

What parents should know



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Children on virtual worlds

What parents should know

September 2008

Acknowledgments

Several parties supported and contributed directly or indirectly to this work in a number of ways.

The author wishes to acknowledge and thank Mr. James Leaton Gray of BBC, Mr. Geoffrey Wexler of Disney Interactive Media Group, Mrs. Janice Richardson of INSAFE, Mrs. Rebecca Newton of Mind Candy, and Mrs. Annie Mullins of Vodafone for prompt support, valuable input and material provided for the compilation of this booklet.

Finally, the author would also like to acknowledge the individuals who contributed to this document with informal reviews, valuable insights and material, observations, suggestions and solutions, in particular the members of the ENISA AR Community, Mrs. Line Ugland Nyseth of the Norwegian Post and Telecommunications Authority and Mr. Franz Lanténhammer. The content would be incomplete and incorrect without their help.

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Executive summary

With every passing day, a new social-networking website seems to spring up. Online users are spoilt for choice. From Facebook to Bebo, MySpace and Second Life to the business-oriented LinkedIn, you name it, everyone you know is creating their own corner of cyberspace to expand their social networks. But there's a new online phenomenon that's growing and it's for the younger generation.

In America, children are already seasoned social networkers via sites such as Club Penguin, a playful virtual world where animated penguin alter egos go sledding and make buddies. While Europe has been slow to catch on, U.S.-based services are attracting attention and users, and one British company, Mind Candy Inc., is unleashing a somewhat more fearsome alternative to the sweetness of Club Penguin.

Entertainment companies are rushing into the latest internet phenomena which attract big crowds. Children are on the internet at a younger age and they are more comfortable in an online environment than their parents. According to research conducted by EMarketer Inc., around 20 million children and tweens will visit virtual worlds by 2011, up from 8.2 million in 2007.

Virtual worlds comprise exactly what has captivated adults – browser based gaming and social networking – but are aimed at the first generation of users to have grown up alongside, and completely at ease with, both the internet and the concept of virtual reality gaming⁽¹⁾. Virtual worlds are not limited to games, and, depending on the degree of immediacy presented, can encompass computer conferencing and text-based chat rooms.

The biggest concerns about virtual worlds are the online safety of children (7 years old and under) and tweens (8-12 years old) and how they can be protected from online predators. Adults must assist children to ensure positive experiences in these three-dimensional environments.

This white paper aims at providing a set of recommendations for raising awareness of parents to enhance the safety of children using virtual world sites. We believe that awareness of what children can do online and parental involvement are crucial. Parents must be educated, empowered and engaged to ensure truly positive and valuable experiences for their children, while reinforcing safety online habits in the process.

This document does not cover virtual worlds for teenagers (12 to 16 years old) and associated aspects. Furthermore, it does not cover any matters related to legal framework and requirements related to the topic. Finally, it should not be seen either as a comprehensive source of all risks associated with the use of virtual worlds or as a technical guideline to secure standards or solutions.

⁽¹⁾ 'Children's social-networking sites: set your little monsters loose online', *Telegraph.co.uk*, 17 November 2007, available at <http://www.telegraph.co.uk/connected/main.jhtml?xml=/connected/2007/11/17/dlchildren17.xml> (last visited on 10 June 2008).

PART 1: CHILDREN ON VIRTUAL WORLDS



Introduction

The rate of growth in online social networking use, including virtual worlds for children has risen over the last past years. With more than 100 youth-focused virtual worlds now both up and running or about to launch, regulators and parents are struggling to keep pace ⁽²⁾. As many as 20 million children and tweens will visit virtual worlds by 2011, up from 8.2 million in 2007, according to research firm EMarketer Inc.

All this may seem a bit bewildering to many parents – especially when children seem to be at ease with new technology. Virtual world sites are now hugely popular and have become a compelling activity for many internet users ⁽³⁾. These sites are contributing to the Internet evolution towards Web 2.0 content development ⁽⁴⁾.

Parents are naturally concerned about how their children are using and acting in the virtual worlds. Information is needed to ensure that parents are able to decide, with their child, what is appropriate and safe for their use, as well as how to behave responsibly in the virtual worlds.



This paper is designed to provide clear and comprehensive information to parents about virtual worlds, the risks children can encounter and what parents can do to protect and help their children understand how to behave in the virtual worlds to reap the many benefits it offers whilst minimizing potential dangers ⁽⁵⁾.

Virtual worlds

A definition

A virtual world is a computer-based simulated environment intended for users to inhabit and interact via avatars. These avatars are usually depicted as textual, two-dimensional, or three-dimensional graphical representations, although other forms are possible (auditory and touch sensations for example). Some, but not all, virtual worlds allow for multiple users.

The computer accesses a computer-simulated world and presents perceptual stimuli to the user who, in turn, can manipulate elements of the modelled world and thus experiences telepresence to a certain degree. Such modelled worlds may appear similar to the real world or instead depict fantasy worlds. The model world may simulate rules based on the real world or some hybrid fantasy world. Examples of such rules are gravity, topography, locomotion, real-time actions and communication.

⁽²⁾ 'Are ads on children's social networking sites harmless child's play or virtual insanity?', *The Independent*, 2 June 2008, available at <http://www.independent.co.uk/news/media/are-ads-on-childrens-social-networking-sites-harmless-childs-play-or-virtual-insanity-837993.html> (last visited on 11 June 2008).

⁽³⁾ Home Office, *Home office task force on child protection on the internet – Good practice guidelines for the providers of social networking and other user interactive services 2008*, 2008, available at <http://police.homeoffice.gov.uk/publications/operational-policing/social-networking-guidance?view=Binary> (last visited on 16 June 2008).

⁽⁴⁾ Web 2.0 is characterised by a more dynamic and interactive content. Usually content is generated by users, uploaded and shared with others and within communities.

⁽⁵⁾ ENISA will launch a position paper on *Security and privacy in virtual worlds and massively multiplayer online role-playing games (MMORPGS)* at the end of 2008.

Communication between users ranges from text and graphical icons to visual gesture, sound, and rarer forms using the senses of touch and balance.

One perception of virtual worlds requires an online persistent world, active and available 24 hours a day seven days a week, to qualify as a true virtual world. Although this is possible with smaller virtual worlds, especially those that are not actually online, no massively multiplayer game runs all day, every day. Several online games include downtime for maintenance that is not included as time passing in the virtual world. While the interaction with other participants takes place in real-time, time consistency is not always maintained in online virtual worlds. For example, EverQuest time passes faster than real-time despite using the same calendar and time units to represent game time.



As virtual world is a fairly vague and inclusive term, the above can generally be divided across a spectrum ranging from:

- ✓ Massively multiplayer online role-playing games or MMORPGs where the user playing a specific character is a main feature of the game (Fashion Fantasy Game, for example).
- ✓ Massively multiplayer online real-life/rogue-like games or MMORLGs: users can edit and alter their avatar at will, allowing them to play more dynamic, or multiple, roles (ToonTown, FusionFall and Second Life Teen, for example).
- ✓ To games where there is only one player and no interaction with other players (Playfish, for example).

In summary, a virtual world is an online space where children can move around, have an impact on the world and get benefits from network effects. This paper does not refer to virtual worlds accessible only through games consoles or to general social networking sites.

The latest internet phenomena

Recent research conducted by Virtual Worlds Management stated that there are now over 150 virtual worlds either live or in development with a focus on the youth market (18-and-under), with 88 of those live or in development aimed at the general tween category (8 to 12) (up from 62 in April 2008), followed by 72 worlds live or in development aimed at children (7 and under) (up from 52 in April 2008) ⁽⁶⁾. Recent figures confirm that virtual worlds are popular amongst children: by summer 2007, Club Penguin had about 700,000 paying subscribers now and claimed more than 12 million active users, primarily in the U.S. and Canada ⁽⁷⁾; Mattel's Barbie Girls attracted 3 million users within 60 days of its launch. By April 2008, Mattel Inc. already counted more than 10 million users ⁽⁸⁾. According to Virtual Worlds Management, \$184 million



⁽⁶⁾ Virtual Worlds Management, *Virtual Worlds Managements Youth Worlds Analysis*, 22 August 2008, available at <http://www.virtualworldsmanagement.com/2008/youthworlds0808.html> (last visited on 25 August 2008); Virtual Worlds Management, *Virtual Worlds Managements Youth Worlds Analysis*, 11 April 2008, available at <http://www.virtualworldsmanagement.com/2008/youthworlds.html> (last visited on 11 June 2008).

⁽⁷⁾ Kramer, Staci D., *Disney Acquires Club Penguin; \$350 Million Cash, Possible \$350 Million Earnout*, paidContent.org, 1 August 2007, available at <http://www.paidcontent.org/entry/419-disney-acquires-club-penguin-in-deal-values-at-700-million-to-be-brand/> (last visited on 10 July 2008).

⁽⁸⁾ Keith, Stuart, 'SpongeBob is the real threat to our children online', *The Guardian*, April 10, 2008, available at <http://www.guardian.co.uk/technology/2008/apr/10/games.news> (last visited on 10 July 2008).

was invested worldwide in virtual worlds in the first quarter of 2008, with more than one-third of this going to youth-oriented environments ⁽⁹⁾.

Although it is difficult to quantify the sector as virtual worlds sites are being launched almost daily, numbers confirm the latest internet phenomena attracting big crowds and businesses.

Users sometimes encounter dangerous situations in virtual worlds just as they do in the real world, ⁽¹⁰⁾. Recent statistics do not confirm any greater risk for a kid to be targeted by an ill-intentioned adult ⁽¹¹⁾. However, as virtual worlds involve children, risks should be mitigated. The role played by parents is crucial in this respect.

Some examples

A detailed list of many virtual worlds live or in development at the time of this publication is available in the appendix.

Webkinz

URL: http://www.webkinz.com/us_en/

Description: Webkinz pets are plush pets that each come with a unique secret code. With it, children can enter Webkinz World where they care for their virtual pet, answer trivia, earn KinzCash, and play the best children games on the net.

Owned by: Ganz

Time in operation: Since 2005

Cost: Members buy a plush toy. The toy comes with a login code for access to "Webkinz World", which includes a virtual apartment for the toy pet and a virtual pet version of the toy. In fact, the toy is actually the subscription fee: when children adopt a Webkinz pet, they may play in Webkinz World for one year. At the end of the year, they may adopt a new pet onto their Webkinz World account. This will renew the account and all the Webkinz pets in it for one more year. Each time children adopt a new Webkinz pet, their account will be extended for a year from the date of adoption. Renewal years are not cumulative – if



⁽⁹⁾ <http://www.redherring.com/Home/24182> (last visited on 10 July 2008).

⁽¹⁰⁾ eModeration, *Virtual World and MMOG Moderation: Five techniques for creating safer environments for children*, May 2008, available at <http://www.emoderation.com/news/press-release-virtual-world-and-mmog-whitepaper> (last visited on 22 July 2008); Home Office, *Home office task force on child protection on the internet – Good practice guidelines for the providers of social networking and other user interactive services 2008*, 2008, available at <http://police.homeoffice.gov.uk/publications/operational-policing/social-networking-guidance?view=Binary> (last visited on 16 June 2008).

⁽¹¹⁾ eModeration, *Virtual World and MMOG Moderation: Five techniques for creating safer environments for children*, May 2008, available at <http://www.emoderation.com/news/press-release-virtual-world-and-mmog-whitepaper> (last visited on 22 July 2008).

a pet is adopted on 2 May 2006, the whole account will be renewed until 2 May, 2007. The account is only renewed for one year, regardless of how many Webkinz pets children adopt at once. As soon as the pet is adopted children received KinzCash which can be used to redecorate the room, buy clothes and food for the pet, and participate in other activities in the service.

Club Penguin

URL: <http://www.clubpenguin.com/>

Description: Club Penguin is a snow-covered virtual island where children can play games and interact in a fun-filled, online playground that's guided by an unwavering commitment to safety. In March 2005, the founders of Club Penguin set out to create an ad-free, virtual world where children could play games, have fun and interact. As Internet specialists and parents, they wanted Club Penguin to be a place they'd feel comfortable letting their own children and grandchildren visit.



After months of consultation, research and testing, Club Penguin opened to the public in October 2005. In March 2006, Club Penguin launched on Miniclip, the world's largest online game site, and rapidly became its number one game.

In August 2007, Club Penguin was acquired by The Walt Disney Company in a move in part designed to provide access to unprecedented resources and unique development opportunities. Less than a year later, in April 2008, Club Penguin opened its first international office in Brighton, England, in order to provide localised player support and moderation.

Club Penguin is headquartered in the city of Kelowna, British Columbia, Canada.

Owned by: The Walt Disney Company

Time in operation: Since October 2005

Cost: Free access to basic features and interactivity. Members can choose to pay a small monthly subscription to access premium content.

BarbieGirls

URL: <http://www.barbiegirls.com/home.html>

Description: Girls may join a "Barbie"-themed virtual community, create an online character, design their own room, earn "B Bucks" (virtual "money"), play games, watch videos featuring their favourite Barbie movies, and chat with other girls in a controlled environment. They can also enjoy an enhanced Barbie Girls experience with a V.I.P. membership, receiving access to exclusive areas in which they may adopt virtual pets, "spend" B Bucks, and play a number of members-only games.

Owned by: Mattel Inc.

Time in operation: Since April 2007

Cost: V.I.P. membership may be purchased for various time periods.



Moshi Monsters

URL: <http://www.moshimonsters.com/>

Description: Moshi Monsters is a free online game for children, in which, with parental permission, they may adopt a "Moshi Monster" and look after it. Children care for their monster by solving puzzle games, which earn their monster virtual rewards called Rox. Children can spend Rox on virtual items like food, furniture and other treats and toys for their monster. Over time monsters may be able to visit new locations in Monstro City and earn other in-game rewards. Monster owners may also other owners and leave messages on their pages.

Owned by: Mind Candy, Inc.

Time in operation: Since April 2008

Cost: Children may to adopt and play with Moshi Monsters free of charge. Moshi Monsters merchandise is for sale with select third party retailers, some of which are listed in the service's "Buy



Stuff” section. Subscriptions are scheduled to be available in autumn 2008, providing premium benefits to players.

Adventure Rock

URL: <http://www.bbc.co.uk/cbbc/adventurerock/>

Description: A virtual world for children aged around 7 to 11. Adventure Rock is an island where visitors play individually in different zones and game levels. Some areas are programs such as simple music studio software.

Owned by: BBC

Time in operation: Since 2008

Cost: Free



Lego Universe

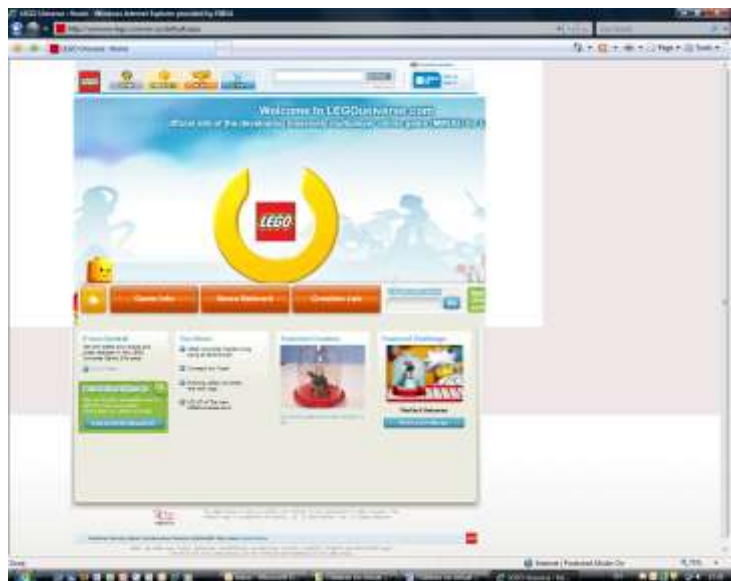
URL: <http://universe.lego.com/en-us/default.aspx>

Description: LEGO Universe is a massively multiplayer online game (MMOG) under development by the LEGO Group, aiming to unite the fun, quality and creativity of a LEGO product with a massively multiplayer virtual environment’s imaginative play possibilities. LEGO Universe is planned to be a “persistent” game world, meaning that it will evolve as the result of players’ actions.

Owned by: Lego

Time in operation: Starting 2009

Cost: A subscription model.



Who are virtual worlds for?

Virtual worlds are designed for specific age groups. However, in most cases these sites are open to users of all ages. The age for which the site was designed is usually mentioned in the parental guide.

Parents and carers should be aware that when children below the stipulated age access a site, they could encounter content that is potentially harmful or meet with older players who could pose a threat to their wellbeing. The available features and content on any site are intended only for users of or above the designed age. Children can claim to be any age and there currently are no well-established, widespread and foolproof tools to verify age.

Which type of player is your child?

Research conducted at the University of Westminster has identified eight types of virtual world players⁽¹²⁾. Being aware of these can assist parents and carers in understanding the type of online experience their children will be most likely to have.

Type of player	Interested in	Likely to be	Characteristics
Explorer-investigators	Following a quest, solving a mystery, going on a journey, being 'outdoors'	The more confident children, no age or gender difference	Examines the detail, curious and communicative, imaginative engagement with the mystery
Self-stampers	Presenting themselves in the world	Both genders, possibly more older children	Boys and girls want to 'make their mark' on their avatar, perhaps with their own face; older girls want to dress-up and make up their avatars. Both boys and girls want to express themselves through the creation of a home or "base".
Social climbers	Ranking, social position within the environment	Both younger and older children; only some gender bias (boys slightly more than girls)	Competitive; concerned with ranking and exhibiting that ranking to others
Fighters	Death and destruction, violence, and superpowers	Male, slight bias towards older boys	Children express frustration when not having a means to express themselves; offering opportunities to "win" and "defeat opponents" lessens the frustration.
Collector-consumer	Accumulating anything of perceived value within the	Older boys and girls	Collects pages and coins, seeks shops, gift-giving

⁽¹²⁾ Gauntlett, David and Lizzie Jackson, *Virtual worlds – Users and producers, Case study: Adventure Rock*, Communication and Media Research Institute (CAMRI), University of Westminster, UK, available at http://www.childreninvirtualworlds.org.uk/pdfs/Gauntlett_and_Jackson_May_2008.pdf

Type of player	Interested in	Likely to be	Characteristics
	system		opportunities, an economy and a place to put belongings
Power users	Giving everyone the benefit of their knowledge and experience	Expert in the games, the geography of the environment, the systems	Spend several hours at a time playing and exploring the game, with a deep interest in how the game works
Life-system builders	Creating new lands, new elements to the environment, populating the environment	Younger children (imagined worlds without any rules), and older children (imagined worlds with rules and systems – houses, schools, shops, transport, economy)	Children express frustration when not having a means to express themselves; systems (or lack of them) to govern the environment are appealing.
Nurturers	Looking after their avatar and pets	Younger boys and girls, and older girls	Children want to meet and play with others, to teach their avatar skills such as swimming, and to have a place for their avatar to sleep. Virtual pets are also appealing.

Why do children access virtual worlds?

Young people access virtual world sites for a variety of different reasons including the following ⁽¹³⁾:

- ✓ Interaction with friends in a new environment and in real time, and sharing interests.
- ✓ Creating and joining communities or interest groups, e.g. music, football etc., communicating thoughts and information on areas of interest through blogs, instant messaging and other tools.
- ✓ Meeting new people and eventually making new friends ⁽¹⁴⁾.
- ✓ Creating and sharing original and personal content, such as images, pictures and videos, to expand opportunities for self-expression.
- ✓ Creating, publishing and sharing music.
- ✓ Playing games.
- ✓ Having their own space, even when parents and carers are present.
- ✓ Experimenting with their identity, new social spaces and boundaries.

⁽¹³⁾ Home Office, *Home office task force on child protection on the internet – Good practice guidelines for the providers of social networking and other user interactive services 2008*, 2008, available at <http://police.homeoffice.gov.uk/publications/operational-policing/social-networking-guidance?view=Binary> (last visited on 16 June 2008).

⁽¹⁴⁾ Please note that The Walt Disney Company does not observe this behaviour regularly.

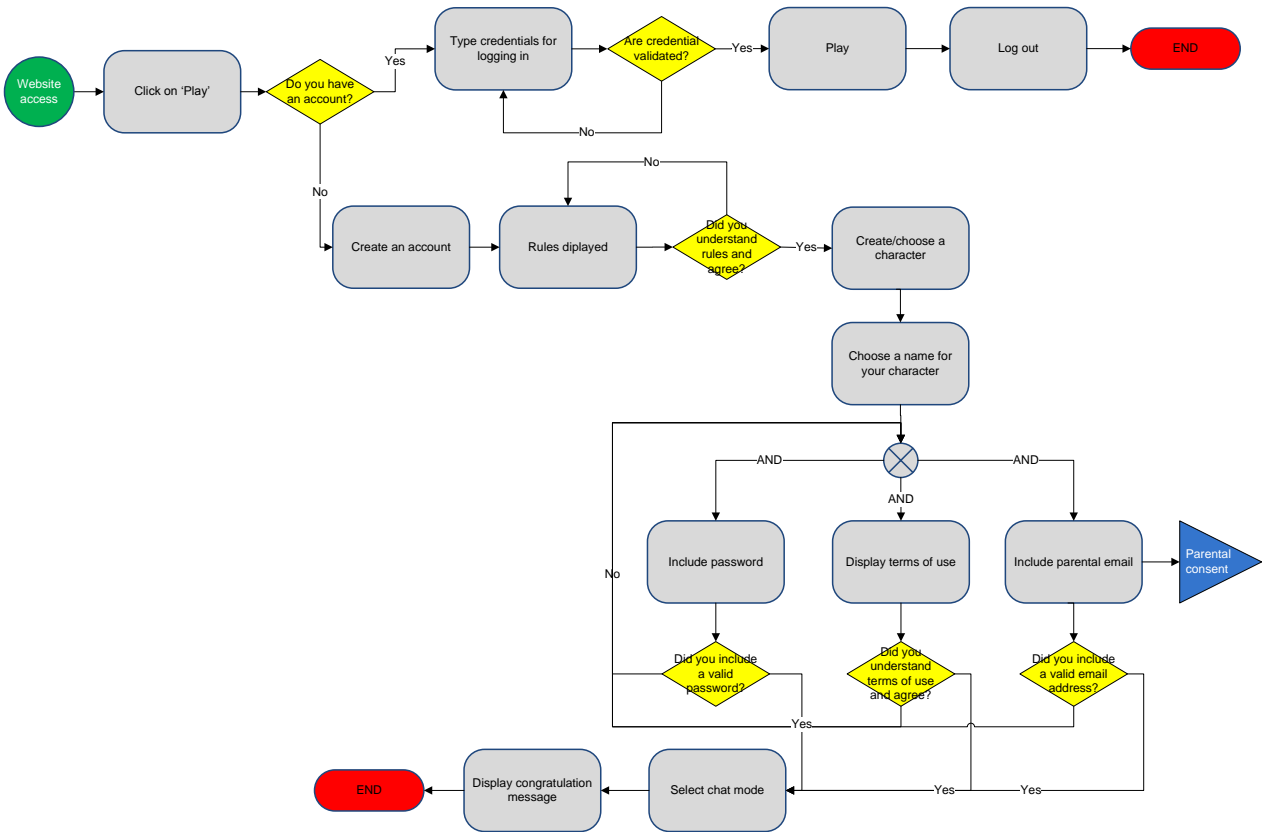
What a child can do

The following are some of the features children use on virtual world sites. Related warnings and suggestions to prevent danger and abuse are included later in this paper.

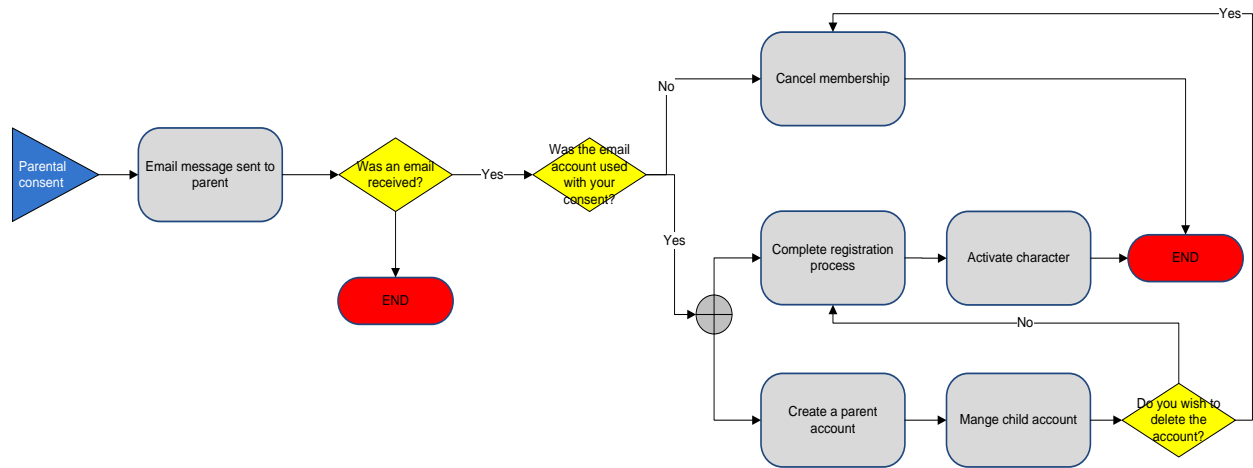
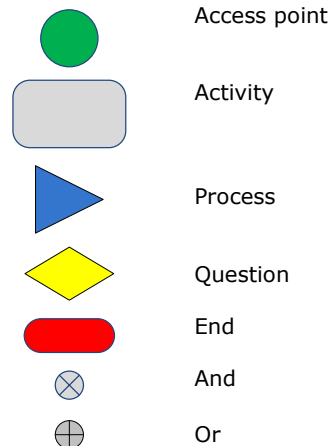
	Feature	Description
Sociable	Build profiles	Input information about themselves. In many virtual worlds (e.g. Club Penguin and BarbieGirls) the experience is intended to be anonymous, so children are not allowed to share or exchange any personal information with a third party online, and provide minimum information to the service provider, such as the parent's email address.
	Interact with others	Share information and ideas with other users through chat, blogs, instant messaging, discussion forums and voice over Internet protocol (VoIP) features.
Creative	Create avatar	Choose a graphic image to represent themselves and establish their identity in the virtual world.
	Play games	Challenge their brains and provide activities to take part in online. Often there is a virtual reward to encourage them to play.
	Respond to quizzes	Challenges such as brain training, generally with a reward of some kind for participation. Also, provides competition between friends or groups of friends in the form of "leaderboards".
Control	Make drawings, animation, comic strips and gadgets	Also called UGC or User-Generated Content, many children enjoy creating their own content to share with their community, and thrive creatively when collaborating with others in their virtual community.
	Create content ranging from music and dance to video	Self-publishing has opened up to all ages and can be an excellent creative outlet.
	Buy products	Some services may allow users to purchase products or services using real money.
	Upload photos or any other information	Some services may allow children to upload photos and information. Some will filter for personal and/or other inappropriate content.
	See advertisement about products/services	Virtual worlds that are free are often supported by advertising.

Main steps a child should follow to access a virtual world site

While different services may approach various steps in different ways, such as how they notify parents and obtain parental consent, the flowchart below illustrates the main steps a child should follow to access a virtual world site:



and

**Legend****How to access virtual worlds**

Children can access virtual world sites via different platforms and devices:

- ✓ Personal computers.
- ✓ Mobile phones: Virtual worlds are not prevalent on mobile phones at present, but this platform is attractive to operators, although success will include assessments of care taken to avoid abuse. For example, in 2008 Disney updated its services to further enable the connection of online worlds with mobile tools, including "virtual world widgets" ⁽¹⁵⁾. Disney's "Pixie Hollow" users will be able to create and take care for butterflies and other content

⁽¹⁵⁾ Virtual Worlds Management, *Disney.com Launches Games and Virtual Worlds Portal; Mobile Widgets*, 14 August 2008, available at <http://www.virtualworldsnews.com/2008/08/disneycom-launc.html> (last visited on 26 August 2008).

using their phone ⁽¹⁶⁾. The user experience is very different when a virtual world is accessed through a mobile phone rather than through a personal computer. This is due to the fact that the screen size is smaller, navigation methods are different and different approaches to safety must be applied. Mobile phone access can more easily take place around the clock away from parents and other carers, and provide more personalised contact, making adult supervision more difficult and increasing the impact of harmful content and contact ⁽¹⁷⁾.

- ✓ Game consoles.
- ✓ Personal digital assistants (PDAs).

While this paper focuses on the risks associated with accessing a virtual world through personal computers, many of the basic approaches suggested to increase security and safety apply to virtual worlds regardless of platform.

Risks related to virtual world access through personal computers

- ✓ Exposure to illegal and harmful content, such as pornography, gambling and other content inappropriate for children, and contact with their users. In most cases, operators of these sites do not take effective measures to restrict access by children to their websites.
- ✓ Creation, reception and dissemination of illegal and harmful content.
- ✓ Undesirable contacts, especially with adult impostors posing as children.
- ✓ Disclosure of personal information leading to risk of physical harm.
- ✓ Identity theft.
- ✓ Physical harm through real-life encounters with online acquaintances, with possibilities for physical and sexual abuse.
- ✓ Targeting through spam and advertisements from companies using virtual worlds to promote age- and/or interest-targeted products.
- ✓ Excessive use to the detriment of social and/or outdoor activities important for health, confidence building, social development and general well-being.
- ✓ Bullying and harassment.
- ✓ Self-harm, destructive and violent behaviours such as “happy slapping”.
- ✓ Exposure to racism and other discriminatory speech and images.
- ✓ Defamation and damage to reputation.
- ✓ Infringement of own or others’ rights through plagiarism and the uploading of content (especially photos) without permission. The taking and uploading inappropriate photos without permission have been demonstrated to be harmful to others.
- ✓ Unauthorised use of credit cards: the credit cards of parents or others can be used to pay for membership fees, other service fees and merchandise.
- ✓ Inadequate age verification and parental content systems, allowing for misrepresentation of age by minors.
- ✓ Use of parent’s email account without consent: when parental consent is required to activate an account in virtual world sites for children, children may abuse access to the accounts of their parents. In some services accounts can be difficult for parents to delete once been activated.
- ✓ Unwanted advertising: some companies spam children through virtual world sites to sell products. This matter raises the issue of user consent and how this should be obtained. There is insufficient legislation in this area and it is clearly very difficult to determine when

⁽¹⁶⁾ Pixie Hollow is now in Beta. Further information on Pixie Hollow is available at <http://disney.go.com/fairies/pixiehollow/comingSoon.html> (last visited on 26 August 2008).

⁽¹⁷⁾ Home Office, *Home office task force on child protection on the internet – Good practice guidelines for the providers of social networking and other user interactive services 2008*, 2008, available at <http://police.homeoffice.gov.uk/publications/operational-policing/social-networking-guidance?view=Binary> (last visited on 16 June 2008).

children are able to understand data transactions. Indeed how to apply these rules on Internet is already a major concern, and mobile phone access accentuates the problem.

Scale of risks

Recent stories and analysis conducted by ENISA have highlighted four main areas of concern:



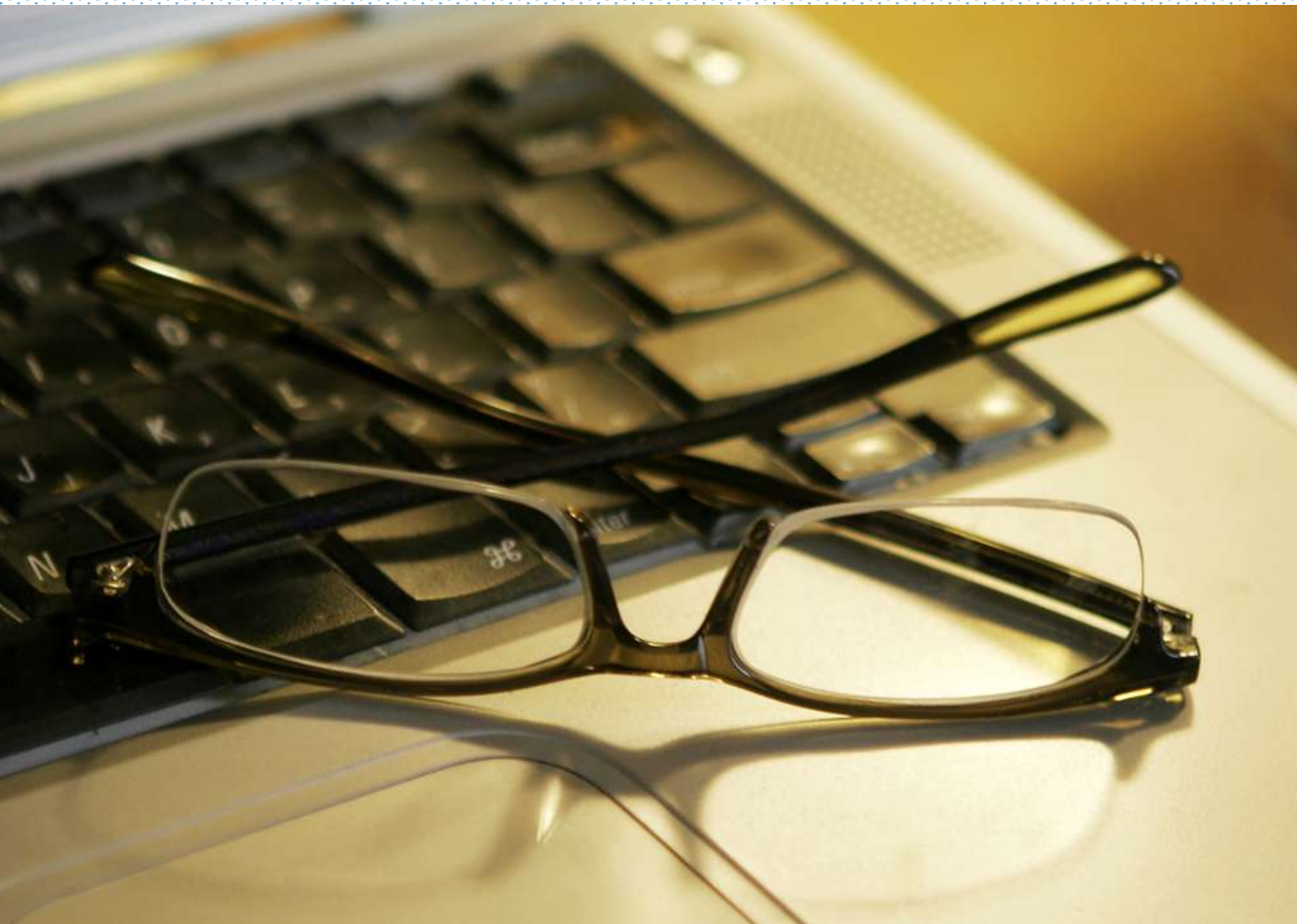
- ✓ Bullying.
- ✓ Harassment.
- ✓ Illegal content.
- ✓ Child abuse.

In addition, risks are increased by:

- ✓ Unsecure environments.
- ✓ Lack of educational content.
- ✓ Product placement in virtual worlds.
- ✓ Marketing to children.
- ✓ Cost of engagement:
 - Monthly fees.
 - Product purchase.
 - Advertising.

Part Three of this report provides suggestions as to how parents and carers can reduce the risks presented by virtual worlds. Some virtual world services mitigate danger better than others. Parents must consider the exact nature of the different worlds on offer, and their child's understanding of the dangers and the likelihood that the parent can reduce risks, before deciding which if an environment is right for their child.

PART 2: PARENTS AND GUARDIANS



Defining parents and guardians

Because most virtual world sites refer to parents in a generic way (such as on a “parents’ page” and for parental controls), we thought it may be useful to define the people who are required by many sites to grant their consent for young people to have access. We refer to parents as the natural mother and/or father of a child or a person to whom guardianship has been granted.

Today’s world presents myriad cases where people other than natural parents take care of children. They are “so-called” guardians or carers, and it is important and imperative to recognise the role they can play within virtual world sites.

The role parents and guardians can play

To ensure that children use virtual worlds safely and responsibly, parents and guardians can:

- ✓ Read the terms and conditions of use with their children before they enter the virtual world, discuss safety precautions together, set some basic rules and monitoring use to ensure that the rules are respected.
- ✓ Educate young users about the responsible use of technology in general, encouraging them to listen to their instincts and use their common sense.
- ✓ Ensure use of technical solutions such as:
 - Filters and parental controls.
 - User history.
 - Confirm the use of automated moderation, such as text filtering which recognises specific words patterns and URLs or more sophisticated filters which include the Anti-Grooming Engines (AGE). These filters detect specific grooming tactics ⁽¹⁸⁾. Reporting functionalities: usually tools to report inappropriate postings, conversations and activities are available, such as “flagging” and “report buttons”. The virtual world should also display a clear policy on how to report inappropriate behaviour and to whom. Children should be taught how to report incidents or unwanted contacts.
 - Ratings: parents and guardians should be aware of rating symbols and their use as an important tool to protect young users from inappropriate services and content.
 - Age verification.
- ✓ Check that the virtual world is monitored through active in-game and/or silent moderation ⁽¹⁹⁾: moderators are trained



⁽¹⁸⁾ Child grooming refers to actions deliberately undertaken with the aim of befriending and establishing an emotional connection with a child, in order to lower the child's inhibitions in with the intent of sexual abuse. In its report, *Protection of Children Against Abuse Through New Technologies*, the Council of Europe Cybercrime Convention Committee addressed the emerging issues of violence against children through the use of new technologies (the issue of child pornography on the Internet is already covered by Article 9 Convention) with particular reference to grooming both through the internet and by mobile telephones.

⁽¹⁹⁾ eModeration, *Virtual World and MMOG Moderation: Five techniques for creating safer environments for children*, May 2008, available at <http://www.emoderation.com/news/press-release-virtual-world-and-mmog-whitepaper> (last visited on 22 July 2008).

to ensure a safe and appropriate environment. Active moderators are often portrayed as characters or participants in the virtual world, or may act as an in-game host, in each case being visible to all users. Usually an in-game moderator will intervene only when difficult situations occur, but in some games will assist users who appear to be “lost” or in need of assistance. Silent moderators usually stay in the background blocking offensive material, reacting to suspicious behaviour, warning users, and performing other policing activities.

- ✓ Stay involved in young users’ activities in the virtual world. It is crucial to underscore the importance of the role parents and carers can and should play within virtual world sites because their involvement has a powerful effect on their children’s experience, promoting positive behaviour.
- ✓ Stay calm and don’t jump to conclusions if you hear or see of anything that concerns you about your child’s behaviour or the behaviour of one of their online friends. The virtual world communities and the web are social lifelines for most young people. If your children fear that you will simply cut off their social lifeline, they are likely to be increasingly reluctant to share problems or concerns they may have.
- ✓ Be open minded to reports from the virtual world community teams that your child may behave quite differently online than offline, face to face with you. It is not unusual for people to be more aggressive online, where they don’t think anyone will hold them accountable. Take these reports as an opportunity to discuss with your child the appropriate tone of communications online.
- ✓ Learn the online culture so you believe the typical excuses young people give when faced with accountability for their behaviour online, such as “someone stole my account”. This is rarely the case when it comes to messages and chat which have violated a virtual world’s rules. It can happen, but it is exceptional.
- ✓ Teach your children not to share their virtual world access passwords with friends or siblings. This is one of the biggest problems virtual worlds face with young people. For example, a best friend or sibling can steal virtual items that your child has worked hard to collect.
- ✓ Contact the Community Head via the virtual world’s website contact page and share your concerns and questions. It is their job to make sure you feel comfortable with the site.
- ✓ Don’t assume everyone on the net is targeting your child. Statistics show that offline problems with paedophiles far outweigh online incidents. In general, children’s sites can be safe and can provide a wonderful, creative social and educational experience for your child, but only if you stay involved and aware.

Educational and psychological effects

Virtual worlds are a relatively new phenomenon, and therefore no extensive research with regards to their psychological and educational effects is yet available. It could be assumed that what has been previously said about TV and video games applies here as well, with greater impact because virtual worlds encompass the characteristics of presence and interaction, suggesting greater involvement of participants.

Supporters of virtual worlds recognise that the skills and capabilities offered by these environments are invaluable. Learning styles need to evolve, and the collaboration and problem-solving of virtual worlds are exactly the strategies required in the digital era of the 21 century. On the other hand, where virtual world’s defenders see concentration, opponents see addiction, and where defenders see intense competition, opponents see social dysfunction and isolation. According to the latter, children are “lost in a world of make-believe” when they should have been out “kicking a can around the streets with friends” ⁽²⁰⁾.

⁽²⁰⁾ Entertainment & Leisure Software Publishers Association (ELSPA), *Unlimited learning –Computer and video games in the learning landscape*, available at

Virtual worlds provide opportunities for children to build educational and emotional skills in a variety of ways, for example by helping enhancing imagination and general knowledge, getting stimulated from other things. For instance, MoshiMonsters.com is a puzzle-based educational site that promotes building educational skills via puzzle games. The only way to earn the in-game currency is to complete a daily challenge, which includes special concepts, logic, reading, math and cultural skills.



The reward for completing the Daily Challenge is a number of "Rox", the currency that allows the child to buy food and clothing for their pet monster. This encourages nurturing and responsibility. The pet monsters' health and happiness is dependent upon the child paying proper attention to it. The Moshi Community collaborates with the community members in the creation of the food and clothing as well, which allows young people to be creative and design actual virtual items, which are displayed in the shops within Monstro City.

Young people are encouraged to collaborate together in many of the virtual worlds and to participate in group competitions. These competitions and events build team skills, relationship skills, and creative skills.

As another example of the potential for virtual worlds, a virtual nutrition project "WhyEat", launched by Whyville in 2005 in collaboration with the University of Texas Health Science in San Antonio, had remarkable results in fighting obesity. A recent survey showed that 125,000 children who participated in this dietary programme are now paying better attention to their diet ⁽²¹⁾.

Along the same lines, a case study carried out by Professor David Gauntlett and Lizzie Jackson of the University of Westminster on BBC's Adventure Rock ⁽²²⁾ revealed that:

- ✓ Virtual worlds are playful, engaging, interactive alternatives to more passive media.
- ✓ The child is becoming a creator and having control over elements of a world.
- ✓ Virtual worlds help creating mental maps, exploring, and understanding a new world and its systems (e.g. transport, money).
- ✓ Children are rehearsing having responsibilities and looking after things while at the same time they are developing their social skills.
- ✓ Virtual worlds provide tools for self-expression and enhance computer literacy.

In addition, virtual worlds can act as enablers for children with physical and communication needs and help them raise their motivation and self-esteem and develop their social skills. They remove barriers to learning for children who have difficulty learning in traditional classroom contexts.

http://www.elspa.com/assets/files/u/unlimitedlearningtheroleofcomputerandvideogamesint_344.pdf (last visited on 26 August 2008).

⁽²¹⁾ Virtual Worlds News, *Virtual World 125,000 Children Fight Obesity in Whyville*, available at http://www.virtualworldsnews.com/2007/06/virtual_world_h.htm (last visited on 4 September 2008).

⁽²²⁾ Gauntlett, David and Lizzie Jackson, *Virtual worlds – Users and producers, Case study: Adventure Rock*, Communication and Media Research Institute (CAMRI), University of Westminster, UK, available at http://www.childreninvirtualworlds.org.uk/pdfs/Gauntlett_and_Jackson_May_2008.pdf.

Increasingly MMOGs are being used as virtual spaces for teaching and collaboration, because they offer platforms which allow for multiple users, group activities and content creation ⁽²³⁾.

Virtual world sites can be fantastic fun for children; however as with any online technology there are risks. Not all sites provide an environment in which these risks can occur. However, parents need to understand the possible dangers which may occur and deciding which if any environment will be right for their child.

Virtual worlds can occasionally be addictive for children who can become so involved in the gaming communities that they lose touch with their offline friends, in favour of spending time with online users playing games. Children often spend hours playing games, especially when their parents are not present ⁽²⁴⁾.

Research by the Bristol-based research group Futurelab in 2006 indicates that both students and teachers in settings using MMOGs are sensitive to the cultural representations in games and believe that they can reinforce stereotypes and have other similar negative effects.

Most preteen communities are free to use, but often free use comes with a catch – advertising. In this regard is noted that some virtual worlds endorse materialism.

Furthermore, virtual worlds have been accused of serving as training for social networking sites as MySpace and Second Life, according to Common Sense Media which reviews many of these virtual worlds for children and claims that virtual interaction is social interaction – and that means feelings can get hurt.

Important to remember also is that where children go, child sex offenders will follow – in the online world as in the real world ⁽²⁵⁾. Bullying and harassment can take various forms in this context, from swapping child abuse images in chat areas or instant messaging, to exchanging personal information of children among paedophiles and even abusive messages exchange between players themselves through the chat facility. An MSN/You Gov survey found that 11% of UK teenagers had experienced bullying involving online and mobile communication ⁽²⁶⁾. This new form of bullying, often called “cyber-bullying”, can have grave psychological effects ⁽²⁷⁾.



⁽²³⁾ Kirriemuir J., *A Survey of the Use of Computer and Video Games in Classrooms*, Nesta Futurelab Series, 2002, available at http://ccgi.goldingweb.plus.com/blog/wp-content/Games_Review1.pdf (last visited on 2 September 2008).

⁽²⁴⁾ *Child Exploitation and Online Protection Centre (CEOP): Think You Know*, available at <http://www.thinkuknow.co.uk/parents/gaming/bad.aspx> (last visited on 4 September 2008).

⁽²⁵⁾ *Child Exploitation and Online Protection Centre (CEOP): Think You Know*, available at <http://www.thinkuknow.co.uk/parents/blogs/bad.aspx> (last visited on 3 September 2008).

⁽²⁶⁾ Entertainment & Leisure Software Publishers Association (ELSPA), *Unlimited learning – Computer and video games in the learning landscape*, available at http://www.elspa.com/assets/files/u/unlimitedlearningtheroleofcomputerandvideogamesint_344.pdf (last visited on 26 August 2008).

Numerous physical and mental ailments can result from online harassment in children. Whereas traditional bullying is kept usually within school boundaries, cyber-bullying can take place at any time or place, even in the privacy of one's home. Therefore, children electronically engaged can be cyber-bullied at any time. Options for escape are perceived to be extremely limited, with the principal options being either to cease using the service or ignore the harasser. Cyber-bullying may produce even more damage to children compared to conventional bullying, with such consequences ranging from low self-esteem, anxiety, anger, depression, school absenteeism and poor grades, to an increased tendency of violence against others and even suicide. Children must be reminded, and parents must remember that the lasting power of the written word. In many cases the target can revisit the written threat over and over, giving a prolonged sense of victimisation ⁽²⁸⁾.



Disinhibition in online interactions may lead to "hostile communications", but can also allow youth to form online friendships or express their feelings more openly and comfortably and explore their capabilities. Children need more time learning in the real world before jumping into virtual worlds.

Not all online communities are created equal. There is a distinction when it comes to different sites and their educational value. Many virtual worlds are free, and children can spend hours exploring and collecting pieces to build their worlds, thus enhancing their creativity and social skills. Virtual worlds require, in most cases, parental facilitation so harmful content could be spotted in time. In most cases, negative psychological effects can be reduced if play time is done within reasonable time limits and under parental observation.

⁽²⁷⁾ CBC News, *Cyber-bullying*, 2005, available at http://www.cbc.ca/news/background/bullying/cyber_bullying.html (last visited on 4 September 2008).

⁽²⁸⁾ *Cyber-bullying: Developing policy to direct responses that are equitable and effective in addressing this special form of bullying*, Canadian Journal of Educational Administration and Policy, Issue n. 57, 18 December 2006, available at http://www.umanitoba.ca/publications/cjeap/articles/brown_jackson_cassidy.html (last visited on 2 September 2008).

PART 3: SAFETY TIPS



Safety tips

The safety tips draw on analysis the data gathered and available research. This section of the paper is intended to provide, in one convenient place, recommendations to parents and guardians to help them help their children have a safe, positive and valuable experience with virtual worlds.

Safety tips for parents and guardians

	#	Recommendations	Description
Safety & security of your personal computer	1.	Keep the computer in a common room	Keep the computer in a common room and be present when children use Internet. If you cannot be present, consider keeping a close watch on what your children are doing online by using a key logging programme to trace their steps online, although children may lose trust in parents who reveal use of such tools too clearly.
	2.	Install firewall and antivirus software	Ensure that your computer has a firewall and antivirus software installed. Teach your children the basics of Internet security.
Rules	3.	Set house Internet rules	As soon as children begin to use the Internet on their own, establish a list of agreed rules. These rules should include whether children can use virtual worlds and how they can use them.
	4.	Set mobile rules	As soon as children begin to use mobile phones, establish a list of agreed rules. These rules should include whether your children can access virtual worlds by phone and how they can use them.
Parents' education	5.	Parents should become familiar with the virtual world site (i.e. services and products offered by virtual worlds sites) and have a good understanding of how children spend their time online	Evaluate the site that children plan to use and read the privacy policy, terms of use and codes of conduct (often called "House Rules") carefully, together with any dedicated parents' page. Also, find out if the site monitors content posted on the services pages and review your child's page periodically. Check if products are sold on the site.
	6.	Activate a child's account with parent email account	The email address used to activate a child's account should always belong to a parent, not to the children.
Virtual world's features review	7.	Ensure parental control is implemented	Verify if the virtual world used by your children has a parental control or any other Internet filtering tool, and make sure such tools are activated.
	8.	Ensure parental consent is implemented	Be aware that parental consent should be required to process sensitive personal data, access chat room, send unsolicited commercial e-mails and similar, communicate with children via mobile phone, collect data from the children via the web, use children's data for any direct marketing. Exercise options carefully.
	9.	Control use of credit cards and other payment	Control the use of using landlines or mobile phones to purchase virtual items. The temptation can be too

	#	Recommendations	Description
Virtual world's features review		mechanisms	great when children are allowed to use landlines or cell phones to buy virtual items. Also, keep your credit cards under lock and key. All too often the temptation is too great to use it "just this once" without asking.
	10.	Ensure age verification is implemented	Usually age is verified when purchase of merchandise is possible, but there is currently system to guarantee age verification. Track your child's spending online carefully.
	11.	Check if the virtual world site uses automated moderation filters in conjunction with humans	Ensure that virtual world site moderates conversation with both automatic filters and by humans. This combination helps to reduce suspicious behaviour and innuendo filters may miss.
	12.	Ensure content lock is implemented	Content locks can prevent access to some un-moderated content on the web or via mobile phones. Content labelled '18-rated' or 'unclassified' can be locked with particular third party tools.
	13.	Ensure barring process/filtering is in place	Use tools to block access to undesirable websites.
	14.	Check contractual flexibility	Check how to delete an account – even if this will result in the forfeit of subscription fees. If the service will not allow an account to be deleted, consider not using it, or blocking access to it. Report such inability to delete to local authorities.
	15.	Look at the service scope	Analyse the content provider's policies and their compliance, look at the content and specific services provided, and be aware of technical limitations (e.g. adverts may be not identifiable as such).
	16.	Observe advertising, and report inappropriate advertising	Keep an eye on ads, and report to your local ad council ads that:: <ul style="list-style-type: none"> ✓ Mislead by over-simplifying complex matters. ✓ Encourage children to talk to strangers or go in danger. ✓ Show people, in particular children, using dangerous things or being close to dangerous things. ✓ Encourage unsafe emulation or dangerous practices. ✓ Encourage bullying. ✓ Cause moral harm and fear to children. ✓ Encourage bad dietary practice. ✓ Exploit a child's credibility.
Children's educations	17.	Educate your children	Education and media literacy is crucial. Explain guidelines and rules of the virtual world site when available. Children will adhere to the guidelines and often remind other players to do the same. Educate your children not to reply to rude messages and to avoid sex talk online. Teach them to not open any attachment or link they receive while chatting with

	#	Recommendations	Description
Children's educations			others because they might contain harmful content.
	18.	Explain to children never to arrange to meet in person someone they first met online	Children are in real danger when they meet in person strangers whom they have communicated with only online. Parents should encourage children to use these virtual world sites to communicate with their offline friends, not with people they've never met in person. People online may not be who they say they are.
	19.	Prevent children from sharing personally identifiable information	Help your children understand what information should be private. Explain that children should post only information that you – and they – are comfortable with others seeing. Remind your children that once they post information online, they cannot take it back.
	20.	Ensure children understand what it means to post photographs on a virtual world site, including by use of webcams	Explain to your children that photographs can reveal a lot of personal information. Children should not be allowed to use webcams or to upload any content without the approval of an adult, guardian or parent. Encourage your children not to post photographs of themselves or their friends with clearly identifiable details such as street signs, license plates on their cars, or the name of their school on their sweatshirts.
	21.	Warn children about expressing emotions to strangers	Children should not communicate with strangers directly online. Explain that what they write can be read by anyone with access to the same virtual worlds and that predators often seek children who express an interest in making new friends online.
Virtual worlds safe usage review	22.	Check child's page or profile	Check your child's page on a regular basis. Logon to view your child's account history; change your child's chat mode to a level you are comfortable with. Well-designed virtual worlds provide the opportunity for you to be deeply involved in your child's experience. If your child refuses to abide by the site's rules, contact the virtual world site and ask for child's pages and profile to be removed, further strengthening your message to your child of the importance of rules, and the consequences of breaking them.
	23.	Ensure children follow age limits on the site	If children are under the age recommended by the virtual world sites, do not let them use the sites. It is important to remember that parents cannot rely on the service provider to keep underage children from signing up.
	24.	Ensure children do not use full names	Have children use nicknames – not their real names or parts of them. Nicknames should be selected carefully, such that do not attract inappropriate attention. Do not allow your children to post the full names of their friends or any other information which could be used to identify them, such as the name of the street where they live, where they go to school, their telephone number, their sports clubs, etc.

	#	Recommendations	Description
Communication	25.	Communicate with your children about their experiences	Encourage your children to tell you if something they encounter on a virtual world site makes them feel uncomfortable or threatened. Remind your children to stop immediately any communication or content when they feel uncomfortable or suspicious. Be sure they understand they will not get in trouble for bringing something to your attention. In turn, you, as the parent and adult, should not overreact when your child shares their experience with you. Stay calm regardless of what they tell you, get all the facts, and then take action. Praise your child for trusting you. Ensure children can report abusers.

Conclusions

In today's world, virtual world sites for children are hugely popular and have become a compelling activity for many internet users. The spectrum of functionalities available, new technology, low fees and the social aspect related to these games are some of the reasons why their use has increased enormously. Children sometimes encounter dangerous situations in virtual worlds just as they do in the real world, leaving parents naturally concerned about how their children are using and acting in the virtual worlds.

Although there is increasing awareness of the risks related to the insecure use of virtual worlds, there is still a significant amount of work to do. It is therefore crucial that parents are able to decide, with their child, what is appropriate and safe for their use, as well as how to behave responsibly in the virtual worlds. Working together parent and child can reap the benefits available in these virtual worlds, whilst minimizing the possible dangers.

ENISA hopes this paper will provide clear and comprehensive information to parents about virtual worlds, the risks children can encounter and what parents can do to protect and help their children understand how to behave in the virtual worlds to reap the many benefits it offers whilst minimizing potential dangers.

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APPENDICES



Appendix

Appendix A

Name	Target demo	Status	Link to latest news or web site
9 New Disney Worlds	Children and Tweens	Concepting/ Development	http://www.virtualworldsnews.com/2008/01/disney-investin.html
Action AllStars	6 to 14	Closed Beta	http://www.actionallstars.com
Adventure Rock	Children	Live	http://www.bbc.co.uk/cbbc/adventurerock/
AllGirlArcade.com	7 to 10 Girls	Development/ Launching in September	http://www.allgirlarcade.com/
BaoBao BengBeng	Children	Live	http://www.bb-bb.cn/
BarbieGirls	8 to 15	Live	http://barbiegirls.com/homeMtl.html
Beanie Babies 2.0	Children	Live	http://beanie-babies.ty.com/
Be-Bratz.com	8 to 12	Live	http://be-bratz.com/
Bella Sara	5 to 12	Live	http://www.bellasara.com/index_maf.aspx
BoomBang	Children	Live	http://www.boombang.tv/
Bossa Nova Concepts' Robot World	Children	Development	http://www.bnconcepts.com/
BuildABearville.com	Children	Live	http://www.buildabearville.com/
C3L3B Digital	Teenagers and Young Adults	Development	http://www.virtualworldsnews.com/2008/01/c3l3b-digital-g.html
Cackleberries.com	Under 8	Live	http://cackleberries.com/
Cars Virtual Worlds	Children and Tweens	Development	http://www.virtualworldsnews.com/2008/06/disney-forceast.html
Cartoon Doll Emporium	6 to 12	Live	http://www.cartoondollemporium.com/

CC Metro	13 to 34	Live	http://www.mycoke.com/
Chaotic	Children	Live	http://www.chaoticgame.com/
Chapatiz	Tweens	Live	http://uk.chapatiz.com/
Chipuya Town	Teenagers	Live	http://www.virtualworldsnews.com/2007/11/media-groove-la.html
Chobots	Children	Live	http://chobots.com/
Chuggington	3 to 6	Development/ Launch in 2009	http://chuggington.com/
Club Penguin	7 to 15	Live	http://clubpenguin.com/
ClubPonyPals.com	5 to 12	Development/ Launching Fall 2008	http://www.ClubPonyPals.com
Club Time Machine	6 to 12	Live	http://www.clubtimemachine.com/
DC Hero Zone	Children and Tweens	Developing	http://dcherozone.childrenwb.com/
Dgamer	Children	Live	http://disney.go.com/dxd2/index.html?channel=68447
DinoChildren	Children and Tweens	Development	http://dinochildren.com/
Dinosaur Junction	Children	Live	http://www.dinosaurjunction.com/
Disney's Bunnytown	Preschoolers	Live	http://atv.disney.go.com/playhouse/bunnytown/index.html
Dizzywood	8 to 12	Public Beta	http://www.dizzywood.com/
Dubit	Teenagers	Live	http://www.dubitchat.com/
Edusim		Alpha	http://edusim3d.com
Elf Island	8 to 12	Development/ Target Launch Early Fall 2008	http://www.ElfIsland.com
Emerald Island	Children	Public Beta	http://www.emeraldisland.com/
Empire of Sports	Tweens and Teenagers	Public Beta	http://www.empireofsports.com/

Fashion Fantasy Game	Tween and Teenager Girls	Live	http://www.fashionfantasygame.com/
FootballSuperstars.com	11 to 18	Development	http://footballsuperstars.com/
Freaky Creatures	Tweens and Teenagers	Open Beta	http://www.freakycreatures.com/
Freggers	13+	Public Beta	http://www.freggers.com/
Frenzoo	Teenagers	Closed Beta	http://www.frenzoo.com/
Fresbo World	Teenagers+	Live	http://www.fresboworld.com/
FusionFall	Children and Tweens	Development	http://www.fusionfall.com/
Gaia Online	13-18	Live	http://www.gaiaonline.com/
GalaXseeds.com	Tween	Live	http://www.galaxseeds.com/
Garden Party World	Children and Tweens	Live	http://www.gardenpartyworld.com/
GoPets	13-40	Live	http://www.gopetslive.com/
Green.com	Children and Tweens	Development	http://green.com/
Habbo Hotel	13 to 16	Live	http://www.habbo.com/
Handipoints	4 to 12	Live	http://www.handipoints.com/
Hello Kitty Online	Tweens to 20s	Closed Beta	http://www.hellokittyonline.com/us/
Home	Teenagers and Young Adults	Closed Beta	http://www.homebetrial.com/
Horseland.com	Girls 8 to 18	Live	http://www.horseland.com/
House by MTV	16 to 24	Live	http://www.mtv.co.uk/house
IMVU	Teenagers and Young Adults	Public Beta	http://www.imvu.com/
JumpStart	3 to 10	Development. Aim for Q4 Launch.	http://www.JumpStart.com

Kaimira	Children	Concept/ Development	http://kaimiracode.com/
Kabillion	Children	Live	http://www.kabillion.com
KetnetKick	6 to 12	Live	http://www.ketnet.be/ketnet/subsites/kick/html/index.html
ChildrenCom.com	7 to 14	Live	http://www.childrencom.com/
Kiwi Heroes	Children and Young Teenagers	Development	http://www.kiwiheroes.com/
Lego Universe	8 to 12	Development	http://universe.lego.com
Littlest Pet Shop	Children	Live	http://www.hasbro.com/littlestpetshop/
Lola's Land	Tween	Live	http://www.lolasland.com/
LoudCrowd	Tweens and Teenagers	Alpha	http://www.loudcrowd.com/
Madagascar-themed world	Children and Tweens	Concepting/ Development	http://www.virtualworldsnews.com/2008/02/toy-fair-goes-v.html
Magi-Nation	2 to 12	Live	http://www.magi-nation.com/
MapleStory	Tweens+	Live	http://www.maplestory.com/
McDonald's Happy Meal 3.0	Children	Live	http://vw.happymeal.com/
Me2	Teenagers	Live	http://www.me2universe.com/
MechTechs	Teenagers	Development	http://mechtechs.blogspot.com/
Meez	Avg age 18, goes older, though	Live	http://www.meez.com/
Millsberry	Children	Live	http://www.millsberry.com/
MiniFriday.com	Tweens and Teenagers	Live	http://minifriday.com/
Mini Match	Boys 6 to 11	Live	http://minimatch.cartoonnetwork.com/
MinyanLand	Children	Live	http://www.minyanland.com/

MoiPal	Teenagers	Live	http://www.moipal.com
Monkey World	Youth-oriented	Concepting/ Development	http://www.virtualworldsnews.com/2008/04/nickelodeon-to.html
Moshi Monsters	8-12 yrs, 18+ females	Public Beta	http://www.moshimonsters.com/
MyePets.com	Children	Live	http://myepets.com/
MyLife	Children	Development	http://www.iwantmylife.com/
MyMiniLife	Teenagers	Live	http://www.myminilife.com/
Mystikats Kutties	6 to 13	Live	http://www.mystikats.net/golive/index.php
Mytopia	Teenagers and young adults	Live	http://www.mytopia.com/
NASA's Education World	Teenagers	Concepting/ Development	http://www.virtualworldsnews.com/2008/01/nasa-submits-rf.html
Neopets	7 to 14	Live	http://www.neopets.com/
NFLRush.com	Children and Tweens	Live	http://www.nflrush.com/
Nicktropolis	9 to 12	Live	http://www.nick.com/nicktropolis/game/
Nicotto Town	Older teenagers	Development	http://www.nifty.com/nicotto/tn.html?niftop_948x28
novoKing	16-35	Live	http://www.novoking.com/En
NuNuWorld.com	Pre-tween	Development/ Target launch in March 2009	http://www.nunuworld.com/
OurWorld	11 to 15	Public Beta	http://ourworld.com
Panfu	6 to 12	Live	http://www.panfu.com/
Papermint	Tweens and Teenagers	Live	http://www.papermint.com/en/
Pixie Hollow	Children and Tweens	Development	http://disney.go.com/fairies/pixiehollow/comingSoon.html
Planet Cazmo	Children and Tweens	Live	http://www.planetcazmo.com/

Planetvtech.com	5+	Development	http://www.virtualworldsnews.com/2008/02/toy-fair-goes-v.html
Poptropica	Children	Live	http://www.poptropica.com/
PowerUp	Teenagers	Live	http://www.powerupthegame.org/
Quest Atlantis	9 to 12	Live	http://www.virtualworldsnews.com/2008/02/indiana-u-gets.html
ROCKETON	Children	Closed Beta	http://www.virtualworldsnews.com/2008/02/rocketon-draws.html
The Saddle Club	Children	Development	http://www.saddleclubtv.com/
Sea Pals	5 to 12	Live	http://www.seapals.com
Second Life Teen Grid	Teen	Live	http://teen.secondlife.com/
Shidonni	4 to 12	Beta	http://www.shidonni.com/
Shining Stars	5 to 12 (skews higher as well)	Live	http://www.shiningstars.com/
SmallWorlds	11-18+ (plans on launching separate children world)	Open Beta	http://www.smallworlds.com/login.php
SocioTown	15 to 35	Live	http://www.sociotown.com/
SpongeBob SquarePants	Children and Tweens	Concepting/ Development	http://www.virtualworldsnews.com/2008/04/nickelodeon-to.html
Stagecoach Island	14+	Live	http://blog.wellsfargo.com/stagecoachisland/
Star in Me	Children	Development	http://www.starinme.com/
Stardoll	9 to 17	Live	http://www.stardoll.com/en/
TAATU	10 to 19	Live	http://world-cdn.taatu.com/index.html
Tamagotchi's Tama & Earth Expo	children	Live	http://famitama.com/pc/index_ja.html
Tech Deck Live	Tweens	Beta	http://www.techdecklive.com/
There.com	13-17+ (avg age is 22)	Live	http://www.there.com/

Timik	Teenagers	Live	http://timik.pl/
Toontown	6 to 12	Live	http://play.toontown.com/
Tootsville	6 to 12	Live	http://www.tootsville.com/
ToppsTown	6 and up	Live	http://www.toppstown.com/
Treetures	5 to 12	Live	http://www.treetures.com/
Tronji	6 to 9	Development	http://www.virtualworldsnews.com/2007/07/nice-tech-looks.html#more
Ty Girlz	Tween	Live	http://ty-girlz.ty.com/
UB Funkeys	8+	Live	http://www.ubfunkeys.com/index.html
Urbaniacs	Tweens and Teenagers	Live	http://www.urbaniacs.com/
Virtual Congress	Teenagers	Concepting/ Development	http://www.centeroncongress.org/about/featured_vc.html
Virtual Family Kingdom	Tweens and Teenagers	Closed Beta	http://www.virtualfamilykingdom.com/
VizWoz	11 to 14	Live	http://www.vizwoz.com/
vMTV	Tweens and Teenagers	Live	http://www.vmtv.com/
vSide	13 to 24	Live	http://www.vside.com/app/start
The Warner Zone	Children and Tweens	Developing	http://www.childrenwb.com/
WebbliWorld	6 to 10	Live	http://www.webbliworld.com/
Webkinz	5 to 8	Live	http://www.webkinz.com/us_en/
WebWilds	children	Live	http://www.webwilds.com/
WeeWorld	13 to 30	Live	http://www.weeworld.com/
Whirled	13+	Live	http://www.whirled.com/

Whyville	8 to 15	Live	http://www.whyville.net/
Willinilli	Children	Development	http://www.virtualworldsnews.com/2007/11/uovo-receives.html
Wisenhimer	7 to 12	Live	http://www.wisenhimer.com/webui/wisenhimer.aspx
Wizard101	Tween	Open Beta	https://www.wizard101.com/
WoogiWorld	Elementary-age Children	Live	http://www.woogiworld.com/
World of Neopia	7 to 14	Development	http://www.virtualworldsnews.com/2008/04/virtual-world-2.html
WowBotz	6 to 13	Development	http://kidz.golive2.com/
Xivio	Children	Live	http://www.xivio.com/bftq5/index.cfm
ZedCity	Teenagers	Open Beta	http://city.zed.com/
Zibbie Zone	Children	Live	http://www.zibbiezone.com/
zOMG!	Children and Tweens	Closed Beta	http://www.zomg.com/
ZooKazoo.com	6 to 12	Live	http://www.ZooKazoo.com
Zoopri.com	Children	Development	http://zoopri.com/
Zwinktopia	Tweens and Teenagers	Live	http://www.zwinktopia.com/

Source: *Virtual Worlds Management* (22 August 2008)



ISBN 978-92-9204-014-7

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