This paper is taken from

Creating Communities: Local, National and Global
Selected papers from the fourteenth Conference of the Children's Identity and Citizenship in Europe Academic Network

London: CiCe 2012

edited by Peter Cunningham and Nathan Fretwell, published in London by CiCe,
ISBN 978-1-907675-19-5

If this paper is quoted or referred to it must always be acknowledged as
Tuukkanen,T., Iqbal, A. & Kankaanranta, M. (2012) 'Virtual worlds as children's participatory media: The opportunities and risks of participation', in P. Cunningham & N. Fretwell (eds.) *Creating Communities: Local, National and Global*. London: CiCe, pp. 193 - 205.

CiCe
Institute for Policy Studies in Education
London Metropolitan University
166 – 220 Holloway Road
London N7 8DB
UK

This project has been funded with support from the European Commission. This publication reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Acknowledgements:

This is taken from the book that is a selection of papers given at the annual CiCe Conference indicated. The CiCe Steering Group and the editor would like to thank

- All those who contributed to the Conference
- The CiCe administrative team at London Metropolitan University
- London Metropolitan University, for financial and other support for the programme, conference and publication
- The Lifelong Learning Programme and the personnel of the Education and Culture DG of the European Commission for their support and encouragement.

Virtual worlds as children's participatory media: The opportunities and risks of participation

Terhi Tuukkanen, Ahmer Iqbal and Marja Kankaanranta
University of Jyväskylä (Finland)

Abstract

The use of virtual worlds, computer-simulated two- or three-dimensional communities, has increased exponentially among children in recent years. Virtual worlds inspire children to create and share contents, express themselves and to take a role of active participants in the Internet. Thus far, the potential of virtual worlds for participation and civic engagement has not been extensively studied from the child's viewpoint. In this paper, we explore the opportunities and risks of virtual worlds for children's participation. In particular, we examine Finnish children's views on the differences between virtual worlds and the 'real' world and the benefits and harms of using virtual worlds. The data consists of group interviews conducted at two Finnish schools to explore children's experiences and views. Altogether 21 children aged 11-15 were interviewed. Children reported about four opportunities and two risks in virtual worlds. Virtual worlds provide children an arena for learning, spending time, interacting with other people and making new friends, for example. Furthermore, using virtual worlds may help children to overcome the limitations of 'real' life. On the other hand, this freedom also has its negative side. In virtual worlds, there are people who misbehave and disrupt other users. There is also a risk of overuse.

Keywords: *children, participation, citizenship, virtual worlds*

Introduction

Children's opportunities to participate in matters related to their own life have been the topic of active discussion among politicians and childhood researchers in recent years. In childhood studies, the focus has been on children as active citizens who are seen 'capable' of expressing their views and participating in all matters concerning themselves (Alanen, 1992; Prout and James, 1997; James, Jenks and Prout, 1998; Mayall, 2002; Corsaro, 2005; Wells, 2009). In politics, the breakthrough in attitudes towards children happened in 1989 as the United Nations Convention on the Rights of the Child was introduced. According to the Convention, children have a right to participate in all matters related to their life.[1] Based on the Convention, many laws and political programs have lately been passed to enhance children's participation. In Finland, for example, Basic Education Act (1998, amendment in 2007) entitles children to participate in decision-making concerning school work.[2] In many countries, school councils and child parliaments have also been established to ensure children's participation. In Pakistan, for example, there is Hamdard Naunehal Assembly which is a

[1] See: http://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=IV-11&chapter=4&lang=en.
[2] See http://www.finlex.fi/en/laki/kaannokset/1998/en19980628.pdf.

children's parliament and it offers 8-15 year old children an opportunity to express themselves. The Finnish Children's Parliament is an institution that provides 9- to 13-year-old children with an opportunity to influence issues related to children.[3]

One of the latest findings in the field of participation is the Internet. The potential of the Internet in young people's participation has been examined by Zúñica, Puig-I-Abril and Rojas (2009) and by Leung (2009). According to Zúñica et al (2009), blogs for example, are and have become even more powerful political tool as social media and personal publication tools develop, reinforcing the importance of the new media in the political arena. The Internet is a natural and frequent part of many children's life and could, thus, serve as an arena for children's participation. According to EU Kids Online study, 60 percent of 9-16 year old internet users in Europe go online daily, and a further 33 per cent go online at least weekly (Livingstone, Haddon, Görzig and Ólafsson, 2011). Children utilize the Internet in many different ways and also create the content by themselves. Rheingold (2008) examined participatory media whose value and power derives from the active participation of many people. Participatory media includes for example blogs, wikis and virtual environments which make it possible for everyone to broadcast as well as receive text, images, data or discussions to and from other people.

A significant part of participatory media is virtual worlds that are, according to Bell (2008), synchronous, persistent networks of people, represented as avatars and facilitated by networked computers. They are environments where users can create an own avatar, chat, play and organize activities. As participatory media, virtual worlds represent an arena for users to express themselves. Thus far, however, there is not much research on children's participation in virtual worlds. Although some studies have been conducted on the number of virtual world users (KZero, 2011), certain activities, such as commercial and avatar-related activities (Castronova, 2007; Ducheneaut, Wen, Yee and Wadley, 2009) and learning in virtual worlds (Thomas and Brown, 2010), we still do not know much of what happens in those worlds (Kafai, 2010). As virtual worlds are a part of many children's everyday life, it is important to explore virtual worlds as arenas for participation, especially from the viewpoint of children under 15 years. In this study, we examine opportunities and risks that especially virtual worlds offer for children's participation.

Opportunities and risks for children's participation in virtual worlds

Children's virtual participation is a challenging field of research because there is no consensus on the definition of children's participation. In this study, participation is understood as social interaction on the one hand, and as a process of influence on the other hand (Sotkasiira, Haikkola and Horelli, 2010). As participation is seen as social interaction, it refers to the situation in which the person is part of a community whereas participation as a process of influence refers to the attempt to make changes in some matter. These forms of participation define how the virtual worlds can be seen in the

[3] Hamdard Naunehal Assembly website: http://www.hamdardfoundation.org/hamdardassembly.php. The Finnish Children's Parliament website: http://www.lastenparlamentti.fi/in_english.

process of participation. If participation is seen as social interaction, virtual worlds are considered as social communities or as playground whereas defining participation as a process of influence presumes considering virtual worlds either as arenas for learning civic skills or as public spaces or sphere. We developed a framework for children's virtual participation based on the previous research literature (Tuukkanen, Iqbal and Kankaanranta, 2010). The opportunities and risks found previously in virtual worlds for children's participation can be considered from the viewpoint of framework (Figure 1).

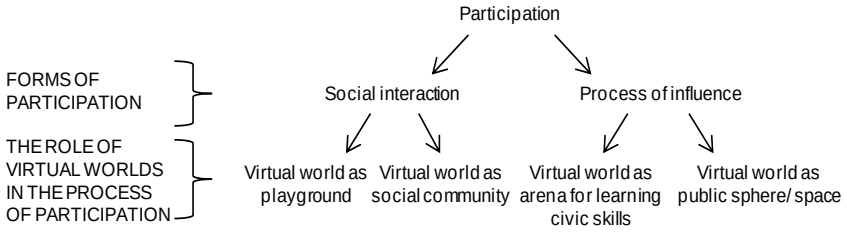

Figure 1. Framework for children's virtual participation (based on Tuukkanen et al, 2010)

Social nature of virtual worlds provides children opportunities to communicate and socialize with others. According to EU Kids Online study, 50 per cent of 11-16 year olds found it easier to be themselves on the internet and social networking sites enable them to communicate and have fun with their friends (Livingstone et al, 2011). Furthermore, Noveck (2006) stated that the whole idea of virtual worlds is to engage in collective action; in virtual worlds, people can 'get next to' each other in real time and, thus, evolve interfaces better suited to new kinds of collective action. What emerges in this interaction is a sense of community, a membership in a larger enterprise in which other children participate (Meyers, 2009). Blanchard and Markus (2004) explored a virtual community called Multiple Sports Newsgroup arguing that experienced sense of community in MSN is characterized by social processes of 1) exchanging support, 2) creating identities and making identifications, and 3) the production of trust. These processes are similar to those that non-virtual community theorists posit as contributing to the formation of sense of community (Blanchard and Markus, 2004).

Virtual worlds can also be seen as playgrounds which offer children opportunity to engage in many kinds of play activities. Marsh (2010), for example, listed fantasy play, socio-dramatic play, ritualized play, games with rules and what might be called 'rough and tumble' play as activities that children perform in virtual worlds. According to Marsh (2010), play is a social practice that is constructed through interactions with others. Thus, it provides children opportunities to construct, re-construct and perform identities and learn how to engage with others in online forums (Marsh, 2010). In virtual worlds, children also play with their avatar. Ducheneaut, Wen, Yee and Wadley (2009) explored avatar activities in virtual worlds arguing that avatars are used as vehicles to escape constrains of physical bodies. Avatars are idealized versions of users' own personality and provide users possibility to free themselves from offline limitations of gender, race or class, for example (Book, 2004).

Virtual worlds provide opportunities to learn different things and skills as well. According to Meyers (2010), children learn to acquire new information age skills such as problem solving in virtual worlds. Through participation in virtual worlds, children are also given an introduction to the development of a persona, an identity that reflects their growing sense of self (Meyers, 2010). Thomas and Brown (2009) explored virtual worlds as learning spaces, arguing that virtual worlds represent new learning environments which are based on 'networked imagination'; users construct a shared discourse and culture and engage in the feeling of co-presence. This way, participants are learning to give voice to new dispositions within networked worlds and environments that are well suited to effective communication, problem solving, and social interaction. According to De Freitas and Veletsianos (2010), virtual worlds may increase engagement and motivation through greater learner empowerment and participation, present new opportunities and scope for creativity in learning and support deeper learning by undertaking experiments that are difficult to replicate in the real world.

Furthermore, virtual worlds are public spaces which open opportunities for children for example to assemble and express or publicize their opinions freely. Bers and Chau (2006) explored the Zora three-dimensional multi-user environment arguing that young people engage in many civic activities there. Participants engaged in the creation of value objects and exchange of dialogue that communicated individual ideas, opinions, and information about civic life (Bers and Chau, 2006). Noveck (2006) stated that by acting through avatars in virtual worlds, players take on a role distinct from, yet related to, their own identity. Creating an avatar is akin to assuming the role of citizens: avatars are 'public' characters that think and act as members of a game community rather than as private individuals. This way, they are forced to think about how they want to appear as members of a community. Adrian (2009) even saw a type of civil society in virtual world: Second life is an arena of voluntary collective action around shared interest, purposes and values.

As social and public environments, virtual worlds also contain risks. According to EU Kids Online study, 12 per cent of European 9-16 year olds have been bothered or upset by something on the internet: sexual content, lying, cheating or bullying, for example. Furthermore, not everyone has the digital skills to manage privacy and personal disclosure (Livingstone et al, 2011). This is a problem due to safety issues but also because what happens in virtual worlds is 'real' to children (see Lehdonvirta, 2010). Thus, misbehaviour in virtual worlds causes 'real' sadness as well. Selwyn (2008) studied online misbehaviour among University Students. He found that more than 90 % of respondents self-reported online misbehaviour at least occasionally during the past 12 months, including plagiarism, unauthorized downloading music or film and pornography use. Rather than necessarily constituting a transformed or new set of actions, however, online misbehaviour replicates and reinforces existing misbehaviour. Thus, according to Selwyn (2008), the Internet gives individuals the opportunity to misbehave in ways in which they already do.

Interestingly, the risk level of using online worlds varies with the country. In EU Kids Online study, European countries were grouped into four categories, based on use of

online worlds and risks. France and Germany, for example, represent the countries where there is lower use and lower risk. In Ireland and Portugal, there is lower use and some risk whereas in Finland and the UK, there is higher use and some risk. Higher use and higher risk exists in Bulgaria and Sweden, for example. The reason for differences between countries is that in some countries, there simply is more for children to do online, and providing children activities and opportunities in the Internet associates with some degree of risk (Livingstone and Helsper, 2010). National markets vary in size and thus, wealth and investments in or prioritisation of the Internet vary as well (Livingstone et al, 2011). Furthermore, virtual worlds are governed by technical internal rules that are based on some values. Virtual worlds, for example, constrain the behaviour of avatars within a set of rules programmed by the game's creators (Noveck, 2006). The values that are emphasized and embedded in the software may also vary with the developers and with the virtual world.

Research questions and method

Mostly, virtual worlds have been researched from adult's point of view. Even when the studies focus on children's participation in virtual worlds, the results are based on researcher's observations which are hinting, in most cases, at the researcher's viewpoint. In this study, we strive to look at virtual worlds from children's perspective and try to get hold of their own participatory practices through their own narration. The aim of the study is to explore the opportunities and risks of virtual worlds for children's participation and, thus, to develop further the framework for children's virtual participation. Especially, we examine Finnish children's views and experiences by analyzing the interview data collected at two Finnish schools. In the semi-structured group interviews, children were asked to describe the virtual worlds they use and the activities they perform there. In this article, we will focus on children's views on the following questions:

- How do virtual worlds differ from the 'real' world?
- What are the benefits of using virtual worlds?
- What are the harms of using virtual worlds?

The data consists of interviews with 21 children, aged 11-15 years. There were 13 boys and 8 girls, and they all had permission from their teachers and parents to participate in the interviews. All the children reported using virtual worlds before interviews. However, it turned out during the interviews that two boys had not actually used virtual worlds. They had considered games as virtual worlds. Thus, the analysis focused on those 19 children who were users of virtual worlds. The interviews were conducted in Finnish and the translations are provided by the researcher.

In order to analyze the opportunities and risks of virtual worlds for children's participation, we adopted qualitative content analysis approach. Content analysis is 'a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use' (Krippendorff, 2004). The analysis was started by reading carefully the data. We focused on children's talk about differences between virtual and 'real' lives and benefits and harms of using virtual worlds and

classified the data first into six categories, presented in the next section, and then, into two main themes, representing opportunities and risks. In order to interpret and understand the data, we used the previous research literature as a basis for the analysis. This means that we compared our data and findings with the previous studies.

The number of virtual world users was also used as background information in the analysis. The virtual worlds that children reported using varied from social virtual worlds, such as GoSupermodel, Habbo and Pamfu to game virtual worlds, such as Runescape, World of Warcraft, Runes of Magic, PowerPlay Manager, Kiekko.tk and Aapeli. The most popular virtual world among the interviewees was goSupermodel, used by eight girls. Furthermore, four children used Aapeli and Habbo whereas three reported using Powerplaymanager. Other virtual worlds were used by one or two children.

Results

Children reported about four opportunities and two risks in virtual worlds (Figure 2). The opportunities include learning, amusement, positive social effects and freedom of action whereas the risks mentioned are misbehaving and overuse. The relation between opportunities and risks is not straight-forward; opportunities may turn into risks if they are used in a wrong way. Freedom of action may turn into misbehaviour and getting amused by using virtual worlds may cause overuse as is depicted in Figure 2 by the dashed lines. Next, the opportunities and risks are explored more closely.

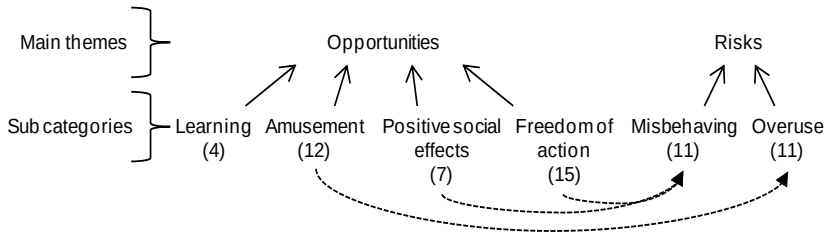

Figure 2. The opportunities and risks for children's participation in virtual worlds

Opportunities for participation

The opportunities of virtual worlds for children's participation were explored by asking children to report about differences between virtual and real world and benefits of using virtual worlds. As differences between the real and virtual worlds were considered, the freedom of action was clearly emphasized, mentioned by 15 children. Children told that in virtual worlds, they can be different personas, for example animals. They can look like as they want: have colourful hairs or Mohican or wear clothes that they would not use in real life. Ducheneaut et al, (2009) also studied avatar personalization in virtual worlds. They argued that virtual worlds are used to experiment with digital bodies that are often very different from a user's: avatar is an idealized version of users' own personality and thus, reflect their projected identity. In virtual worlds, it is also possible

to change the appearance in a moment. This way, children can test different personalities and construct the social self (see Meyers, 2009).

> Interviewer: can you do something different there than in real world?
> Girl 7 (5th class): you can buy Mohican
> Girl 6 (5th class): yes and you can change that in a moment
> Girl 8 (5th class): you can buy for example long hair (shows how long hair)
> Girl 7: or at first they are this long (shows short hair) and suddenly they are very long. They (hair) could not grow so fast (in real world)

On the other hand, some children told that they do not want to pretend to be a different kind of person from what they really are. In virtual worlds, children can also do things that they would or could not do in real life. Children told for example that they participate in fashion shows, found clubs and spend money in virtual worlds. One boy told that he talks in virtual worlds, unlike in real life. According to the interviewees, there are not the same limitations in virtual worlds as in real life which makes it easier to be in virtual worlds. Children told that there are no timetables or 'nothing to follow', for example familiar people or parents looking after them. Thus, there is no need to take things so seriously in virtual worlds. This supports the previous studies on opportunities of virtual worlds. In EU Kids Online study, 50 per cent of children 11-16 said 'I find it easier to be myself on the internet than when I am with people face-to-face' (Livingstone et al, 2011). Even bankruptcy does not matter in virtual worlds because it does not have the same consequences as in real life and you can always create another team if the old one is destroyed. On the other hand, this could also have very serious consequences for real life if it results in false conceptual thinking about money and bankruptcy in real world; if bankruptcy is not a bad thing in a virtual world then it will not be bad in real world.

> Boy 13 (5th class): bankruptcy is not so bad thing in the game
> Interviewer: is not a bad thing?
> Boy 13: that's right
> Boy 12 (5th class): you can always create a new team if the old one is destroyed

Regarding the use of virtual worlds, children also presented three benefits. The most frequently mentioned benefit was amusement. Altogether 12 children reported that using virtual worlds is a nice way to spend time, especially when the weather is bad. The social aspect of using virtual worlds was mentioned by 7 children. According to them, it is possible to get new friends, information and tips for their hobbies in virtual worlds. Thus, virtual worlds indeed appeared as social communities in this study which supports the previous findings (Noveck, 2006; Livingstone et al, 2011). Furthermore, four interviewees mentioned learning as an advantage of using virtual worlds. They reported learning languages and new things about different cultures as well as using computer through using virtual worlds. What makes virtual worlds effective arenas for learning is, Thomas and Brown (2009) argued, the 'networked imagination'. In virtual worlds, children can share experiences, rehearse, explore and experiment things (Thomas and Brown, 2009; de Freitas and Veletsianos, 2010).

> at least in Runescape you can learn.. when I played at the age of 7.. my friends were playing and they suggested it to me.. so at the age of 9 I was very good in English I learned so much English that I was very good in that.. when we started studying that in the third class I already knew quite a lot about English (Boy 4, 5th class)

Risks for participation

The risks of virtual worlds for children's participation were examined by asking children to tell about differences between virtual and 'real' world and harms of using virtual worlds. Related to the differences, children reported about the negative effects of the freedom of action. Altogether 11 children told about misbehaviour in virtual worlds and three of them reported themselves being victims of that kind of behaviour. According to children, misbehaviour refers to bullying, teasing, name-calling, disrupting other people and stealing user names. They also reported about swearing and lying in virtual worlds. The girls using GoSupermodel, for example, told about the case that 60 year old man had pretended to be a young girl. The misbehaviour as such is not a new thing in virtual worlds. In EU Kids Online study, 6 percent of European 9 to 16-year-old Internet users reported having been bullied online, and 3 percent confessed to having bullied others (Livingstone et al, 2011).

> Interviewer: how virtual worlds differ from the real world?
> Girl 6 (5th class): well.. you never know what kind of person he (avatar) is.. he can lie
> Girl 8 (5th class): for example in GoSu.. what was the name of the model who was 60 years old
> Girl 7 (5th class): I don't know
> Girl 8: I don't remember the name of the model but in GoSu there was a guy who was 60 years old man and he was pretending to be a 10 years old girl but that model was removed
> Interviewer: who noticed that?
> Girl 6: there was a warning that you should immediately remove all your personal information from your profile and blog

There are many risks in virtual worlds but there are also ways to prevent them. Children told that they are careful with their personal information and they do not tell for example their full name, address or phone number in virtual worlds. Children considered it difficult to remove photos from virtual worlds and, thus, they are careful with the photos as well. Furthermore, the password should, according to children, be as complicated as possible. In this regard, children indicated awareness of how to cope with risks by themselves. In the case they get bullied or disrupted, children also knew what to do; they can prevent a bully to send any messages to them or they may report about the case to a moderator. In GoSupermodel, the bully may get 'timeout' or, in the worst case, her or his avatar may be removed from the virtual world. Only the moderator can do that.

> Interviewer: what kind of profiles do you have there?

Girl 4 (5th class): well.. I have the one which says that I live in Jyväskylä and I am 11 years old but I haven't put my name
Girl 5 (5th class): you shouldn't put (name)
Girl 4: you shouldn't give your name and phone number to other unfamiliar (users)

Children also told about harm related to the overuse of virtual worlds. Altogether, 11 children told that there is a risk of getting addicted to virtual worlds. This may result in tiredness, neglect of homework and worsening of physical condition. For most of the children, overuse is not a problem but some children confessed that they sometimes use virtual worlds for too long. Linderoth and Bennestedt (2007) also explored the problems players encounter in World of Warcraft, focusing on high consumers of the virtual world. They identified a number of social mechanisms connected with problematic usage of World of Warcraft, such as group pressure. The virtual world is constructed in a way that the players must keep themselves on the same level as their friends, something which can lead to high consumption (Linderoth and Bennestedt, 2007).

Discussion

Virtual worlds provide children an arena for learning, spending time, interacting with other people and, thus, having positive social effects. Furthermore, using virtual worlds may help children to overcome the limitations of the 'real' life as there is freedom of action. On the other hand, this freedom also has its negative side. In virtual worlds, there are people who misbehave and disrupt other users. There is also a risk of overuse. Based on the results of this study and the interpretation made on the basis of the previous research literature, the opportunities and risks that children reported can be examined in the framework for children's virtual participation (Figure 3).

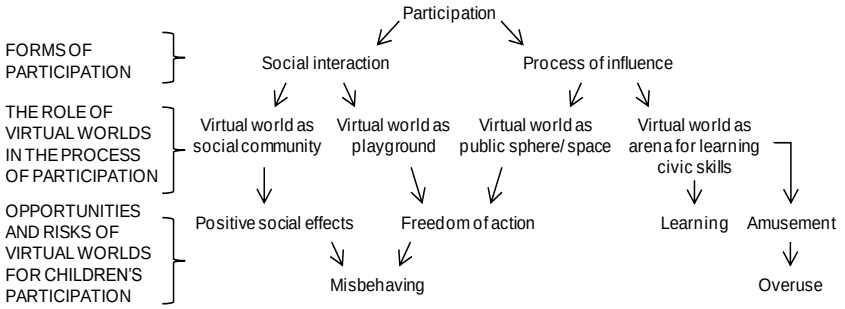

Figure 3. Opportunities and risks of virtual worlds in the framework for children's virtual participation

In the framework, positive social effects are related to the role of virtual worlds as social communities. Children told about the opportunity to socialize with other and to get new friends, for example, which supports the previous studies on virtual worlds: people go to

virtual worlds to seek sociability, interact with others and participate in common activities (Noveck, 2006). Secondly, freedom of action represents virtual worlds as playgrounds and public spaces. In virtual worlds, children are able to play with their personas (see Meyers 2009) and to do things that they would or could not do in real life (see Livingstone et al, 2011). They can express themselves in public, look like they want or create clubs which would not be possible in 'real' life. Thirdly, children learn for example languages in virtual worlds (see Thomas and Brown, 2009) which make virtual worlds arenas for learning. The fourth opportunity of amusement is not related to the specific role of virtual worlds. It can rather be seen as an opportunity and motivation for all the activities that children perform in virtual worlds.

The opportunities always go hand in hand with risks in virtual worlds (see Livingstone and Helsper, 2010). The freedom of action and the positive social effects turning into misbehaviour is a problem that many children have to become familiar with in virtual worlds. Misbehaviour is a serious issue because as one child mentioned, 'you become sad in the same way in virtual worlds (as in real world)'. It is positive that the children know how to prevent the problems and how to cope with them as they occur. However, the role of adults cannot be underestimated. Although virtual worlds are there for children, there is a need for adults to provide support and control. At least, children need help from the moderator when there is a problem that they cannot solve by themselves as it was reported in the interviews. According to Livingstone et al (2011), there are two important viewpoints: 'Society has a responsibility to provide guidance and support for children facing online risks. But it is also important to support children's capacity to cope themselves, thereby building resilience for digital citizens'.

In the context of childhood studies, the results of this study are related to discussion on children's citizenship. Considering virtual worlds as places where children themselves have an active role and adults are not there to restrict children's opportunities presumes recognizing children as active and 'capable' citizens. According to the utmost viewpoint, children are 'digital natives' who know the digital language and feel virtual worlds as their home (Prensky, 2001). On the other hand, seeing virtual worlds as arenas that adults create and control presumes considering children as 'uncompleted' and 'incompetent' agents (see Ponte, Bauwens and Mascheroni, 2009) who are in need of adult protection. Considering children's participation, there should be a balance between these two notions. Efforts to increase opportunities may also increase risks while efforts to reduce risks may restrict children's opportunities (Livingstone et al, 2011).

There are many limitations in this study which makes it important to continue the study on opportunities and risks of virtual worlds for children's participation. Firstly, the data in this study was small and thus, it represents only a part of Finnish children's views. Accordingly, there is a need for exploring other viewpoints as well. Especially, it would be interesting to explore teachers' or parents' viewpoints on the possibilities and risks of virtual worlds. They could have important and useful views and ideas on how to utilise the opportunities and to reduce risks in virtual worlds to make them more effective and safer arenas for children's participation. Furthermore, it would be important to conduct the study that explores the opportunities and risks of virtual worlds from the viewpoint of different children. This study suggests that there is potential in virtual worlds, due to the freedom, especially for those children who may otherwise be passive or shy to

express themselves and thus, to participate in matters concerning themselves. Secondly, this study only explored virtual worlds as children's participatory media without examining the relation between children's virtual and 'real' world participation. Thus, it would be interesting in the future to examine how virtual worlds could enhance children's participation and citizenship in 'real' world as well.

References

Adrian, A. (2009) Civic society in Second Life. *International Review of Law, Computers & Technology*. 23, pp. 231 - 235

Alanen, L. (1992) *Modern Childhood? Exploring the 'child question' in sociology*. Publication series A. Research reports 50. Institute for Educational Research. University of Jyväskylä

Bell, M.W. (2008) Toward a Definition of "Virtual Worlds". *Journal of Virtual Worlds Research.* 1, 1

Bers, M, and Chau, C. (2006) Fostering Civic Engagement by Building a Virtual City. *Journal of Computer-Mediated Communication.* 11, 3, pp. 748 - 770

Blanchard, A.L. and Markus, M.L. (2004) The Experienced "Sense" of a Virtual Community: Characteristics and Processes. *The DATA BASE for Advances in Information Systems.* 35, 1, pp. 65 - 79

Book, B. (2004) *Moving Beyond the Game: Social Virtual Worlds*. State of Play 2 Conference, October 2004, Cultures of Play Panel

Castronova, E. (2007) *Exodus to the Virtual World: How Online Fun is Changing Reality*. New York, NY: Palgrave Macmillan

Corsaro, W.A. (2005) *The Sociology of Childhood*. Second edition. Thousand Oaks, California: Pine Forge Press

De Freitas, S. and Veletsianos, G. (2010) Editorial: Crossing boudaries: Learning and teaching in virtual worlds. *British Journal of Educational Technology*. 41, 1, pp. 3 - 9

Ducheneaut, N., Wen, M-H., Yee, N. and Wadley, G. (2009) *Body and Mind: A Study of Avatar Personalization in Three Virtual Worlds*. 27th Annual CHI Conference on Human Factors in Computing Systems (CHI 2009); 2009 April 4 - 9; Boston, MA

James, A., Jenks, C. and Prout, A. (1998) *Theorizing Childhood*. Oxford: Polity Press

Kafai, Y.B. (2010) World of Whyville: An Introduction to Tween Virtual Life. *Games and Culture*. 5, pp. 3 - 22

Krippendorff, K. (2004) *Content analysis. An introduction to its methodology*. 2. edition. London: Sage Publications

KZero (2011) *Virtual Worlds: Industry & User Data*. Universe Chart for Q2 2011. Available at http://www.kzero.co.uk/presentations/.

Lehdonvirta, V. (2010) Virtual Worlds Don't Exist: Questioning the Dichotomous

Approach in MMO Studies. *The International Journal of Computer Game Research.* 10, 1

Leung, L. (2009) User-generated content on the internet: an examination of gratifications, civic engagement and psychological empowerment. *New Media & Society*. 11, 8, pp. 1327 - 1347

Linderoth, J. and Bennestedt, U. (2007) *Living in World of Warcraft – The thoughts and experiences of ten young people*. Göteborg University

Livingstone, S., Haddon, L., Görzig, A. and Ólafsson, K. (2011) *Risks and safety on the internet: The Perspective of European children*. Full Findings. LSE, London: EU Kids Online

Livingstone, S. and Helsper, E. (2010) Balancing opportunities and risks in teenagers' use of the internet: the role of online skills and internet self-efficacy. *New Media & Society.* 12, 2, pp. 309 - 329

Mayall, B. (2002) *Towards a Sociology for Childhood. Thinking from children's lives*. Buckingham: Open University Press

Meyers, E. (2009) *Tip of the iceberg: Meaning, identity and literacy in preteen virtual worlds*. Association for Library and Information Science Education (ALISE) Conference. January 20 - 23, 2009, Denver, CO.

Noveck, B.S. (2006) Democracy – The Video Game. Virtual Worlds and the Future of Collective Action, in Balkin, J.M. and Noveck, B.S. (eds) *State of Play: Law, Games, and Virtual Worlds*. New York, NY, USA: NYU Press

Ponte, C., Bauwens, J. and Mascheroni, G. (2009) Children and the internet in the news: agency, voices and agendas, in Livingstone, S. and Haddon, L. (eds) *Kids Online: Opportunities and risks for children.* Bristol, UK: The Policy Press

Prensky, M. (2001) Digital Natives, Digital Immigrants. *On the Horizon*. 9, 5

Prout, A. and James, A. (1997) *Constructing and Reconstructing Childhood: Contemporary Issues in the Sociological Study of Childhood*. London: UK Falmer Press

Rheingold, H. (2008) Using Participatory Media and Public Voice to Encourage Civic Engagement, in Lance Bennett, W. (ed) *Civic Life Online: Learning How Digital Media Can Engage Youth*. The John D. and Catherine T. MacArthur Foundation Series on Digital Media and Learning. Cambridge, MA: The MIT Press

Selwyn, N. (2008) A safe haven for mis-behaving? An investigation of online mis-behaviour amongst university students. *Social Science Computer Review.* 26, 4, pp. 446 - 465

Sotkasiira, T., Haikkola, L. and Horelli, L. (2010) Building towards effective participation: a learning-based network approach to youth participation, in Percy-Smith, B. and Thomas, N. (eds) *A Handbook of Children and Young People's Participation. Perspectives from theory and practice*. London, UK: Routledge

Thomas, D. and Brown, J.S. (2009) Why Virtual Worlds Can Matter. International

Journal of Learning and Media, 1, pp. 37 - 49

Tuukkanen, T., Iqbal, A. and Kankaanranta, M. (2010). A Framework for Children's Participatory Practices in Virtual Worlds. *Journal of Virtual Worlds Research*. 3, 2

Wells, K. (2009) *Childhood in a Global Perspective*. Cambridge, UK: Polity Press

Zúñica, H., Pui-I-Abril, E. and Rojas, H. (2009) Weblogs, traditional sources online and political participation: an assessment of how the internet is changing the political environment. *New Media & Society*. 11, 4, pp. 553 - 574