EMOTIONAL MATTERS

DELINEATING GAME INDUSTRY PROFESSIONAL'S VIEW
ON EMOTION IN VIDEO GAMES

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For the past 10 years, lack of emotion in video games has been a staple topic of discussion among game developers, despite the fact that numerous studies have shown that video games are capable of awakening a vast array of emotions in their players. The purpose of this study is to see what exactly is discussed when the topic is brought up and to delineate how this discussion is connected to the potential of the video game medium.

I will be using a method called affinity diagram to analyse two sets of data: interview data on future trends industry professionals are following, and a selection of articles gathered from Gamasutra.com. The interview data is used for placing the emotion discussion on the map of contemporary industry trends, whereas the data gathered from Gamasutra gives us a more in-depth look into the topics and themes that industry professionals bring up when talking about emotion.

The data shows that not only is emotion considered an important element in all games, but the discussion is moving away from the very high-level ”there should be more emotion” -type to the more solution-focused ”how to bring in more emotion” -type. It also shows that games are believed to have notable potential, and that emotion is seen as being closely tied to reaching this potential.

Keywords: video games, emotion, emotion discussion, game studies, game design research, affinity diagram

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1. INTRODUCTION

"A great game experience is all about emotion [--]." (GSf, Allport et al. 04/2010)

Anyone who is acquainted with the culture around video games has undoubtedly encountered evidence of video games' emotionality. With "rage quits"[1] in *StarCraft II: Wings of Liberty* (Blizzard Entertainment, 2010) tournaments[2], YouTube videos of players crying and screaming out of fear when playing *Amnesia – The Dark Descent* (Frictional Games, 2010)[3], and references to the emotionality of Aerith's death in *Final Fantasy VII* (Square, 1997)[4], proof of video games' emotional impact is everywhere. One only needs to observe game playing for a few minutes to witness an emotional reaction, and studies have shown that games are indeed excellent at evoking emotions in their players (Lazzarro 2004; Greitemeyer et al. 2010).

It would seem that there should be nothing lacking when it comes to emotion in video games, yet for the past 10 years game industry professionals have been concerned about games being emotionally shallow or otherwise emotionally deficient. Interestingly, it seems that emotions and their importance for the gaming experience had not been given much attention before the change of millennium – only when Sandy Duncan, the "head of *Xbox Europe*" said in 2001 that he "looks forward to the computer game that makes him cry" (BBC News 2001) did this element get the industry's attention. The statement has been dubbed the initiator of an "emotional revolution" and has since then been one of the industry buzzwords, and a staple topic for talks, sessions, and workshops in major game industry events and publications. (Leino 2010, 3)

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1 "Rage quit" or "ragequit" is a phrase commonly used in online gaming, referring to a player getting so frustrated about certain game events or game players that he exits the game.

2 *Starcraft tournaments* are televised sporting events that consist of professional teams with corporate sponsorship, and players who make a career out of playing the game professionally. Greg Fields, known by player name "IdrA", is well known for "rage quitting" - see for example: http://www.youtube.com/watch?v=SPEu_Z4Lm18 (access date 23.11.2011).

3 People filming their reactions to *Amnesia – The Dark Descent* became an internet meme (meme is an idea that spreads from person to person via internet) soon after the game was published. Presently one can find hundreds of videos players have uploaded to the YouTube video service, showing off how well the game induces fear in its players. For examples of such videos, see: http://www.youtube.com/watch?v=-s1x1p6-y1A&NR=1 and http://www.youtube.com/watch?v=edeOIgm8Qsg (access date 23.11.2011).

4 A number of blog entries, forum discussions and even pages dedicated to discussing the emotionality of Aerith's death can be found online, see for example: http://paulgalenetwork.com/home/2010/12/23/aeriths-death-from-final-fantasy-vii-is-still-the-most-significant-death-in-gaming/. There are also a number of pages and forums discussing whether and how the character could be revived, although revival does not actually seem to be possible in the game – as an example of these discussions, see http://www.ataricommunity.com/forums/archive/index.php/t-315657.html. (Access date of both links: 23.11.2011)

Discussion on the topic seems to be just as lively in 2011 as it was 10 years ago. Studies on emotion and video games have also been conducted, but the focus has mostly been at how the emotions awakened by video games affect players (Greitemeyer et al. 2010), what emotions players experience when playing video games (Lazzarro 2004), and how to bring emotion into video games (Frome 2007; Leino 2010). The industry point of view to the emotionality of video games seems to have been of less interest, and the purpose of this thesis is to fill this gap. The aim is to find out what exactly is discussed in relation to emotion, and how this describes the perceived potential of video games as an emotion evoking medium.

What originally led me to the topic of emotion in video games was one of the best known manifestations of the “video games are just entertainment” -allegation: in 2007, film critic Roger Ebert asserted that “video games can never be 'high art'” (Ebert 2007). The statement resulted in a turmoil among the ranks of both gamers and industry professionals. It showed that the gaming community believed video games have potential to become more than just entertainment, but also that this potential was thought to be far from being fully utilized. In the way of reaching this potential was said to be a number of things, and lack of emotion was often brought up as an example of these.

The decisive factor that made me focus on emotion was a statement made in an interview of the independent game designer Jason Rohrer. In the article, the writer asserted “video game industry lacks a basic grammar of emotion” and continued that Rohrer thinks the industry does not have models on which emotional, influential games could be based on. (Fagone 2008) This created an intriguing contradiction with the evident emotionality of video games, and made me interested in looking into the related discussion. I defined my research question to be: *what do game industry professionals talk about when they talk about emotion in video games?* What topics does the emotion discussion relate to, how does it relate to those topics, and what is the relationship between emotion and the potential of the video game medium?

I started the study by using a set of interviews with industry professionals to see how the emotion discussion situates itself on the map of contemporary industry trends and the general discussion on video games' potential. Albeit emotion didn't come out as quite the game changer one might have expected from the heated debates of the beginning of the millennium, it was definitely thought to be an important and interesting topic by the professionals.

Once this initial mapping had been conducted, I needed a source that would give me a more in-depth look into the emotion discussion. Being one of the most well-known and acknowledged online sources

for and by game industry professionals, I decided to use the online publication *Gamasutra* as my second source. It gave me a good and comprehensive look into the contemporary views of game industry professionals, and allowed me to examine the topics they bring up spontaneously, without the influence of a research agenda.

The data not only proved that emotion is indeed considered an important element in the industry's strive towards making better games, but it also exhibited very concretely that the discussion is moving away from the very high-level “there should be more emotion” -type to the more concrete “how to bring in more emotion” -type of discussion. Interestingly, no-one seemed to be satisfied with the present situation, for almost everyone who brought the topic up was looking for ways in which to advance the emotional aspect of video games. Emotion was seen as an important element in all video games, and as something that should be taken into account in all areas and stages of game development.

The thesis consists of six parts. After this introductory chapter, I will in chapter 2 discuss the theoretical background of the thesis and examine previous research conducted on emotion in video games. In chapter 3, I will present the methods used in the study, briefly discussing the methodological background and explaining how I collected and analysed the research data. I will then present the sources of data in chapter 4. Chapter 5 is an analysis chapter, starting from placing the emotion discussion on the map of industry trends in 5.1 to looking deeper into the emotion discussion in 5.2, and finally in 5.3. discussing the implications these findings might have. In chapter 6, I will then summarise the findings and conclude the thesis, delineating the possible directions that this topic could be taken towards in the future.

2. THEORETICAL FRAMEWORK

Game studies is relatively young as a field, but research on play and games has been conducted for a long time on other fields such as literary studies, media studies, psychology, and computer science. (Mäyrä 2008, 5) With game related research gaining more interest after the change of millennium, the definitions of play and game started to attract the interest of more and more scholars, even leading to the researchers temporarily dividing into two camps. (Järvinen 2008, 20-23) The meaning, purpose and definition of emotions has also been debated for the past century in multiple fields, such as psychology, psychophysiology, neurology, and neurobiology. (Picard 1997, 1) In this chapter, I will discuss the game and emotion theories most interesting for this thesis. I will look into the theoretical background of video game studies and research on emotion, as well as examine where my thesis stands in relation to these.

2.1 Purpose of the study

The purpose of this study is to delineate what kind of topics game industry professionals discuss in relation to emotion in video games, and what this tells of the perceived potential video games have emotion-wise as well as on a more general level.

The reasons for me choosing this particular focus are simple. The creative processes in the video game industry do not seem to have been studied very extensively, and scholarly studies looking at emotion in video games seem to have rarely focused on the games industry. In their paper “Some notes on the nature of game design” (2009), Jussi Kuittinen and Jussi Holopainen state that not enough attention has been given to the activities and thought-processes that are involved in designing games. (Kuittinen & Holopainen 2009, 7). In a related paper, Kuittinen et al. argue that understanding the designer and the reasons behind the designer's decisions is a much needed approach, and has so far been mostly neglected in scholarly studies. (Kuittinen et al 2010, 1) My purpose is to try and fill this gap for the part that relates to emotion in video games.

Although looking at what game developers think – or in this case, what they talk about – is of course important for scholarly game studies simply because developers are the ones who determine how the products this field studies turn out and evolve, a number of other reasons exist – and they all relate to design.

Although I generally refer to the professionals observed in this study as “developers”, it is used almost as a synonym to the broader definition of “designer”, explained by Katie Salen and Eric Zimmerman as following: ”The designer is the individual game designer or the team of people that creates the game. Sometimes, games emerge from folk culture or fan culture, so there may not be an individual designer or design team. In this case, the designer can be considered culture at large.” (Salen & Zimmerman 2001, 41) In the case of video games, the game is usually designed by a professional game designer or a team of game developers.

The process of designing is very different from other forms of creativity (Lawson 2006, 120-125). Bryan Lawson writes in his book *How Designers Think* that “designers have a prescriptive rather than a descriptive job: unlike scientists who describe how the world is, designers suggest how it might be. Designers are therefore ‘futurologists’ to some extent. The very essence of their job is to create the future, or at least some features of it.” (Lawson 2006, 112) In other words, at the core of a designer’s job is the need to define the potential games have, and to find a way to reach this potential – while at the same time trying to make the product interesting for the desired audience, and to make the design technically and audio-visually executable.

In a related book called *What Designers Know,* Lawson states that design is special. According to him, design is not simply problem solving, but a more complex creative process. (Lawson 2004, 6-20) It is not a directional activity that moves from problem through some theoretical procedure to solution, but rather a dialogue, a conversation, or a negotiation between what is desired and what can be realised. (Lawson 2006, 272) Interestingly, conversation is also one part of finding design solutions (Lawson 2006, 265). The industry professional’s writings on design issues and solutions published in an online periodical read by and commented on by other industry professionals can be seen as one form of this type of conversation.

What and how designers think tells us something about both the development processes and of the end products they produce as a result of this thinking; looking at what they choose to write about, then, tells us about their guiding principles - design values if you will - which in turn will be strongly visible in the products the designers create. They also tell us about the future, about the potential these professionals believe their subject of design to have – or want it to have.

Another important reason for studying what and how designers think is what Lawson calls ”design knowledge”. Design is founded on and derived from the knowledge that designers accumulate from the different designs they work on throughout their career, and this knowledge can only be learned by

designing. This characteristic makes it very challenging to write down and teach this knowledge, but it also makes it all the more valuable. (Lawson 2004, 6-22) As Lawson writes, ”it [--] turns out that a study of what designers know challenges our more conventional understanding of what makes good knowledge.” (ibid, 10)

Since I am interested in the discussion going on inside the industry, I had two primary options: examining articles written by industry professionals, or conducting interviews. I decided to go with the first option, for it offered me a broad look into topics that industry professionals bring up when writing about themes they themselves find interesting. I chose the online publication Gamasutra[5] as the source for this data, for it is a well-known, popular periodical among industry professionals.

Although Gamasutra articles are the main source of data, I am also using a set of interviews for situating the emotion discussion on the general map of discussion on video games' future. These interviews were collected as a part of the research project *Games and Innovation (GaIn)*.[6] Other sources, such as magazine articles, research articles, and video games will broaden the observations further.

2.2 Definitions and previous research

The nature of games will always be under debate, but some level of consensus that video games are an interactive new medium capable of telling stories and evoking emotion does seem to exist (Järvinen 2008, 20-23). Same applies to emotion – scientific research has not managed to fully map how emotions are born, how they affect us, or how the world affects our emotions (Plutchik 2001), but it is possible to find a definition useful for the purposes of this study.

I will in this sub-chapter go through some of the theories and definitions of games that have been presented during the history of play and game related scholarly studies. I will also briefly examine the definition of emotion and how it relates to video games. I will start by discussing how the concept of “game” is understood in this study. I will then look at how scholars have defined video games as a medium, and how games are thought to relate to other media forms. After this, I will take a brief look

5 The website of the Gamasutra publication: http://www.gamasutra.com/.

6 The findings of the project will be published in Kultima, Annakaisa and Alha, Kati (eds.): *Changing Faces of Game Innovation.*

into research on emotion, presenting a useful definition for the concept. I will then present a selection of interesting studies looking at the games industry and at emotion in video games.

2.2.1 On defining game

The definition of “game” has been debated by scholars for decades. Partially this is due to the ambiguity of the related action – play. As play scholar Johan Huizinga writes, “play is older than culture” (Huizinga 1955, 1). According to him, play is not an action characteristic only to humans, but animals as well, and has thus existed long before the human race did (ibid). He continues that it is not connected to any particular state of civilization nor view of the universe (ibid, 3), but could indeed be seen as a universal action characteristic to all living, thinking beings.

The ambiguity resulting from this long history of play is examined closer from the perspective of human culture by Brian Sutton-Smith in his essay ”Play and Ambiguity”. Sutton-Smith notes that almost anything can allow play to occur within its boundaries, almost anyone can play, and practically anything can become an agency for some kind of play. (Sutton-Smith 2006, 298-301)

With 'play' being such an ambiguous concept, drawing a line after which the act of playing turns into a game seems quite tricky. Let us first look at two widely recognized, reasonably contemporary definitions of the word “game”. In their book *Rules of Play* (2004), Katie Salen and Eric Zimmerman define a game to be “a system in which players engage in an artificial conflict, defined by rules, that results in a quantifiable outcome”. Jesper Juul, in his book *Half-Real* (2005), defines “game” in a similar fashion: “a game is a rule-based system with a variable and quantifiable outcome, where different outcomes are assigned different values, the player exerts effort in order to influence the outcome, the player feels emotionally attached to the outcome, and the consequences of the activity are negotiable”.

When it comes to video games, the biggest problem with both of these definitions is the demand for a quantifiable, variable outcome. What is the quantifiable outcome of *Minecraft* (Mojang, 2011)? How can the player influence the outcome of *Passage* (Jason Rohrer, 2007) or *The Secret of Monkey Island* (LucasArts, 1990) when there are no variable outcomes to have? In a number of video games the player's actions have no specific, quantifiable outcome or end result – some games don't even have a loss or ending condition. According to Salen, Zimmerman and Juul's definitions, none of these are games, but rather toys, simulations or interactive stories.

Although the gameness of video games seems questionable, all researchers seem to agree that they – and games in general – fall under the concept of "play". Salen and Zimmerman define play to be "free movement within a more rigid structure" (Salen & Zimmerman 2004, 304). I understand this "rigid structure" as rules. These rules might be unwritten ones derived from cultural conventions, something the player came up with while playing by a game's original rules, or official rules defined by a committee. Rules can be very formal as well as extremely unstructured, but they are always subject to the arbitrary and dynamic nature of the human mind; the player can decide not to obey the rules, to play by a rule set of their own, or to add to the existing rules.

How, then, does play relate to games? Although play is always present in games, can all playing be seen as games? Roger Caillois states that play can be placed on a continuum between two opposite poles. One extreme he calls "paidia", a kind of uncontrolled fantasy, and the other "ludus", a very formal sort of play activity with strict rules (Caillois 2006, 130). Applied to everyday life, a child playing with a toy car can be seen as paidia while Formula 1 racing is ludus, and *Mario Kart* (Nintendo, 1992-2011) is somewhere in between the two. The more formal the play, the more it becomes a game, but no clear, distinct line can be drawn between the two according to Caillois.

A scholarly study does however need to explain how its central concepts are understood in the context of the study. As Katie Salen and Eric Zimmerman point out, there is no one absolute definition of games, but different ones for different purposes (Salen & Zimmerman 2006, 77). Since this thesis is looking at discussions inside the video game industry, the defining question is: what does the video game industry produce? The key to answering this is to look at video games from a product point of view – to define what kind of products the industry feels it is producing by looking at how they relate to other types of products.

Researcher F. Ted Tschang has studied the video game industry extensively. Looking at video games from the product point of view and at how they relate to other products, he has stated that "video games could be classified as interactive, emotive, content-based experience goods (i.e., based on immersive or simulated realities)" (Tschang 2005, 7). I find this broad definition to be quite sufficient for the needs of my study, and for the needs of any future studies in this area; in the development process of the products commonly referred to as video games, it is less important whether the product being developed falls into a strict definition of "game", or into the broader product definition of "video games". Sometimes developers even aim at deliberately creating products that situate themselves

outside of these definitions; games are after all products of design, and the aim of a design project is to create a product or a product with a feature that does not exist yet. (Blessing & Chakrabarti 2009)

The discussion around the ambiguity of play and games would indicate that games are capable of numerous feats, including the ability to awaken a vast array of emotions. Despite this, game industry professionals are talking of a lack in the emotionality of video games. This discussion seems to be connected to the challenges related to creating experiences in video game's digital space – and to the potential this medium is thought to have – rather than to whether or not games are capable of awakening emotions in the first place.

Let us now look at how video games situate themselves in our culture - what kind of a medium are they, if any, and how are they perceived? To answer these, a look into how video games are perceived as a whole in scholarly studies is in place. Getting a reasonably comprehensive picture of the scholarly study of video games is still quite easy, for the field is quite young – usually thought to have started at the change of millennium (Mäyrä 2008, 4).

Let us first look at video games as a medium. Oxford Dictionary defines media and medium as following:

> ***media*** *(noun)*
>
> *1 (the media) [treated as singular or plural] the main means of mass communication (television, radio, and newspapers) regarded collectively [--].*
>
> *2 plural form of medium*
>
> ***medium*** *(noun [plural media or mediums])*
>
> *1 an agency or means of doing something: [--]*
>
> - *a means by which something is communicated or expressed [--].*
>
> *2 the intervening substance through which sensory impressions are conveyed or physical forces are transmitted:*
>
> - *the substance in which an organism lives or is cultured*
> - *a liquid (e.g. oil or water) with which pigments are mixed, with a binder, to make paint*

As one can see, the definitions for media and medium are quite ambiguous. Media refers to means of mass communication, such as television, radio or newspapers, but the singular form – medium – suggests that any means of communication or expression can be seen as a part of this group. This

does not only include the main means of mass communication such as television or newspapers, but also books, advertisement, cell phones, street signs, internet – and games. Thus it should be no surprise that among game scholars, video games are commonly seen as a form of media.

In many cases, video games' status as a medium even seems to be taken as for granted. For example in the book *The Medium of the Video Game,* the term "medium" is never actually explained, nor is the question about what makes a game a medium discussed (Wolf 2001). The same phenomenon can be seen in a vast array of other game research literature, ranging from seeing games as the ultimate hybrid medium to examining them as equals or comparing them with television, cinema (Perron 2005), literature, comics or even theatre (Jenkins 2007; Eskelinen et al. 2003).

Video games are also often seen as a medium on their own right (Jenkins 2004; McLuhan 2000), being a clearly distinct media form with its own unique attributes. The studies that present this view often seem to aim at disproving the theories of video games as a hybrid of previous media and trying to instead prove that video games have a range of unique features distinct from other media forms. Examples of these features include goal orientedness, choices, activity, interactivity and dynamism (Juul 2005; Salen & Zimmerman 2004).

These theories are not problem free, for not all of the mentioned features are unique to video games, nor can they even be found in all games: the lack of goal orientedness discussed in the previous sub-chapter is common in contemporary games, and a number of other media forms besides video games can be active or interactive. Choice and the closely related attribute, dynamism, are also problematic, for many games are a chain of problems (only one possible outcome) rather than a tree of choices (multiple possible outcomes) (Kline et al. 2003, 19).

At the beginning of millennium when the field of game studies allegedly started to take form (Järvinen 2008, 20-23), game researchers tried to make a differentiation between the research of games and of older media forms by forming a scholarly approach called "ludology". The concept was introduced by Gonzalo Frasca in his article published in 1999, calling it the "yet non-existent 'discipline that studies game and play activities'" (Frasca 1999). Jesper Juul completed his master's thesis during the same year, also using the term ludology. The thesis was titled *A Clash Between Game and Narrative*, demonstrating that Juul considered games and narrative as a problematic combination. He stated that not only can you have a computer game without any narrative elements, but this lack of story is actually the strength of the medium (Juul 1999/2001, 7, 86). It is thought that the introduction of

ludology soon resulted in numerous debates between “ludologists” and “narratologists”, but this was questioned by Frasca already in 2003 (Frasca 2003).

In addition to these two, there is presently a vast number of different approaches from multiple scholarly and scientific backgrounds. For the most part, the field has evolved towards quite a unanimous agreement that games can and do tell stories, but stories are not a required element of a game. (Järvinen 2008, 20-23) However, questions such as how games tell stories, what kind of stories are told, or in which way and what kind of stories would be ideal for the medium remain reoccurring sources of debate in the discipline.

One of the new approaches to game studies and game development is “meaningful play”. The term was first introduced by Katie Salen and Eric Zimmerman as a design principle or ideal (Salen & Zimmerman 200, 30-37). It soon caught the attention of both scholars and designers, and presently the most prominent – although modified – case of this new approach is the annual academic conference Meaningful Play.[7] According to the main site of the conference, “games have the potential to impact players' beliefs, knowledge, attitudes, emotions, cognitive abilities, physical and mental health, and behavior”, no matter whether they are designed to entertain or for more serious purposes.

The interest in meaningful play has also resulted in a growing interest towards the ethicality of video games, both content and message-wise. Miguel Sicart is one of the researchers who have undertaken the study of this topic. In his book *The Ethics of Computer Games*, Sicart states that games can be ethical objects, but only if the rules afford specific moral strategies. (Sicart 2009, 4) On the development side, Jane McGonigal has emerged as a strong advocate for games' capabilities for doing good and driving change (see McGonigal 2011).

Both of these discussions – meaningful play and ethics of video games – concentrate on the potential of video games rather than on what games are presently. They are an interesting sign of an ongoing conversation on the maturing of the video game industry, relating to both the industry and the games themselves. Some seem to think that games need to aim at offering deeper and more meaningful experiences in order for the medium to evolve into something more than mass entertainment, and that this evolvement is important for both the games industry and games as a medium. (Saarinen & Kultima 2011)

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7 For more information on the conference, see: http://meaningfulplay.msu.edu/.

On the other hand, there are many that see video games as something more already, sharing features with architecture and performance art. For example Henry Jenkins writes in his article “Game Design as Narrative Architecture” (2004): “I want to introduce an important [--] term [--] - spatiality - and argue for an understanding of game designers less as storytellers and more as narrative architects". A good example of video games' relation to performance art, then, is Markku Eskelinen and Ragnhild Tronstad's article “Video Games and Configurative Performances”, where they discuss how games situate themselves on the map of entertainment and art (2003).

There are also some notably older writings that discuss games' and video games' relation to art. In his well-known book *Understanding Media: Extensions of Man*[8] (2000), Marshall McLuhan looks at games as a form of popular participatory art. Chris Crawford, then, has ever since 1984 been an advocate for the artistic potential video games have, with his manifesto *The Art of Computer Game Design* (1984). In his publication, Crawford examines the unique features video games have, the issues in the way of the medium’s evolvement, and how to help it to evolve to its full potential.

In conclusion, it can be said that video games are generally seen as a media form of their own, but usually not separate from other media. Video games share and combine features of both contemporary and older media, and they are in debt but also constrained by the connotations this brings along. Nevertheless, video games are thought to be a diverse and participatory medium, offering completely new ways of telling stories and affecting people's skills, attitudes, and emotions. They are also seen as a medium that has potential for more, emotion-wise as well as in other areas.

2.2.2 On defining emotion

Starting from Charles Darwin's evolutionary approach, followed by the psychophysiological James-Lange theory, through the neurological approach of Walter B. Cannon to Sigmud Freud's psychoanalytic theories, the foundations of contemporary psychological theory of emotion were founded in the 19th century. (Plutchik 1980, 1-21) Regardless of a distinctively longer history than that of play studies, the concept of emotion seems to be just as ambiguous as the terms “play” and “game”. Possibly even more so since – as psychologist Robert Plutchik puts it – “an emotion is an introspective, subjective, personal and idiosyncratic feeling state” (ibid, 8).

8 First published in 1964 by McGraw-Hill.

The way emotions are born, the way they affect us, and the way our emotions affect others have all been debated for centuries (Picard 1997, 21). One thing is certain however: emotions are always there, affecting us, the people around us, and the things we do. Driving our actions and decisions, determining what we want in life, creating bonds to humans, animals, and even inanimate objects. (Plutchik 2001; Norman 2004) They also play a notable part in playing games, and seem to be considered the key ingredient in evolving the medium of video games further.

Robert Plutchik's psychoevolutionary theory of emotion will serve as the basis for examining this elusive concept in the context of this study. In his paper on the nature of emotions, Plutchik defines an emotion to be "a complex chain of loosely connected events that begins with a stimulus and includes feelings, psychological changes, impulses to action and specific, goal-directed behavior." According to him, "feelings do not happen in isolation but are responses to significant situations in an individual's life, and often motivate actions". The effect of the emotional state, then, is to create an interaction between the individual and the event or stimulus that precipitated the emotion. The interaction "usually takes the form of an attempt to reduce the disequilibrium and reestablish a state of comparative rest", resulting in a negative feedback system called "behavioral homeostatic". Emotion is thus a chain of events made up of feedback loops, and feelings and behaviour can affect cognition, just as cognition can influence feeling. (Plutchik 2001)

In today's world, the event or stimulus eliciting emotions is often a television show, a movie – or a video game. When even simple everyday things, such as a juicer, a door knob or a teapot can evoke a multitude of emotions in us humans (Norman 2004), video games of all things should be capable of awakening the whole spectrum of emotions: they constantly present players with new situations, new objects and unexplored worlds, not to mention new challenges and implied threats. According to Plutchik's theory, these are exactly the types of significant situations that result in very strong, basic level emotions. These emotions, then, result in interaction aiming at reducing the emotional disequilibrium, whether it be destroying the threatening game character, exploring an unknown area on the map, or reaching a set goal. From this interaction other emotions arise, and a chain of events made up of feedback loops is complete. (Plutchik 2001)

Most emotion theories agree that emotions are a crucial part of our coping mechanism; on a very basic level, they tell us whether something is threatening or not, and what kind of an action should be taken if any. There also seems to be a connection between the intelligence and the emotional spectrum of animals – human emotions, then, are thought to include the whole spectrum of possible

emotions and the effects of these emotions are considered the most intricate of them all. (Plutchik 2001) Emotions are also the key element in all interaction, whether it is with a machine, a person, or a wild animal.

On a basic level, we humans tend to prefer things that elicit positive emotions in us, and avoid the things that elicit negative ones – even if rational reasoning might eventually assure us to do the opposite. (Plutchik 2001) The initial emotions stay there even after the action, until a new observation or experience signals us that our apprehension might have been incorrect. Usually this happens so quickly and automatically we don't even notice it, but it plays the lead part in our decision making – which action to choose, which option to go for, which person to trust. (Marsella & Gratch 2009, 1-6) All of this also applies to video games – it is certain they elicit emotions in humans, even if the details have not been defined yet.

2.2.3 Emotion and video games

Emotion in video games has been studied from a number of approaches. Looking at game studies delineating different design issues, I recognised three different approaches to the topic: the “player centric”, “researcher centric”, and “game centric” approaches (see Table 1). A look into game design research revealed two more approaches: the “developer centric” approach, and the “first-hand” approach. However, none of the research that I found focusing on the games industry seems to study the emotional aspect, especially not from the “developer centric” viewpoint.

Table of approaches to game studies and game design research	
Approach	Explanation
Player centric	Mapping player emotion in order to solve design issues. Example studies: Lazzarro 2004; Zagalo et al. 2005
Researcher centric	Mapping previous research in order to solve design issues. Example studies: Järvinen 2008; Leino 2010; Fullerton et al. 2006
Game centric	Mapping games in order to solve design issues. Example studies: Frome 2007; Perron 2005; Zagalo et al. 2006
Developer centric	Using developers as informants in order to study creative processes. Example studies: Tschang 2005; Jeffries 2010; Kultima & Alha 2011
First-hand	Developing a game concept in order to study creative processes. Example studies: Holopainen et al. 2010; Kultima & Alha 2011

Table 1: Table of approaches to game studies and game design research

Let us first look at some examples of emotion related studies. A large body of research has focused on mapping the emotions or emotional experiences players have during gameplay. This has not been least driven by the moral panic[9] that tends to follow the surfacing of any new form of popular culture. After video games became popular, they have been blamed for a large number of violent crimes that were done by young people, especially young men.[10] Researchers have responded to this moral panic by, among other things, conducting studies on what kind of emotions video game players experience while playing, and how these emotional experiences affect their behaviour.

Although many of these type of studies claim having found strong evidence that violent video games do cause violent behaviour in their players, even after the game playing situation is over, (Greitemeyer et al. 2010, 796) these findings have been questioned by many.[11] Many have also found opposing results. Tobias Greitemeyer, Silvia Osswald and Markus Brauer found in their studies that playing prosocial games increases empathy and decreases the feeling known as ”schadenfreude”[12]. (Greitemeyer et al. 2010) In their paper ”The psychophysiology of James Bond: Phasic emotional responses violent video game events” (2008), Niklas Ravaja, Marko Turpeinen, Timo Saari, Sampsa Puttonen and Liisa Keltikangas-Järvinen found that violent video games actually elicit anxiety rather than aggression in their players.

During the past few years, the emotional experiences of video game players have started to interest scholars and scientists from other perspectives as well. For this thesis, the most interesting ones are studies examining the design implications and challenges related to emotion. For example Nicole Lazzarro mapped in her study (Lazzarro 2004) the emotions players reported experiencing while playing a set of games, and based on these defined what she calls ”Four Keys”. These are basically four ways in which she believes emotions can be awakened through gameplay (ibid).

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9 “Moral panic” refers to the intensive feeling expressed in a population about an issue that appears to threaten the social order. The term is most often associated with Stanley Cohen’s 1972 text *Folk Devils and Moral Panics: The Creation of the Mods and Rockers*.

10 The latest one of these were the riots in London: a local police officer blamed the *Grand Theft Auto* -game series for the irresponsible actions of the young rioters – see Poole 2011. The most well-known actors in the moral panic relating to video games are activist Jack Thompson (see for example http://www.jackthompson.org/) and the organisation MAVAV (Mothers Against Videogame Addiction and Violence, see http://www.mavav.org/). (Access date to both links: 23.11.2011)

11 As a reasonably recent example of this, see for example Anderson et al. 2010, and Ferguson & Kilburn 2010.

12 Schadenfreude is a German word meaning the feeling of pleasure one gets from another person's misfortune.

Another somewhat similar study is the mapping Nelson Zagalo, Ana Torres and Vasco Branco did for their paper ”Emotional Spectrum Developed by Virtual Storytelling” (2005). Using similar methods with Lazzarro, the researchers conducted a comparative mapping of emotions people had while watching a selection of movies, and the ones people reported experiencing while playing a set of video games. They found that although video games were able to awaken all the other emotions in the basic emotion spectrum people are assumed to have, none of the games included in the study seemed to awaken emotions of tranquility or sadness. (Zagalo et al. 2005)

Lazzarro's and Zagalo's studies are examples of what I call the ”player centric” approach. In these types of studies, the researchers map the emotions players report to experience during gameplay in order to find possible design problems and solutions. Another type of studies has a similar goal, but the approach is a bit different. I call this type the ”researcher centric” approach, for instead of using players as informants, the researchers base their observations and design solutions on their own expertise and previous study on the field.

A good example of the “researcher centric” research is Aki Järvinen's doctoral thesis *Games without Frontiers. Theories and Methods for Game Studies and Design*. In the thesis, his purpose is to define more rigid and concretely applicable methods for game design (2008, 26), with player experience as the key element, and emotion as an important aspect in designing this experience. This is done by examining previous research on two different fields – in addition to game studies, Järvinen looks at the emotion theories found in psychological study of emotion. Another example is Olli Leino's doctoral thesis *Emotions in Play. On the constitution of emotion in solitary computer game play* (2010) – his approach is very similar to that of Järvinen's, although the focus of the thesis is specifically on creating methods for designing more emotional games.

Another very interesting example of the “researcher centric” approach is an experimental research project a group of students did in 2005. Tracy Fullerton, Jenova Chen, Kellee Santiago, Erik Nelson, Vincent Diamante and Aaron Meyers collaborated with Glenn Song and John DeWeese from Electronic Arts in order to develop an experimental game called *Cloud* (USC Interactive Media Division, 2005). The purpose of the game was to explore the application of a game design methodology called ”play-centric design”. This project is especially interesting because the student

group defined the primary purpose of ”play-centric design” to be innovation in the emotional impact of games. (Fullerton et al. 2006)[13]

The third type of research that focuses on the design implications of emotions is what I call the ”game centric” approach. In these types of studies, researches examine a number of video games, and based on the observations made, define design issues and solutions for video games. One example of these type of studies is Jonathan Frome's paper ”Eight Ways Video Games Generate Emotion” (2007). Instead of trying to map which emotions players experience, Frome aims at defining the different aspects of a video game to which a player might respond by examining a selection of video games. (Frome 2007)

Some of the studies that use the “game centric” approach use cinema as a point of reference. For example Bernard Perron uses cognitive film theories as the methodological basis for his paper ”A Cognitive Psychological Approach to Gameplay Emotions” (2005), trying to delineate the emotional map of video games. Nelson Zagalo, Ana Torres and Vasco Branco, then, examine both games and cinema in their paper ”Passive Interactivity, an Answer to Interactive Emotion” (2006). In order to define the reason for why games do not elicit sadness in their players, they examine a set of video games, and then look at the ways in which cinema elicits emotion in order to find a solution to this problem. (Zagalo et al. 2006)

Computer science also has some studies relating to emotion in video games. Most of these studies look at how to model emotions in order to utilise them in human-computer interaction or robotics. For example Stacy Marsella and Jonathan Gratch have tried to develop a simple and practical computational model of emotion called EMA (EMotion and Adaptation). (Marsella & Gratch 2009) This model was not originally designed for the purposes of game development, but the USC Institute for Creative Technologies (ICT), where Marsella is the associate director for social simulation, has explored this area to some extent.[14]

The implementation of Marsella’s model to video games has been explored further in CADIA (Centre for Analysis and Design of Intelligent Agents) at Reykjavik University. Their project ”Humanoid Agents

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13 Inspired by *Cloud,* Kellee Santiago and Jenova Chen went on to found the independent game studio *thatgamecompany* in 2006. The studio's experimental games have since won multiple awards, and they are currently a second party-producer for Sony Computer Entertainment. More info on the company: http://thatgamecompany.com/about/ (access date 23.11.2011).

14 For further information, see http://ict.usc.edu/projects (access date 23.11.2011).

in Social Game Environments" explores creating believable human behaviour in animated characters for massively multiplayer games. Not many publications have yet been presented of the project, but Páll Rúnar Þráinsson's recent master's defence titled "Dynamic planning for agents in games using social norms and emotions" demonstrated some of the project's results. According to his defence, the project considers emotions one of the key elements in creating believable human actors. EMA is used as the main computational model in trying to realise this goal. (Þráinsson 2010)

Interestingly, researchers seem to consider characters as one of the most important elements in eliciting emotional responses in video game players. Not only do scientific studies on emotion tend to have this as their focus (Marsella & Gratch 2009; Marsella et al. 2010; Þráinsson 2010), but scholarly studies with a similar approach are also to be found. For example Petri Lankoski writes in his doctoral thesis *Character-driven Game Design* (2010) that "[--] an answer to widening the range of gameplay related emotions lies in the use of game characters." (Lankoski 2010, 13) Mirjam Palosaari Eladhari also uses emotion as one of the key elements in the Mind Module model she presents in her doctoral thesis *Characterising action potential in virtual game worlds applied with the mind module*. (Eladhari 2009)

Although research on the design implications of bringing more emotion into video games seems to have become almost a trend in the field of game studies, I only found two studies that have incorporated game industry professionals in the research process. The student project *Cloud* (USC Interactive Media Division 2004) was apparently done in collaboration with the game company Electronic Arts, but the role of the company is not clear. The research done at CADIA also reports working with an industry partner – a game company called CCP games – but I did not manage to find information on how this collaboration has been realised.

Let us now look at game design research. The games industry does not seem to have been of major interest to game scholars, especially when it comes to the creative processes related to developing games. (Kuittinen & Holopainen 2009, 7) The area has however started to gather more interest in recent years, and it is presently possible to find studies on a few different aspects of the development process.

F. Ted Tschang aims in his paper titled "Videogames as Interactive Experiential Products and Their Manner of Development" (2005) at mapping the video game development process and especially the particular problems encountered during the development. He examines how the interactivity of the products being developed has affected the processes that are in use, and the unique features related

to video game development. (Tschang 2005) He has continued research on this topic since, and does further observations of his findings in the paper ”The Interaction of Roles, Resources, and Organizational Structures in Creative Work” (2010), where he uses his research on the game industry development processes as an example of how the roles, resources and organizations interact in creative industries.

Tschang's studies are good examples of what I call the ”developer centric” approach. These type of studies have game developers as informants, and they tend to focus on the development processes in use in the games industry. Tschang's work has mostly looked at the development processes from a general point of view, but there are also a few researchers looking at specific areas in the development process. For example Karl Kieran Jeffries has looked at creativity in the games industry (Jeffries 2010), whereas the research projects *GaIn* (Games and Innovation) and *GIIP* (Games Industry Innovation Processes) have studied the ideation methods and innovation processes that are used in the industry (Kultima & Alha 2011).

Simon Larsen has also examined the game industry development processes in his thesis titled *Playing the Game: Managing Computer Game Development* (2002). In the thesis, Larsen examines the state of production planning in the games industry by analysing 43 different postmortem[15] articles from Gamasutra.com. For my study, the most interesting aspect of Larsen's thesis is his research approach rather than his findings. Similar to my approach, Larsen examines the writings of game industry professionals in order to find confirmation for his theories, and to learn more about the industry. (Larsen 2002)

In addition to the “developer centric” approach to researching the development processes in the industry, some researchers have also used what I call the ”first-hand” approach. Characteristic of this approach is that the researchers study the development or design process by going through the process themselves, for example by designing a game. It seems that this approach is usually not used as a stand-alone method but rather in addition to other methods. What makes this approach interesting is that it enables experimenting with techniques not present in existing games. It can also be used to broaden the researcher's understanding of the development and design of video games.

15 Postmortem in this context refers to the postmortem analysis of a finished product.

One interesting example of the “first-hand” approach is the research project of Jussi Holopainen, Timo Nummenmaa, and Jussi Kuittinen. In their paper ”Modelling Experimental Game Design”, the researchers attempt to improve our understanding of game design by explaining the process of designing an experimental game called ”No-one Can Stop the Hamster” (NOCHS). (Holopainen et al. 2010) The researchers designed, developed and play-tested the game in order to better understand game design and experiment with the findings of a literary analysis conducted earlier. (ibid) A similar approach was later applied – partially by the same researchers – to the GaIn and GIIP research projects, in order to improve the researchers' understanding of video games' development processes. (Kultima & Alha 2011)

I have no knowledge of research projects focusing on the games industry that would have examined the emotional aspect of video games. This might be due to the small amount of interest the design side seems to attract in general, for as we saw, the creative processes in the games industry do not seem to have been studied very extensively. Although the design challenges related to emotion in video games do seem to be of great interest to a number of game scholars, it would seem that incorporating the industry professionals in the study of this area is still an unexplored approach.

3. METHODOLOGY

Method is what differentiates research from other types of information gathering and analysis. Although it is usually thought that the subject of a study defines which method should be used, the method can just as well define the subject of a study. (Vaden 2010) The latter can be a useful way of conducting research, but for the purposes of this thesis it felt most appropriate to allow the subject to define the methodology. I wanted to use a qualitative, bottom-up method that would allow me to use the data as my guide. After examining different qualitative methods, I chose *content analysis*[16] as the theoretical frame for my thesis, and *affinity diagram* as the analysis tool.

In this chapter I will present the methodological frame of this thesis. I will discuss how the thesis situates itself on the fields of different research traditions and present the different methods. I will then go through the data gathering and data analysis for both sets of data, explaining in detail how I processed the data sets.

3.1 Method

In this section, I will first examine the theoretical frame of this study. After this, I will present the chosen method, affinity diagram, in more depth – I will go through the basic features of an affinity diagram building process, and explain the reasons for choosing this method.

3.1.1 Content analysis

Although drawing a definite line between qualitative and quantitative research is very difficult since most scholarly studies have attributes of both, it is quite possible to describe the characteristics of both research types (Alasuutari 2007, 31-33). This study was conducted by using qualitative methods, thus I will focus on the key aspects of qualitative research.

In qualitative research, the research material is thought to present the structure of a singular, internally logical entity, and thus examined as a uniform body. (Alasuutari 2007, 38) The most common types of material used in qualitative research are interviews, observations, and different types of documents. The used documents can be either private ones – for example letters, diaries, speeches – or mass

16 The concept of content analysis seems to be used in a variety of ways, but is understood as a qualitative method in the context of this thesis.

media products, such as magazines, newspapers, TV-shows and the like. (Tuomi & Sarajärvi 2004, 73; 86)

Regardless of which type of material is examined, qualitative analysis always has two main phases: first, the original observations are reduced into more simple ones, and second, the simplified observations are interpreted. (Alasuutari 2007, 38) According to Jouni Tuomi and Anneli Sarajärvi (2004), this can be conducted either top down, by using a deductive approach with a *theoretical frame* as the defining element, or bottom up, by using an *inductive approach* with the research data as the defining element for the analysis. The most common analysis method in qualitative research is content analysis, which is characterized by its focus on the research data as the base from which a coherent theoretical entity of the phenomenon is built. (ibid, 93-100)

The inductive bottom up nature of content analysis was the primary reason why I decided to use it as the basis for my methodology. As Tuomi and Sarajärvi write, instead of using content analysis as a singular method, it can also be used as a loose theoretical frame, attachable to different types of analytical ensembles (ibid, 93). After carefully looking into different types of qualitative methods I could attach to the theoretical frame of content analysis, I chose an analysis tool called "affinity diagram" as the primary method for this thesis.

3.1.2 Affinity diagram

Affinity diagram – sometimes also known as affinity wall[17] – is based on a research method called KJ method.[18] It was developed during the 1950's by a Japanese researcher named Jiro Kawakita. Originally Kawakita developed the method for his own purposes, using it as an analysis method in his anthropological studies, but over time he realised it could have other uses as well. Kawakita proposed it could be used for surveys, management, and group working – among other things – and the method has since then been widely adopted as a research tool on a number of research fields, as well as a business tool. (Lizardi 2008, 70-72)

KJ method and affinity diagram are often used as synonyms, but some also see differences between them. David L. Hallowell states in his article "Effective use of KJ analysis" (2010) that KJ method is

17 The name "affinity wall" originates from the fact that in the most classical form, the diagram is initially built on the walls of a room.

18 The name "KJ method" comes from the initials of the developer Jiro Kawakita. The reason for the initials being in the order they are is due to the Japanese custom of writing the surname of a person first and first name second.

used for analysing factual data – such as survey results – whereas affinity diagram is used for analysing ideas. However, opposing views also exist, claiming that affinity diagram is the one used for analysing factual data. In present day research and business this latter way of using affinity diagram seems to be the dominating one (Holtzblatt et al. 2005)[19], and I base my usage of the method on this view.

I had not used affinity diagram before, but it proved to be a good method for conducting content analysis. The method is very similar to grounded theory[20], but I did not find grounded theory systematic and well-defined enough for analysing the type of data I examine in this study. Affinity diagram, on the other hand, offers a well defined process for grouping, thematising and analysing the collected data, allowing the user to find the underlying topics and themes without losing individual variation.

In a typical affinity diagram process, the data of which the diagram is built is gathered by having the organization members conduct interviews and observation, often working in pairs. Once this is done, a team of a few people is chosen to do an interpretation session on the gathered data. The team takes notes – often called "affinity notes" – during the interpretation session, capturing the key issues they want to record about the data. (Holtzblatt et al 2005, 102-103; 115) Each affinity note should contain only one thought or point, for each note must stand alone during affinity building (ibid, 115).

On a concrete level, the affinity diagram organises the notes – or topics in the case of my study – into a wall-sized, hierarchical diagram, grouping the data under labels that define the common topic or theme of these notes (ibid, 160). The affinity diagram is built with three different types of labels: Blue Labels, Pink Labels and Green Labels. Blue Labels are of the lowest abstraction level, since the affinity notes are organised under Blue Labels according to the themes that rise from the notes. Pink Labels are the next abstraction level: Blue Labels are organised under Pink Labels according to the themes that rise from the labels. Pink Labels are then organised under the most abstract level of labels – Green Labels – in a similar fashion. The end product of affinity building is usually referred to as either affinity diagram or affinity wall, of which affinity wall is sometimes seen as one of different types of affinity diagrams. (ibid, 160)

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19 On using affinity diagram for analysing factual data, see also MindTools 1996-2011 and DillyDedalus 1999-2011.

20 See for example Glaser 1992.

In business usage, the affinity diagram or affinity wall is a hierarchical representation of the issues of the company's user population, built from interpretation session affinity notes. (ibid, 160) In the case of my study, I built the affinity diagram from the topics that rose from the data, and the diagram is a hierarchical representation of the themes that were found. I was able to follow the affinity wall principles reasonably well, save from the fact that instead of working with a team, I did data gathering and affinity building alone.

3.2 Data collection

In this chapter, I will go through the data collection process of the two sets of data used in this study: the interview data gathered during the Games and Innovation -project, and the article data collected from the online publication Gamasutra. This chapter will mainly focus on the data collection process – for more detailed descriptions of GaIn and Gamasutra as sources of data, refer to chapter 4. “Sources of data”.

Games and Innovation

For the Games and Innovation project, 28 games industry professionals selected to speak at three major game conferences were interviewed on innovation in games in 2009. The interview records were later transcribed into text for ease of analysis. Since I started working in the project in 2010, I did not conduct the interviews, but instead took part in analysing the collected and transcribed interview data. The data used in this thesis includes only a portion of the material collected for the project.

For the purpose of this thesis, I focused on one particular question presented at the interviewees; 26 of them were asked what kind of future trends they were following. From the transcriptions, I gathered together the answers to this question, and highlighted the part where the interviewee defined which trend he is following. I then wrote down more compact versions of the topics that were present in the material, and clustered them through an inductive, bottom up process based on that of the affinity diagram. I also gathered together all the titles of talks given at the Game Developers Conference (GDC) in 2009 and 2011 in order to see how strongly the interviewees' thoughts relate to the general trends visible at the time and how well their expectations held true two years later.

The amount of data observer was quite small, and as a result many of the topics occurred only once or twice. However, based on the analysis of the GDC talk titles, all of the trends that the industry was interested in at the time came up in the interviews as well. Thus, the data is quite sufficient for the needs of this thesis; the purpose was simply to see which trends are found topical by acknowledged

industry professionals, and to place the emotion discussion among the other trends currently visible in the industry.

Gamasutra

Gamasutra is a very extensive online publication, with a number of new articles published every day. Since a masters' thesis is quite a small study – and due to the nature of the material – my data collection methods had to be very systematic and focused on narrowing the material down as much as possible.

The first and most defining demarcation I did was to only include articles that mention the word “emotion”. Although I could have included words such as “feeling”, “experience”, “mood”, or “atmosphere”, the usage of these terms was too ambiguous for the approach and scale of this study, whereas “emotion” was mostly used when discussing or describing the game experience. I am aware of the possibility that some articles got left out because of this demarcation, but including these words would have increased the amount of data too much for a master's thesis.

To find the articles that do include the word “emotion” I simply used the built-in search in the Gamasutra website. This search allows one to decide which type of articles to include in the search and which to exclude, with four types to choose from; news, features, blogs, and press releases. Thus, I had to decide whether to include all of the four article types in the search – and in my thesis as well – or not. This decision was reasonably easy to make, since I am primarily interested in game industry professionals' personal views, values and topics of interest. Press releases did not seem to have this type of data, whereas news articles, feature articles and blog entries appeared to be a very rich source for it.

The Gamasutra search results are always presented in the same way: first you have the heading of the article in the form of a hyperlink to the actual article, then the date of the article, then the article type, and then a blurb ranging from one to ten lines of text. After conducting the search, I copied and pasted the results in this form to a word document for archiving and to make the analysis easier. Since the articles ranged from 1997 to present – depending on the article type[21] – and since I wanted to

21 News and feature articles have been written since the start of the publication, but the blog feature was added only two years ago, in 2009. I believe that despite this fact, the data used in this thesis is comprehensive and depictive enough to answer my research question.

examine contemporary discussion on emotion in games, I narrowed the material down to only include the past two years (at the time of the data gathering), from 1st of September 2008 to 31th of August 2010.

After collecting the search results and deciding the timeframe I wanted to focus on, I went through each article inside this timeframe, one by one, to see how relevant they were. I did this by searching the place or places where the word "emotion" was used in the article, and reading the text around or related to each instance. How much of the text I read depended on the instance; sometimes a few sentences was enough, whereas other times the whole article had to be read through once or twice.

Most of the articles were quite relevant, but I did leave out some based on one of the following criterion:

1. "emotion" was only mentioned in the name of for example a song or a book

2. "emotion" was only mentioned in the comment section

3. "emotion" was spoken of in a context where it did not relate to the actual game experience[22]

I also left out articles that presented a set of links under a certain theme, for usually these referred to articles on other websites.

While going through the articles, I noticed that there are two types of blog writers and two types of blog entries: expert bloggers and user blogs, and normal entries and featured ones. Since I am interested in the opinions of the professionals, and anyone can create a user name and user blog to Gamasutra, I decided to include only the expert blogs and featured blog entries. Although featured blog entries are not necessarily written by industry professionals, I found it rational to include them, for the Gamasutra editorial department had chosen to highlight them, implicating that the opinions presented in these entries also reflect those of Gamasutra, and the people in the industry.

As the last part of the data collection, I started copying relevant quotes from the articles and attaching them below the related article blurbs I had collected when conducting the search. Usually the relevant quotes were the sentences or paragraphs where the word "emotion" was mentioned, but on some

22 If emotion was for example only mentioned when talking about the emotions the team went through in the publication event of the game, or the emotions of a designer when working on the project, I left the article out.

occasions I decided to include more text for clarity and to avoid later misinterpretations. While collecting these quotes, I also highlighted the key points of the quotes, and wrote down some keywords relating to the themes or topics to which the professionals referred to when talking about emotion.

3.3 Data analysis

The most important reason for using affinity diagram as the primary analysis tool in my study was its bottom up nature and clearly defined analysis process. As Holtzblatt et al. (2005) write, an affinity diagram is built from the bottom up, grouping together individual notes that reveal key themes in the data (Holtzblatt et al. 2005, 159). Due to its systematic nature, the process allowed me to avoid predefined theories a bit further than other types of qualitative methods, and enabled a truly data driven analysis process.

Although the data collection methods relating to affinity diagram are not very well suited for the type of material used from Gamasutra, the characteristics of the “affinity notes” needed for building an affinity diagram do apply to the collected data. According to Holtzblatt et al (2005), “[e]ach affinity note should contain only one thought or point [--]. Each note eventually must stand alone during affinity building” (115). With this requirement in mind, I started re-examining the data I had gathered from Gamasutra, and defining one-sentence long topics about all the emotion-related themes visible in the articles. Often there were multiple topics present in each article, so each one of these was written down as a separate topic.

Once all topic sentences for each article had been written, I started to prepare for building the affinity wall. I collected all topics into a separate word document and attached the related quotes below them. While doing this, I also re-checked that the topics I had written were indeed correct interpretations of the quotes in question. I then printed out the collected topics and quotes, cut them apart from each other in pairs of the related topic and quote, and mixed them up. Next, I examined each of the pairs one by one to see what theme would rise as the primary one from that particular pair. Doing the initial analysis individually to each affinity note and letting the data suggest the labels for the groups instead of assigning labels from the top down is one of the most important principles of building the diagram (Holtzblatt et al 2005, 159), and thus I would only group together notes that definitely had a common theme.

Once the initial grouping had been done, I started giving these groups labels, referred to as Blue labels by Holtzblatt et al (160; 169-173). At this point, some of the groups were quite massive and of a too high abstraction level, as is characteristic for a bottom-up method such as this (ibid, 160; 172). Thus, I went through the topics, groups and labels again to see whether some of them should be broken down to smaller ones. Although Holtzblatt et al define a specific number for how many topics should be situated under one Blue label (ibid, 170), I found this to be a bit too artificial for this type of data, and only made the groups smaller if it seemed justifiable. Most of the groups that resulted from this second evaluation round did eventually end up having the preferable number of topics under them.

Although redoing phases of the affinity diagram is not a required part of the process, I did the initial labelling twice. I wanted to do this to make sure my interpretations were correct, since normally an affinity diagram is built by multiple people (ibid, 162-163).

The next step was to transcribe all the labels and related topics into a digital format. After this, the Blue labels needed to be reorganized into groups by like themes, referred to as Pink labels by Holtzblatt et al (160; 173-176). I started by systematically looking at how the Blue labels related to each other, and especially at which ones intertwined, trying out different arrangements in a separate document. At this point, the Pink labels still served mostly as an aid for thinking, for I did not want to define them too firmly just yet. For the same reasons I did not group the Pink labels under the most abstract level of labels – the Green labels (ibid, 160; 175-178) – just yet, for a large part of the grouping and analysis would still happen during the writing process.

Once I found an arrangement that seemed like a good starting point, I started to write down the relationships between the different pink labels, trying to see whether some kind of a common thread or flow would emerge. Surprisingly, the Pink labels did indeed form a reasonably coherent ensemble, which in turn led to the more abstract Green labels quite effortlessly. Once this common thread had been found, I continued the analysis simply by writing down how the different topics and labels relate to each other. I often returned to the original articles to confirm that my initial interpretations of the quotations and their placing in the discussion had been correct.

The analysis process for the GaIn interview data also followed the affinity diagram principles, but due to the small amount of data, it didn't require as heavy an analysis process. Instead of building a physical affinity diagram, we did the affinity building in a digital format in Microsoft Word. Another

difference to the Gamasutra analysis was that instead of doing the analysis alone, I did it together with Annakaisa Kultima.

The GaIn interviews were done anonymously, so the interviewees are simply referred to with the letter I and the number the interviewee was given during the analysis. The coding and references to the observed Gamasutra articles on the other hand consist of three parts: “GS” stands for Gamasutra, and the letter attached to it tells what type of an article is in question – “n” is for news article, “f” for feature article, and “b” for blog entry. After this, you have the writer's last name – or in the case of articles written by the Gamasutra staff, simply “staff” – and the month and year on which the article was published. For example, (GSf, Adams 01/2009) refers to a Gamasutra feature article written by Ernest Adams, published in January 2009. All of the Gamasutra articles used as sources have been listed at the end of the thesis, at the references section. They are divided into three groups according to the three article types used.

4. SOURCES OF DATA

I decided to use two reasonably different sets of data for finding out what game industry professionals talk about when they talk about emotion in video games. The first set is the interview data collected as a part of the *Games and Innovation* research project, and it is mainly used as background data for the thesis. It will allow us to examine how the topic situates itself on the map of trends that are currently visible in the industry. The second set is the selection of articles I collected from the widely acknowledged online publication *Gamasutra*, and it will give us a more in-depth look into what is actually discussed when the word "emotion" is used.

I will start this chapter by presenting the Games and Innovation research project, explaining how the data collection was conducted, and what my role was in the project. After this, I will look at the online publication Gamasutra and explain some of the unique features that made it a good source for my second set of research data.

4.1 Data set 1: Interviews

The first source of data for this thesis resulted from my employment at *Tampere Research Centre for Information and Media* at the *University of Tampere*, where I worked as a research assistant on three game research projects. The data I chose to use was collected for a research project called *Games and Innovation* (GaIn). Game industry professionals selected to speak at three major game conferences were interviewed on innovation in games in 2009. My role was to analyse a section of this data. For the purposes of this thesis, I looked at a particular question on the future trends and weak signals the informants were following in 2009.[23]

The conferences from which the interviewees were selected were the following: *Game Developers Conference (GDC)* 2009 in San Francisco, USA; *Game Developers Conference Europe (GDCE)* 2009 in Cologne, Germany; and *Nordic Game Conference 2009 (NGC)* in Malmö, Sweden.[24] All of these are acknowledged industry events and bring together many leading professionals, and were thus

23 The rest of the findings will be presented in more detail in Saarinen & Kultima 2011.

24 GDC takes place every spring in San Francisco, and with over 17,000 attendees it is the world's largest professionals-only games industry event. GDCE is the largest professionals-only game industry event in Europe, bringing together developers and business professionals across the continent and worldwide. NGC is held annually in Malmö, Sweden, and is one of the biggest industry events in Europe, bringing together game developers, publishers, distributors, retailers, academics, and accredited media, mainly from the Nordic countries.

favourable events from a research point of view. The interviewees were selected among the speakers of these conferences. Since the speakers were either selected by a strict evaluation process or by invitation, they had all been professionally acknowledged in their area of expertise.

The interviewees were asked questions about innovation from many different perspectives—what they think is innovation, how important they think it is for the game industry, how it manifests itself, and so on. In this thesis, I look at a particular question that focused on the industry trends that the interviewees were interested in. They were asked to describe the future trends they were following and what kind of future insights they might have, and encouraged to focus on their personal interests rather than trying to predict the future. To see how strongly the interviewees' thoughts related to the general trends visible at the time, I looked at the titles of the talks given at GDC in 2009. To see whether the trends visible in 2009 had strengthened, diminished, or vanished, I also looked at the titles of the talks given at the same conference two years later, in 2011.

I decided to use this data because it gave me a good, compressed look into the current interests and expectations industry professionals have for video games' future. The data gathering method also affected my choice – gathering the data by conducting semi-structured interviews allowed me to get a good look into the thoughts and expectations of these professionals on very specific topics. All of the interviewees were asked the same questions in the same order, but thanks to doing the interviews live instead of a written format, the interviewer could ask additional questions on topics that came up during the interview.

4.2 Data set 2: Gamasutra articles

Gamasutra is an acknowledged online trade publication for video game developers. It acts as an online sister publication to the print magazine *Game Developer*[25] – the largest games trade magazine, with a circulation of 35 000 copies. Both publications are owned and operated by Think Services (formerly part of CMP Media). Gamasutra and its team of editors have won a Webby Award[26] in both

25 *Game Developer magazine* is a monthly trade periodical for the video game industry. The magazine is available free to qualified game professionals in the USA. Game Developer was launched in March 1994 and is now distributed to 35,000 readers, mainly in North America.

26 A *Webby Award* is an international award presented annually by *The International Academy of Digital Arts and Sciences* for excellence on the Internet with categories in websites, interactive advertising, online film and video, and mobile.

2006 and 2007, and the publication is mentioned in the Wikipedia article on video game journalism as the only example of an online trade publication of note.[27]

Founded in 1997, Gamasutra includes regularly updated video game news and features, other online resources for game developers, and a job posting board for employment in the video game industry. In addition to the editorial team, a substantial number of other industry professionals contribute to the site. This is especially visible in the feature articles, mostly written by developers but occasionally also by journalists. News are mostly written by the editorial team. A recent addition to the publication are blogs, written by both users and appointed experts. The publication's audience – and thus also the user base – is primarily comprised of people who work professionally as game developers in all disciplines in the English-speaking world. (Gamasutra.com; Nutt 2011)

Since both the readers and the writers are industry professionals and the publication is held in high regard, it is safe to profess Gamasutra is one of the best sources for examining the views and opinions of game industry professionals. According to the Editor-in-Chief Christian Nutt (2011), the main principle behind choosing the articles is that they are relevant to the reader base – the people working in the games industry. On their website, the publication is said to be open to any ideas, and the editors are particularly interested in postmortems, as well as articles that concentrate on any of the major disciplines, defined by the staff as following: programming, art, audio, design and production. Business related articles are also mentioned as a point of interest. (Gamasutra.com)

The three article types I chose to examine all have slightly different characteristics. Since the news articles are mainly written by the editorial staff, they primarily reflect what the staff finds interesting and worthwhile, while the feature articles offer a look into the interests of industry professionals. The third type, Gamasutra blogs, is again a bit of a different type of source; the feature was added in 2009, and although all users are allowed to write a blog of their own, a separate group of expert bloggers exists. (Gamasutra.com)

The main reason for me choosing Gamasutra as a source of data is its richness when it comes to content and variety of writers. I wanted the data to be a good representation of the games industry as a whole, including acknowledged professionals from all related disciplines writing on the topics they find interesting, important and worthwhile. Although the content I used has all been edited to some

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27 Wikipedia article on game journalism: http://en.wikipedia.org/wiki/Video_game_journalism (access date 23.11.2011).

extent, the topics are still mainly chosen by the writers, or based on what is topical in the industry. I believe this allowed me to get a good, comprehensive look into the trends and valuations of the industry. It also enabled me to observe the topics that were brought up by the writers without the effect of my research agenda or other external factors.

5. FINDINGS

It is evident that video games are capable of awakening a vast array of emotions in their players – despite this, the need for more emotion and for games to reach their full potential remains a staple topic of discussion among industry professionals. The purpose of this chapter is to examine this discussion in the light of the data gathered. I will start by situating the emotion discussion on the general map of trends visible in the games industry, by examining the data gathered from the interviews conducted for the *Games and Innovation* research project. The emphasis of the 5th chapter is in the second part, where I will go through the topics and themes that rose from the second set of data – the *Gamasutra* articles discussing emotion. In the third part I will then discuss the implications these findings have, and examine how they relate to the games industry as a whole.

5.1 Emotion and other industry trends

The trends drawn from the Games and Innovation interview data form an interesting and intertwining continuum from "the casual turn" to the effects that digital distribution will have; less frequently discussed trends also arose, such as the expectation or hope for games that offer more meaningful experiences. Interestingly, one of the most common topics across all themes is the broadening of the games industry. For this thesis, the most interesting findings are the ways in which this broadening will affect the game industry, as well as the maturing of the game audience, development methods, and game content. Note that since the interviews were done anonymously, the interviewees are referred to with the letter I and the number the interviewee was given during the analysis.

Let us start from the audience. Many of the respondents stated that one reason for the industry broadening is the diversification of the audience. According to them, the game industry is starting to understand the real diversity of different gamer types, and this will not only result in a broader audience and more diversity in games and game genres, but also in new ways of designing games. Moving from the so-called gamer audience to the mass market was also expected to affect the content greatly, forcing designers to bring in topics completely new to them.

> *"The biggest change for us is the shift from the gamer audience to the mass market. It's kind of obvious that happens, [and] it's very [--] different challenge to develop games [--] for somebody that's not your best friend." I22*

The broadening was also thought to be visible in the size and focus of game productions. A number of the interviewees stated the industry is heading in two completely opposite directions at the same time;

the trend of game productions getting bigger and bigger – even approaching the scale of Hollywood movie production – was thought to be at one extreme, and the success cases of small developers with relatively simple game concepts at the other.

Recent developments in the industry do however suggest that talking about bifurcation might be an understatement. The audience is broadening in many different ways, and game development tends to follow such trends. This would indicate that instead of the industry bifurcating, it might actually be fragmenting – in addition to the big companies getting bigger and the smaller companies staying small or getting smaller, more and more companies are starting to specialize in catering to a particular demographic or a particular gap they have found in the industry.

> *"I think there's some interesting work to be done there because once you start to understand the types of gamers, you can [--] [then] create games that are more segmented to appeal to those styles of play and frequency [--]." I14*

Interestingly, one reason for the broadening was thought to be the audience becoming more sophisticated, resulting in more traction and resonance with the new innovations the industry presents to their audience. As a result of technological advancements, this sophistication was also expected to represent itself in the games themselves, offering deeper experiences on multiple levels. AI was one area where these advancements were expected to show. One respondent was looking forward to having games that are AI driven instead of being based on scripted events, and hoping for more emergent content rather than linear. Other respondents also saw AI development as an important factor in improving the game experience: the respondents were looking forward to AI becoming smart, natural, able to learn, and having personality.

> *"[I]t's really hard to get games to cross the uncanny valley and not feel weird when they're dealing [with] very close-up human behaviour. So I'd like to see [--] other ways to get personal without having [--] to show a close-up of a 3D rendered face." I21*

Given the higher level of photorealism, more personality, and realistic environments of recent games, the respondents were looking forward to games handling deeper and more personal topics, as opposed to the higher level themes games traditionally tend to focus on. They were looking forward to games focusing more and more on things that people can relate to and learn from, and making people think and get new perspective. Games about individuals and unique people, working on a better world, and having a broader range of emotions in games were all seen as important new developments, and one respondent was also hoping for new tools for these areas in the future.

"Well I definitely hope we will be able to get a broader range of emotions. And I also definitely hope, but this is more of far distance thing, that we will be able to [--] work on a better world." I05

To see how strongly the respondents' thoughts relate to the general trends visible at the time, I looked at the titles of the talks given at Game Developers Conference (GDC) in 2009. I also looked at the talks given at the same conference two years later, in 2011, for comparison.[29] Looking at the talks given in 2009, almost all of the main trends present in these talks were also brought up by the interviewees, with minor exceptions. Some small changes are also visible when comparing the 2009 and 2011 talks; trends that seemed small in 2009 had strengthened over 2 years and some of the new trends that have emerged after the interviews were visible in 2011. Thus, the respondents' visions of the future in 2009 appeared by 2011 to be on the right track.

Together with the talks given at GDC 2009 and 2011, the interviews give a good indication of the direction towards which the industry professionals expect games to evolve. The data also reveals a very basic feature of the industry: an endless drive towards creating better and better games in all aspects – to reach a vaster audience, to have better technology, to offer deeper experiences, to have more sophisticated development methods, and to sell more. With the audience broadening and maturing, the industry has to adapt and meet the new demands, and it would seem that as a result, the current homogenous game industry will fragment into multiple smaller ones.

It is quite probable that the trends aiming at doing things better have always been present in the industry, but just change form or focus from era to era. In 1984, game design veteran Chris Crawford wrote about the unexplored possibilities games offer, and the possibilities that will become available with technical advancements (Crawford 1984). During the past decade, this discussion has expanded from including more sophisticated game mechanics, better graphics, and more lifelike artificial intelligence to topics such as meaningfulness and emotion. The message of Crawford's manifesto from over two decades ago seems to have gathered more and more traction over the years, and – as the interviews demonstrated – to have an avid supporter base among contemporary game developers.

Although the current homogenous game industry seems to be fragmenting into multiple smaller ones, the real fragmentation might not happen only to the size of the productions, but also in the types of

29 See appendix 1 for a full table of topics.

games being produced. This phenomenon is already visible with many companies focusing on very specific market segments, such as pre-teens, retro gamers, modern art enthusiasts, middle-aged women, families, and so on. With the rise of data-driven and player-centric development, it seems that the industry will fragment even more, resulting in many different game industries, all catering to very specific audiences. One of these specific audiences will undoubtedly be the mass market, to which Nintendo in particular has catered for almost two decades. The popularity of *Angry Birds* (Rovio Mobile, 2009) and the revenue from related merchandise sales is just one of many signs that one part of the industry is evolving more and more toward the Hollywood hit movie model of revenue generation.

As the audience matures, broadens, and fragments, the industry is forced to look for new ways of attracting players. Good graphics, good gameplay or good performance are no longer a guarantee of a game's success, and as a result, many have started to look at more sophisticated, emotional, or deeper gaming experiences as the way to attract new players and keep the existing audience interested. Although emotion seems to be considered an important element for all types of contemporary games, it also seems to be a key feature in games aimed at specific demographics, such as the now-matured gamer audience demanding games that would fit their changed expectations content- and story wise.

5.2 Two levels of discussion: challenges and solutions

The emotion trend relates to a vast number of topics and themes, as we will see in this chapter. Since the amount of data is quite notable, I will try to introduce it in an orderly manner. I will first go through topics that are of a higher level, and then move on to the more concrete ones. The topics are arranged thematically and situated so that they form a logical continuum, following the visualization in the graph below (Figure 1). Of the affinity diagram groupings, only the Green and Pink labels are easily recognizable from the text, and are represented by the colours in question in the graph. The Green labels served as the basis for the sub-topics, while the names of the sub-groupings are derived from the Pink labels. The Blue labels are written out as text and thus left out of the graph.

Many of the articles are examined under multiple themes, for it was rare for any one of them to discuss only one topic in relation to emotions. For similar reasons, the abstraction level between different groupings varies greatly, for so does the abstraction level of the topics. It is noteworthy that not only does the abstraction level differ, but the topics that are presented under one theme also often

relate to the other themes. Many of the themes overlap and intertwine strongly, and sometimes the same statements are examined under multiple groups.

Figure 1: The structure of the themes visible in the emotion discussion in the Gamasutra articles.

Two levels of abstraction were distinguishable in the articles when it came to emotion – the topic was either talked of on a very high level, or on a very concrete and practical level. In the higher level talk, the professionals are basically defining the design challenge that is emotion, whereas in the concrete level talk they are discussing the possible solutions to this challenge.

When talking on a high level, the writers were claiming that emotions are what makes a game, but also what is currently lacking. They believe that games do nevertheless have notable potential in this area, even if the industry will have to face a number of challenges in order to reach this potential. In the concrete level talk, the professionals were discussing hands-on ways through which game developers could make their games more emotional. Credibility, consistency, and interactivity were seen as key elements in this, as well as the good execution of audio-visual elements and scriptwriting.

In general it seems that the lack of emotion is a commonly accepted issue, and that the industry is trying to find concrete solutions for this lack.

The amount of text under each theme is not a direct indication of which topics were most prominent in the data. Often very popular topics could be condensed into reasonably short, uniform explanations, whereas other, less popular topics sometimes needed more room. In many cases, very strong or otherwise interesting writings are also given more attention and space. Overall, the potential of video games both in general and as an emotion evoking medium got the most attention, followed by the demand or hope for change. Game characters and meaningful choice were other popular areas of discussion, and thought to be important for creating emotion. Of the less popular but otherwise prominent topics, some very strong opinions and hopes were voiced about scriptwriting and audio.

As explained in further detail in chapter 3. "Methodology", the reference system used for the Gamasutra articles is as follows: "GS" stands for Gamasutra, after which "n" for a news article, "f" for feature article, or "b" for blog entry. After this follows the writer's name – or if the article is written by Gamasutra staff, simply "staff" – and the month and year on which the writing was published.

5.2.1 Defining the challenge

The higher level discussion is divided into three parts: Emotions make a game; Need for more emotion; and Signs of change. These are indicated by the upper green bubbles in the mind map (see Figure 1). The first part, Emotions make a game, looks at the definition of good games and the unique features of the video game medium. The second part, Need for more emotion, examines discussions on video game's deficiencies and potential, the need for change, and the obstacles the industry will have to face when trying to bring forth this change. The third part, Signs of change, looks at the signs of change that industry professionals have already noticed.

Emotions make a game

> *"One of the most emotionally powerful games I've ever played was when I first started playing* Black and White *(EA Games, 2001). And just for the hell of it I was just harassing the hell out of these characters, and they were crying, and bruised, and I actually felt guilty. I never felt guilty watching TV, or a movie." A statement made by Will Wright. (GSn, Sheffield 03/2009)*

Based on the observed articles, industry professionals seem to find emotion a vital element of successful, compelling video games. The creation of emotions in the player was thought to be something that actively enhances their enjoyment of the game (GSf, Luban 12/2008), and some even

stated that the more of different emotions a video game has, the greater it is (e.g. GSb, Minhas 06/2009). In short, emotion was seen as an inseparable element of a good game. Volatile Games' art team even went as far as to state that “a great game experience is all about emotion” (GSf, Allport et al. 04/2010).

Not only was emotion connected to good games, but some considered it a fundamental part of the definition of “game”. For example John Rose stated that games can be thought of as emotional manipulation machines, with the developers responsible of a well-tuned experience (GSf, Rose 07/2010).

Rose also referred to games as being a form of art (GSf, Rose 07/2010). This view was shared by others, and many regarded especially video games unique either as an art form or as a medium. Unlike preceding mediums, video games were seen as something that forces the player to think, react and interact by using the games' world, characters and gameplay elements. Some even defined specific emotions that only games are able to awaken in their players, such as guilt (GSn, Sheffield 03/2009), regret (GSb, DiMucci 04/2010), and the sense of freedom (GSn, Vanden Bossche 04/2010) and control (GSn, Vanden Bossche 08/2009)

Need for more emotion

Emotional deficiencies

> *“ [T]he whole point of making computer simulations of human emotions in video games is to produce dramatic results in a medium that is, at the moment, pretty dramatically lifeless.” (GSf, Adams 01/2009)*

During the observed time period, video games were definitely seen as lacking emotion in one way or another. A common agreement seemed to be that the emotional spectrum of video games is limited, as they only provide primal feelings whereas more powerful emotions, such as compassion or love, are rarely touched upon. Ernest Adams stated that video games are generally lacking emotions of diplomatic respect and geopolitical prestige (GSf, Adams 01/2009), while Nicholas DiMucci was calling for more exploration on emotions of guilt and regret (GSb, DiMucci 04/2010). Some, such as Jenova Chen and Clive Chandler, even went as far as to state that fear and power fantasies are the only emotions that have been dealt with in video games (GSn, Kumar 07/2009; GSn, Remo 05/2009).

Clive Chandler and Ernest Adams, then, also found the way emotion is used to be flawed. Especially the emotional balance and pacing of video games was seen as something that needs more attention, for this was thought to be vital for creating the dramatic results and deep engagement that

contemporary video games are thought to lack. (GSn, Remo 05/2009; GSf, Adams 01/2009) Interestingly, a research order-made for Gamasutra, measuring the emotions players have during gameplay, brought this point up a number of times, underscoring it as a key element in keeping the player engaged throughout the game (GSf, Hong 12/2008).

> *"[A]ll fun and no substance is as bad as all challenge and no fun, [that's] like a roller coaster with all ups and no spine-thrilling downs. [--] The name of the game is balance." A statement made by Clive Chandler. (GSn, Remo 05/2009)*

One element of video games that was especially prominent when it comes to games lacking emotion were the game characters. Although most believed that the technical side of character animation, such as the rendering quality, has improved tremendously, it was alleged that game characters are still lacking emotion (GSn, Nutt 02/2009) and that personality is too rarely explored in character animation (GSf, Sato 02/2010). This results in marionette -like acting – soulless models that do not offer actual, believable interactivity to the players. (GSf, Sato 02/2010; GSn, Cross 09/2009)

The lack of believable interactivity was blamed not only on the underlying interaction dynamics, but also on the way the emotions are presented. Ernest Adams had a very strong view on which part of the way of presenting is the most flawed and problematic one: the way emotions are simulated by using simple sensation-calculation-behaviour -loops. In a typical loop, someone says or does something to the character that influences the characters' emotional state, after which he acts upon his feelings. Adams stated that these systems – known as infinite state machines – tend to produce absurd and irrational behaviour, for they do not take into account the way behaviour itself affects emotions. (GSf, Adams 01/2009)

Potential for more

The emotional potential of video games was a very prominent topic in the studied articles. Games were seen as being capable of awakening the same amount or more emotions as other media forms, but although some games were thought to be capable of this, it was agreed that for the most part, it hasn't been done yet. However, Jenova Chen believes that the video game industry will follow movies' footsteps especially emotion-wise, moving from the more shallow emotions of contemporary games to deeper, more specific emotions with a lot of nuance (GSn, Sheffield 05/2009). A few of the professionals were even of the opinion that video games are already in a transitional phase, with emotion playing the key role in it (e.g. GSn, Cameron 07/2009; GSb, Saltsman 05/2009).

Often the emotional potential was discussed on a more specific level, pinpointing the particular part of games the potential was thought of tied to. For example, Ernest Adams stated games have potential of being good emotion simulators (GSf, Adams 01/2009), and Raphael Colantonio that there's room for evolvement especially in the behaviour and emotions of the AI characters (GSf, Maguire 12/2009). Another element that was seen as having potential in making games more emotional gameplay-wise was giving the players the tools for building their own relationship with the AI-controlled people of the game world, as Peter Molyneux suggested in his interview (GSn, Nutt 03/2010). The game world was also seen as having notable potential as an emotion inducing tool, by allowing the player to interact more with the games' world (GSb, Minhas 06/2009). In addition to these, Emily Short pointed out that the physical involvement of the player has great potential in awakening emotions (GSn, Short 02/2009).

> *"I do wonder how a gesture-based handling of emotional feedback might fit into the context of a larger game or interactive narrative, and that's where I think future potential lies." (ibid)*

One very noticeable topic was the effect that the so-called maturing audience will have on games' evolvement. Maturing audience was seen as the market of the future, and the bringer of change with their demands and hopes for more depth, intellect, meaningfulness and stronger emotional gaming experiences. As a result of this new player segment, Jenova Chen predicted the future games to have a bigger variety of different kinds of emotional content, and have relevance to the players' life (GSn, Sheffield 05/2009). John Rose, then, stated that games will grow more sophisticated in the future, allowing the designers to use more subtle and powerful emotional triggers (GSf, Rose 07/2010). In general, the belief in change and games' greater potential was very visible in the examined articles.

> *"For all of our fancy graphics and infinite computing power the industry is still just a beautifully painted ornate egg with no yolk. [--] I understand that it's not a question of if but when things will change." (GSb, Quintero 08/2009)*

Need for change

The examined articles paint a clear picture of the professionals' need and want for change - especially in order to have games reach their full potential.

Raphael Colantonio wrote that since game studios compete on the basis of what sells, the industry should understand to move on to developing the more subtle side of games – such as how much emotion an AI character can convey – instead of technology and art, which he saw as things that everyone already has access to. (GSf, Maguire 12/2009) Gameplay balance was also seen important

in this sense, and for example Peter Molyneux was talking about moving away from games built around feeling powerful. He was hoping that games would instead move towards creating an emotional experience with a vast array of different emotions. (GSn, Nutt 03/2010)

The uniqueness of the medium or the need to develop it towards uniqueness was also one notable theme in relation to the strive for change. It was thought that although games are often compared with film, they should not try to awaken emotion by films' means, for these means cannot be used efficiently in the game medium. According to the writers, games should instead try to use their own, unique means for evoking emotion, and in order to do this, the industry needs to start presenting ideas of its own, to formulate their own narrative methods specifically designed for the medium, and to start bringing in people who are able to write to games' unique strengths (e.g. GSf, Allport et al. 04/2010; Kumar 11/2008; GSb, Markham 02/2010; GSb, Polack 03/2009).

In addition to this, Takayoshi Sato was of the opinion that the stories presented in video games need to be dynamic, but they also need more depth and credibility to be emotionally effective, especially when it comes to the background stories of the game characters (GSf, Sato 02/2010). It was also thought that games need to develop their own language through which to evoke emotion, as Xander Markham pointed out:

> *"Gaming as a storytelling medium is capable of great things, but as with any nascent medium, needs to come to terms with its own identity and develop its own language through which it can communicate and draw strong emotional responses from its users." (GSb, Markham 02/2010)*

Quite a lot of general level discussion on what needs to be done or should be done with emotion in games was also to be found. Consistency was one theme that strongly related to this, as it was seen important and desirable for creating strong emotional experiences. It was stated that the way emotions affect us in real life should be communicated more effectively in games (GSn, Nutt 01/2009), but also that to awaken emotions, choices need tangible consequences, for people respond to these types of choices emotionally (GSf, Rose 07/2010). It was also pointed out by Davneet Minhas that due to the interactive nature of the medium, people need to be able to interact more deeply with the game world and game characters than what is made possible in contemporary games (GSb, Minhas 06/2009).

Game characters themselves were also seen as an important element for awakening emotion in games, and evolvement in both game design and technical side in this area were hoped and demanded for. The things referred to were often quite simple, such as how the character might look at

the camera, or how much repetition there is in the character's dialogue models. Another topic that came up relating to games' characters as the source or conveyor of emotions was interaction, and especially the ways the player is allowed to interact with the AI characters. Christiaan Moleman stated that since touch is such an important part of human lives, it should be given more attention when trying to design emotional games. He saw especially non-violent interaction as something that has room for evolvement and is important for introducing more complex themes into video games' storytelling. (GSb, Moleman 04/2009)

Some more general level statements were also made on what games need to aim for. Clive Chandler pointed out that now more than ever game designers need to try to understand human beings when designing games, and to try and design for trust (GSn, Remo 05/2009). According Xander Markham, game developers should also pay more attention to thinking of how the player experiences the game as an active part of a story, especially when designing games with heavy cinematic influences (GSb, Markham 02/2010). The examined articles also presented a strong belief in games needing to offer a wider emotional range, and that the industry should develop games that are more mature, especially content- and story-wise.

Obstacles

Although the view that the game industry should aim for change in order to video games reach their full potential was shared by many, so were the problems related to utilizing this potential. The financial aspect was often brought up, mostly from the point of view of what sells or what is seen as a selling point. Raphael Colantonio alleged that publishers do not care about depth, emotions or moral choices in a game, but about numbers, graphics and technological advancement (GSf, Maguire 12/2009). This was further backed by David Cage's statement that aiming at bringing “real emotion” into a game is a risky commercial endeavour (GSn, staff 03/2010). Another similar challenge, brought up by Finn Haverkamp, was the requirement that a game has to be fun to be a good game. He saw this as a reason for the lack of many other emotions in video games, and a barrier for reaching games' full potential (GSb, Haverkamp 08/2009).

Many professionals brought up their impression of independently developed games being remarkably more emotional than big budget ones. Usually this was thought to be the result of either the mainstream audience or industry not being ready for more depth and emotion (e.g. GSn, Cameron 07/2009; GSb, Saltsman 05/2009). Some even stated that it's not the financial side of the industry that restricts games' evolvement, but the game designers themselves. On the one hand, some referred to

the level of discussion being lower as it should, or to the attitudes of the designers being juvenile (e.g. GSn, Nutt 08/2009; GSn, Alexander 04/2009; GSb, Quintero 08/2009). On the other hand, it was also stated that designers haven't fully picked up on the emotional dimension of games just yet, although sings of it can already be seen (e.g. GSf, Luban 12/2008; GSb, Saltsman 05/2009).

A number of other notable problems and challenges to tackle on the design side were also brought up. Many of these related to topics that already came up in discussions about games' deficiencies or potential. One such topic was the lack of emotional variety in games. Not only were games seen as being stuck to fear, the emotion thought to be simplest for this medium to reproduce, this emotion was also seen as something that might become a problem in itself, unless game makers start aiming at better emotional balance and pacing (e.g. GSn Remo 05/2009; GSb, Quintero 08/2009; GSf, Hong 12/2008).

> *"Human emotions are powerful. We need to be careful to produce an enjoyable roller coaster [--] Cortisol can kill, and I don't think we want to be in the business of being sued because our games kill through fear." A statement by Clive Chandler (GSn Remo 05/2009).*

The uniqueness of the medium was another topic that resurfaced relating to problems and challenges the industry has to face. The very nature of the medium was seen as something that makes it impossible or at least unwise to try and use the methods of more traditional media, for players interact with the game world and can change it with their actions. As a result, telling a pre-defined story and awakening specific emotions is a big challenge for the medium, and something that calls for methods tailored specifically for games (e.g. GSb, Markham 02/2010; GSf, Allport et al. 04/2010; GSb, Mallory 02/2010). This however leads to a new problem, for according to Darby McDevitt, game mechanics tend to be iterative by nature, and emotions are difficult to translate into iterative mechanics since they are for the most part psychological or interior phenomena (GSf, McDevitt 08/2010).

Dialogue was another topic that came up in the writings, albeit it wasn't very conspicuous from the point of view of problems or challenges. Peter Molyneux stated that there is still a lot to do in trying to eradicate repetitive dialogue from games, for it causes the player to get emotionally disconnected from the game world (GSf, Kumar & Nutt 29/05/2009). Benjamin Quintero was more worried about the requirement of perfect timing when it comes to emotionally effective dialogue; unlike in movies, in games the player is in charge and decides what to pay attention to. According to Quintero, this can easily result in players paying attention to something different than what the designer had intended. (GSb, Quintero 08/2009)

The technical aspect also came up in a number of writings. For the most part, the technical challenges were thought to relate to creating credible characters, especially in the areas of animation and artificial intelligence (AI). Benjamin Quintero was quite optimistic about character animation's and AI's emotional potential, but stated that there are still major technical challenges that developers have to overcome before reaching that potential. As we saw earlier, Ernest Adams believes that the fact that many games use finite state machines for their character's AI is one of these challenges. (GSf, Adams 01/2009)

> *"Most of our emotional simulations use a simple sensation/calculation/behavior loop. Someone says or does something to a character; this influences his emotional state; he acts upon his feelings.*
> *If these systems are really simple they produce absurd results: a character is furious one moment and cheerful a second later [--]." (GSf, Adams 01/2009)*

Scriptwriting in general was an area where the professionals saw notable problems and challenges. Charles Cecil blamed the industry for lacking writers aware of games' unique strengths and limitations, often resorting to hiring scriptwriters from other fields, who then use storytelling methods most familiar to them (GSn, Denby 04/2010). Steve Mallory wrote that even when the writers are aware of the mediums' unique features, they tend to resort to well-known structural tropes instead of trying to experiment with game medium specific methods (GSb, Mallory 02/2010). Darby McDevitt saw this as the reason for the industry being prone to using cutscenes[30] for telling stories. According to him, this tendency has split the development teams into camps of game designers and game writers, which in turn results in a lack of consistency in the emotions players experience when playing the game (GSf, McDevitt 08/2010).

> *"When a game wants to inject some pathos or philosophy into the proceedings, it's usually handled in a cutscene. Over the decades, this restriction has had the unfortunate consequence of splitting the interests and priorities of game designers and game writers into separate camps [--] often working in tandem, but rarely on the same problems." (GSf, McDevitt 08/2010)*

[30] A cutscene is a sequence in a video game over which the player has no or very limited control. Cutscenes are often used for telling the narrative, or to provide background information, indicate clues, or to simply create atmosphere. Cutscenes are sometimes referred to as "cinematics" or "in-game movies".

Signs of change

Despite the amount of talk on the need for change and the different obstacles in the way of video games reaching their full potential, many of the writers were already pointing at clear signs of change.

In the observed articles, many stated specifically that their company is aiming at creating more emotion, or aiming at creating specific emotions through games' means. Some, such as Electronic Arts, used emotion as a sales asset, promising more of it than before (GSn, Sheffield 06/2009), while others stated that emotion is what their games are all about. Peter Molyneux said that Lionhead Studios aims at more and deeper emotion in games (GSn, Nutt 03/2010), while Kellee Santioago pointed out that Thatgamecompany uses emotions as the starting point of their game design and that they want to experiment on emotions that don't exist in games yet (GSn, Sheffield 07/2009).

Interestingly, developers from other companies said that although there had been a change in their company's policies and priorities towards more emotion, it was not something they decided on, at least not consciously. Rather, it was a natural change that happened gradually over time, either over the course of years, or during the production process of a specific game (e.g. GSf, Remo 08/2010; GSn, Nutt 11/2009; GSn, Bear & Wilson 12/2009).

> *"Over the years, our concept of innovation changed. In the old days it was numbers on the back of the box. Now it's online features, emotion, and experience." A statement made by Lars Gustavsson (GSn, Sheffield 02/2009).*

This aim for creating emotional games – whether originally strived for or not – did not only come up in companies' own mission statements[31], but also in the writings of game professionals outside these companies. Companies such as Rockstar and Quantic Dream were brought up when talking about emotion in games, and Quantic Dream's *Heavy Rain* (Sony Computer Entertainment 2010) was even named one of the most important games in the medium due to its emotion inducing qualities.

> *"Heavy Rain isn't necessarily a great game [--] but perhaps one of the most important games in the medium. It is the first game to reach out to the player on a pure, human, emotional level and create that numb, emotional feeling after the experience has ended, the feeling that films for decades have so successfully created in audiences." (GSb, DiMucci 04/2010)*

[31] "Mission statement" refers to the statement of the purpose of a company or organisation. A mission statement provides the framework and context within which a company acts.

Another concrete sign of emotion becoming more and more important in games is the rise of tracking and researching emotional responses to games and media, and the fact that these type of endeavours are reported in Gamasutra. In the observed time period, Gamasutra had actually reserved the rights for an exclusive analysis with a company that uses proprietary brain monitoring EEG and bio-sensing technology to measure emotional and other types of responses to content. (GSf, Hong 12/2008) Another curiosity that came up in this area was the news article on Sony's newly filed patent for a device that will enable the tracking of emotional responses to media. Primarily it would focus on detecting laughter, but the filing goes on to say that the invention would ideally be able to sense other emotions as well. (GSn, Graft 08/2009)

As a whole, the professionals seem to be quite optimistic about the emotional dimension of video games, albeit far from being satisfied with it. The challenges and deficiencies came out as well known facts, and it seemed to be a commonly shared view that video games do indeed have potential for more – and that developers should pursue this potential. Despite the fact that some have already taken this path – a couple of game studios even as their mission statement – these companies and developers still seem to be few and far between. However, they seem to be considered pioneers by the other industry professionals, rather than followers of a soon-to-pass fad. In general the higher level talk on emotion gives the impression that the industry is already on the road towards the change that it is so strongly demanding for.

5.2.2 Searching for a solution

This section focuses on the concrete level discussion on emotion in video games. The topics are again divided under three main themes, indicated by the lower green bubbles in the mind map (see Figure 1): Framework for emotion; Interactivity, activity and emotion; and Other elements. The first part, Framework for emotion, looks at the aspects and elements that the professionals think should be taken into account when aiming at awakening emotions: pacing, balancing, consistency, and credibility. The second part, Interactivity, activity and emotion, examines the perceived role of activity and interactivity in awakening emotions, and the importance of meaningful choice and adjusting the player's control over the game events. The third part, Other elements, looks at other game elements that can be used for awakening emotion, including audio, visual elements, scriptwriting, and external elements such as menus, achievements and online features.

Framework for emotion

Pacing and balancing

The pacing and the balancing of a game's events and emotions were seen as intertwining elements, and important to take into account when aiming at evoking emotions. Most commonly these elements referred to the emotions the player is meant to experience throughout the game. Instead of simply adding more and stronger emotions, pacing and balancing the emotional moments in a game was seen vital for awakening different emotions and ensuring engagement. One writer, John Rose, even stated that pacing and balancing are some of the most important aspects of successful game design (GSf, Rose 07/2010).

This view was also shared by Clive Chandler, who talked about creating a pleasant, well-balanced roller coaster ride of emotion, with ups, downs and calm moments. He was not only worried about disengaging players, but also about the negative effects strong emotions can have on players. (GSn, Remo 05/2009)

Many pointed out that it is important to take the pacing and balancing of a game into account throughout the development process. For example, Toby Gard stated that it is useful to create a simplified representation of the whole game at the beginning of a production. This allows one to assess the pacing and emotional consistency of the game experience, and the team to keep the game cohesive, well-paced and emotionally effective. (GSn, staff 05/2010)

Having a writer focused on the game from the beginning was seen as another important aspect in designing good, emotional gaming experiences. According to Steve Mallory, having a good writer in the development team right from the start is the best way to ensure that proper groundwork is laid for the design of the game world and characters, thus allowing true, compelling emotion to occur (GSb, Mallory 02/2010).

Credibility and consistency

Strongly related to pacing and balancing, aiming for overall credibility and consistency of the game world, characters, and story was seen just as vital for awakening emotion. Jaime Mann stated that the players should be able to empathize with the games' characters, but for this to happen, the characters need to show credible human emotion. (GSb, Mann 08/2010) This, then, requires the illusion of the characters being intelligent and having their own will and personality – being realistic in a sense (GSf,

Kumar & Nutt 05/2009; GSb, Arca 07/2009). Christian Arca wrote that one way to do this is to use a method called Actor-Driven Narrative. It consists of semi-autonomous characters provided with episodic memory, and by pre-encoding the episodic memory and associating the memories with different emotions it is possible to create more dimensional game characters. (GSb, Arca 07/2009)

> *"An Actor-Driven Narrative consists of semi-autonomous characters which are comprised of a vast actor database which includes all that an actor knows. [--] We can create interesting characters [--] by creating a complex and complete actor database with diverse and complex knowings, specifically episodic memory." (GSb, Arca 07/2009)*

Many other means for creating the illusion of a character having his own will, having personality and being intelligent also exist, as we will see in the upcoming sub-chapters relating to audio-visuality and scriptwriting. One aspect that will be brought up here, however, is the need for giving the game characters' emotions – and emotional bonds between them – a cause, and the need to give players the time to build an emotional connection to the games' world and the AI characters. According to Steve Mallory, instead of presenting players with existing bonds right from the start, they should be allowed to "blaze their own emotional path". (GSb, Mallory 02/2010)

A few professionals also brought up the consistency of the game character's emotions; it was thought important that the emotions a character experiences should affect the gameplay, or be noticeable later on in the game in some other way. For example, the emotions of a game's character could affect his performance in a combat (GSn, Nutt 01/2009), or these emotions could be carried throughout the story by a carefully designed soundscape. (GSn, Sato 09/2009)

Activity, interactivity, and emotion

Choice

When looking at creating emotion through activity, giving the players the ability to make choices got a notable amount of attention from game industry professionals. However, the kind of choices the players should be allowed to make was strictly defined – according to a number of professionals, choices in games should force people to think, and this requires the choices to have visible consequences in the game. If the actions and choices the player makes in the game have no permanent or visible consequences, the choices lose all their emotional impact on the player, and make the player feel indifferent about the game's story and world. (e.g. GSb, DiMucci 04/2010; GSb, Markham 02/2010; GSf, Sheffield 02/2009; GSn, Vanden Bossche 03/2010)

"I think violence in games is perfectly appropriate, but we never show the consequences. [--] I think the rest of the game should show the rest of your life in prison!" A statement by Will Wright (GSn, Sheffield 03/2009).

According Shelly Warmuth, the importance of choice would suggest that the more complicated and branching the storyline and the more choices your game has, the better, more realistic and emotional it would be. Unfortunately, it would also be a very expensive and time-consuming game to produce. Her solution would then be to create a game full of small ethical dilemmas which affect the game just enough to create a shocking or surprising ending for it, making the player aware that the insignificant-seeming choices they made are the reason for this outcome. This would allow the designer to retain control over the intended emotions and storyline of the game, but still create the illusion of power to the player. (GSb, Warmuth 02/2010)

Opposing the general view, Justin Keverne stated that some games actually benefit from the lack of choice, such as *Uncharted 2: Among Thieves* (Sony Computer Entertainment, 2009). According to him, the appeal of the games' protagonist, Nathan Drake, is that he is a decisive character. This decisiveness takes away the emotional impact of choice and moves the focus to the drama that results from operating in this decisive manner. Thus, giving the player more agency would be detrimental to the appeal of playing as a protagonist such as Nathan Drake, and would thus diminish the emotional impact intended by the designer. (GSb, Keverne 01/2010)

"If a game features a well defined protagonist then the notion of including the option to behave in a way that goes against the nature of that protagonist is foolish, the very appeal of such a character is that they are already defined, often as a heroic character. Why introduce the seconding guessing and evaluating that comes from the inclusion of choice?" (GSb, Keverne 01/2010)

Control

Closely related to choice and sometimes discussed in the same context, control was another element of gameplay that was brought up as a tool for awakening emotion in players. It was stated that by carefully adjusting the amount of control the player has over their character (GSn, Vanden Bossche 08/2009), a situation in the game (GSb, Haverkamp 08/2009), or even the controller in their hand (GSf, Spitfire 01/2009), a number of emotions can be awakened.

According to nickname Spitfire, fear especially is strongly tied to the amount of control the player is given (GSf, Spitfire 01/2009). Finn Haverkamp, then, wrote that lack of control can be the strongest inducer of emotions, and a gameplay mechanic in itself (GSb, Haverkamp 08/2009). Especially drastic

changes between giving the player a lot of control – or at least the illusion of it – and taking this control away were seen as very powerful methods for awakening emotions (GSn, Vanden Bossche 08/2009).

> *"The control phrase, 'Would you kindly?', which seemed like nothing more than a quirk of Atlas's speech, now inspires a retroactive horror. Before this point, trusting Atlas felt like an option, but at the most critical point, when the player really wants the chance to exercise free will, that option is firmly denied." (GSn, Vanden Bossche 08/2009)*

One writer, Davneet Minhas, did however point out that if executed badly, taking control away from the player will result in nothing but frustration, an emotion he and other writers thought generally undesirable in video games (GSb, Minhas 06/2009; GSb, Lievano 06/2009; GSb, Bell 02/2010).

Interaction and player action

Since video games are an interactive medium where the user of the game product is also an active participant, it is no surprise both interactivity and player action came up as important elements in awakening emotion in players. Especially the AI characters were thought to be of great importance for this; the way other characters treat the player character, react to him and interact with him were seen as important ways of allowing the player to create an emotional bond to the games' world and characters, and a good way of telling the games' story. (e.g. GSn, staff 11/2009; GSf, Nutt 08/2009; GSb, DiMucci 04/2010)

> *"She [Alyx in Half-Life 2 (Electronic Arts, 2004)] gives back to you emotion, which is the only way we can tell the internal story of Gordon Freeman [--] by the way the other characters treat him [--]." (GSn, staff 11/2009)*

According to the professionals, AI characters need personality and emotions (GSf, Nutt 08/2009), and they need to react to the player's actions (GSb, Lin 02/2010); characters with personality and visible emotion make interacting with them interesting to the player, and the interaction itself makes the player feel more immersed in the game world. (e.g. GSb, DiMucci 04/2010; GSb, Moleman 04/2009)

In addition to the above, a few writings also discussed the effects the player's role and agency in games have on the emotional dimension. Steven Mallory wrote that you should not give ready-planned emotions to the player character right at the start of a game, but instead give the players the time to experience what the protagonist is experiencing, and be introduced to the world and the characters at the same time with the character they are playing as. (GSb, Mallory 02/2010) Christian Arca stated that one should not worry about how to express emotion through narrative, for emotions are subjective and will be presented through the player's actions (GSb, Arca 07/2009). According to

him – and also pointed out by Peter Molyneux on a different occasion – no matter what kind of stories and bonds between the player character and AI characters you plan to evoke, it's the player who determines how this plan turns out and affects them (e.g. GSb, Arca 07/2009; GSf, Kumar & Nutt 05/2009).

> *"See, that sort of stuff [referring to the interviewer's story of playing* Fable II *(Microsoft Game Studios, 2008)] we never designed. -- You design it. The player designs that emotional connection between, you know, 'I never got to give my son the sword.' When that happens, that's a real emotional connection." A statement made by Peter Molyneux (GSf, Kumar & Nutt 05/2009).*

Other elements

Audio

When looking at the audio-related topics that came up, a majority of them focused on music. Often music was seen as an enhancer or deliverer of the general emotion of a game, playing a supporting role instead of a major one. Nevertheless, music was seen as an indispensable tool for creating the emotional background of a game. (e.g. GSn, Jeriaska 04/2009; GSb, Johnson 06/2009; GSn, Jeriaska 04/2010; GSn, Cameron 07/2009)

> *"I think the music fundamental as it sets up a kind of emotional landscape for the voice-overs. Music bypasses so much of our interpretative preconceptions, it just hits directly to the heart, and that's why it's so fundamentally important to games [--]." A statement made by Dan Pinchbeck (GSn, Cameron 07/2009).*

The game characters were another element that came up relating to music. Although most comments concentrated on music as a way of conveying the general feel of a game, some pointed out that music is also an important tool in conveying the emotions of the game characters, especially in games where you cannot see your character or your characters' face for most of the game (e.g. GSn, Jeriaska 03/2010; GSn, Jeriaska 01/2010; GSn, Jeriaska 11/2009). Another important means of conveying character emotion that was brought up was voice acting and voice in general. Vicki Amorose wrote about how genuine emotion expressed in the voice is an important element of good voice acting (GSb, Amorose 04/2009). Rich Vogel, then, said that "[t]alking is filled with emotion", whereas text is a very sterile way of conveying information – instead of awakening emotions in the players, he saw text as something that makes them stop and think (GSn, Van Zelfden 03/2009).

Other types of audio, such as sound effects, ambient sounds and enemy sounds, were only mentioned briefly in two of all the observed articles. In his article on creativity, Brad Meyer prompts

designers to think about whether the enemy and ambient sounds help convey the overall emotion of the game (GSb, Meyer 02/2010). In an interview, game studio Frontier talks about the way they use audio to convey story, context and emotion in a compelling way, and states that it is a vital part of creating successful games. (GSn, Caoili 10/2008)

Visual elements

In writings relating to games' visual elements, game characters got notably more attention than any other element. Especially the expressions, gestures and posture of the AI characters were brought up as important elements in conveying and awakening emotion. (e.g. GSn, Denby 04/2010; GSn, Carless 09/2008; GSn, Alexander 01/2010) One whole article, written by Christiaan Moleman, was dedicated to examining character animation and its possibilities both emotion-wise and in other areas, such as immersion, character interaction and conveying information to the player (GSb, Moleman 04/2009). Another article, by Takayoshi Sato, looked at character animation in general; in this article, Sato writes that it is important to first understand everything about the characters you are creating – including their emotional life – and then think of how to reflect this through computer graphics. (GSf, Sato 02/2010)

> *"A good character should have a good signature pose. [--] What I mean here is the posing that defines the character's personality. [--] The neck angle and spine curve are typical targets. Simply pulling the spine in and out for default poses gives the character a really different personality." (GSf, Sato 02/2010)*

Other visual elements were also thought to serve both as conveyors and awakeners of emotion. For example, changing between visual styles can be used as an empathetic tool, conveying the emotions the character is experiencing instead of what the character is seeing (GSn, Kumar 11/2008; GSn, Vanden Bossche 02/2010). On the other hand, visual elements – especially visual effects – can also be used as such for awakening emotion. Jason Mitchell stated that by using shading, lighting, texturing and different types of post-processing effects, the mood of the game can be manipulated efficiently, stirring a multitude of emotions in the player. For example, when a player is under stress, the contrast can be heightened to add more tension. (GSn, Kumar 11/2008)

Scriptwriting

Good scriptwriting, including such features as character development and a thought-through story arch, was seen an excellent way of awakening emotions. (e.g. GSf, Nutt 10/2008; GSn, Denby 04/2010; GSf, Sato 02/2010) Takayoshi Sato wrote about how important it is to bring more depth into the story of a game if one wants it to really get the player emotionally involved. According to him, this

is best done through character development. He states that "[w]e need to understand the inner character beneath his surface persona", in other words, designers need to bring depth to the character by showing more than what is visible at first glance. As an example of this type of character development, he brings up a character who wants to say he hates aliens since it helps him stand out among those who favour them, when in truth he is not really sure what he thinks of aliens. Later in the game he will grow more and more tired of pretending to be something he is not, which can then be used for deepening the storyline further. (GSf, Sato 02/2010)

Other important elements brought up by many were the roles of interactivity and activity in storytelling. Many saw that this especially is something that games should try to play up and use more since it is a storytelling tool unique to the medium (e.g. GSb, Markham 02/2010; GSb, Polack 03/2009; GSn, Vanden Bossche 12/2009).

> *"The real story of* Mirror's Edge *(Electronic Arts, 2008) is told through the [gameworld and gameplay]. In fact, games may have greater potential as non-narrative art. The fact that there is more emotion in a gameplay than story is not a bad thing. [--] Mirror's Edge could have articulated the struggle for freedom in a repressive society through the act of running alone, and that is art in the way only a video game can be." (GSn, Vanden Bossche 12/2009)*

Finally, the ending – or sometimes the climax – of a game's story was seen as an important area of scriptwriting, determining the conclusion of all of the players' actions and emotional bonds tied during the game. (e.g. GSb, Kerezman 05/2010; GSb, Bell 02/2010) Especially Alexander Kerezman focused on the importance of a game's ending or climax, describing the multiple ways in which its successful execution affects the game's emotional impact on the player.

> *"There is nothing, absolutely nothing more important in a story than its ending. Endings are sacred. Endings are powerful." (GSb, Kerezman 05/2010)*

External elements

Some elements of games – especially of contemporary ones – exist outside of the game world but still relate to the game and expand the gameplay experience further. One example of these are what Gregory Weir refers to as non-diegetic elements: the game's background music, loading screens, menu screen, and subtitles, to mention but a few. These can be used to strengthen the emotion a player should be experiencing, or simply to deliver information, as is often the case. (GSn, Weir 11/2008)

Sometimes emotions are awakened or strengthened by expanding the world we live in into the games' world, by mixing elements of both. Mostly this option came up in EA sports -related articles. Electronic Arts brought up such topics as online features, downloadable content, and adding the EA sports players on ESPN – the “EA Sports virtual playbook” - when discussing elements relating to emotion in their games. (e.g. GSn, Aiton 08/2009; GSn, Alexander 04/2009)

Others also brought up the importance of virtual goods and for example achievements when trying to awaken emotions in the players. Michael Fergusson stated that virtual goods can be a way of expressing human emotion, for they hold social and emotional meaning. They enable the players to perform meaningful tasks within a game, and the goods become metaphors for packaging up behaviours that people are already engaging in. (GSb, Fergusson 08/2010) Achievements were thought to hold similar importance and meaning, although usually less related to the theme or fiction of a game than virtual goods (GSb, Fergusson 08/2010; GSb, Järvinen 03/2009).

The main finding that rose from the concrete level talk was how inseparable an element of video games emotions are. Based on the industry professional's writings, emotions affect all the different aspects and elements of modern video games, and need to be taken into account throughout the development process. Game developers have aimed at developing better and better gaming experiences throughout the existence of the medium, and in recent years emotion has started to establish its place as one of the major elements in developing good games. As a whole, the talk on emotion in video games seems to be moving more and more towards the industry taking concrete action to make their aspiration for stronger emotions and a wider emotional spectrum come true.

5.3 Discussion

It is evident from both of the observed sets of data that the discussion relating to emotion is characterised by a strong strive for change. This is not surprising, for the emotion discussion as a whole can be seen as the latest iteration on a much older trend: the game industry’s drive for creating better, more compelling gaming experiences. This does not only mean more realistic, immersive or fun games, but also more sophisticated, complex and mature experiences.

Although the majority of the industry has traditionally been driven by either the will to create fun entertainment (GSb, Haverkamp 08/2009) or the want for financial success (Kline et al. 2003, 57), there has also always been a group of developers who have seen games as something more than just a fun past-time. Many of them have been very vocal in their opinions, as well as acknowledged game

designers – in addition to Chris Crawford[32] this includes such industry veterans as Peter Molyneux[33], Will Wright[34], and Warren Spector[35].

This vocal minority has talked about games as a storytelling medium and as art, and more recently as an emotion evoking medium. The data gathered suggests that the rest of the industry is slowly joining them, not necessarily for the sake of improving video games' status in the eyes of the society, but because they have come to realise that emotion might be the next step on the road towards better games or bigger sales. It would seem that they have started to think games have notable emotional potential, and that with the player base getting older and wanting more mature themes, tapping into this potential is a worthwhile move.

Based on the GaIn interviews and other related data, it seems that the video game industry is indeed broadening and maturing. The data indicates that the game audience is changing and broadening in many ways. This broadening is not least driven by technological advancements, such as mobile gaming and the digital distribution of games. Partially due to this broadening and partially to the age of the medium, the development side itself is also broadening and maturing – veteran developers try to adapt to new demands, completely new actors are joining the industry, and development methods are becoming more and more sophisticated.

Demand for new type of content is also prevalent in the data. An adult audience will want more sophisticated games, and developers want and need to experiment in unexplored areas. This is where emotion comes in. Although emotion did not come out as quite the game changer one might have expected from the heated debates at the start of the millennium, it is definitely one of the trends industry professionals see a lot of potential in. Emotion also seems to play a part – although not necessarily a leading one – in the broadening and maturing of the industry. Emotion was seen as one element in providing for the rapidly growing group of gamers wanting more mature themes, but also in bringing in people who are not interested in so-called traditional video games.

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32 See Crawford 1984.

33 See for example Baker 2008.

34 See for example Kushner 2006.

35 See for example Loftus 2005.

The data gathered from Gamasutra indicates a similar expectation. Although there are a number of writings emphasising how the potential of video games as a medium is tied to the evolvement of the emotional dimension, the overall view does not seem to be this black and white. It would rather seem that although many believe video games do need to improve their emotional expression, the emotional dimension is just one component of a more general level need for change and for trying to reach the medium's full potential.

Another interesting finding is that the way emotion is talked of seems to be changing. While in the beginning of this decade many seemed to be debating whether there should be more emotion in games and whether games are lacking certain emotions, current discussion indicates that industry professionals are accepting emotion as an important and underdeveloped area of games, and starting to search for concrete ways through which it could be developed to its full potential. The emotional aspect also seems to be considered something that needs to be paid attention to all throughout the development process, and is important in creating better, more compelling gaming experiences.

The key solution suggested by the professionals is tailoring tools and methods specifically for video games and moving away from borrowing from non-interactive media such as cinema. The legacy of cinema is as a whole seen as a heavy burden for the games industry, and the main reason for video games' current lack of emotional dimension. Instead of using cinema's tools and methods for telling stories and evoking emotion, the professionals believe that games need to develop their own ones both in order to make better games and to enable the medium to evolve to the next level.

> *"If gaming is to achieve cultural validity in its own right, it will have to learn narrative methods which work for it specifically rather than trying to emulate others." (GSb, Markham 02/2010)*

The solution sounds simple, but the interactive nature of the medium makes it very challenging to tell stories by video games' own means, as many of the professionals pointed out. The challenges related to evolving video games' emotional expression and bettering the medium as a whole were discussed extensively, but the overall tone of the discussion was nevertheless optimistic. The notable amount of concrete level suggestions on possible ways of making video games more emotional was just one indication of this, but an even more distinct manifestation of the optimism was the amount of discussion on video game's potential. The tone in these discussions is very demanding but also very optimistic; the professionals write extensively about the potential that exists in the medium, in for example storytelling, character development, and gameplay.

Although the discussion is characterised by a strive or demand for change, many also seem to think that some sort of a change is already underway. Companies and individuals who had published or were working on games that would have more emotion, or who have emotion as one of their core design values, were brought up as examples of this change. They seemed to be regarded as pioneers rather than followers of yet another industry fad, which would suggest that the trend of deep and emotionally compelling games is expected to prevail.

If one looks at games that have been published in recent years, it becomes even more evident that the trend is indeed starting to establish its place in the industry. Although small, independent developers seem to have caught on the trend a bit faster[36], bigger productions are starting to follow them. Heavy Rain is probably the most prominent one of these, but in many cases the change is a lot more subtle – instead of making emotion one of their selling points, many studios regard paying attention to emotion as something that is a natural part developing a modern video game.

A growing number of developers have indeed started to bring emotion up as one of the important elements in developing their latest releases – for example the developers of both the upcoming games *Tomb Raider* (Square Enix, in development) and *BioShock Infinite* (2K Games, in development) talk about emotion as an element that affected their development greatly (Edge 2011, 58; Juba 2010, 55). The developers of *Dead Island* (Deep Silver, 2011) started the game's marketing campaign by releasing a very controversial, emotional trailer, building up increasing amounts of debate on how much of this emotionality would actually come through to the gameplay.[37]

Books on game design published in recent years also tend to have a section or two focusing on how to bring in more emotion. Most of such books seem to focus on characters and storytelling. For example Lee Sheldon in the book *Character development and storytelling for games* has a whole chapter dedicated to character emotion (Sheldon 2004, 102-103), and another one for player emotion (ibid, 239-244). Carolyn Handler Miller also has a whole chapter dedicated to characters and emotion in her book *Digital storytelling: a creator's guide to interactive entertainment* (Miller 2004, 89-118). At least one book has also focused specifically on designing emotion into video games: David Freeman with his book *Creating emotion in games: the craft and art of emotioneering.* In his book, Freeman

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36 Examples of this include *Braid* (Microsoft Game Studios, 2008), *Passage* (Jason Rohrer, 2007), and *Today I Die* (Daniel Benmergui, 2009).

37 See for example Webster 2011.

explores the different means through which video games can evoke emotion – mainly focusing on the game characters. (Freeman 2003)

Although many signs of change can be found, bigger productions and companies still seem to be wary of investing too largely on emotionality. In the observed Gamasutra articles, Sony Computer Entertainment admitted having been doubtful of Heavy Rain's success due to the game's heavy emphasis on emotion. The game demo *Project Milo* (Lionhead Studios), then, still seems to be causing a lot of controversy – the initial impression given was that the demo would eventually be published as a game, but soon after Lionhead Studio's Peter Molyneux presented the project at the 2009 Electronic Entertainment Expo[38], Microsoft announced it is just a technology demo, and not intended for publishing.[39] It is probable these types of cases are due to big companies being less willing to invest on risky endeavours, wanting to play it safe to ensure a stable stream of revenue (Kline et al. 2003, 57).

Emotion does not only seem to be a trend in the games industry, but also in technology. The interest towards emotion has started to grow in AI research in recent years, albeit it is still a minor area of interest in this vast field of research (Marsella et al. 2010, 1). However, only a small number of the AI research focuses on video games, with most of it looking at solving usability issues or making human-computer interaction more natural (Þráinsson 2010). Related to research on AI, many endeavours have also aimed at accurately measuring the emotions of a computer user. Advancements in these areas have so far been used in for example robotics, military training, therapy, and of course in the field of human-computer interaction.[40] Although it is debatable whether video games are the ones that

38 The demo was presented in a demonstration for *Kinect* (known as *Natal* at the time), Microsoft's new gaming device for the *Xbox 360* console. See for example Crecente 2009.

39 There has been quite a lot of controversy related to this particular demo. Both Microsoft's and Molyneux's statements have seemed to contradict each other – see for example Yin-Poole 2010. Lately it has started to seem like the project might be published as a game after all – see for example Lionhead Studio's discussion board for fans: http://lionhead.com/forums/p/302697/3662888.aspx#3662888 (access date 23.11.2011).

40 Examples of these include: "Paro Therapeutic Robot", an interactive robot seal: http://www.parorobots.com/index.asp ; "Kismet", an expressive humanoid robot: http://www.ai.mit.edu/projects/humanoid-robotics-group/kismet/kismet.html ; "NexIS", a prototype of a system using biological sensors for detecting changes in the emotional states of humans: http://www.kurzweilai.net/computers-get-in-touch-with-your-emotions. (Access date to all links: 23.11.2011)

affect these research trends, it is very probable that there is a connection to be found between the two – after all, games are often used as research tools.[41]

The video game related emotion discussion is also a part of the more general level discussion on getting more respect for video games as a medium and an art form. Interestingly, a change seems to be underway on this larger scale as well. Many art exhibitions, media art events and media art awards have started to include video games, and even main stream games can get awarded in these events.[42] The change also relates to the game audience broadening and the industry fragmenting – with companies starting to focus more on providing for a specific audience, a wider audience has started to get drawn into gaming, and vice versa. (Saarinen & Kultima 2011) This is also visible in the attitudes of the audience and the society as a whole – in mass media, games are more and more often acknowledged for their achievements instead of their faults, even if the tone still tends to be a bit incredulous, as the headline "Are Video Games Actually Good For Kids?" shows (Sieberg 2011).

Although the data gathered for this thesis proved to be valuable, it was not an easy one to work with. The data gathered from Gamasutra was especially challenging – even after narrowing it down notably, the remaining amount was still difficult to handle. Fortunately affinity diagram – the analysis method used – served its purpose well, and enabled handling such a large, challenging set of data successfully. As a result, it was possible to get a good, comprehensive look into the topics that relate to the emotion discussion, and a basic understanding of how the games industry functions.

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41 See for example the project site of USC Institute for Creative Technologies (ICT) http://ict.usc.edu/projects, and the research projects at MIT Media Lab's Affective Computing Group http://affect.media.mit.edu/projects.php. (Access date to both links: 23.11.2011.)

42 See for example Japan Media Arts Festival 2008: http://plaza.bunka.go.jp/english/festival/2008/winner.php and 2009: http://plaza.bunka.go.jp/english/festival/2009/winner.php; 2011 British Insurance Design Awards: http://www.gamasutra.com/view/news/33084/Angry_Birds_Rock_Band_3_Up_For_British_Design_Award.php. (Access date to all links: 23.11.2011.)

6. CONCLUSIONS

The deficiencies in the emotional dimension of video games have been talked of for 10 years, and although the games industry is characterised by constant, rapid change, emotion seems to be a trend that still hasn't been fully adopted, although it is still discussed on a regular basis.

The purpose of this study was to see what exactly is discussed when industry professionals bring the topic up, and what this tells of video games' perceived emotional potential. To do this, two sets of data were gathered and analysed: interview data on the future trends industry professionals are following – originally gathered for the GaIn research project – and a selection of articles talking about emotion, gathered from the online publication Gamasutra.

As we learned in the introduction, discussion on the role of emotion in video games is not a new one. Emotion has been a noticeable topic in game journalism and among industry professionals ever since the well-known statement Sandy Duncan made in 2001 (BBC News 2001), and although it does not seem to be as strong a buzz word as it was a few years ago, the topic is still prominent. As the data examined in this thesis shows, emotion is one of the trends followed in 2009 and 2011 by industry professionals, and was still written of on a regular basis during the time period from 2008 to 2010 on the best-known online trade publication Gamasutra.

The emotion discussion that got initiated ten years ago seems to have evolved since, and become more and more concrete. Industry professionals are examining ways in which emotion could actually be embedded to modern video games, and a number of games considered emotionally impactful and innovative have been published in recent years. It would indeed seem that the emotional grammar and models that Jason Rohrer was demanding for in 2008 (Esquire 2008) were already being developed at the time of the interview, and a number of developers have started to make use of these models.

As a whole, it would seem that games are not lacking emotion as such, but rather emotion game developers want their audience to experience. Emotion is already an inherent part of all human activity, but making your audience feel the emotions you want them to feel is a completely different thing, and a thing the whole emotion discussion seems to revolve around. Although contemporary video games have started to have more and deeper emotion, and models for designing more emotion have started to form, the emotional dimension of the medium's expressive possibilities does not seem to have reached maturity yet. Nevertheless, the impression mediated from the observed data is that

although game developers see a number of challenges in the way of the video game medium reaching its full potential, reaching this potential is doubtlessly an achievable goal.

Working on this thesis simultaneously with a related research project has been an interesting and invaluable experience. Despite being two separate entities, this thesis is definitely a part of the Games and Innovation project; not only does it include some of the findings and expand on the emotional aspect, it also fills some of the gap that seems to exist in game design research and studies on emotion in video games. Looking at what game developers think and know is already valuable in itself, but especially valuable is what these thoughts and knowledge tell us of game design and development. Although work on this area has already been done, there is always room for more; the games industry will never stop looking for new ways of challenging their players, telling stories, and evoking emotions.

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APPENDIX

GDC TRENDS 2009 & 2011		
Game cultures		
	2009	**2011**
Effects of “casual turn”	9	8
Industry broadening	9	13
Social games	13	12
Deeper experiences	23	18
Development		
	2009	**2011**
Industry bifurcation	13	8
Independent game development	22	20
Maturing industry	14	13
Data-driven development/ player centric design	16	22
Technology		
	2009	**2011**
Next generation platform	12	18
Natal/Kinect	2	7
Business & distribution		
	2009	**2011**
Business models	8	17
Digital distribution	16	16
Other		
	2009	**2011**
Dynamic and emergent content and assets	10	11
Mobile gaming (technology)	7	16
Serious games	12	-
Gamification	-	8
Games for health	-	6
Cloud computing	-	7