

Experience production in digital media and games

Hans Gelter, Luleå University of technology

Hans.Gelter@ltu.se

Introduction

In Sweden the conceptualization the creative industries (Caves 2000) as *experience industry* (Wahlström 2002) was introduced in 1999 (KK-stiftelsen 1999; 2001; 2002; 2003) to stimulate its growth, border-crossing between the different areas and its integration with traditional industry. It included traditional creative areas such as music, film, photo, animation-art, television & radio, performing arts, industrial design, authorship & publishing, fashion, journalism, architecture and advertising while the “new experience industry” was defined as new performing arts, arts in new media, Computer/TV-gaming, edutainment, education, experience tourism, gastronomy, nature experiences, handicraft and events (KK-stiftelsen 1999). These have later been lumped into 13 formal areas of the *experience industry* as architecture, design, film/photo, literature, art, market communication, media, fashion, music, gastronomy, performance art, tourism, and experience based learning (KK-stiftelsen 2002). Digital media is included in the area of “media” and digital games are included in the area “experience based learning”.

The expectations of the experience industry have since been high to substitute diminishing traditional industry as we leave the industrial epoch, and several of the 13 areas of the Swedish *experience industry* are flourishing while others are struggling for growth. In total the *experience industry* in Sweden increased from 1995 to 2001 with 6,4 %, consisting of 6,5 % (284 000) of the working force producing a worth of 109 billion SEK (4,5 % of BNP) in 2001 (KK-stiftelsen 2003). In 2001 media, including digital media constituted 17% of the Swedish *experience industry* being the next largest area after tourism (25,2 %) and having an annual growth rate of 1 % while experienced based learning is ranking on the 8th position constituting 4 % of the *experience industry* but with a growth rate of 13 % annually, the second largest growth rate after performing arts (25 %). The digital game area is the youngest and most promising in the new *experience industry* and constituting of only about 85 companies with 500-600 employees in Sweden. The market for digital games increases with 10 % annually in USA and Sweden (Robertson 2003). Thus the potential for growth and development of digital media and games seems to be obvious.

Digital media and gaming in the experience industry

There has been a wide range of labels for the new technological gaming such as video games, computer games, TV-games, consol games, electronic games, etc. as the technical platform for playing has changed, and I will therefore use the term digital games, as the gaming soon can be transferred between different digital platforms such as computers, play-consoles, mobile phones, digital watches, digital media platforms in cars, houses and public places. KK-stiftelsen has used the word *experience based learning*, for digital games as the area of virtual gaming is fusing with reality role gaming exemplified by the latest game developments such as “Blast Theory” fusing computer gaming, theatre, arts and performance based on the game “Majestic”. In Blast Theory (Blasttheory) the player uses internet, mobile phones, gps-systems and public areas to fuse fiction and reality in a hide-and-see game. Digital games and simulations are also introduced in science centres, museums, tourist attractions for fusing real world with virtual representations of other times and places and thereby creating a new basis for experiential learning.

A working definition of digital games has been proposed as "interactive activities where the player has a role within an artificial world that is regulated by rules that forms the challenges the player has to overcome" (Robertson 2003). But also this definition will soon be old-fashioned as the real-virtual world fusion is developing. Today over 42 changes of digital games have been identified such as sports, artificial life, text adventures, simulations, racing, combat, adventure, card games, quiz, strategy, puzzle, role-play etc. (Robertson 2003) but this diversity will probably increase when more and more businesses see the potential of digital games, such as education, research, information, advertising, traditional media etc. By digital media I here refer to all traditional analogue media that has been transferred into digital form including photo, film, TV, radio, web, DVD/CD, mobile phone, gps-positioning, etc.

The shift of contemporary post-modern society from the information technology society to the experience society (Pine & Gilmore 1999), attention society (Davenport & Beck 2002), transformation society (Pine & Gilmore 1999) or dream society (Jensen 1999) have profound effects on our daily lives, consumption behaviour and economical systems as well as the production within the new digital media and games. At the same time, if producers of digital media and games can overcome conservatism, these new technologically based experiences have the potential to revolutionize our experience realms.

The concept of digital media and games already today covers a broad field of contemporary communication and entertainment. In the future it will include most of our communication systems and interaction with the machine world such as transportation vehicles (cars, elevators, trains etc.), industry and production robots, household machines (refrigerator, media centres, monitoring and security systems) and personal management technology (gps, clocks, cameras, handheld media, mobile phone and mobile internet etc.), the future potential of border-crossing, development of platform-free applications and system integrations is unlimited. Digital games with their capacity to artificially simulate real or virtual worlds will with increased computer capacity become an increasingly important learning and simulation tool in education systems for most occupations besides being a major entertainment component. The concept of experiential learning, mostly based on Kolb's (1984) experiential learning cycle has become to embrace this whole new field of interactive learning aided by digital technology.

The digital media evolution has today become one of our civilizations fastest evolving technologies and making prediction for the future more than 5-10 years seems as fruitful as making weather prognoses more than 10-20 days ahead. This technological "revolution" has in my opinion, however, been restricted by strong conservatism, in the same way as our transport revolution of cars and trains still are based on and restricted by basic concepts from the horse driven cab of the pre-industrial area. Our traditional media such as written text and photos and films from the cellulose area have only been transferred to the digital media without any transformations or evolution despite the tremendous potential for interactivity and new ways of production within the media. In the same way traditional hide-and-seek play, war-and-fight games, race games etc. from the analogous play grounds and analogous games such as card games, puzzle games etc. have been converted to digitalized forms without any basic transformations or evolution. Of course, the power of the market and customers conservative demands to buy "the known" strongly regulates development and evolution of new concepts, but I suspect that conservatism within the new media and game industry has in addition contributed to this restricted development.

My suggestion here is that new concepts and understandings within the area of experience production could challenge this conservatism of the digital media and game industry. Recognizing the learning aspects within digital media and games as conceptualized by *experience based learning* is a first positive step in broadening the development potential of the technology. Theories about learning through experiences have been around since the emergence of formal education (Aristoteles, Comenius etc.) and have been developed into a formal pedagogic theory of *experiential learning* (Boud et al. 1993; Colin & Wilson 2006; Kolb 1984; Mulligan & Griffin 1992), but need further development based on new understanding within experience production.

Experience production within digital media and games

Within the area of experience production the development of theories was boosted by Pine & Gilmore's theory of the Experience Realms (Pine & Gilmore 1999) and several attempts to find theoretical frameworks for experience productions have been proposed (Gelter 2006a). These have the potential to become a theoretical platform for a creative and bordercross evolution of the digital media and game industry. In this paper I will restrict the concept of experience production to the proposed experience realms of Pine and Gilmore (1999) as an example of concept development for the digital media and games.

The theory of the experience realms was developed by Pine and Gilmore (1999) as a theoretical foundation for the experience industry (Figure 1). According to Pine and Gilmore staging experiences is not about entertaining consumers, but rather about engaging them. Thus a primary dimension in experience production is that of consumer engagement in the experience which will be the first dimension in our analysis of digital media and games (Figure 2).

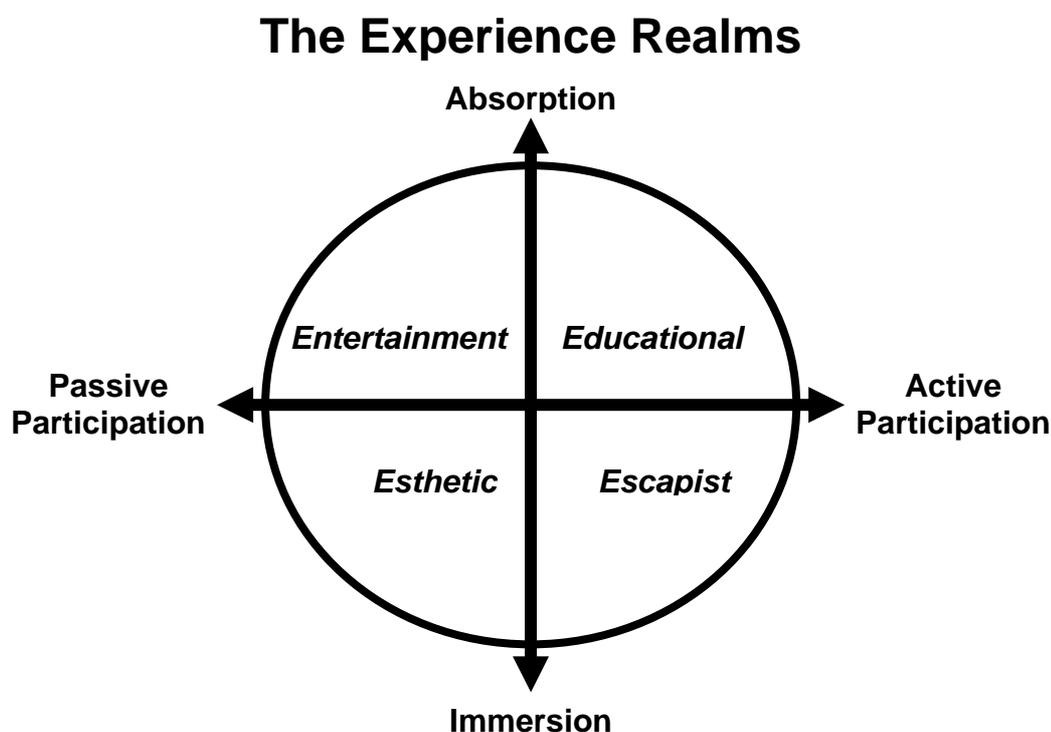


Figure 1. The Experience realms of Pine & Gilmore (1999, page 30)

Engagement

At one end of the engagement spectrum lays passive participation where consumers do not directly affect or influence the events in the experience, but rather are pure observers or spectators or listeners of the production. This is the realm of the traditional entertainment such as watching TV, listening to radio, watching DVD-film etc. At the other end of the spectrum lies active participation where the consumers personally affect the performance or events of the experience and active create their own experience. Within digital media this can represent producing and consuming your own media production, being a “*prosumer*” such as producing your own Blogs or Flickr on the Internet or producing your own movie to be consumed by yourself in by a company offered setting, or playing a laser game.

In between these lay an area of interactivity, where the experience producer has set the stage and possible events, but the consumer by interactive actions can chose the sequence of the events. Here we find most digital games and the future of interactive media (interactive TV, interactive marketing etc.). In figure 2 you find some digital media and games along the engagement dimension. The position along the axis is not based on any absolute ranking criteria, but rather on relative subjective criteria.



Figure 2. Some digital media and games plotted along the customer's participation dimension.

From figure 2 we can see is that most digital media such as television, CD-music, DVD-movies, etc. still are on the same passive participation end of the consumers engagement dimension as their preceding analogue media. Digital media is today still passively consumed although some interactivity through mobile phones and SMS are associated to some TV-programs such as voting and eliminations of actors in TV-drama etc. Even newscast and newspaper on the internet are still not more then traditional analogue techniques transferred to the digital media platform. Despite the evolution from analogous to digital platforms and the potentiality of digital media for interactivity they still are in the same experience realm as their preceding analogous ancestors. Thus the potential for introducing true interactive experience into media production has a high potential to revolutionize the new digital media.

In DVD-movies the guest can to some extent interact with the DVD production by choosing excluded scenes, interviews, background information, but such information is still passively consumed. Digital photo has been reshaped by the introduction of digital photo editing and filtering by photo-software such as Photoshop and others, letting the photographer interact in

an active post-snapshot creation of the photography. Webpage's of the internet are still mostly passive consumed, although new webpage programming through Flash and other techniques allows for higher interactivity. Here the bandwidth connections to the internet and the development costs for high interactive webpage's limit the development of the guest's active participation of the internet experience production. As the bandwidth transfer technology develops the interactivity on homepages will increase. Also digital marketing, either through television/radio or internet is still within the passive consumption realm with the potential to develop into a future field of interactive marketing. Here experience production can open completely new ways of interactive or even consumer active marketing strategies through the digital media, where direct consumer opinions in stead of scripted actor statements will be a new marketing field, already used by many internet sales sites such as amazon.com. If these presently text-based consumer feedback interactions are developed into picture based, story telling based or even game based customer feedback marketing, marketing would develop into what we could call *marketainment*.

Digital games have developed furthestmost in integrating player's activity in creating the play-experience. From its origin of simple arcade games which basically were pure and simple entertainment games, game technology has opened for a high degree of interactivity and engagement of the player in the game performance. Even though the player can choose from an increasing number of scenarios, stories and arenas, these are still produced by the game producers, thus limiting the player to an interactive player of predefined settings and staging. Some digital games allow the player to build their own game arena such as building your own car race track or roller cast arena and then go for a ride, and this will be the next step in game experience production – to create your own game worlds with your own rules, participants, stories, scenarios and even own natural laws for the behaviour of the events in the experience. Thus the next mode in the evolution of digital games would be that the players create their own universe of experiences with their own rules and the game producers only providing the tools for this.

One major step in the evolution of digital games was online-gaming, creating world-wide gaming communities, thus enabling the player to choose his or her co-player from around the world. This evolution was again initiated by text based interactions such as MUD (Multi User Dungeon) as technology initially only allowed text based interaction. The thousands of MUD-communities have now through games such as Doom, Quake and others developed to graphic based internet play communities. Such LAN-gaming has become a compliment or in worst scenario substitute for social interactions among youth. This development of game communities has paralleled the development of internet communities such as Lunastorm and others and new forms such as Blogg and Flickr communities are evolving fast. In such game and social virtual community settings the person can create and switch between different personal characters or rolls. Creating and switching between multiple identities is characteristic for the transformation society (Pine & Gilmore 1999). In graphic based communities such alternative identities take the shape of avatars of celebrities, monsters or completely new creatures. These virtual communities allow the person to create their own social experiences and virtual life styles. With the use of webcams and microphones these virtual communities can interact, play games or just communicate in real person or with artificial avatars in different constellations of pre-created or through player's interaction created common virtual universes. In such complex virtual communities the simple entertainment realm has evolved and blended with both escapist and educational realms of experiences. This development of digital game communities is evolving in a fast way where

academic research and even commercial applications hardly has grasped its complexity and utility.

Within gaming and entertainment the trend now is technology fusion, where game consoles such as Sony Xbox become more and more entertainment centres with the integration of mp3-music, DVD-movies, webcam for internet communities etc. The same trend occurs within traditional computers and home entertainment equipment as well as palm computers and mobile phones. These new “media-multitasking” capabilities of the new entertainment centres enables a high interactivity with the media in the form of easy switching between different media forms but as long as the different media components not evolve per se, it is still a kind of semi-interactivity. True interactivity and participatory experience production need an evolution within each media form such as higher interactivity in movie production, music production etc., something that traditional media producers resist to develop, as their artistic control over their productions will vanish. Technology for interactive film and movie production already exists as well as morphing functions for pictures, movies and now even music. Such highly interactive or even guest driven media productions will open completely new business areas within the traditional media industry.

Involvement

A second dimension in Pine and Gilmore’s Experience realm (figure 1) describes the connecting or environmental dimension that unites the consumer with the event or performance of the experience. At the one end of this spectrum lies *absorption* of the experience, a person’s attention to bring the experience into the mind. When watching TV the produced experience (the program) “goes in” and the consumer is absorbing the experience, like a “sponge” is absorbing water. On the other end of this dimension lays *immersion*, the ability to become physically or virtually part of the experience. The consumer “goes into” the experience as when playing a virtual reality game and becomes immersed in the experience. When combining these two dimensions Pine and Gilmore defines four “realms” of experiences; entertainment, educational, escapist and esthetic realms that can come together to form unique personal encounters with the events in the experience.

The Experience Realms

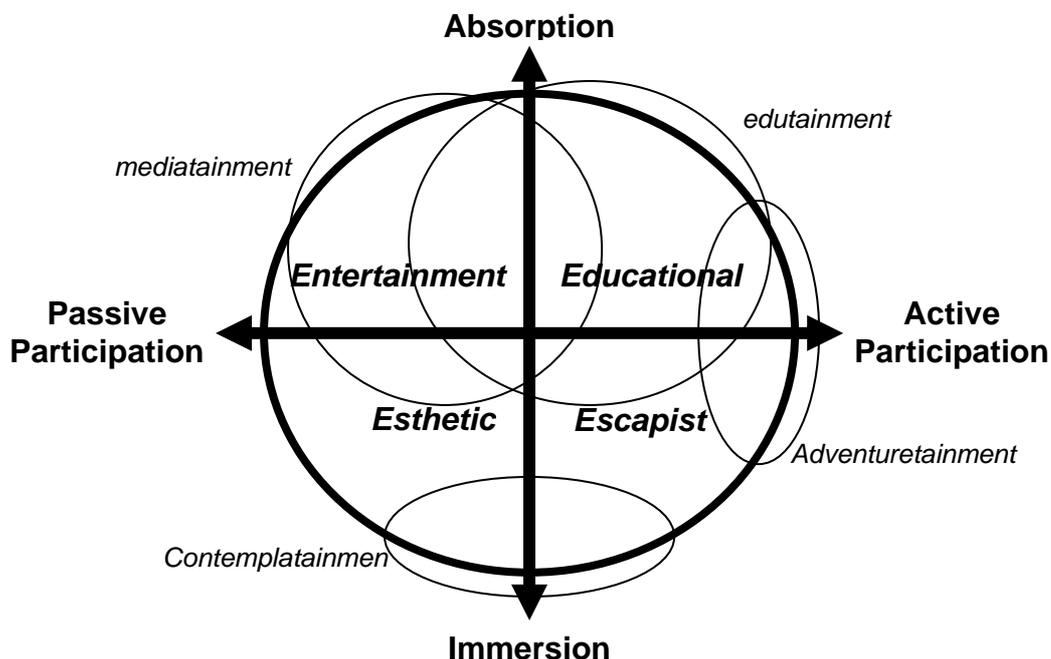


Figure 3. Some present and future applications of digital media and games based on the experience realms of Pine and Gilmore (1999).

Entertainment realm

The **entertainment experience** realm where the consumer passively absorbs the experience through their senses, generally visually and auditory is easiest associated with the digital media and games. Most of traditional media production such as TV, DVD, CD, mp3, homepages etc. is for passive media consumption, mostly for entertainment. Most simple arcade games can be included in the entertainment realm although they demand some simple actions of the player. To distinguish such media entertainment from other media forms we could use the term *mediatainment* for passive absorption of entertaining media experiences.

Educational realm

Active media consumption for learning, news updates etc. would need active attention and active absorption of the information and thus be in the **educational experience** realm. When combined with joy and fun, and becoming a part of entertainment business such learning is called *edutainment* (Kotler 1978; Pine and Gilmore 1999). Here the consumer is active participating in and absorbing the events unfolded before him or her in the experience. Active learning can be according to some education system as in formal educations with its pedagogic theories or more informal learning systems as in many experience based learning systems within the experience industry, such as digital games, science centres, theme parks, visitor centres etc. To learn from the experience to improve knowledge and skills the educational experience must actively engage both the mind for intellectual education and the body for physical training. In digital game, although bodily mostly immobile, there is still a high physical activity controlling the actions within the game. Kotler (1978) introduced the metaphor of the classroom as “theatre” and encouraged “educational packages” to be more like Hollywood film producer in providing “multimedia experiences” where students are both instructed and entertained, which he called edutainment. Within media production both film and television has long been used as educational aid and with the introduction of digital media instructional DVD programs, computer aided learning programs and educational websites became important compliment to traditional learning aids such as text books. Experiential learning through digital games have attracted recent attention, but most games are still designed for pure entertainment although learning is always associated with experiences (Robertson 2003).

Escapist realm

The third experience realm of Pine and Gilmore is **escapist experiences** that involve the complete immersion and active involvement in the experience, often resulting in the Flow experience of Csikszentmihalyi (1990) where the experience of time disintegrates. In contrary to passive entertainment experiences watching others act, in escapist experiences the consumer becomes the actor affecting the actual performance in the experience. The consumer becomes the producer, a “*procumer*”. Often adventure is the key script of the escapist experience including the transfer to new environments, virtual or real, and the confrontation with the unknown and unexpected. If combined with having fun and play I would denote such experiences as *adventuretainment*.

Within digital media and games the escapist experience realm will be found in virtual reality action games, chat rooms and internet communities and motion-based simulation attractions such as “Tour of the Universe” in Toronto, a flight through outer space simulation where the guest has to check-in into a future space air-port before entering the space shuffle in the flight to the moon. Several such motion simulation rides based on popular science fiction movies have developed such as “Back to the Future: The Ride”, Terminator 2: Battle across Time” “Robocop”, “Days of Thunder” and others that are based on “Now you seen the movie, go experience the ride!” (Pine & Gilmore 1999). Today no major film movie can be released without an associated digital games shifting digital media consumption from only passively watching the movie to afterward also “participating” in the movie story through the digital game. Here entertainment is fused with escapism.

Escapist experiences not only take the guest from his or her ordinary life but also to some specific place or activity or more recently transform the guest into someone or something completely different. A frequent escapist experience in digital gaming such as computer-based games is to let the player transform into a superstar or celebrity, may it be in sports, combat or social interaction games. Even virtual celebrities are created to be played such as Lara Croft in Tomb Raider. Thus cyberspace has become the easiest assessable escapist experience which today involves most young people around the world and has for many become a second home and respite from the demands of the real life. Several Science Fiction movies have addressed the future of virtual escapist experiences ranging from taking virtual vacations to experiencing other person’s life experience to actually live the virtual world as in the Matrix movies. As computer power increases, the possibilities to create realistic new virtual worlds for escapist experiences will boost, and the consequences of people withdrawing from real life escaping into virtual worlds have not yet been fully understood.

Esthetic realm

The fourth experience realm of Pine and Gilmore is the *esthetic* where the consumer immerses themselves in an event or environment of the experience but them have little or no effect on it, leaving the environment of the experience untouched. Such experiences include visiting nature scenery, art gallery or museum or designed architectural environments where the main goal is not to learn as in educational realm, or to do as in escapist experience, or to sense as in the entertainment realm, but just to be there, being passively immersed in the experience. Such aesthetic experiences have often a touch of spiritual or existential experience (Gelter 2000), triggering reflection and existential questions, stopping the mind, having a kind of restorative effect (Gelter 2000; 2006b), which I have called *contemplation*. Such esthetic experiences have until today few applications within digital media and games. Although some movie and TV productions as well as some music productions can have contemplative effects through aesthetics and restorative function, they are not true *contemplation* in this sense as there is no immersion in an environment, but rather absorption of the media. Virtual reality has however the potential to create true immersions into the experience, and the field of producing virtual *contemplation* through virtual aesthetic environments that have restorative, spiritual and existential effects has still not been fully explored. Bio-feedback is an increasing application and merging bio-feedback with the media or game production to truly create an immersion in the experience can open totally new applications. As an example could be the immersion into a virtual world where there is nothing to do but just to be passively immersed and amazed in its great design initiating contemplation and deep reflections.

Another application of the esthetic realm of experiences would be the improving of the real world esthetics by blending upon it a virtual world esthetics improving or transforming places for experiences. By such virtual transformation or reality, in extreme cases a “blue-screen” room can travel you to any place or time or even create new worlds of experiences. Digital picture frames are already on the market and digital wallpapers are soon a reality. Bio-feedback systems together with morphing techniques can respond to your mood and stress levels to optimise your physical settings at office or at home for different purposes such as creativity, de-stressing, optimal virtual meetings etc.

Integrated experience realms

An interesting development for the digital media and game business would be the integration and blurring of boundaries between the four experiences realms of Pine and Gilmore. Most experiences today engage primarily through one of these realms, border-crossing can open up new areas for digital media production. To cope with the demands of the experience society, especially with young people born within the digital communication society, media productions have to design rich, compelling, challenging and engaging experiences that include and explore all aspects of the experience realm.

An example on integrating *mediatainment* with *adventuretainment* could be a “*procumer-movie-house*” where each room of the house exposes one side of the story of the “movie” and by moving around between rooms different angles of the drama are revealed. The exploring of the different rooms would be the adventure. By letting the spectator interactively influence the drama the “procumer-movie house” would never have the same story or drama – every “production” would be new based on who the procumers are. By blending in virtual reality the experience can obtain additional depth and by including bio-feedback additional interactivity can be reached.

In a similar way a true digital interactive studio could be based on interactivity through the procumers movements, moods and feelings and brain activity scanned by bio-feedback influencing the music, the lighting, the coloration, the picturing, the film projections and other media features which are morphed according to pre-chosen themes – the interactive show theme. Again the experience would be unique at each performance, and such “*morph-house*” could be a kind of digital concert hall where the spectators, the procumers, themselves create the digital symphony experience. The aesthetics and artistry would not be in the media experience production per se, but in the staging and theming of the performance. This would be a completely new art form and experience production.

Conclusions

With the risk of “Amusing Ourselves to Death” (Postman 1985) in our experience society or entering a century of Matrix-fused real life-virtual life worlds the prospects of the future of interactive digital media and gaming are both fascinating and scaring. The downside with game and media addiction and the health problems from physical inactivity have to be incorporated in the future development of digital media and games. Therefore the physical real life games fusion with virtual reality games such as in “Blast Theory” is promising (Blasttheory). In the game “Uncle Roy All Around You” (2003) the players had palm and laptops and were directed around a city by phone calls, SMS, mails and other clues in the hunt

Gelter, H. 2006. Experience production in digital media and games. In Kylämä, Mika (ed.): Articles on Experiences 4 - Digital Media & Games. Lapland Center of Expertise for the Experience Industry. Rovaniemi, pp. 136-155

for Uncle Roy. Similar concepts have been produced within TV-productions where actors in real-time guided by clues seek treasures etc. can in the future with interactive TV in combination with other media (SMS, phone, etc.) let the TV-audience in real time take part of such hide-and-seek productions. With the *five brothers of experience production*, *Courage*, *Creativity*, *Crossover*, *Competence* and *Commitment* new fantastic applications such as the morph-house, procumer-movie-house, Blast Theory games or other procumer applications can be created within the developing digital experience industry.

References

Blasttheory, www.blasttheory.co.uk

Boud, D., Cohen, R. and Walker, D. 1993. Using experience for learning. Bristol PA: Open University Press

Caves, R. E. 2000. Creative industries. Contracts between art and commerce. Cambridge: Harvard University Press

Csikszentmihalyi, M. 1990. Flow: The Psychology of Optimal Experience, New York, Harper Perennial

Colin, B. and Wilson, J. 2006. Experiential learning. A handbook for best practice for educators and trainers. London: Kogan Phase Ltd,

Davenport, T. H. & Beck, J.C. 2002. The Attention Economy: Understanding the new currency of business. Harvard Business Press

Gelter, H. 2000. Friluftsliv – the Scandinavian philosophy of outdoor life. Can. Journal of Environmental Education 5: 77-92

Gelter, H. 2006a. Towards an understanding of experience production. Manuscript for Articles on Experiences 2. Lapland Centre for Expertise for the Experience Industry. Rovaniemi,

Gelter, H. 2006. Friluftsliv as Slow Experiences in a post-modern Experience Society. In Hendersen, B. and Vikander, N. (Eds.) A way Home to the open air”. Manuscript.

Jensen, R. 1999. The Dream Society. New York: McGraw-Hill

KK-stiftelsen 1999. Blandade upplevelse [Mixed experiences]. Stockholm: Stiftelsen för kunskaps- och kompetensutveckling

KK-stiftelsen 2001. AHA-Sweden: Om Svensk upplevelseindustri och början på något nytt. [About the Swedish experience industry and the beginning of something new]. Stockholm: Stiftelsen för kunskaps- och kompetensutveckling

KK-stiftelsen 2002. Upplevelseindustrin i Sverige 2002. Näringsliv och utbildningar. [The experience industry in Sweden 2002. Business and Education]. Stockholm: Stiftelsen för kunskaps- och kompetensutveckling

KK-stiftelsen 2003. Upplevelseindustrin i Sverige 2003: Statistik och jämförelser [The experience industry in Sweden 2003. Statistics and comparisons]. Stockholm: Stiftelsen för kunskaps- och kompetensutveckling

Kolb, D. A. 1984. Experiential Learning, Experience as the source of Learning and Development. Englewood Cliffs, NJ: Prentice-Hall, Inc.

Kotler, P. 1978. Educational Packagers: A Modest Proposal. The Futurist august 1978, p 239-242.

Mulligan, and J. Griffin, C. 1992. Empowment through experiential learning. Explorations of good practice. London: Kogan Page Limited

Pine, B. J. II and Gilmore, J. H 1999. The Experience Economy. Boston: Harvard Business School Press

Postman, N. 1985. Amusing ourselves to death: Public discourse in the age of show business. New York: Penguin Books

Robertson, E. 2003. Datorspelindustrin 2003.[The computer industry 2003]. Mötesplats upplevelseindustrin Karlshamn

Wahlström, B 2002. Guide till Upplevelsesamhället [Guide to the Experience society]. SNS Förlag AB