shooter on one hand, but on the other, it presents the story from the side most shooters do not. Even though the player does not make choices to see different consequences, the game depicts the consequence of fighting and spilling blood of the innocents. Instead of saving the world, like it happens in most shooters, the main character only makes it worse, thinking he is the protagonist fighting against "the bad guys". This game shows the consequences of wielding a gun, and starting a war.

6.3 Learning from video games

Similarly to several people before me (McGonigal, 2010; Highland, 2010; Hunicke, 2012; Portnow & Floyd, 2012), I believe video games can make us better people, if they address appropriate issues. Maybe sometimes we do not need to be a space marine fighting off hordes of aliens from the space. But it does not mean the character should always be a boring average person with no superpowers and nine-to-five job. There are many options in between, and some games manage to show them and be successful (e.g. The Last of Us, Gone Home). I would like to focus on those games which make us feel something, through empathizing with the characters, and showing us that we have choices that do matter and influence our relationships with others, causing us re-evaluate our morals.

As pointed out by Ian Bogost (2007) "*despite their commercial success video games still struggle for social acceptance as a cultural form*". Even seven years after he wrote those words they are still true (Walker, 2014). A representation of a gamer is that of teenage immaturity, even though gaming audience is mostly adult with average gamer age above 30 (ESA, 2013). By adapting the maturity level to the age of gamer community, games themselves can mature as a medium, and help the younger audience mature alongside of

them. In our busy lives we aim for quality entertainment, and it is high time gaming industry provides us with it. Bain (2013) comments that "game industry is still growing up; we're going thought a teenage phase now, where we're trying to work out what we want to do with the rest of our lives". *Extra Credits* team calls out to game industry to grow up, and to gamers to voice their desire for the industry to grow up (Portnow & Floyd, April 2012), as nothing will happen on its own.

Anna Anthropy in *Rise of Video game Zinesters* (2012) strongly encourages everyone to create video games. She states that video games should be considered an art form, like any other, and therefore accessible for everyone to create, outside of big publishers who monopolized the gaming industry. Anthropy seems particularly hostile towards commercial video games industry, constantly commenting on "small army of artists" working on each game, their main objective being "men shooting men in the face" and lack of mundane realism in the game. "*I want to hear about your hopes, your dreams, your fears. I want to hear about what it was like to put down your dog or to fall in love or to realize that something you thought controlled you hold no real sway over your life*" she writes; and her book is full of unusual, crazy or trivial examples of the games. Respondent #4 (Appendix 2a) approves of the variety created by the indie games, and admitted that AAA games have damaging influence on the medium due to their negative publicity.

In fact, there are more games I came across during this research, that I originally thought should exist, but since I have never heard about them I assumed they do not. The topic in those games, such as depression (Owen, 2013) or suffering (*Darfur is Dying*) should be vocalized more in bigger productions, as this is our reality – and if not ours, someone else's and games have the power to show us the perspective of others, more directly than other medium.

We hear stories on the news about suffering people but we do not care (reference "fuck the poor" article) as long as it is not us. What about the empathy, and proverbially putting yourself in another person's shoes? It seems that we say we care to fool ourselves into thinking we do care, while by our actions it does not seem like that. In everyday lives we do not actually get the chance to put ourselves on other's shoes. But in a game, we do. Twietmeyer (2009) says we are not used to thinking globally, and the amount of information flowing from different sources about the suffering in the world is overwhelming. I agree with that opinion, but I believe that video games could help us understand some of those issues, and teach us thinking globally, especially given the large worlds in games, if only they were given the same circumstances and mechanics are our real world, or ones that could be easily mirrored to the real world.

It does not mean taking the joy of action, violence and saving-the-world and replacing it with calm emotional scenes, like in *Dear Esther*. Incidentally, 4 out of 10 most emotional games according to the poll responses are shooters (*Mass Effect*, *Fallout*, *Bioshock* and *Metal Gear Solid*), therefore implying that a connection of a shooter with a decent story invoking emotions is possible. Since shooters have been proved to have positive influence on cognitive capacities of an individual (Granic, Lobel, Rutger & Engels, 2014; Kennedy, Boyle, Traynor, Walsh & Hill, 2011; Colzato, Wildenberg, Zmigrod & Hommel, 2012) that might be the

optimal solution to increasing benefits from videogaming. In the latest *Tomb Raider* the game developers focused on the emotional part, while also providing the player more shooter-alike mechanics (compared to earlier games in the series). One of the reasons why shooters improve cognitive functions, such as control and working memory, is detailed and fast changing environment (Colzato, Wildenberg, Zmigrod & Hommel, 2012). With the current level of photo-realistic graphics the complexity of the environment rises significantly. In fact some people reported that they feel more mentally exhausted after playing a photo-realistic game.

The AAA game developers should realize their influence on the society and aim to provide more depth in stories they tell through games. Looking at the amount of AAA titles being released each year and how just a fraction of them are considered emotional, in their storyline, is enough proof. On the other hand, the amount of game titles (over 150 titles) suggests that there are many games considered emotional, yet lacking popularity, or alternatively indicated subjectivity of emotional experience.

McGonigal (2010) talks about positive attitudes of gamers, and how those can help revolutionize the world; and Romero (2011) talks about games which help us understand certain events or social phenomena. She mentions mostly serious themes, therefore going into the area of serious games, which despite their serious theme are fun. Bogost (2007) presents the concept of persuasive games, which are also considered serious games and how those can influence our behavior. Michael Highland (2010) created a short movie in 2006 by the title of "As Real as Your Life" about how much influence video games had on him, and how they made anyone believe they can transfer the abilities from the game world to the real world, if given enough time. He encourages thinking about games being put to good use by saying "imagine a game which teaches us to respect each other or how to understand the problems we all are facing in the real world". Now is the time for those games to emerge. Not only because of the popularity of video games as medium, but also because there have been enough games created over the years which are not addressing the issue.

Video games allow us to test how it is to be someone else and experience their perspective, while being fully interactive and fun. That is why there exist a variety of educational games and concept of gamification. However, I believe, game developers should shoulder some of the responsibility of educating people, by trying to instill positive behaviors and attitudes in their audience through gameplay, after all they are professionals at what they are doing and know best how to create an immersive experience. Immersion is only one of the concepts, and empathy another important one, but often ignored. Indie game developers can make the AAA game developers notice the importance of emotions and empathy. This study has shown that people approve of those, therefore suggesting that the community is ready for a breeze of fresh air from moving away from tested formulas. Game developers can make us learn to understand other people and make choices better without us even realizing we are learning.

I do not mean only serious games set in real life. There is much more to enjoy from emotional games than empathy and moral choices. Among all the reasons for emotional games revolution let us not forget about the pure enjoyment of emotions, and music which contributes to them, as it is in case of *Journey*. Emotions on a deeper level enhance our

experience in games, and therefore game developers should pay more attention to designing them.

There are mundane games such as *The Novelist* (about family life), *Homeless* (depicting how it feels to be homeless) or *Social Dysphoria* (being transgender)*, Depression Quest* (about living with depression), *Darfur is Dying* (Bogost, 2011) (about the life of oppressed people in Arrfica) or the upcoming *That Dragon, Cancer* (about struggle the parents put when their child is diagnosed with terminal cancer) which communicate information about the real life, and how people are going through problems, invoking empathy. It has been proved that teenagers and young adults suffer from lower self-esteem than older adults, and a concept of self-compassion has been presented as a remedy (Neff & McGehee, 2010). Through empathizing with the characters in video games and living through their stories they can help people train self-compassion. As I discussed before, most characters in video games have super-human abilities, while most of us do not in real life. Instead of retreating to games because real world make us feel worthless and inadequate (Portnow, 2012), by showing weak, ordinary-people characters, games can help exercise self-compassion and build self-confidence that can transcend to the real world.

Emotional games should be independent of mechanics defining the genres, that is I would like to see more emotional action-adventure games like *Brothers: A Tale of Two Sons*, or emotional exploration games like *Gone Home*, where we learn about other members of family, or interactive story like *Heavy Rain* or *The Walking Dead*, or shooters like *Mass Effect or Spec Ops; The Line*, with main mechanics on one side and story on the other, or strategy games like visual novels originating from Japan, where the player interacts with other characters trying to get their sympathy, and eventually gets one of multiple endings based on the choices.

This way everyone could choose what pleases them the most, but it is also important to remember to build a harmonic passion (Wang, Khoo, Liu & Divaharan, 2008) with the games, and therefore facilitating taking the positive aspects out of them, without falling into compulsion and retreating from the world (Portnow, 2012).

7 Discussion and limitations

During doing research for the thesis I encountered several limitations which influenced the results. First of all, time was a big restriction, which had significant influence on the online poll. As a single author of this thesis I could not process as much data as if given more time or help from other people. Therefore, the poll was closed after 139 submissions, and not re-advertised again. It was kept short and very general for two reasons. One of them being the fact that the poll was only a secondary way of obtaining data which could not be found in literature, and the second reason was that I believed a short poll will result in more replies rather than longer detailed one, since the participants were not rewarded with anything for participation.

Time restrictions have also influenced the decision to resign from reading books, as there is a multitude of books about video game design as well as emotions, and focus on articles which generally are shorter. I did, however, read some books in full and selected chapters

from others. In fact the books seemed to include more meaningful content than journal articles in regard to my area of concern. However, it was a requirement from the department to use a certain amount of journal articles as references, which put articles higher in the priority list rather than books, even if they were less related than books.

Availability was also an issue as not all of the books would be present at the library. To my surprise, I also encountered availability issues with online access to journals and articles, which apparently expanded beyond the university's license. There is no guarantee that those articles would be useful, however their titles would have passed through the required keyword filter. Unfortunately, some abstracts were not descriptive enough as to inform of actual relation to my area of concern.

Another issue was inaccessibility to some games is their price. Digital games do not belong to the cheapest forms of entertainment. Gamers usually purchase games over time, and sometime plan ahead for bigger expenditure on a newest title. Being a student, I could not afford buying full-price games from my own funds for the sake of this research. Luckily, during the research time some games were put on sale (many online game stores organize weekly sales), and thanks to that I gained access to a few of them at significantly lower, and affordable price.

In regards to the methods of user study, many research papers I read involved more complex user study rather than a questionnaire or interviews. As a next step, it would have been interesting to be able to do more extensive study in which long-time gamers would be asked to play specific games considered emotional, and ask whether or not the game has influenced their feelings of empathy towards people similar to the character in the game or moral view of the world, such as showing that no action stays without consequences. That study could also involve teenagers playing violent video games as opposed to emotional ones and asking for their opinions and perception of the world afterwards. In order to do that a search for appropriate participants would need to be carried on, and equipment would need to be provided. It could also have been done with providing the gamers with recommended games and ask them to carry on a diary, where they would note amount of hours spend in the game, level of excitement, identification with the character and their impressions after a session to monitor a potential change in attitude. Such study would preferably be carried over duration of at least six months and involve more than one average-length (7-15 hours) video game, as opposed to the short games I researched, and help to prove the hypothesis I am describing in my thesis. Obviously, lack of access to distributable equipment and participants, as well as time restrictions have made such form of study impossible. It would also beextremely interesting to carry out a long-term study, as suggested by Granic et al. (2014) where the measurement starts before children are exposed to video games and compares the influence of games on their personality development over the years.

What I most struggled with during the time of writing the thesis was adapting the content to the vast audience. Very often I have found myself relying on "common gamer knowledge", that is things that are obvious and easily understood by gamers, but entirely foreign to non-gamers. I tried to describe the concepts relating to video games as clearly as I could, however I have been pointed out that sometimes it was not enough. As a result the thesis contains quite substantial *Background* section which required additional research (and therefore

time) and struggling with explaining concepts which seemed very basic to me. Have the audience consisted of people familiar with gaming, the thesis would probably have taken a different shape and more focused content. Finding the right tone, level of detail of explanations, and sources documenting "common gamer knowledge" were definitely the biggest hurdle.

As an end note to the discussion, I would like to add a quote from Bogost (2011)

> *Games – like photography, like writing, like any medium – shouldn't be shoehorned into one of two kinds of uses, useful or useless. Neither entertainment nor seriousness nor the two together should be a satisfactory account for what videogames are capable of. After all, we don't distinguish between only two kinds of books, or music, or photography or film.*

8 Conclusions

In this thesis I went through a number of topic surrounding emotional video games. In the beginning I explained why video games are important to focus on and defined my research field to a particular type of linear single-player video games. I presented a combined definition of an emotional video game based on the respondents definition submitted in the online poll. Further, I described related research, which laid grounds for the thesis.

Through literature study and empirical study I aimed at answering the questions of 1) how single-player video games designed for emotions can positively influence our attitudes of behaviors, 2) why emotions are important, 3) how video games can be designed to influence emotions and 4) what is an emotional game. I have asked the gamer community about their opinions on the topic, which were later used to analyze modern video games, and find key elements which make an emotional video game that can educate people in being more understanding towards others. The study was based on examples of games which are considered emotional and meaningful, framed with the theory on correlation of emotions, morals, decision making and behavior. I defined the key aspects of emotional video games: characters, relationships, mood, and choices with consequences. I also discussed why game developers should care more about providing worthwhile and emotional experience at a deep level. I stated that due to their wide audience game developers have responsibility of managing this strong persuasive medium, and that they should start to realize that.

In the last section, I addressed the limitations of the study in terms of time, costs, and other factors. In that section I also presented the potential for further large-scale user study, which would focus on documenting benefits I suggested in this thesis.

As a final word, I would like to express my hope that I have fulfilled the goal of this thesis, which is inspiring the readers to find a new perspective on video games and their potential. I want everyone to understand that games do not have to be labeled as serious or educational to educate and that commercial games do not have to provide only mindless fun. There are many lessons we could learn from video games, if only they are carefully crafted by those passionate about the medium and its audience.

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Appendix 2: Conversation transcription

Part a

Interviewer

The thing is: what's the point of drama in media such as movies, books, and games? For a particular example I was thinking about Chris's campaign in *Resident Evil 6*, and that's why I decided to message you, because I think you played it and you have some opinion about it. For me, end of that campaign was probably the most emotional gaming experience ever. Did you like it? Did you get annoyed by it? What's the point? Why did they decide on such a plot?

(Referencing other games is welcome, and well, the general aspect of why do we want/need/hate media to make us feel sad, or feel anything at all.)

Respondent #1

I guess the media is about artistic expression and also about exploring aspects of humanity through character development etc? This gets watered down a lot in video games though...

I suppose drama is fun - on the one hand we wouldn't want to hear about something we do every day so fighting zombies etc. is cool. On the other hand it raises adrenaline levels etc? I mean I think that successful media makes us feel this way. I was a lot more invested emotionally in Sherry and Jake's relationship in *Resident Evil 6* than I was in Chris and Pier's. Perhaps that is because I naturally feel more invested in stories with female characters (about 80% of the time).

So for the people who create stories etc. it's a form of escapism - it is for the audience as well. For some reason we find enjoyment in telling stories we have done for thousands of years. It's a way of reinforcing societal norms or challenging them and also passing down things that are important. (I think the *Odyssey* and *Illiad* were by word of mouth for years until someone wrote them down). So I'd say those are the motivations behind reading and writing stories: escapism, evaluation, development... not so sure why we enjoy them? We're sadists?

Respondent #2

The interesting thing about *Resident Evil 6* is I thought that Chris' campaign was the worst of the three campaigns and I didn't really like Piers all that much as a character, again the worst out of the three new characters. Yet, somehow they managed make me really care for him by the end, making the end of their campaign the highlight of the whole story.

Personally, I like games, movies and books that have drama in much more than those that are just action or little plot. I get much more involved in them if they have good characterization, probably because the characters start to feel real; like you know them and the thought that you might lose them makes you want make sure they get out safe.

I also think it's because you get to almost live another life, to experience things that you wouldn't normally do, like being in a zombie invested town or being in the middle ages, it takes you away for the normality of life. Much like going on vacation to rejuvenate your body, expecting fictional worlds has the ability to rejuvenate the mind.

But the stories that are best normally have familiarity to them as well. Take *The Walking Dead*, now for me that is an incredible TV show because it's obviously something out of the

ordinary that I've never experienced or wouldn't know how to react to: zombies. But at the same time it's going for the emotions of the characters, how they feel, how difficult it is to survive, the constant fear that someone they love will die. Now that is much more relatable, most of us have people in our lives that we don't want to lose and it's quite easy to imagine what it might be like to have to go scavenging for food.

That is why I think drama is important, it's what grounds you, what make the fake world seem like it just possibly could be the real world, but with the knowledge that you're really safe, so you can experience these things freely. A bit like how we dream I suppose.

Respondent #1

It's interesting that all 3 of us took something different from *Resident Evil 6* - perhaps that is what is important about drama and the story-telling process etc. It's not separate from our personalities. Different people can play/watch the same thing and process it in entirely different ways for different reasons even when the material is unchanged.

Respondent #3

We all love to be inspired, always have (going by what [Respondent #1] said, we've been telling stories for centuries, games are no different).

Interviewer

[Respondent #3], what do you mean by inspired? How can you get inspired by someone dying?

And all fiction stuff aside, it's pretty obvious that we like the excitement of things that are unreal in this world, and that's how it's always been with stories. But do we REALLY relate to drama? I was thinking about *The Walking Dead* today, and it's insanely emotional show, but it's also partially because it's been running for a while, and we got to know characters. Would them dying really have any impact on you if all of them got wiped in the first season. We can relate to the fear of losing someone close. But for the most part, our lives are happy, and the "disease" of the 21 century is loneliness, and that's not exactly lethal. And we have our "first world problems", which kind of implies most of our lives are happy. So realistically, to what extent do we really relate to what we see? And to what extent it is actually beneficial for us?

And like [Respondent #2] said, the scene between Chris and Pierce makes people care about characters they never really did before that scene. So why do we care? This is a very unlikely situation to happen, this epic "I sacrifice myself for the greater good". There's a bunch of stories about heroes and sacrifices, but why do we really care? Or are we just happy that it's not us?

Respondent #3

It's inspirational if someone dies, sacrificing themselves so another can live, etc. It's just... empowering and nice to see.

Also, I think the human brain just likes to known it's in tune with emotion.

Interviewer

In tune with emotion? I don't fully get it... Example?

Respondent #3

I don't know. It's in our very human nature. It's nice to know we have emotions - to know that we have been touched by a tale. It is what makes us human, after all.

Interviewer

Don't you think that, in a way, we tend to bind those emotions "which make us human" more with such ones sadness, which trigger some sort of empathy rather than happiness? Is it then just about balance and contrast?

Media are more likely to show some negative/sad scene which eventually makes us relieved. But they are quite unlikely to scale up happiness levels - would it be boring then? Seeing only happy characters?

Respondent #1

I don't know in *24* I love some of the characters I love their relationships and some of the things the characters say/do which are positive and happy make me want to punch the air. Same as when two characters I want to be together finally do get together I feel an elation if I'm particularly invested in those two characters and their emotions - *a la* Jake and Sherry.

Sorry if the *24* reference is random it is probably the show where I have felt invested in the most characters and platonic relationships

Interviewer

Yeah, well, that's true. And sometimes those good stories can make you have a better day and be happier, but at the same time feeling sad because of seeing/reading something doesn't have such a long-term effect. At least not on me. I watch something, I feel sad for a while that is lasts and a bit longer, and then I forget. But isn't it just because of the relationship with the characters you have? You want to see them happy the same way as you want to see your friends happy. And especially in TV shows, that's usually a lot of time to build that relationship. In games usually you don't get that much time (of course it depends).

Respondent #3

It's all entertaining. I love all kinds of expression. I am also one of those people who will cry when it's sad or happy.

It's all so very entertaining, though. Rain or shine. I love it all. The juicier the better.

Interviewer

But why? Is it because you don't experience that much in your own life so you need variety?

Respondent #3

Such a tough question... I don't think I need for variety. I just NEED to watch a movie. I am obsessed with movies. I get cranky if I don't watch one movie a day.

Respondent #1

I don't know I think the end of *LOST* made me cry for a good hour even though I don't think the show is that good. But that could have been hormones Also a death in one episode of *24* made me feel sad for *ages*. I generally have to watch another episode of something light-hearted to perk up again.

Sometimes I am also happy because of the message being portrayed. I brought up *24* because it has a lot of good female characters and supports very liberal values at times. When the female president did something cool I was so happy but it wasn't because *she* got anything out of what she was doing, but because it was in line with my own values and was so refreshing to see on TV (because I am disappointed with TV's portrayal of women and politics a lot of the time).

To be honest, I need to be involved with the characters and writing to feel either happiness or sadness from shows, if I can poke holes in one of those it annoys me very quickly and I can't get emotionally invested.

With video games there is more engagement so poor storytelling etc. can be ignored more.

Need to catch up on *The Walking Dead* but it's almost become *too* gory for me. I dislike a lot of the characters and if the ones I do like die I will be very sad. I guess I have a tipping point where being sad/upset outweighs any gain I get from the story?

Interviewer

But then in videogames, do you actually like seeing any emotional scenes? Would you like to see more? More characters that you can relate to instead of endless wars and hacking and slashing through enemies (in whatever human or non-human form they are in)?

Respondent #1

When I first started playing games properly again at about 14 I needed the story more than the game. With the *Devil May Cry* games I was playing purely to see the story - and the same with *Resident Evil 4* because it scared the shit out of me. Now I don't need it so much. With games like *Devil May Cry* and *Resident Evil* it is still the main draw but because I am invested in the characters. Otherwise... it's interesting.

My favourite game this year was specifically the DLC [additional content] of *The Last of Us* because you play as Ellie who is amazing and has a deeply emotional connection with another character in a really well done way. She is the best representation of a female character in a game I have seen so far and so is the other character in which there is a relationship. Joel (the main character of *The Last of Us*) is in it, but barely. It focuses purely on a relationship between two women (same reason I was so impressed with *Frozen* moving the main relationship from a man and a women to two women).

That DLC is story heavy, but the story was SO good I didn't mind too much. However I have been playing the multiplayer of this game for ages. It is really simple, but I will go through patches of playing only that for about two hours a day... there is obviously no story and it's incredibly repetitive.

So with games perhaps there is a balance? If I am not into one aspect of the game the other might save it. If I am not enjoying either then it will fall apart. *The Last of Us* was an amazing game in itself because of the story... But I am competitive and good at the online game and I find it challenging...

The other game I am playing at the moment is *Beyond Two Souls* and to be honest whilst I want to know what will happen (I'm about half way through) the story and gameplay are just not as rewarding as *The Last of Us*. *Beyond Two Souls* is basically just a slightly interactive movie and whilst the story is interesting it isn't AMAZING... I think I would be happier with it if it were just a movie because playing it is annoying, but I am sure I'd have loved it as a film... However it is innovative and allows for them to experiment with a new form of story-telling which would not work in cinema.

I don't know if that answers your question? Both aspects are important to me, but to what degree I'm not sure? If I go to pick up a new game it will more likely be based on story...

Respondent #4

I believe drama in media makes us think and rethink/reevaluate our own values, ethics and morale. *The Last of Us* is a perfect example for this. For me, it raised questions such as "What would you do if you were in Joel's position?" and "Does humanity deserve a vaccine at this point? After everything that has happened (in the game) is it worth sacrificing Ellie's life for a vaccine that might not actually work?". It also made me question the Fireflies and their motives wondering whether, if they did get a vaccine out of Ellie, would they just give it away freely to save humanity, or would they use it as a tool to secure a position of power for themselves and only give the vaccine to people who support them?

And that's also what I'm looking for in games these days. I'm so tired of shooters where you're not even expected to use your brain and think. I prefer relatable characters and a good story, where violence and endless shooting is not the be-all and end-all. (Let's use *Dishonored* as an example for this: one thing I loved about that game was the concept of low chaos/high chaos - the more violence you use, the darker the world gets, the worse the outcome of the game will be. Refrain from using violence and things will get better.)

As for emotional scenes in games, I like them when they're done well and if the characters are believable. Since you mentioned the end of Chris' campaign in *Resident Evil 6*, sure it was sad but for me it was more along the lines of "aww, I would've liked to see that character again in another game. bummer" but not exactly sad because of his sacrifice. Maybe a little sad for Chris because he keeps losing people he cares about. Also, by the end of that campaign I was rather annoyed with how drawn out the boss fight was to really care about what else was happening (all the fights in the game, really. don't even get me started on Leon's campaign). I guess my point is that (bad) game design and gameplay can also have an impact on how effective emotional scenes are. I'm gonna use *The Last of Us* as an example again, because I'm biased and the characters are perfect. When talking about emotional scenes in that game, the obvious one that comes to mind would be Joel losing his daughter in the beginning. It was awful and shocking and left me speechless for a while. What's striking about this scene is that, with everything that's going on at this point in the game, it's not one of the Infected that kills Sarah, it's another human. I think it's relatable in so far as 1) we all know about the bad things humans are capable of and 2) just imagine what it would be like to lose a family member that way. However, one scene that surpasses that one, for me, would be Joel and Ellie's reunion in Winter (http://youtu.be/OBZXBldMMgE). If you've played the game, I'm sure you know what a big moment that was for both of them, in terms of character development and in their relationship. It's even more effective if you keep in mind the scenes that follow in Spring, and how different both of them behave. Now I feel a little bad because all the examples I mentioned are sad emotional scenes, but the game is also full of happy emotional scenes. The DLC that [Respondent #1] mentioned is full of them, too, and I adored every single one of them.

So again, what I'm trying to say is, just having a scene be "emotional" is not enough. First, you have to make me care about the characters. If I don't care about them, if they're too over the top, their fate can be the cruelest ever and I still won't care. Example: everything bad that has happened to the characters in *Doctor Who* (starting from series 5). I don't care about any of them because the characters are flat, the writing is terrible and Moffat sucks; or *Mass Effect 3*, the little kid that gets blown up by the Reaper on Earth in the beginning. Apparently,

that was supposed to make us feel sad or something. Didn't work. Believable characters, and maybe more importantly, believable relationships are essential if you want your emotional scene to work.

Interviewer

This is actually interesting. There's more and more of those experimentation games, mostly for the PC, where you don't have any characters and just discover the story through the surrounding. People are getting all excited about them, at least some. But from what you said it seems out it's more important to have character-driven story, and that there still needs to be some level of challenge, and decent mechanics, at least for actual gamers.

Respondent #4

I'm really glad those games are becoming more popular. It's like a breath of fresh air in a medium that is in dire need of some new ideas. Then again, I guess the ideas are already there, it's just that most people/gamers are so used to the same old concept getting rehashed in every AAA game that they're unwilling to take the risk and try something completely new, especially if not every little detail of the story is spelled out for them (not to mention the damaging effect the whole AAA business has on video games, but that's another story I guess).

Journey on Play Station 3 is one of my favorite games, and it's only 2 hours (and only if you take your time). Come to think of it, *Journey* is a good example for another kind of games, that seem to be slowly getting more popular, which is games that don't really have a story at all. With them, what you get out of it depends mainly on how you interpret the game, and what it means to you in the end. Another good example would be *The Stanley Parable*. I really hope we'll see more games like it in the future.

Interviewer

It kind of makes sense that AAA game companies don't want to risk, given how much they invest in games. But I'm surprised that people aren't getting tired of those games. I just read an article that *Destiny* is estimated to cost 500 million dollars, and that's just insane. How much of a rumor it is, I don't know at this point.

It's interesting that you mention *Journey*, as I'm also planning to refer to that. I'm hearing all the good things about it. As part of my research I played a demo of *Stanley Parable*, and I didn't really like it. Maybe the game itself gets better. *Gone Home* looks much more involving. Unfortunately both are very expensive.

Question to all: What was the most emotional game you played? Or the most emotional scene (which game)?

Respondent #4

The amount of money invested in AAA games these days is absolutely ridiculous and completely unnecessary. Yes, it does make sense that they don't want to take any risks because of all the money they put into it (and hope to get out of it again), but I believe that in itself is very counterproductive and keeps video games as a medium from evolving further.

From what I remember from the *Stanley Parable* demo, it merely gives you an idea of what to expect in the full game, as in there's a narrator but no story and it might toy with your emotions and your mind, most of all. The game itself is satire and I think it was brilliant. While I do admit that it's hit or miss, I would still recommend giving the game a try. Maybe wait for the next Steam sale to get it cheap. As for *Journey*, I could gush about that game for

hours (and the soundtrack, do listen to the marvelous soundtrack!). What you get from the game completely depends on your interpretation of it. While most people seem to really love it, I've also read many comments from people who say it's pretty graphics (stunning, really) but nothing else. *Gone Home* is another game I'd also like to play some time.

As for your question, most emotional game for me would be *Final Fantasy X*. Playing it makes me all warm and fuzzy inside and then rips my heart out at the end. I love it so much. (And once again, it's all because of the characters. Good characters are so important.) And again, *The Last of Us*, for all the reasons I've already mentioned above. And *Mass Effect 3*, despite its lackluster ending, was a very emotional experience as well. Both happy and sad.

Respondent #1

I think the *The Last of Us* DLC where you know there is imminently going to be a romantic situation even though it's only hinted at throughout was really good. It wasn't necessarily sad in the way of crying, just it was so well done the whole scene was electric.

The end of *Final Fantasy VII Crisis Core* really got me because anyone who knows the mythos knows Zack dies and they really played on that: You have to blast through Shinra soldiers knowing that this is the character's final stand because you have seen it before from Cloud's point of view. It also builds up the relationships between Zack and Cloud etc. throughout so it's pretty traumatic by the end of the game

Part b

The conversation has been translated from Polish by the interviewer.

Interviewer

Hey, I've been wondering what's the deal with emotions in video games, what's the point? Moments like the ending of *Devil May Cry 3* for instance. Personally, I love this drama, but does it help anyone?

Respondent #5

I think it's the same as in other media (books, movies), if you think about what happened there you develop your empathy, understanding of others, you learn something new you couldn't/wouldn't want to experience yourself. Of course, there a whole bunch of simpletons who don't care at all.

In my opinion, such experiences, as long as you understand them, broaden the horizon. For example the fantasy community [people interested in fantasy books and media] is much more open-minded than regular people.

Interviewer

Yeah, that's what I thought, but is it really like that? It's still an unreal world there. For example in Resident Evil 6 there was a scene where I nearly cried, I couldn't utter a word for some time, but what does it give me? Am I just happy it's not me in that world?

Respondent #5

So what if it's unreal? The best fantasy is one that has consistent world with its own rules, which it obeys. Then it is a reflection of our world, very different, but there are similarities.

That's what it is about. Thanks to such things one learns to see things from the point of view of others. Maybe it's not particularly visible looking at gamers though...

At least, that's how it should work in theory. But probably it doesn't work on too many people. An ordinary person immerses oneself too little in a medium to understand more from it. I notice that interacting with my colleagues at work.

Appendix 3: The Survey

Gender*
- □ Male
- □ Female

Age*
- □ 16-20 years old
- □ 21-25 years old
- □ 26-30 years old
- □ more than 30 years old

How much time do you spend playing video games?*
- □ less than 10 hours a week
- □ 10-15 hours a week
- □ more than 15 hours a week

How would you define the concept of "emotional game"? (optional)
(First things that come to your mind after hearing the term. Short answer is fine.)

Do you like when video games include sad scenes?*
- □ Yes
- □ No
- □ I don't care
- □ I haven't played any games with such scenes

Do you like when video games include moral choices?*
(e.g. whether or not to help certain NPC or kill an NPC who just helped you)
- □ Yes
- □ No
- □ I haven't played any games offering such choice

If you had a choice to play as evil or good character, which would you choose?*
(Concerns the path choice on the first playthrough.)
- □ Good
- □ Evil

Imagine a game that has quite heavy atmosphere, and gets quite serious and/or sad at parts. Would you rather play it alone or with a friend?*
(I know it depends on the mechanics, type of game etc. But choose your preferred setting.)
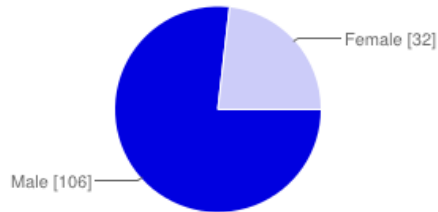- □ Alone, this way I can get more immersed in the story and "the feels"
- □ Co-op with a friend, so that we can discuss the story in real time
- □ Co-op with more than one person (not necessary a friend) so that we can chat and laugh

Please list at least 2 video games titles you played that you consider to be emotional?*
(It's okay if it was just a specific scene you remembered from a mostly non-emotional game.)

Appendix 4: Results of the survey

Gender

Female [32]

Male [106]

| Male | 106 | 77% |
| Female | 32 | 23% |

Age

more than 30 [52]

26-30 years [37]

16-20 years [11]
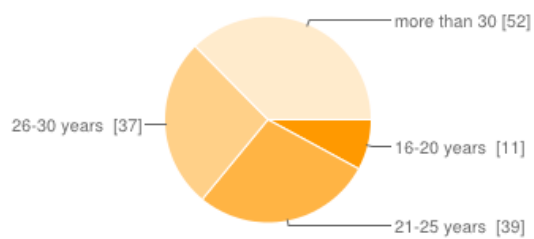
21-25 years [39]

16-20 years old	11	8%
21-25 years old	39	28%
26-30 years old	37	27%
more than 30 years old	52	37%

How much time do you spend playing video games?

more than 15 [48]

10-15 hours [41]
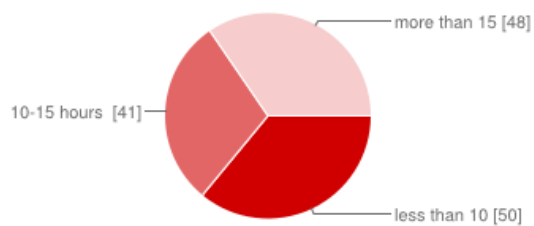
less than 10 [50]

less than 10 hours a week	50	36%
10-15 hours a week	41	29%
more than 15 hours a week	48	35%

Do you like when video games include sad scenes?
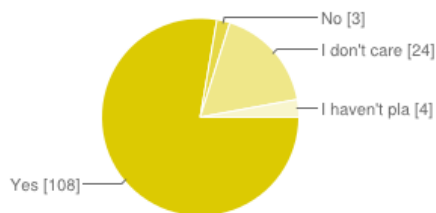
No [3]

I don't care [24]

I haven't pla [4]

Yes [108]

If you had a choice to play as evil or good character, which would you choose?
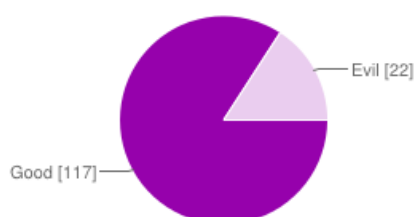
Evil [22]

Good [117]

| Good | 117 | 84% |
| Evil | 22 | 16% |

Do you like when video games include moral choices?
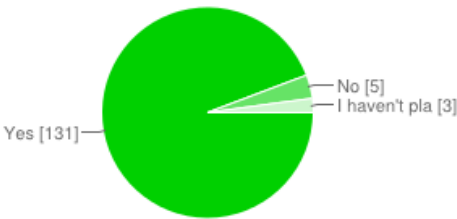
No [5]
I haven't pla [3]
Yes [131]

Imagine a game that has quite heavy atmosphere, and gets quite serious and/or sad at parts. Would you rather play it alone or with a friend?

Co-op with a [24]
Co-op with mo [0]
Alone, this [115]

Alone, this way I can get more immersed in the story and "the feels"	115	83%
Co-op with a friend, so that we can discuss the story in real time	24	17%
Co-op with more than one person (not necessary a friend) so that we can chat and laugh	0	0%
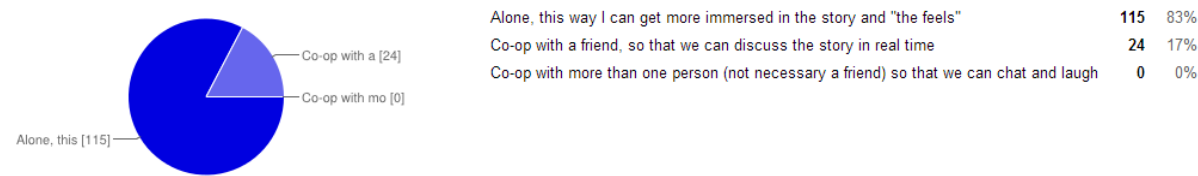
Appendix 5: List of games

List of all games from responses to the survey. Individual titles from the same series have been concatenated.

#	Title	Votes
1	The Walking Dead	23
2	Mass Effect series	20
3	To the Moon	17
4	Planescape: Torment	15
5	Bioshock series	12
6	Fallout series	10
7	Heavy Rain	10
8	The Last of Us	9
9	Metal Gear Solid series	8
10	Brother: A Tale of Two Sons	7
11	Silent Hill 2	7
12	Syberia	7
13	Tomb Raider (2013)	7
14	Dear Esther	6
15	Journey	6
16	Starwars: Knights of the Old Republic	6
17	The Cat Lady	6
18	The Elder Scrolls series	6
19	Spec Ops: The Line	5
20	Dragon Age series	4
21	Gone Home	4
22	Grim Fandango	4
23	Max Payne	4
24	Portal	4
25	Resident Evil series	4
26	Shadow of the Colossus	4
27	The Witcher	4
28	Arcanum	3
29	Baldur's Gate	3
30	Blackwell series	3
31	Cognition series	3
32	Dreamfall: The Longest Journey	3
33	Gabriel Knight series	3
34	Limbo	3
35	Machinarium	3
36	Primordia	3
37	Red Dead Redemption	3
38	5 Days a Stranger	2
39	Alan Wake	2

40	Amnesia: The Dark Descent	2
41	Beneath a Steel Sky	2
42	Beyond Good and Evil	2
43	Borderlands (1 & 2)	2
44	Braid	2
45	Catherine	2
46	Devil May Cry series	2
47	Diablo series	2
48	Dishonored	2
49	Fahrenheit (Indigo Prophecy)	2
50	Gemini Rue	2
51	Half-Life 2	2
52	Halo series	2
53	I Have No Mouth And I Must Scream	2
54	Kotor	2
55	LA Noire	2
56	Lost Odyssey	2
57	Mother 3	2
58	Papers, Please	2
59	Penumbra	2
60	Resonance	2
61	Sacrifice	2
62	Sanitarium	2
63	Tales of Symphonia	2
64	The Dig	2
65	The Wolf Among Us	2
66	Thief series	2
67	3 Skulls of the Tolteks	1
68	Advent Rising	1
69	Aion	1
70	Anvil of Dawn	1
71	Aselia the Eternal	1
72	Assassin's Creed: Brotherhood	1
73	Bastion	1
74	Baten Kaitos	1
75	Ben Jordan series	1
76	Beyond Two Souls	1
77	Blackout	1
78	Blade Runner Riven	1
79	Botanicula	1
80	Chrono Trigger	1
81	Clannad	1
82	Cognition: An Erica Reed Thriller	1
83	Commander	1
84	Crisis Core	1

85	Cryostasis	1
86	Dark	1
87	Dead space	1
88	Depression Quest	1
89	Don't starve	1
90	Dust: Tales of Elysian	1
91	Ecco: Tides of Time	1
92	Eternally us	1
93	Fez	1
94	From Dust	1
95	Godzilla	1
96	Good Morning	1
97	Grandia Tales of the Abyss	1
98	Gray Matter	1
99	Kana - Little Sister	1
100	Katawa Shoujo	1
101	Legacy of Kain (some scenes)	1
102	Legend of Zelda Majoras Mask	1
103	Lilly looking through	1
104	Lone Survivor	1
105	Mafia: The City of Lost Heaven	1
106	Malcolm Corley (Full Throttle)	1
107	Martian Gothic (PC)	1
108	Metro 2033	1
109	Metro Last Light	1
110	Mirrors edge	1
111	Montague's Mount.	1
112	NetHack	1
113	Neverwinter Nights 2	1
114	Nier	1
115	Nightmares From The Deep: The Siren's Call	1
116	Okami	1
117	Papo & Yo	1
118	Pathologic	1
119	Photopia	1
120	Pokemon	1
121	Prince of Persia Sands of Time	1
122	Psychonauts	1
123	Quest for Glory 3: Wages of War	1
124	Radiator	1
125	Rayman (PS1)	1
126	Richard & Alice	1
127	Saints Row 2 and 3	1
128	Sam and Max	1

129	Seiken densetsu 3	1
130	Serena	1
131	Shelter	1
132	Silent Scream: The Dancer	1
133	Sims (PC)	1
134	Spyro series (PS1)	1
135	Super Meat Boy	1
136	Teddy	1
137	The destruction of Atlantis (Indiana Jones, The fate of Atlantis)?	1
138	The Fool	1
139	The Graveyard	1
140	The King of the Wood	1
141	The Legend of Dragoon (SCEI)	1
142	The Lost Crown	1
143	The Rosangela Blackwell series	1
144	The Samaritan Paradox	1
145	Trauma	1
146	Unbound	1
147	Warcraft 3	1
148	Whispers: Room 6	1
149	Winter Voices	1
150	Wraiths of Eden	1
151	Xenogears	1
152	Zero Tolerance (Sega)	1
153	Zone of the Enders	1