Educational yet entertaining: Designing oxymoronic experiences in a children’s cross media television show

**Abstract.** The consumption of and interaction with digitally mediated stories is flourishing in the Western world. Thus, the research question emerging is what needs of the modern consumer do narratives and shows on digital platforms satisfy? It’s difficult to define a set of universal rules regarding satisfaction of needs that would apply to everyone’s behaviour in media consumption. Here, we report on our hypothesis of needs and how we set about when designing for enjoyment, education, and a pleasurable experience in our cross-media edutainment TV format for kids aged 8-12 years. Drawing upon research on human needs and origins of user experience, we designed and implemented features that we hope will meet the young and demanding viewers’ needs of social relatedness, competence/information, and autonomy. These are three of the needs we believe are factors encouraging people to interact and finding pleasure and enjoyment in media content.

**Keywords:** *Human media interaction; enjoyment; edutainment; viewing experience; television; cross media; media sociology; storytelling; needs.*

1 Introduction

“I’m in love with a fairy tale, even though it hurts”

Representing Norway in the 2009 Eurovision Song Contest held in Moscow, Russia, the 23-year old Alexander Rybak sang about a former sweet heart of his, a girl who now only represents a dream, a fairytale he’s in love with. As it turned out, European television viewers took a liking for the saga too, as Rybak won the contest with 387 points, the highest tally ever noted in the 53 year long history of Eurovision (Eurovision, 2009). Throughout the years, a wide body of tales, histories, legends, and narratives has emerged, supporting the idea that humans have a taste for storytelling. The vast range of narratives available, being the subject of an extensive and widespread consumption, indicates that engaging in stories, both as a consumer and as a creator, has a profound positive effect on human well being. The Greek philosopher and scientist Aristotle didn’t hesitate to proclaim that all human beings find pleasure in drama (Aristotle, 2000).

As of late, visual content like the Eurovision Song Contest, brought to the audience by moving images traditionally broadcast on television, are in the midst of an intensive period of change. With the emergence of multiplatform possibilities for telling a story and interacting with the audience, the very foundation of the notion of “watching television” was rocked, albeit interactive storytelling is by no means a novel concept (author 2008). The digital technology is evolving in a rapid pace, allowing for new ways of enjoying drama. The mobisodes, representing a comparatively recent format allowing for the enjoyment of news broadcasts or re-caps of TV series on a mobile device, constitute a fine example in this respect. Consequently, in the aftermath of the remediation of broadcast channels, a significant number of content producers explores the new possibilities at hand. The trend in the creative industry appears to be a revival of the old notion of convergence, or a mono-polymorphism, as Dana (2007) labels it. The barriers between sectors such as the net, television, entertainment devices, and gaming are removed, and thus opening up for one single field for media publishing.

Then again, turning the spotlight to the other end, away from the content creators to the content consumers, reveal yet another image of complex nature. The final verdict on how the contemporary audience wants to and in fact chooses to consume movies and TV content is far from in. Buchinger et al (2009) found in their extensive review of available user studies on mobile TV that there are a number of open key questions, for example the gender of a typical mobile TV consumer, his or hers preferred content, the location of where to consume television on a mobile phone, and preferred advertising models. However ephemeral they might prove to be, we want nonetheless to highlight two snapshots of visual narrative consumption. The market research company Finnpanel (2008) found in their survey on TV and radio consumption of Finnish households that the average Finnish television viewer, aged ten years or more, watched television for two hours and 57 minutes per day in 2008, representing the highest peak in the use of television in 14 years. Yet, the internet attracts many a consumer, with its abolishment of fixed broadcasting schedules, opportunities for individualization and content sharing possibilities. One of the rising trends in Americans’ online media use is watching online television, according to the annual Digital future report on the consumption of digital media, collected and issued by USC Annenberg School (2009).

These trends tend to demonstrate that the desire to indulge in stories and narratives, and to tell tales oneself, appears vivid and strong – as always. At present, many choose to satisfy this human need by engaging in stories online or on television sets and mobile phones, perhaps by participating in the cross media Eurovision spectacle as spectators and as narrators (voters). The research question emerging is what needs of the modern, interactive consumer do narratives and shows on digital platforms satisfy? Why is the experience of interacting with a show so gripping that more Americans vote in the American Idols finale – an opinion that comes with a cost to register - than in the president election? Understanding the underlying motives for televised experiences – or for indulging in stories in modern media in general - is interesting out of a sociological viewpoint. The ratio between the total time of our day devoted to work and leisure has changed the last century, the leisure unit being on the increase. With so much spare time at our disposal, it’s fascinating to see that a considerable share is assigned to media use.

It’s difficult to define a set of universal rules that would apply to everyone’s behaviour in media consumption, let alone today with the ever changing landscape and consequently, varying user profiles and consumer taste. There’s no recipe on which blend of desires and underlying needs, ranging from social factors to creating and maintaining one’s identity, to apply when designing enjoyable experiences in interactive storytelling. But as audience researchers, content producers, and format developers in the field of human media interaction and user experience of new media, we’re actively involved in trying to demystify why the audience chooses to interact on any platform with a TV show, what emotions are the viewers experiencing, and ultimately, what is in it for them? Which is the perceived value of the time, money and effort spent on enjoying a good story and interacting with it?

Thus, in this article, we describe how we set about when designing for enjoyment, education, and a pleasurable experience in our cross-media edutainment TV format for kids aged 8-12 years. Drawing upon research on human needs and origins of user experience, we designed and implemented features that we hope will meet the young and demanding viewers’ needs of social relatedness, competence/information, and autonomy. These are three of the human needs we believe are factors encouraging people to interact with and consume media.

The show, The Space Trainees, aired on Finnish national television in autumn 2009 and the second season was shot in October 2009. During this period, thorough qualitative research on the viewing experience, viewer needs and edutainment was conducted and hopefully, there will be preliminary results by the end of the year. Concluding the paper, we discuss how user centred research has been integrated in the design process.

2 Motives underlying interactive media use

An element that is vividly present in the presentation and consumption of stories of our time is interactivity. In this article, we define interactivity as a two-way communication between at least one user/viewer and by the means of a digital device, such as a mobile phone or a computer. An online site for uploading your own video in relation to a TV show, and a possibility to rate existing videos, is an example of interactive television. In this case, both parties – the professional creators and the viewers at home - are a producer and an audience. Naturally, there’s little innovation about events or stories where two or more parties engage in a dialogue. A radio show is all about interactive storytelling, as were the gladiator performances held in ancient Rome.

The action of an audience responding to media content may not be novel, but the extent to which it is exercised and the immensely broadened scope of it is. We’re currently witnessing a democratization of broadcasting tools and channels, allowing for sharing one’s message with the entire world – at least theoretically. Equally, the potential audience has quadrupled as well, as the broadband penetration rate is growing globally. Messages are being conveyed, stories are shared and commented upon, and narratives are mashed up and retold. Instead of a “top-down” model for creating drama and television, a “bottom-up” trend, supported by the millions of persons generating, distributing, and remixing their stories, has grown stronger. Symptomatic of this enthusiasm for interactive storytelling is the rather swift shift from the so called web 1.0, focusing on pushing static information and knowledge to the audience and on digitalizing various services like banking and the yellow pages, to web 2.0, where the internet matured into a collective, shared space with a multitude of dialogues on micro blogs, blogs, video sites, and communities.

The relationship between interactivity and (entertaining) video content cannot yet boast about a particularly long tradition of research. However, the topics currently interesting researchers in many disciplines worldwide include questions regarding incentives for being interactive in the eyes of the audience, what emotions does the new form of interactive, cross media content generate, and with what artistic and sociological consequences.

One of the commentators of the trend of telling stories is the Swedish-Finnish writer and professor in Nordic Literature, Merete Mazzarella (2006). In the anthology Den Moderna Ensamheten, Mazzarella reflects upon the individualized, modern society and upon the product of modernity, the modern loneliness. Noticing an ever-increasing interest in courses in autobiographical writing, Mazzarella suggests that this might be due to the lack of interest of our peer groups in our life story. A potential drive for telling your story and inviting a greater audience than immediate family and group of friends to interact with you might be a desire for social connectedness. Today, only you yourself know who you really are and by putting your story on line, you assure that someone else could get to know you, if they wish to.

Being interactive online may also be seen as a new sphere for conveying one’s identity. Building upon the thoughts of the sociologist Anthony Giddens (1997, p.276), the ever-ongoing reflexive project of the self needs an arena where the person can remember his or her history, valuable moments and reproduce the identity. Maintaining a blog, participating in an online community in relation to a television show on climate change for example could be a tool to keep the narrative going.

Flipping the coin, changing the focus from the motives of the narrator to the ones of the audience, social connectedness remains a factor in why we use and consume media. Denis McQuail (1987, p.73), of the influential tradition in media research “Uses and gratifications”, lists four categories of reasons for watching television: entertainment, information, personal identity, integration and social integration. Here, the media content serves as a basis for interacting with family, friends and colleagues, as a source for conversation, and ultimately a sense of belonging to a community.

The sociologist Zygmunt Bauman (2007) with his concept of liquid modernity and the shift from a society of producers to a society of consumers presents a postmodern stance on this issue. The very core of the society of consumers is the transformation of consumers into commodities, Bauman states and he continues: “Beneath the dream of fame, another dream, a dream of no longer dissolving and staying dissolved in the grey, faceless and insipid mass of commodities, a dream of turning into a notable, noticed and coveted commodity, a talked-about commodity, a commodity standing out from the mass of commodities, a commodity impossible to overlook, to deride, to be dismissed. In a society of consumers, turning into a desirable and desired commodity is the stuff of which dreams, and fairy tales, are made.” (2007, p.13). Escaping invisibility and acclaiming fame is according to Bauman a goal often pursued by modern human beings. Perhaps the trend of interactive narrative we’re witnessing today is an attempt to meet this desire that Bauman discusses.

These factors are included in the needs hypothesis we worked with when designing, developing, producing, and user testing the cross media language learning TV show The Space Trainees. We will in the following explain how we set about in our work and we hope our experiences will prove beneficial and assist others working with interactive storytelling.

3 Designing for enjoyable interactive experiences

The concept of interactive narratives in video or television content, and in what form it actually succeeds in producing enjoyment for the audience, is far from being a well researched, agreed upon issue (Hand and Varan, 2008). Further, understanding experience in interactive systems, and designing for it is complex (Forlizzi and Battarbee, 2005). Interactive television could be described as an oxymoron, on the one hand seeking to tell an enjoyable story, so engaging and thrilling that the viewer will not want to focus on anything else, but simultaneously, on the other hand, seeking to entice the viewer to being active for example via set-top-box, a mobile phone or the internet, without disrupting the story too much or loosing too much of the plot as the platforms vary. The living room setting (television) is extended to the world (the internet and mobile devices) and a comfortable private sphere is blended with a public one where the viewer interacts with the producers of the show and/or other viewers.

Our earlier user studies on 35 Finnish television viewers’ experiences of a TV quiz show with MHP integrated interactivity indicate that combining the two elements of drama and dialogue appears achievable (author 2008). Many study participants appreciated the possibility of participating in the show and answering the same questions, as the competing teams pondered in the studio. Entering the competition from the sofa in the living room added value, intensifying the feeling of challenge, spicing the viewing experience with excitement and involvement. Some test participants stressed however that to them, television equals relaxation and stress reduction. Being interactive, demanding effort and action from the TV viewer, wouldn’t help them unwind after a tough day at school or work.

Confident that a significant part of the TV audience finds – at least occasionally - pleasure in a two-way communication, the edutainment TV format we’ve developed and put in production offers an opt-in opt-out interactive feature as well. During the format development phases of the cross media language learning show, The Space Trainees (hereafter TST), research into both usability issues and user experience has supported the development work (author, in press). An initial study indicated a high acceptance of the interactive element by viewers and users. The overall concept also received support. Interactivity via an MHP set-top-box, however, didn’t prove to be an optimal platform, which stimulated a switch to cross media solutions instead. The interactivity of the show is thus represented by an online portal where the children can play the same language learning games, as do the competing kids in the show. The children sign up to become space trainees and the ultimate goal for engaging in the online portal – apart from learning and practicing a foreign language - is the possibility to be on the show as a competitor, broadcast on national television.

In the design and development process of the format, particularly in regard to the narrative and the pedagogical games, we relied heavily on user experience research and what human needs tell us about how and why we choose to consume stories told on any given media channel. The basic hypothesis we worked with during the process states that television viewing is often motivated by a desire to relax, to be thrilled, to be entertained. The experience sought after is pleasurable stimulation, in short. Yet, the thought of finding deeper, underlying needs and incitements motivating us to turn on the telly and keeping it on, instead of heading for the refrigerator or grabbing a magazine, seems plausible. Similarly, the purpose for continuing interacting with the story online is probably more multifaceted than a mere desire for entertainment. Looking beyond the explanation of relaxation and entertainment as intrinsic motives for media consumption, we believe the reason could be described as be-goals or basic human needs of wanting to feel competent, special or feeling related to family and friends (Hassenzahl, 2008; Sheldon et al., 2001).

Psychological research has a long history of examining basic human needs (Sheldon et al., 2001), as does communication and media research in the field of incentives for media consumption (McQuail, 1987). By asking psychology students to describe their “most satisfying events” in their lives, Sheldon et al (2001) identify which qualities of experience are basic psychological needs. “What’s satisfying about satisfying events? In other words, what experiential contents and characteristics make people happiest, and thus qualify as psychological needs? According to the current research, the answer is autonomy, competence, relatedness, and self-esteem.” (Sheldon et al., 2001, p.337). Thus, feeling good about your performance, feeling that the activities you’re engaged in is self-endorsed and voluntarily entered into, and feeling a sense of closeness with others are plausible ingredients in a satisfying event. Looking particularly at reasons for media consumption, McQuail (1987) suggests entertainment, information, personal identity, integration and social integration.

Consequently, we wanted to design an entertaining, yet educational language learning TV format for children that satisfies, apart from the most basic, pragmatic needs relating to usability, most of the needs mentioned above.

However, before turning to the characteristics of TST co-producing enjoyment in the eyes of the audience, it’s necessary to give a short summary of the plot of the show. The Space Trainees is a cross media edutainment format for children aged 8-12. Combining game show and education, television and web, space drama and humour, the viewers are offered an exciting and engaging experience. Outer space in the year 2300 sets the stage for the story. The teams competing on the show battle for the attractive position as captain of the luxury star cruiser Blondynella, transporting people between stars. In order to advance in the competition, the kids face challenges and tests. Some are of a more physical nature, whereas others are language based, training languages. Being a cross media format, the competition continues on line on the web portal, the Trainee Academy where children can sign up to interact, build their skills and train versions of the languages games in the show. The ultimate prize is a position in the next season's show on TV.

3.1 Competence/information

TST has been developed in close collaboration with professionals in pedagogy, the fundamental idea being that the viewers/players learn a foreign language while having fun. The two teams of Swedish-Finnish children in the show are on board a luxurious space ship, where they assist the somewhat disoriented crew with various tasks, in English. The possibilities for self-education are present in the video material as well as in the games on the online portal. Hence, the human need for information and learning is satisfied. Further, playing the online games relates closely to satisfying the need to feel competent in English, as you achieve higher levels in the quest of becoming a true Space Trainee yourself. This model also embraces the traditional living room sofa battles between family members and friends while watching the studio teams competing and solving the puzzles on the television screen.

3.2 Autonomy

The basic human need of autonomy or independence is concerned with the feeling of being free to choose one’s actions, instead of feeling pressured by external forces. We feel it’s crucial not to impose any effort demanding, distracting possibilities for action on the viewer when he or she watches the show. The action of playing the games and ultimately fighting for a role in the show should be voluntary. By making the interactive element of the show optional and by choosing a cross media solution, we hope that the viewers will be encouraged to engage in the story. Choosing this path might prove challenging. The action on the part of the viewer to extend the engagement in a story on another platform does not necessarily follow one occasion of watching the show or playing the games. Going online – either directly after the television broadcast or a few days later – must be presented as an attractive option for the heterogeneous group of viewers, with divergent needs and goals for playing the games. Succeeding in making the story a truly cross-mediated experience for the audience is in the hands of the creators, naturally.

This situation is a nice example of the importance of understanding experiences in contemporary media enjoyment. We, as media consumers, are presented with a vast range of content on a multitude of platforms. In addition, numerous factors influence our choice of consumption, such as time, personal interest, peer recommendations, usability and equipment. In short, there are plenty of stories and messages that will be listened to only by a small audience, at best. Consequently, many content creators want to keep an active dialogue with their audience, and when succeeding in holding the viewers’ and listeners’ interest, making them feel their invested time is worthwhile.

3.3 Social relatedness

Corresponding to the human need of social integration and relatedness is twofold when it comes to televised narratives. Naturally, popular culture forms a ground for discussion in the schoolyard and with friends. If you’ve enjoyed the same movie, or if you meet a fan of your favourite series, the narrative may spur a sense of belonging and indicate shared values. The role of televised narratives as a social glue is not however limited to fans of the same content, au contraire. Some television shows - e.g. Dallas (Ang, 1985) and the Eurovision Song Contest, to mention but a few – have stirred quite a few discussions around coffee tables and in schoolyards on good and bad qualities of the shows. Here, the actual production, the plot or content is the topic around which viewers with divergent taste and preferences meet and discuss.

Moreover, the interactive feature of many a television show offers an opportunity for relatedness and social connectedness. Creating an account on a fan forum and finding new friends for example is an act of relating to others likeminded, with the narrative being the shared interest. By creating an online gaming site in conjunction to TST, we’re hoping that – apart from the self-educational possibilities - the need of feeling related to other kids will be fulfilled. The online games are identical to the ones in the television show, only single player versions. The tasks exercise the children’s knowledge of semantics and syntax of the foreign language (in the version broadcast on FST 5 the language is English). The initial reward for game success is entering the top list of gamers, but the idea is to make more content available and increase the gamer status, the more talented and experienced the gamer becomes. The ultimate prize for the gamers is scoring a ticket to the next season’s competitions aboard Blondynella, i.e. being part of the television show.

4 Further research

The importance of understanding experience and acknowledging be-goals and human needs in the design process of interactive products is often stressed (Forlizzi and Battarbee, 2005; Hassenzahl, 2008). Hitherto, we’ve developed the narrative and the interactive element with viewing experience and human needs in mind. The first season of TST was aired in autumn 2009 on the Finnish national public service broadcasting company’s channel 5. The online portal was correspondingly launched together with the broadcast.

The following step in our work leads us to an interesting and potentially informative field, that of how the audience perceives and enjoys the interactive story. The workflow in designing interactive storytelling for cross media purposes as we’ve described in this paper is illustrated in figure 1, in the end of the article. Starting with a concept designed out of human needs and uses of media, developing and designing the story with the viewer in mind, keeping an active dialogue with the audience through usability and user experience testing, and finally concluding with a final TV show and online pedagogical games for learning English while having fun.

During the fall of 2009 when TST aired, a qualitative audience study on the viewing experiences and enjoyment of the interactive narrative was conducted, using the methods of diaries. Children belonging to the target group of the language learning show have been assigned diaries where they reflect upon their viewing experiences and gaming online. The questions they’ve answered in relation to every episode relate to learning, the perceived value/pleasure of the show, the ingredients of the enjoyment (what was perceived as good/bad, fun/boring) and the emotions they experienced when gaming online/watching the television show. The results will be analysed out of a sociological and educational perspective.

Television as a medium has been rather thoroughly studied over the years and has stirred advocates as well as antagonists (Chorianopoulos and Lekakos, 2008, p.114; author, 2008, p.220), as does the concept of keeping a dialogue with the audience, i.e. interactive television. Mihaly Csíkszentmihályi (1997) argues that watching television is not likely to produce enjoyment or a state of flow as this passive activity does not require any input or effort from the viewer. And even if you involve the viewer by allowing them to decide how the plot unfolds, research suggests that only audiences with higher cognitive capacities appreciate the interactivity (Vorderer, Knoblach, and Schramm, 2001).

As for the general shift towards social interaction online, Bauman argues the side effect has proved to be a considerable amount of social deskilling (2007, p.16). Putnam (2000, p.246) holds an increased, passive consumption of televised entertainment responsible for the fall in civic engagement and in social connectedness. However, Putnam argues that the internet can assist us in maintaining existing and creating new social relations. Certainly, not only critical voices comment interactivity online and television consumption. Many researchers highlight the role of interactive media as social glue (Chorianopoulos and Lekakos, 2008, p.114), or as an extension of man (author, 2004, pp. 10-12). Further, the massive adoption of the possibilities for engaging with video content – for example mashup sites, flickr groups on TV shows, games online in relation to movies - that we witness today could be interpreted as a sign that opening up for interactive narratives strikes the right chord.

Once the final audience research on the cross media language learning show The Space Trainees is conducted and the results are in, we aim to shed light on how to combine telling an intriguing story on multiple platforms, opening up at the same time for user activity and active language learning through games. The results on the viewing and user experience of TST will hopefully contribute to the knowledge of designing for enjoyment, learning, and social interaction within this genre of storytelling. Our aim is to be able to demystify the viewing and user experience of interactive storytelling in a cross media setting, without losing the magic fairytale feature in storytelling.

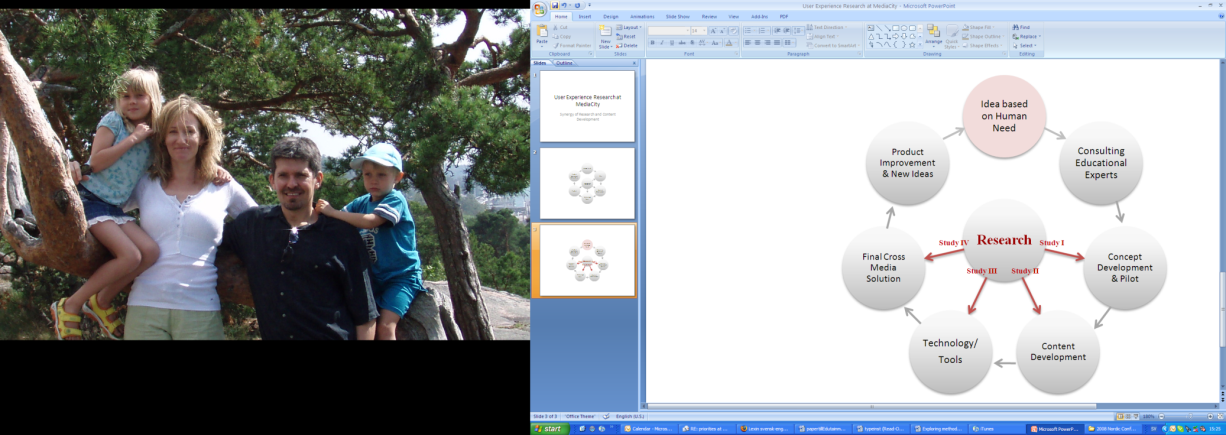


Figure 1. The chart illustrates the workflow when designing for interactive storytelling in a cross media edutainment TV format. User testing is fundamental throughout the process.

References

Eurovision (2009). The official website of the Eurovision Song Contest. Obtained through the internet: *http://www.eurovision.tv,* [accessed 07/2009]

Aristotle (2000) *Om diktkonsten*, Göteborg: Anamma Böcker AB.

Author (2008)

Dena, C. (2007) ‘Patterns in Cross-Media Interaction Design: It’s much more than a URL… (Part 1)’, *Proceedings of 1st International Conference on Crossmedia interaction design,* pp.4-10

Buchinger, S., Kriglstein, S. and Hlavacs, H. (2009) ‘A Comprehensive View on User Studies: Survey and Open Issues for Mobile TV’, *Proceedings of the Seventh European Interactive Television Conference*, pp.179-188.

Finnpanel Oy (2008) Television katselu Suomessa vuonna 2008 [press release]. Obtained through the internet: *http://www.finnpanel.fi/tulokset/tiedote.php?id=95,* [accessed 07/2009]

The Center for the Digital Future, USC Annenberg School (2009) Digital Future Project Release Highlights. Obtained through the internet:

http://www.digitalcenter.org/pdf/2009\_Digital\_Future\_Project\_Release\_Highlights.pdf, [accessed 07/2009]

Mazzarella, M. (2006) ‘Den moderna ensamheten’, *In*: Karlsson, M., Rider, S. (eds) *Den moderna ensamheten*, Eslöv: Brutus Östlings Bokförlag Symposion.

Giddens, A. (1997*) Modernitet och självidentitet. Självet och samhället i den senmoderna epoken,* Göteborg: Daidalos.

McQuail, D. (1987) *Mass Communication Theory*, London: Sage.

Bauman, Z. (2007) *Consuming Life*, Cambridge: Polity Press.

Hand, S., Varan, D. (2008) ‘Interactive Narratives: Exploring the Links between Empathy, Interactivity and Structure’, Tscheligi, M., Obrist, M., Lugmayr, A (eds): *EuroITV 2008* LNCS 5066, pp11-19. Heidelberg: Springer.

Forlizzi, J. and Battarbee, K. (2005) Understanding Experience in Interactive Systems. In: Proceedings of the 5th conference on Designing interactive systems: processes, practices, methods, and techniques, pp 261-268. ACM, New York (2005)

Author, in press.

Hassenzahl, M. (2008) ‘User Experience (UX): Towards an experiential perspective on product quality’, *IHM '08: Proceedings of the 20th French-speaking conference on Human-computer interaction (Conférence Francophone sur l'Interaction Homme-Machine)*, pp11-15. New York: ACM.

Sheldon, K. M., Elliot, A. J., Kim, Y. and Kasser, T. (2001) ‘What is satisfying about satisfying events? Testing 10 candidate psychological needs’, *Journal of Personality and Social Psychology*, Vol 80, pp.325-339.

Ang, I. (1985) *Watching Dallas: Soap Opera and the Melodramatic Imagination*, London: Methuen.

Chorianopoulos, K. and Lekakos, G. (2008) ‘Introduction to Social TV: Enhancing the Shared Experience with Interactive TV’, *International Journal of Human-Computer Interaction*, Vol. 24, pp.113-120.

Csíkszentmihályi, M. (1997) *Finna Flow*, Stockholm: Natur och Kultur.

Vorderer, P., Knoblach, S. and Schramm, H (2001) ‘Does Entertainment Suffer From Interactivity? The Impact of Watching an Interactive TV Movie on Viewers’ Experience of Entertainment’, *Media Psychology*, Vol. 3, pp.343-363.

Putnam, R. (2000) *Bowling Alone: The Collapse and Revival of American Community*, New York: Simon & Schuster.

Author (2004)