# VIDEO GAMES AND THE VALUE OF ENTERTAINMENT

Dr Mata Haggis

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Extended version of the Inaugural Lecture delivered by Mata Haggis on the occasion of his appointment as Lector/Professor of Creative and Entertainment Games at NHTV Breda University of Applied Sciences, the Netherlands, 1st June 2016.

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# INTRODUCTION

This lecture will seem ridiculous in fifty years. That may seem like a strange way to start a lecture, but it is the truth, and if you leave this room agreeing then I will have achieved something today. Many of you, in part at least, may not feel that there is a fundamental social or cultural value to entertainment, and particularly that there is little value to creative- or entertainment-focused video games. With this lecture, I hope I will be able to reassure you that they have immense value in many ways. I also hope that in fifty years, everything I tell you today to justify that value will be considered common knowledge to the point where restating it would be ridiculous. Such is the nature of working in an expanding territory.

## History

In comparison to the other major creative fields, video games are a young medium. Atari launched *Pong* forty-four years ago, in 1972. It was the first video game playable by the public. Taito released *Space Invaders* in 1978, and it was 1980 before the world played Namco's *Pac-Man*.

The first public showing of motion pictures by Emile Reynaud was in 1892. Cinema began in a very different world from the one we live in now. Distribution of technology and ideas was slower but, if we judge video games to be forty-four years old, then they are now in the equivalent period that cinema had reached in 1936: the first ever 'talkie' was released eight years ago, Disney has not yet released a full-length film, Charlie Chaplin releases *Modern Times*



*MODERN TIMES* (CHAPLIN, 1936)

(1936), and *Citizen Kane* (Welles, 1941) is five years away from giving birth to many of the techniques that became the essential language of modern cinema. The USC School of Cinematic Arts has been open for only seven years, and it will be another three decades before the concept of getting a Bachelor's degree in film becomes commonplace.

The purpose of this comparison is simply to highlight this: we have barely begun to understand what video games are as a medium, and although the entertainment video games industry has many similarities to cinema, games in 2016 are at an entirely different moment in their evolution and history than cinema has reached in 2016. Such comparisons can be useful, but I would suggest that they are most beneficial as a glimpse into the future of video games rather than necessarily as a gauge of their value in the present moment.

This is not to suggest, of course, that video games currently have no value: cinema in 1936 had immense value, and it was also perhaps underestimated by many at the time exactly how large the film industry would grow to be. I will spend the rest of this talk discussing the present and possible future states of video games.

*Dear executive board of NHTV,*
*Dear dean of the Academy for Digital Entertainment,*
*And dear colleagues, peers, friends, and family,*

By comparing games to films, I only mean to highlight that games are not yet a mature medium, and that our investment of effort in understanding them now is laying down the foundations for their development in the decades to come. In fifty years, the idea of an associate professor of creative and entertainment games will seem as logical and commonplace as having a professor of film studies, but we are not in that time yet. The efforts of NHTV University today to understand the form and potential of creative and entertainment video games will become part of a greater history of the development of the medium.

## What is meant by 'creative and entertainment video games'

Before moving forward, I should briefly define the sector of video games that I shall be discussing. The video game industry is a broad and diverse grouping that includes developers working around the world from Alaska to Africa. I will be using several terms to describe different kinds of video games, which some in the audience may not be familiar with.

The first term is 'serious games'. These are pieces of interactive digital software whose purpose is to educate the player in a particular field of knowledge or skill. They are focused on creating a learning outcome and so commonly address real-life situations by simulating an activity or scene. Although they can be fun, when viewed in a certain light, it is fair to say that accuracy of the information or skills is the goal and that 'fun' is a secondary objective. The video game medium is chosen here for the compelling realism and complexity of the simulations and experiences the games can offer, not necessarily because of their intrinsic entertainment value. The safe learning environment creates a situation where powerful educational experiences are possible.



APPLIED GAMES IN ACTION: *PIANO STAIRS* (FUN THEORY, 2009)

Alongside serious games are 'applied games'. The terms are often confused, but the boundary can be described as this: whereas serious games are intended to teach new behaviours, applied games are intended to reinforce or promote particular existing behaviours. For example, it is healthier for a person to walk up a staircase than take an escalator, but most people will choose to do the latter, so an applied gaming strategy could be developed to make the stairs more fun to use (for example, by making them a playable piano) and in this way encourage healthier behaviour (Fun Theory, 2009). The applied game approach does not teach a person how to use stairs; instead, it re-contextualises an activity through playful interactions to make it more appealing. Applied and serious games can also be used to raise political awareness and to educate players; for example *Peacemaker* (ImpactGames, 2007) illustrates the complexity of the Israel–Palestine conflict. Both serious and applied games are growing markets with enormous potential. They are commonly funded by governments, corporations, or research groups and are considered overall to be of benefit to society. It is both socially and academically respectable to be associated with serious and applied games.

However, these are not the topic of my lecture today. Instead, I shall be discussing the value of 'creative' and 'entertainment' games. The entertainment games sector is the most famous grouping of video games. Its lineage goes back to games such as *Pong*, and to earlier non-public examples, but is best known today for games such as *Call of Duty* (Activision, 2003–present), *Grand Theft Auto* (Rockstar Games, 1997–present), *World of Warcraft* (Blizzard Entertainment, 2004), and *Candy Crush* (King, 2012). Like Hollywood films, the entertainment games sector is driven by multi-million dollar hits, and the objective is entertainment of the audience in the most classical sense of the word: excitement, exploration, mastery of rules, fear, competition, and a myriad of other definitions of 'fun'. Like simulators can be fun from a certain viewpoint, these games can be seen as healthy or educational too, and I shall discuss this further later in this lecture, but the objective of entertainment games' developers is to drive audience engagement with playful interactions, usually to achieve commercial profit.

Creative games take a different approach to entertainment. Rather than prioritising 'fun', they explore the range of experiences that can be delivered through video games. It is in this field that games are most often considered to be approaching art. These games may be largely aesthetic in their focus, such as *Memory of a Broken Dimension* (Hanson-White, 2016) or *Proteus* (Curve Digital, 2013), or they may be focused on creating a narrative experience, such as T*hat Dragon, Cancer* (Numinous Games, 2016) or my own game *Fragments of Him* (Haggis & Sassybot, 2016). The creative games sector aims to create interesting experiences through digital interaction. These games may address serious issues, such as grief or depression, and so can be interpreted as serious or applied games if the player chooses to do so, but often such interpretations and results are not the driving factor of the creator's vision for the experience.

Creative and entertainment games provide experiences, which may be fun or engaging through other forms of appeal, and their



THE HIGHLY STYLISED LANDSCAPE OF *MEMORY OF A BROKEN DIMENSION* (HANSON-WHITE, 2016).

objective is not primarily to educate or train the audience. To return to cinematic metaphors, a useful comparison might be that a historical documentary is like a serious game, applied games are aerobics videos that you watch time and again re-watch to remind you how to best keep in shape, entertainment games are like *The Avengers* (Whedon, 2012), and creative games are like *Schindler's List* (Spielberg, 1993) or *Eraserhead* (Lynch, 1977). However, unlike the film industry, which respects this broad ecosystem, within current research, and especially in regard to funding, serious and applied games are given far greater emphasis in terms of academic interest and respectability.

While the benefits of serious and applied games are self-evident, entertainment and creative games appear to be disposable entertainment at best, or indulgent and impenetrable artistic endeavours at worst; however, creative and entertainment games have value for the economy and society, and they contribute to the creative arts.

## THE ECONOMIC VALUE OF CREATIVE AND ENTERTAINMENT VIDEO GAMES

The video game industry has grown to be a powerful part of the business of entertainment, with Canada and the UK, among others, offering generous tax incentives to attract games publishers and developers:

> In addition to Canada, there are about a dozen states in the U.S. that have tax breaks against production […] even the Russian government just announced an $18-million investment in video games and high-tech media industries. (Gamasutra, 2010)

That countries make efforts to entice video games companies supports the view that the income to be made from tax revenues far outweighs the expenditure on incentives. The results for the video games industry in the UK are extremely strong, with the gross value added by the industry making up more revenue than the value added by 'film, TV, music, publishing, design, fashion, and architecture combined' (Kamen, 2016).

Unfortunately, it is difficult to get an accurate estimate of the scale of the income and expenditure of the global games industry, due to numerous factors: the relatively young age of the games industry may partly explain its hesitance to openly share data about its true size or profitability, and the distribution platforms are highly fragmented: they include physical shop locations, online game and app stores, home console downloads, arcade cabinets, and a variety of direct-to-consumer options. What is known is that the overall trend is a strong growth in sales, but the estimates for the starting points and the increases vary depending on the source.
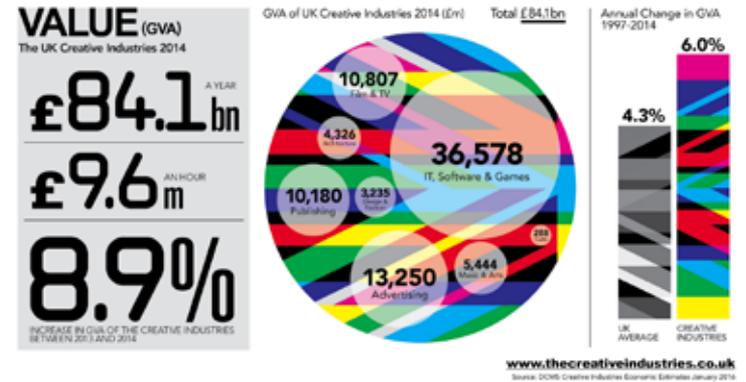


SOURCE: DCMS CREATIVE INDUSTRIES ECONOMIC ESTIMATES, CITED IN KAMEN (2016)



SOURCE: NEWZOO (2016)

### The economic situation for video games in the Netherlands

As with the situation on a global scale, precise figures are difficult to gauge in the Netherlands. The most extensive survey of Dutch games development, The Games Monitor report, says that:

[Between 2011 and 2015] over 60% of Dutch game companies saw a growth in revenues, with an aggregated turnover of €155–225 million. However, most profits are modest (up to €100,000). (DutchGameGarden, 2016)

Although the numbers are clearly large, the margin of accuracy is somewhat troubling: there is a €70m difference between the lowest and highest estimates, which is 50–70% of the total revenue. The lack of transparency in the games industry weakens the strength of economic arguments for further governmental and social recognition of the industry's value to the Netherlands. The arguments are strong, but would be stronger if these figures could be presented with greater certainty. Pushing for additional transparency on a national level, while still respecting the essential privacy needs of individual companies, would give additional weight to the arguments for the economic value of creative and entertainment games.

In the Netherlands, the number of studios developing entertainment games has almost doubled in the past four years, overtaking the number of serious/applied developers in the country. The balance between serious/applied studios and creative/entertainment studios is now almost 1:1, and this is likely to shift in coming years due to the growth in entertainment games studios outpacing the growth in serious games studios. The Netherlands has always had an unusually high proportion of serious/applied developers compared to other European countries with a developed games industry, perhaps due partly to public policy and funding strategies and partly to specific cultural circumstances, but these factors appear to be diminishing. The economic results for Dutch studios are currently modest, but it is a positive sign for the national economy that developers are joining the creative and entertainment video games sector.
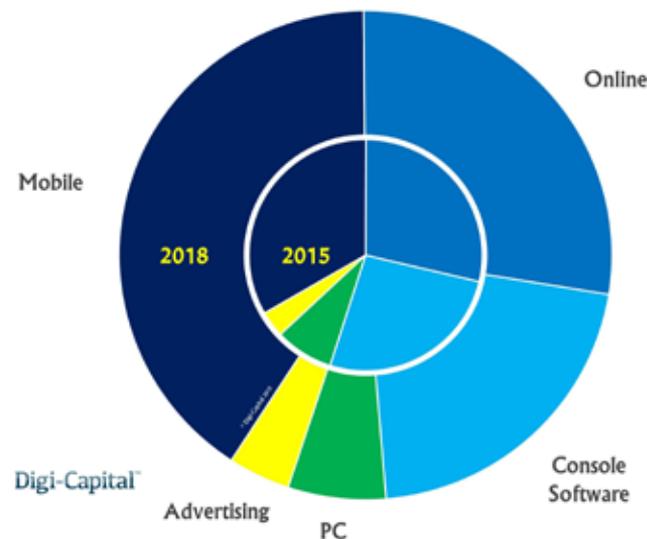


SOURCE: DIGI-CAPITAL (2015).

## The global market

At a private presentation in 2015, Nintendo shared the statistic that it believed the revenue from the global industry that year would be US$111bn (in comparison, global cinema sales were estimated to be circa US$83bn); however, research firm Digi-Capital estimates that revenue for the games industry was US$88bn in 2015 and that it will grow to US$110bn by 2018.

In comparison to Digi-Capital's estimate of US$88bn, Newzoo's research suggested that revenue was US$91bn in 2015 and will be US$113bn in 2018, showing a growth rate of US$10bn per year and defying the downward or stagnant trend experienced by many industries since the economic crisis of 2008.

Newzoo are also predicting that the USA and China will earn 50% of the global revenue from entertainment video games by 2018 (Newzoo, 2015). The dominance of these major countries suggests that unified economic structures and procedures benefit the developers based there. It would be to the advantage of Europe if a similar strategy could be found that supported and unified the games development in this region, perhaps with equal economic incentives across the region. The economic arguments for creative and entertainment games development are clear, but Europe will need to actively pursue the market if it wishes to retain a competitive edge.

## THE SOCIAL VALUE OF CREATIVE AND ENTERTAINMENT VIDEO GAMES

The ability to engage with the world playfully is a critical function of a healthy individual. The economic contributions of video games, as a significant part of the wider entertainment industry, are clear, but the less tangible social benefits of creative and entertainment games are often overlooked in preference for more eye-catching negative news stories about video game culture. My colleague Professor Igor Mayer researches some of the direct benefits that are possible through playing serious of applied video games, but games that are purely focused on entertainment or artistic expression also have positive outcomes for players.

### Politics and the representation of women, minorities, and the socially excluded

Questioning social structures has always been a key feature of a healthy democracy, and the games industry has always been engaged with political commentary in both direct and indirect ways. Michael Peck (2015) observed that, like other cultural artefacts, 'games and gamers inevitably reflect the values of their times'. This
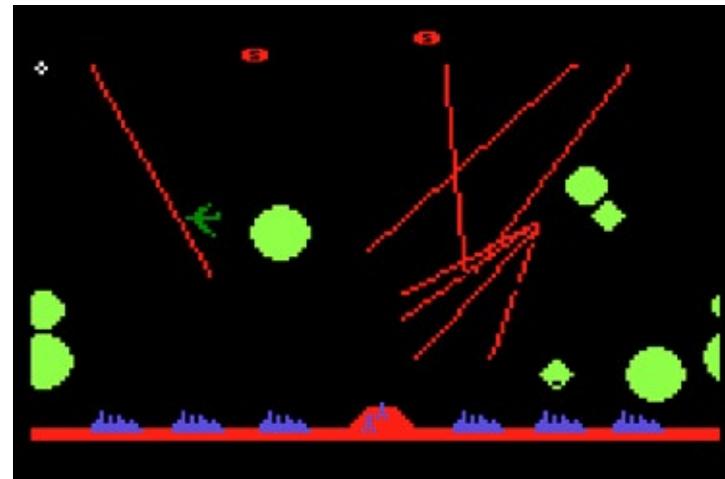


THE DEVELOPERS OF *MISSILE COMMAND* (ATARI, 1980) WERE INSPIRED BY AND CONSCIOUSLY COMMENTING ON THE COLD WAR IN THEIR GAME.

dialogue between art and society is almost as old as the medium itself: *Missile Command* (Atari, 1980) is a game in which players defend cities from an unstoppable barrage of missiles, and when a player inevitably loses, the game does not say 'game over' but instead says 'the end'. Dave Theurer, creator of the game, said that:

> *Missile Command* embodied the Cold War nightmare the world lived in. […] That was the whole point of the game […] to show that if there was ever a nuclear war, you'd never win. (Rubens, 2013)

In the 1990s there were many examples of implicit and explicit environmentally aware themes in video games, such as *Sonic the Hedgehog* (Sega, 1991) and *Echo the Dolphin* (Sega, 1992). More recently, *Spec Ops: The Line* (2K Games, 2012) was heavily critical of America's military–industrial complex. These are only a handful of many possible examples that demonstrate that video games have always been a politically charged and culturally reflexive medium

and, in addition to the previously mentioned topics, in the last five years there has been increasing recognition within the industry of the need for social responsibility in its engagement with society as a participant, creator, and employer.

<div style="color:#c0392b">The stereotype that all players are teenage boys has been thoroughly and repeatedly disproven</div>

Part of this increasing awareness of social responsibility is related to the treatment of women, minorities, and the socially excluded in video games' content, culture, and creation. When video games were the preserve of a small group of enthusiasts, attitudes of sexism and other issues of inequality, although prevalent, had only a minor impact on wider culture; however, now that video games are the dominant economic force in the entertainment sector, their influence in establishing social norms has become greater, and arguably some responsibility for those norms has been automatically assumed. The stereotype that all players are teenage boys has been thoroughly and repeatedly disproven (Entertainment Software Association, 2014), with varying percentages of players identifying as non-male and spread over a wide range of ages (depending on the genre of game), but the games industry has been slow to adapt its mainstream content strategies. The blame for this slow change cannot be placed entirely on the history of games culture: many aspects of society are struggling to overcome pasts rooted in the objectification of women, racism, homophobia, ageism, and many other prejudices; for example, the film industry, despite its comparative maturity, also has ongoing problems with prejudices (Denham, 2015). This alignment with a wider social reticence to change does not excuse the video game industry; it only shows that it is not alone in facing the social legacy of an unjust past.

The young age of the games industry may mean that it has the potential for rapid change. Unlike cinema, which has a century of history behind it, video games only have a few decades of patterns to break, and cultural criticism of the games industry has grown in intensity in the past decade, resulting in many games developers carefully re-evaluating ideas that twenty years earlier would have seemed entirely acceptable. Cliff Bleszinski, former design director for the hyper-masculine *Gears of War* franchise, recently said in an interview that 'some of us are starting to recognise that games have been about white dudes for so long, it's really good to switch it up a bit' (Evans-Thirlwell, 2016). There are signs that the high-end video game industry is increasingly willing to address stories featuring characters derived from beyond the Hollywood leading-man stereotypes, with increasing numbers of games featuring women as the lead characters, compared to only a few years ago, and platform holders such as Microsoft making direct statements in support of diversity initiatives and values (Microsoft, 2016).

Beyond the high-end, high-budget games, there are a growing number of individuals and small companies that are being empowered by free games development software that enables them to create video games without the need for hundreds of staff and vast resources. These games, which are usually developed by independent companies (or 'indies') with no ties to major publishers, are exploring video games as a way of telling stories that are not commonly associated with the medium. *Gone Home* (Fullbright, 2013) is one such game: the player is a young woman exploring the unexpectedly empty house of her family. She learns about her sister's blossoming sexual identity and first lesbian relationship, and discovers a side of her parents that they had kept secret from their children. It is a coming-of-age story that feels very personal due to the player seeing the world through the eyes of the protagonist. It is an experience that at times is frightening, but it is also heart-warming and uplifting.

My own game, *Fragments of Him* (Haggis & Sassybot, 2016), features four characters: two lead women (one of whom is above

SOURCE: *FRAGMENTS OF HIM* (HAGGIS & SASSYBOT, 2016)

retirement age), and a bisexual man and his gay partner. It features no violence, and has no horror (apart from the everyday tragedy of a car accident) or science fiction/fantasy elements. Players walk alongside the lead characters in a story of love, memories, and hope. Game culture and review website Polygon says that when the story of *Fragments of Him* reaches its emotional peak, 'it does so with a searing and open humanity that connects the player with each of its characters, and, fleetingly, with the immensity of their desolation' (Campbell, 2016). The game has almost no features that make it classically a 'game' experience: there are no puzzles, challenges, or high scores. Instead, it is purely about experiencing a beautiful and engaging story.

It is becoming more common, especially in the independent games industry, for games to prominently feature a variety of genders and a diversity of sexualities, but there is still further territory to explore in the representation of race, ethnic identity, age, class, faith, physical and mental functional limitations, and more. These representations should not be forced into games as a checklist for diversity acceptance; instead, developers should ask: what story, setting, and characters will create the most interesting gameplay

and scenarios? If the answer is a cisgender and heterosexual white man in a generic warzone, then that is who the lead should be, but advocates of diversity, such as myself, would like developers to intuitively also consider whether choosing other characteristics would prompt stories that may be more engaging, exciting, innovative, or provide better gameplay mechanics, and to freely choose those options without fear of this choice being seen as a controversial political statement.

Featuring a diverse cast in a video game requires more than, for example, simply including people of colour to increase racial diversity: the manner in which diverse characters and locations are included matters too. In illustration of this, when video games in the past have included non-white characters, they are often highly sexualised (particularly Southeast Asian women), or they are highly physical (rather than cerebral) in their presence, that is, they are athletes or violent criminals (particularly people who are black, and across genders). A study led by Dmitri Williams in 2009 examined the range of characters that played leading roles in video games, and found the following:

> The results show a systematic over-representation of males, white and adults and a systematic under-representation of females, Hispanics, Native Americans, children and the elderly. Overall, the results are similar to those found in television research. (Williams, Martins, Consalvo, & Ivory, 2009)

Of the representation of people who are black, and cisgender men who are black in particular, the study found that 'outside of sports games, the representation of African Americans drops precipitously, with many of the remaining featured as gangsters and street people in *Grand Theft Auto* and *50 Cent Bulletproof*' (Williams, Martins, Consalvo, & Ivory, 2009). This is the history of games, and the study highlights that this is also the history of much of western media. It is an unspoken racism whose roots go back hundreds of

years, and I hope we can contribute to increasing awareness of this problem and creating a more equal future through the emerging medium of video games.

These issues are complex and intersectional, requiring improvement both inside the games sector and in society

The discussions of diversity in games are not restricted to the games' content. In video game development studios, and the broader technology sector, there are ongoing discussions about the limited number of women and people of colour, especially people who are black, who are engaged in the development of the software or occupying leadership positions. These issues are complex and intersectional, requiring improvement both inside the games sector and in society, where early access to technology, marketing, and support for using technology is frequently directed at boys from white, middle- and upper-class families. Balancing this access and support with targeted actions is part of an overall social strategy to improve the equality of access for all people to essential working skills and to increase social mobility for everyone. Ideally, a point would be reached where these measures become unnecessary, but the extreme swing in access to technology over the last thirty years unfortunately requires similarly extreme measures to redress the balance and create a society in which freedom of choice is supported for all. Where social mobility is high, all of society benefits from higher standards of living. Although these challenges are big, the games industry needs to play its part inside and outside its offices.

As video games take their place alongside other mainstream entertainment media, such as films, books, theatre, and music, there will be a corresponding growth in cultural criticism of their content. Like the B movies of 1950s America and Japan's *kaiju* films, which reflected anti-communist paranoia and fear of nuclear

weapons respectively, as games grow as an expressive medium they are also likely to become increasingly reflective of a social zeitgeist. The study of how video games engage with public discourse is an emerging feature of video game culture. It may seem quirky today when a journalist writes a serious piece on how an entertainment video game provides a cultural touchstone for understanding the physical world, but such articles are likely to become commonplace and accepted in both the mainstream journalism and the academic cultural criticism of the future.

There are many challenges for games in regard to political commentary, social inclusion, and equality, but the problems are increasingly being brought into the open for discussion and analysis. It is through understanding the nature of the medium and its interaction with society that games will continue to grow in their relevance as an expressive medium. Today's action and fast-paced games are going to continue to exist, and I very much look forward to playing them myself, but in the years and decades to come we will see an increase in other uses of interactive digital media for more nuanced forms of entertainment, and I very much look forward to playing those too.

## The health of players

By increasingly featuring diverse casts and situations, video games are beginning to promote some positive attitudes towards tolerance in society, but games still bear the stigma of being a physically unhealthy activity for players. Although stereotypes persist about obese gamers who rarely get any exercise, a meta study by Anton Lager and Sven Bremberg (2005) found that 'the available longitudinal studies of video game playing and [being] overweight do not support a link.' Their review of thirty game studies revealed how far the public's perception of video games is removed from reality.

A FOUR-PLAYER ROUTINE IN *JUST DANCE* (UBISOFT, 2011)

Looking to the future, the effect of games on their players will need further investigation. There have been, and continue to be, many successful video game franchises that base their gameplay on physical movement. Games such as the highly popular *Just Dance* series (Ubisoft, 2009–present) require players to perform what are often quite strenuous routines, and those games are not alone; however, it would be disingenuous to say that such exertions are typically demanded by creative and entertainment games. Nonetheless, academic studies suggest that, as part of a balanced lifestyle, sedentary traditional video games pose no health risk.

We are increasingly seeing overlaps between digital gameplay and physical life. The growth of 'escape room' locations is one example where an online puzzle genre from the early 2000s became the inspiration for flourishing physical world businesses. Additionally, augmented reality (AR) allows us to overlay digital gameplay elements onto physical environments, and alternate reality games (ARGs) are used increasingly frequently as promotional tools to allow audiences to step into the universes of their favourite games and film franchises in advance of big releases, and they often provide very prosocial elements and interactions.

All of these examples demonstrate ways in which experiences that are purely focused on outcomes that are artistic, creative, and/or commercial entertainment can have a positive impact on players, but it would be remiss not to recognise that game playing can also have negative consequences for the lives of the players. When taken to excess, the playing of games can have similarities to addiction.

In their review of research into video game addiction, Kuss and Griffiths (2012) cite both the cohesion and the subsequent limitations of research in this field. Studies approach gaming addiction primarily as an analogue of gambling addiction, and this approach is sometimes both fruitful and limiting, and can skew results: 'although gaming and gambling share a variety of similarities, they cannot be necessarily equated with one another' (ibid.). The studies of gaming addiction in adolescents are also predominantly self-selected or based on parental assessment, which again creates bias within the results. There are theories about gaming addiction being linked with dopamine release, but other studies approach it purely as a behavioural disorder with minimal physiological input. Despite many studies, this is an area in which further research is needed.

Like other addictions, detrimental playing of video games cannot be viewed in isolation. Mike Fahey, an editor at popular entertainment gaming website Kotaku, argues that he was addicted to games because he was hiding from other factors in his life:

> I hid. I ran from my problems, hiding away in a virtual fantasy world instead of confronting the issues that might have been easily resolved if I had addressed them directly. As far as I am concerned, the only thing Sony Online Entertainment is guilty of is creating a damn good hiding place. (Fahey, 2016)

As Lager and Bremberg found, there is no link from video games to obesity, but this does not mean that games are not a factor in ill health when combined with other social influencers, such

as poverty, unemployment, drug addiction, and other causes of social exclusion. Although it would not be wise to argue that video games are the sole cause of social problems, it would be equally problematic to assert that they can never exacerbate social problems. The social responsibility of the video game industry is an area in which improvement is happening, but there is still progress to be made.

## Cognitive benefits of playing video games

Even without using applied and serious game design strategies, creative and entertainment games do bring valuable benefits to their players

While studies of video games are inconclusive concerning their addictive qualities, and show no correlation with obesity, 'there is a strong support for video and computer game playing giving positive effects on cognitive abilities' (Lager & Bremberg, 2005). This area is predominantly explored through the lens of applied and serious games, but there is research that shows that entertainment games also bring significant benefits to players: '[players] improved significantly more than the control participants in executive control functions, such as task switching, working memory, visual short-term memory, and reasoning' (Basak, Boot, Voss & Kramer, 2008). Even without using applied and serious game design strategies, creative and entertainment games do bring valuable benefits to their players. Basak's study focused on elderly players, and found that they benefited significantly from playing strategy video games. The benefits of maintaining active cognitive processes are obvious on a personal and social level, and entertainment video games have consistently been proven to deliver this. As today's highly games-literate population ages, we will get further longitudinal data on how playing video games affects our minds, but early studies suggest that the outcomes may be positive in many ways.

## The (missing) link to violent behaviour

Although the cognitive benefits of gameplay are clear, there are persistent questions about the thematic content of video games, particularly within the entertainment sector, in regard to their frequent use of extreme violence. Unfortunately, research in this area has been consistently problematic. A meta study from 2007 of the published literature found 'publication bias does exist for experimental studies of aggressive behaviour [resulting from playing video games]', also 'studies employing less standardized and reliable measures of aggression tended to produce larger effect sizes' (Ferguson, 2007). Studies that found a stronger link between games and violence were more likely to be published, and those with a weaker research methodology tended to show that the link was stronger compared to the better studies, suggesting that the link is tenuous at best. The publication bias makes a balanced review of this area very challenging.

Developers do not want violent games such as Grand Theft Auto to be played by people under the age of 18

There is currently no undisputed evidence that video games have any long-term impact on players' attitudes towards physical world violence or aggression, and there is only minimal evidence of small, short-term impacts; however, this does not mean that all games should be accessible to people of all ages. Commercial sales of video games are already subject to age ratings through boards such as PEGI in Europe and the ESRB in America. These systems work in the same manner as film ratings and are intended to prevent underage players from buying games. Developers do not want violent games such as *Grand Theft Auto* to be played by people under the age of 18, at which point it is hoped that players have the emotional maturity to be unaffected by the content. Unfortunately, many parents buy games for their children before the children have reached a suitable age for the content. The

games industry supports government initiatives to better educate parents on the importance of supervised and age-appropriate gameplay. Likewise, adults' susceptibility to the influence of violent media is a well-known mental healthcare problem that is familiar from the film industry, and even from book publishing.

Although violent video games have no proven link to violent behaviour in healthy adults, like all media they do play a role in a wider social system. In neuro-normative circumstances and in balanced social systems there is no evidence that games pose a threat to players; outside those circumstances there is currently no reliable evidence that they pose any more of a threat than other entertainment media. This does not mean that evidence cannot be found, but it does suggest that any link discovered will likely be complex and highly context-dependent.

## Summary of the social benefits of creative and entertainment video games

There is a very little uncontested evidence that video games alone are a cause of addiction or poor physical health, or that they lead to violent behaviour, and there are many strong studies that have proven the value of play for mental and social wellbeing. Besides these positive studies, the video game industry is maturing and it is increasingly addressing its challenges, particularly in respect to the equal treatment of women, minorities and socially excluded groups. It cares about the age of players and has been using age ratings in Europe since 2003. From the perspective of society, and with the blinkers of outdated stereotypes removed, there is no societal reason to withhold support for the entertainment video game industry, and there are many areas where further research can benefit its development.

# THE CULTURAL CONTRIBUTIONS OF CREATIVE AND ENTERTAINMENT VIDEO GAMES

To make a wider estimate of the value of the entertainment, and the contribution to this from creative and entertainment games, we need to assess the presence of games within the cultural sector. Like other creative and artistic media, video games are taking their place in galleries and at arts festivals. The games exhibited range in form from previously mentioned highly abstract experiences such as *Proteus* or *Memory of a Broken Dimension*, to conventional entertainment-focused video games such as *Minecraft* (Mojang, 2009). Video games are gaining traction as a location for creative artists to realise their visions, either by themselves or in collaboration with studios, and their work is being discussed in mainstream journalism (Stuart, 2016).

Creative games, as part of the digital arts scene, are growing in presence in the creative and cultural sectors

Unlike in the Netherlands, where 'the creative industries' is typically used to indicate the application of artists to non-cultural business sector work, in the UK (and generally globally) 'the creative industries' has a strong bias towards indicating the arts and cultural sector, alongside but with far lesser emphasis on the commercial sector. The Creative Professions and Digital Arts (CPDA) department of the University of Greenwich in the UK recently launched a new Master's course, their MA in Design for Cultural Industries. The course is advertised as primarily appealing to 'artists, curators, designers and policy-makers wishing to advance their design thinking by bringing their own projects to life' (University of Greenwich, 2015). Creative games, as part of the digital arts scene, are growing in presence in the creative and cultural sectors, appearing regularly at events such as light festivals like Glow Eindhoven, music festivals, and other arts

events. Interactive storytelling is also making an impression on the literature, music, film, and theatre industries.

## Video games as art

Discussions about the controversial artistic and cultural value of mass entertainment are not new. In 1962, W. H. Auden wrote that:

> What the mass media offers is not popular art, but entertainment which is intended to be consumed like food, forgotten, and replaced by a new dish. This is bad for everyone; the majority lose all genuine taste of their own, and the minority become cultural snobs. (1962, p. 83)

The Modernist art movement of the mid-twentieth century believed that the public should be encouraged to engage with challenging works of high art as a way of enhancing their aesthetic appreciation (and through this, it was assumed, they would automatically improve their lives), but the Post-Modernist movement rejected the division between high and low art, resulting in work from artists such as Andy Warhol that elevated the everyday item through an act of deliberate appreciation, rather than the art object itself demanding attention: Post-Modernism rejected the metanarrative that art can only be of a good standard if validated by the gallery system. Modern cultural criticism varies between Modernist and Post-Modernist modes of thought, but it is clear that the digital medium is a mass media platform for new works of art.

The division between high and low art is often subjective, as is the case with the arguments for video games being art. This debate occasionally resurfaces within the entertainment video game culture, and it reflects a pattern that has previously manifested in the fashion world, where there is a similar tension between creative skills, technology, and mass commercial appeal. Clothes



LANDSCAPE PHOTOGRAPHY BY PHIL ROSE. ALL IMAGES ARE FROM WITHIN THE VIDEO *GAME GRAND THEFT AUTO V*, NOT THE PHYSICAL WORLD. SOURCE: ROSE (2013).

are now exhibits in galleries, raising a discussion that Auden would have been familiar with: 'works of fashion are interpreted in an art historical context that elevates what we are looking at beyond a consumer good or star vehicle' (Rossi, 2016). In regard to games, a multi-billion dollar franchise such as *Grand Theft Auto* can be seen as pure entertainment, an artwork, or even a platform for generating new art: photographer Phil Rose used the landscapes of *Grand Theft Auto V* as a location for a shoot, creating artworks from within the game world (Rose, 2013). Similarly, *Minecraft* has been exhibited at MoMA, in New York, and at many other international galleries, alongside more institutionally accepted works of art. The distance between mass media entertainment and fine art, which could be summarised as 'art versus Art', is increasingly a matter of perspective, and video games are at the centre of this discussion.

Whereas *Grand Theft Auto* and *Minecraft* are both clearly intended as commercial products for mass entertainment, other video games appear to be more comfortable in the creative sector. As discussed in regard to the representation of diversity themes in games, there are games that tackle complex and nuanced issues. *That Dragon, Cancer* (Numinous Games, 2016) tells the true story of the creators, Ryan and Amy Green, whose son was dying of cancer while they were making the game. The game deals with the themes of love, loss, and religious faith, presented in a style that can be compared to the cinematic style of 'magical realism' seen in films such as *Amélie* (Jeunet, 2001) and *Pan's Labyrinth* (del Toro, 2006). The way the topic of mortality is handled in *That Dragon, Cancer* uses the interactions of video games to create an immersive and emotionally realistic sense of the lives of the creators as their son's health waned.

Although arguably less weighty in its inspiration, *Memoir En Code* (Camilleri, 2015) also deals with the real life of its creator, using small instances of gameplay to convey his feelings at the notable moments that he considers to have shaped his identity.

With relevance to the topic of diversity, *LIM* (Kopas, 2012) has an abstract graphical style and uses gameplay mechanics to convey the sensation and pressures of being non-conforming people in general, and transgender people in particular, who are forced to fit in with social expectations (Keogh, 2013). The entertainment value of *Fragments of Him* is also derived from the aesthetic and emotional experience rather than it explicitly being fun. Such games indicate a healthy expansion of the video game industry, which is exploring the potential of the medium in many directions. Auden would likely frown on *Grand Theft Auto V* and he may be more comfortable with *That Dragon, Cancer*, but the presence of these very different experiences within the medium of video games supports the argument that they will continue to develop as an increasingly important creative medium alongside the blockbuster commercial entertainment releases.

## Creative and entertainment games' contribution to music

The sounds of video games are part of the cultural milieu of younger generations. Musicians such as Jay-Z, Will Smith, cLOUDDEAD, OK GO, Dizzee Rascal, The Prodigy, Eminem, and many more have used samples from video games in their songs. On a more formal level, the German group Symphonic Game Music Concerts (*Symphonische Spielemusikkonzerte*) has been touring the world since 2003 playing to sold-out concert venues. It is a full orchestra with a repertoire that consists entirely of music from video games, and it is only one of many professional classical orchestras that are drawing large crowds with performances based on video game music.

Another example is the artistic narrative game *Everybody's Gone To The Rapture* (The Chinese Room, 2015), which features a full original soundtrack of classical music composed by Jessica Curry.

Video games are likely to eventually take their place alongside established destinations for composers

The music was also released by the Sony Classical label. It ranked high on many classical music charts; however, there was controversy when the Official Charts Company moved it from the Classical Music Chart, where it would probably have been in the number one position, and across to the Soundtrack Chart. The classical chart also features the soundtrack to the Harry Potter films, and so there appears to be a double-standard where film scores are acceptable alongside traditional classical music releases, but video game scores are not (Yin-Poole, 2015). It is easy to imagine that such a discussion also occurred last century over the inclusion of film soundtracks alongside traditional composers, and so video games are likely to eventually take their place alongside established destinations for composers.

From hip-hop samples to classical music, creative and entertainment video games have already reached a point of significance in music culture. As shown by the decision of the Official Charts Company, video games are not yet fully established as a respectable place for musicians to work, but there is a sense that music culture is reaching a tipping point, where video games are becoming an integrated part of its expressive platforms.

## Literature and video games

The literary world is also not exempt from the influence of digital interactive media. Writers have been actively experimenting with games since the appearance of the first 'choose your own adventure' book, *The Cave of Time* (Packard, 1979). These books influenced the development of text adventure video games in the 1980s, survived through digital literature tools such as *Storyspace* (Bolter, 1987–present), and in the last decade have enjoyed



*80 DAYS* (INKLE, 2014) BRINGS A MODERN PERSPECTIVE TO A LITERARY CLASSIC.

a resurgence of interest due to the increasing ease of online distribution. Modern games such as 80 Days (Inkle, 2014) are explorations in the video game genre of interactive fiction (IF) and have large numbers of both readers and writers. IF underwent a decline during the 1990s, when graphical fidelity was the focus of many games developers, but the omnipresence of e-readers and the internet have given the written word a new life in the video game industry. IF games/stories not competing with the largest game or literary releases in terms of financial importance, but they are financially sustainable for the authors and a signifier of the ongoing cultural exchange between creative and entertainment video games and traditional artistic culture.

## Film, theatre, and video games

The cinema and television visual effects industry benefits from the co-investment of time and money by the video game sector. Many of the most advanced special effects shots use software that was developed alongside video game production interests, such as 3D modelling software Maya (Autodesk, 1998–present) or procedural

generation software Houdini (SideFX, 1986–present). There is also stylistic cross-pollination in camera angles and movement, action sequence choreography, and more, and these examples are evidence of a healthy exchange between video games and cinema.

Even traditional theatre performances are adopting technology from the video game industry, ranging from projected backdrops animated using video game technologies, to a proposed research project of my own that, if successful, will record the world's first dance choreographed specifically for viewing with stereoscopic virtual reality devices. Virtual reality and 3D technologies are going to have wide-reaching impacts throughout our lifetimes, and we are only now beginning to see their emerging influence.

## Summary of the cultural contribution of video games

From the visual arts to theatre, and in forms that are either mainstream entertainment-focused video games or interactive experiences that are self-consciously artistic in intent, video games are becoming a recognised element of the creative cultural sector. Artists are already choosing to use the video game medium to express themselves, and this choice is only going to become more common in the future. The techniques and technologies for game production are becoming accessible to creators with little knowledge of the technical realm, meaning that digital art is an increasingly commonplace mode of cultural expression and will build on its emerging status as a 'creative industry' in its own right.

## CONCLUSION AND ACKNOWLEDGEMENTS

*Relying purely on market forces to support research is a flawed and short-sighted solution*

We are at a tipping point in the history of video games. Their value as training and educational tools has been recognised for decades, but their value and contribution to society as purely creative and/or entertainment products has been much more controversial. As I stated at the beginning of this lecture, in fifty years it will probably seem ridiculous that today's talk was necessary: the value that I have discussed today will be self-evident. I should like to thank NHTV's executive board and the dean of the Academy of Digital Entertainment for their foresight in recognising the value of research into the creative and entertainment video games sector, especially because it is a challenging field in which to get institutional recognition.

However, the cultural tipping point is being followed only very slowly by research funding bodies, and part of my work will be to find ways to get more direct research funding for the creative and entertainment video games industry. In the same way that the film industry has support, the creative and entertainment video games sector needs research that is supported by funding bodies at both the national and the European level. Relying purely on market forces to support research is a flawed and short-sighted solution: if the Netherlands and Europe want to have a place in the future of the valuable creative and entertainment games sector, they must directly fund research that supports the sector, as currently such funding is largely absent. NHTV has taken a step in this direction by supporting the future development of creative and entertainment video games, and public funding bodies need to follow suit.

NHTV has also taken a step to support diversity in the technology industries: with its support, I speak regularly about the need for the

equal treatment and opportunities for women, minorities, and the socially excluded in our industry, and I am open in these talks about my own bisexuality and gender identity. Through this professorship, NHTV is contributing to open and respectful discussion of these topics. I will continue to highlight work for improving the equal treatment and opportunities for everyone in the games industry and in gaming culture, and encourage proportionate representation of a variety of identities in games' content. I applaud and appreciate the support of NHTV in this matter, specifically the dean of ADE and the NHTV executive board, but also my colleagues in the research and teaching sections of ADE. I thank them for their dedication to improving the working conditions and accessibility for everybody in the games industry, and for supporting the expansion of the creative range that is available to the industry in its work.

I would also like to thank my friends among the staff, students, and alumni of NHTV who have made me feel very welcome at this university and in this country. Thank you to my friends in the games industry who have supported my development over the years. Finally I would like to thank my family, my best friend, and my partner for sharing their lives and love with me.

## Creative and entertainment video games are much more than toys for the amusement of children

In conclusion, it is increasingly clear from their economic benefits, their social benefits and challenges, and their contributions to the cultural sector that creative and entertainment video games are much more than toys for the amusement of children: millions of copies are sold, they are played by people of all ages, and they are good for our mental health. They are taking their place in galleries alongside venerable masterpieces, they are online, and they are delighting millions at public art and music festivals across the world. In fifty years we will have generations that have grown up intuitively knowing that the value

I have discussed today is real. NHTV is playing a role in shaping that future. With NHTV, I will be fostering appreciation of the value of creative and entertainment video games, and nurturing a greater understanding of this rapidly evolving medium.

Thank you for listening.

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## Digital Media and Games at NHTV – Experience, Innovation and Research

With three inaugural lectures, NHTV's Academy for Digital Entertainment (ADE) is putting the Centre for Games & Digital Media on the map. The centre promotes, coordinates and conducts research and innovative activities in the areas of games and digital media, with a focus on 'engaging playful experiences' in 'Digitally Enhanced Realities (DER)'. It designs and studies engaging playful experiences for their intrinsic capacity (for entertainment and fun) and for their impact (learning, change). The centre works on 'the creation and research of experiences'; affiliated designers create (or imagine, design, make and produce) new experiences in the form of innovative game and media concepts and playable prototypes, right up to the development, production and market launch of games and media products and services. What is more, the centre studies playful experiences experientially: in lab experiments, field labs and pilots, through real-life interventions, and through the observation of behaviour and cultures in online games and media.

**Digital Media Concepts** – The *digital media research* area is entitled 'Contextual Connected Media' and has a focus on virtual reality. It uses media context as the guiding principle to measure, explore and understand the functionality and role of virtual reality. In doing so it provides a framework against which organizations can create virtual reality concepts and media strategies designed to engage and reach audiences who do – or do not – move across different media platforms.

**Creative and Entertainment Games** – The *creative and entertainment games* research area is entitled 'Understanding the shaping of identities and worlds in creative and entertainment games'. It examines the discourse between players, DER, and the social and historical contexts in which games are played. It does this both from the approach of cultural criticism and technological

investigations, looking at the relationship between gaming artifacts and player experiences.

**Serious games** – The *serious games research* area is entitled 'Playful Organisations & Learning Systems'. The ambition is to design and study the impact of games – their concepts, principles and technology – on team performance, organisational effectiveness and the management of complex systems, for the good of society.

# ABOUT THE AUTHOR

**Mata Haggis** (1977) is a professor of Creative and Entertainment Games at NHTV University's Academy for Digital Entertainment. His PhD in cyberculture was awarded in 2007 by the University of Southampton, UK. He is an experienced game developer and has worked both independently and in high end games development contexts. His latest game, *Fragments of Him* (2016), is a collaboration with a local Dutch company and has been described as 'groundbreaking' by The Huffington Post. He began working at NHTV in 2010 as a senior lecturer and took on the role of associate professor 2015. He has assisted in restructuring the Bachelor's curriculum to an innovative 'role-based learning' structure, as well as teaching on the two ADE Master's courses. His research focuses on understanding how games form a dialogue between developers, players, and wider society, particularly in the areas of diversity and inclusivity. He intends to build both academic appreciation for creative and entertainment games, and to strengthen ADE's industry ties. In the last year, he has initiated research projects into VR and creative media, and has spoken at many international conferences, such as GDC in San Francisco and the DHRA Conference in Dublin. He has guest lectured at several universities, including USC and Avans, and has had his work extensively covered in both industry and traditional press. In 2016 he was appointed as an expert in games development by the EU's EACEA (Creative Europe) program. https://www.linkedin.com/in/matazone

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