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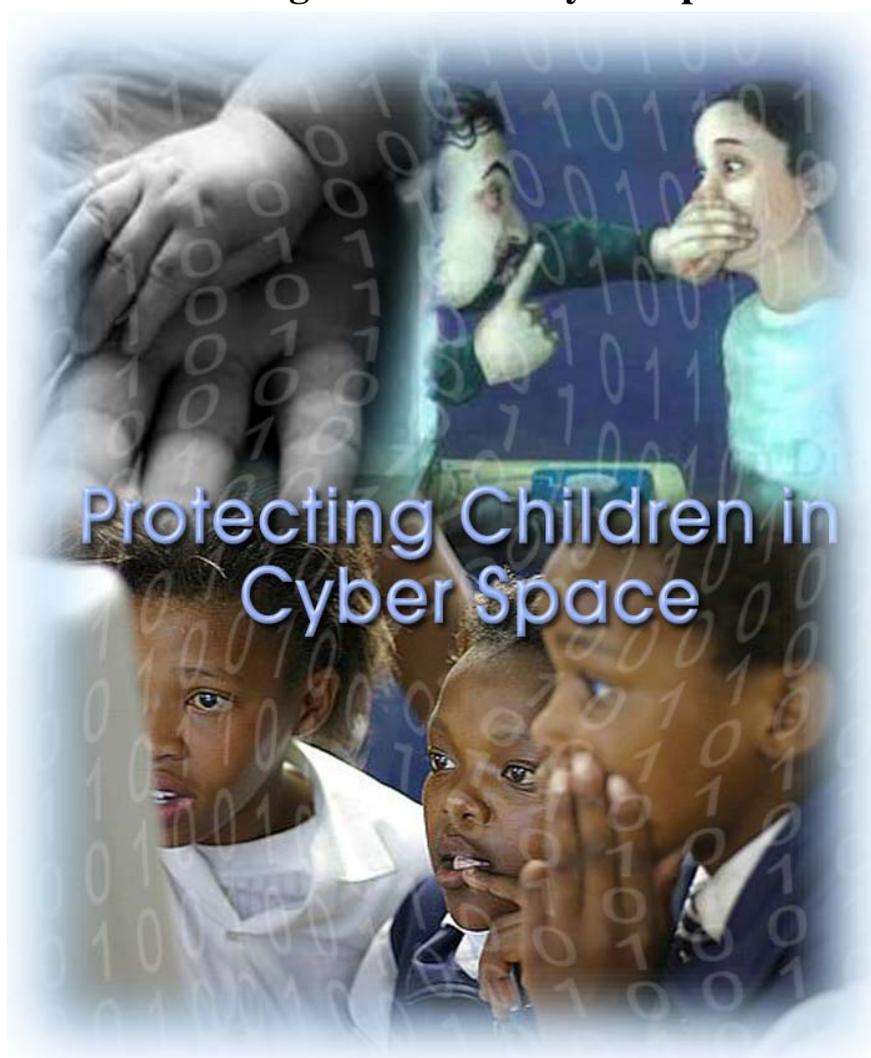
## Protecting Children in Cyberspace

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## Protecting Children in Cyber Space



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## **Abstract**

This essay is an attempt to identify the threats to children in cyberspace and provides the recommendations to protect them. After defining the term cyber space, the benefits of internet are discussed, followed by the impact of internet on children, keeping in view that young people and children are the fastest growing users of Internet and they are in continuous reach of media. Some major threats to children over the internet include; Pornography, Harassment, Dissemination of Personal Information, Impact on Style of Living, Threat to Teachings of Religion, Exposure to violence and Bullying.

In order to protect children in cyberspace recommendations are given with respect to, Policy-making, International mechanisms, Software production, Financial transactions, Comprehensive programs, Child and youth participation, Parents, Internet cafes, Technology and Internet Service Providers (ISPs). Finally, concluding remarks are given at the end, followed by references.

## 1. The Cyber Space

The term cyberspace was first coined by William Gibson in 1984 which is now commonly known by its synonym, Internet<sup>1</sup>. The term is often used to refer data, objects and activities that exist in the network itself, for example, website might be metaphorically said to "exist in cyberspace." Therefore, events taking place on the Internet are happening in the cyberspace and not where the participants or the servers are physically located<sup>2</sup>.

Internet has played a very important role in our daily lives. With a growth rate of 342.2%<sup>3</sup> (from 2000-2008) internet has become our necessity today. One can extract information within seconds about a place located million miles away using the internet. The information which was available only in the distant libraries before internet is now few clicks away from us.

## 2. Internet in Pakistan

Pakistan has witnessed rapid growth in the Internet connectivity and usage over the years. The growth rate observed in the last two years was much greater than earlier years. From Figure 1 we can see that as compared to 1999-00, internet subscriptions have increased by seven times i.e. it has increased from 0.5 million to 3.5 million. According to the Federal Bureau of Statistics, 11 out of 100 inhabitants in Pakistan are Internet users (Pakistan, 2008). There are different means through which users access the Internet in Pakistan; most common being the connection through fixed line. Wireless internet is also gaining popularity and is widely used by laptop users.

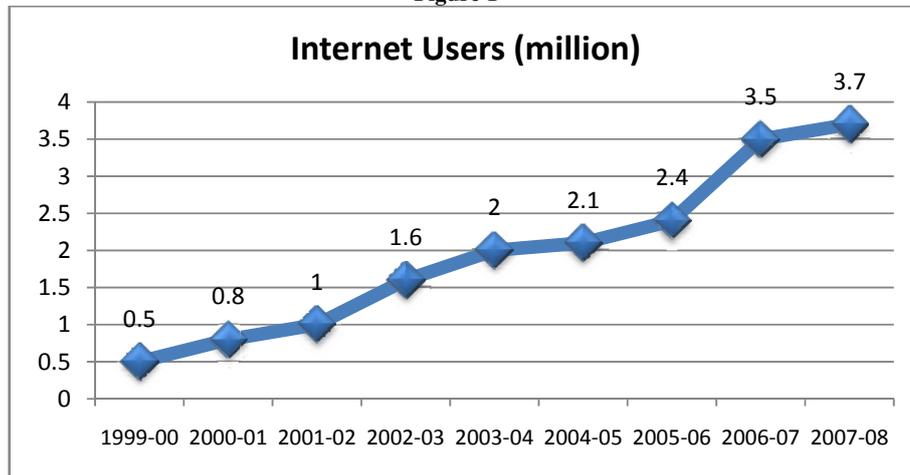
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<sup>1</sup> <http://www.synonyms.net/synonym/cyberspace>

<sup>2</sup> <http://en.wikipedia.org/wiki/Cyberspace>

<sup>3</sup> <http://www.internetworldstats.com/stats.htm>

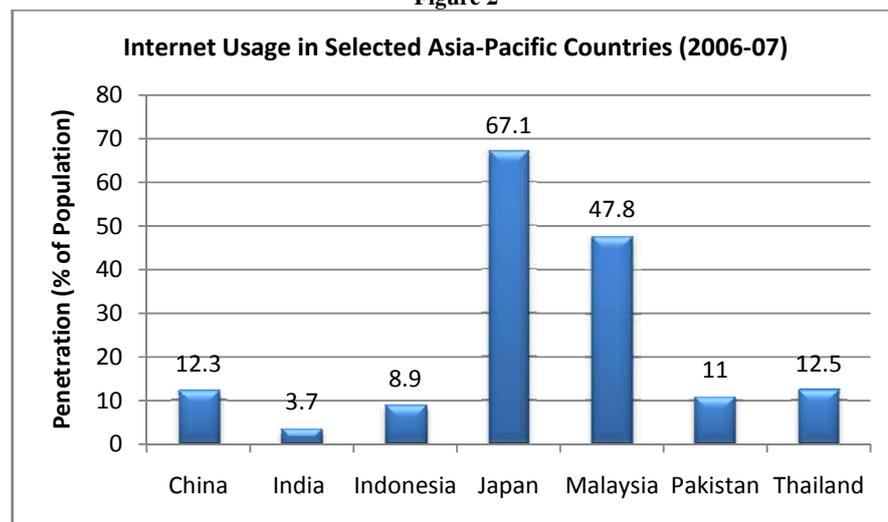
Figure 1



Source: Pakistan ICT Indicators, Federal Bureau of Statistics, Government of Pakistan

From the view point of penetration (internet subscribers/population), Japan has the highest rate of penetration (67.1%) in the Asia-Pacific countries and Malaysia being the second on list having penetration rate of 47.8%. Pakistan has the penetration rate of 11 which is higher than India and Indonesia for the selected group of Asia-Pacific countries.

Figure 2



Source: Pakistan ICT Indicators, Federal Bureau of Statistics, Government of Pakistan.

### **3. Internet and Children**

Young people and children are the fastest growing users of Internet. They are in reach of media virtually 24 hours through iPod, instant messaging, mobile video, YouTube, social networking sites like Facebook or Orkut, (P2P) file sharing, chat rooms, multi-player interactive games and web cameras (Rideout, 2007). In early days, use of internet was limited to the PCs but today terabytes of information is being shared through laptops, PDA's and also smart-phones. Internet has opened a new world for the children to explore and learn. Children are encouraged by teachers and family to take advantage of Internet for their learning. But not every content on the web is appropriate for the young and while this click-away information provides numerous benefits to the users, it also brings in the serious threats in the form of exposure to sexual material, sexual harassment, bullying, frauds, access to illegal and harmful material and many more (Medaris & Girouard, 2002). Keeping this in view, our primary concern today is to make sure for the protection of children over the Internet.

### **4. Threats of Internet for Children**

Internet has its pros and cons. It has provided its users a whole new world of information both good and bad. It is however said that positive influence of internet on our daily life is greater than the negative one. But this argument gives us a false sense of security and gives us an impression that there is nothing to worry about.

Offenders use the Internet to find vulnerable children to exploit by jumping from one chatroom to another. They particularly look for the children who seem unhappy and isolated. Being in the mask of anonymity, these people offer sympathy and care to these children and by doing this; they gain their trust. Children and young people are naturally curious about sexual matters and hence they fall easily in the trap of these offenders who offer them to show them what they want (Kessie, 2007). Some major threats to children over the internet include:

1. Pornography
2. Harassment

3. Dissemination of Personal Information
4. Impact on Style of Living
5. Threat to Teachings of Religion
6. Bullying

#### **4.1 Pornography<sup>4</sup>**

Internet has eased the access to pornographic material. People can access such content very easily from home. This fact can be confirmed with the following statistics; 25% of total search engine requests are porn-related, out of total emails 8% of are porn-related (daily average is 4.5 per internet user) and out of total websites, 12% are related to pornography . Interestingly, terabytes of pornographic material is available for free.

According to an estimate every second, 3,075.64 US dollars are being spent on pornography, 28,258 Internet users are viewing pornography and 372 Internet users are typing adult search terms into search. One interesting table suggest that Pakistan is on top of the list for countries from which the search request for the word “sex” arrives on internet (India being second and Egypt third) and Pakistan is on number five in the list of countries from which the search request for the word “xxx” arrives (Bolivia being on top). Detailed statistics about internet useage is not available for Pakistan but the above ranking can give us an idea about the penetration of pornography in Pakistan and how people are desperate to access such material online.

##### **4.1.1 Pornography Affecting Children**

Using the medium of internet, pornography is penetrating amongst children very quickly. Whether intentionally or not, 90% of children in the age group of 8-16 years have viewed porn online and children are first exposed to pornography at the age of 11 years on average. The largest consumers of pornography are from the age group of 12-17 years<sup>5</sup>.

##### **4.2 Harassment and Exploitation**

Internet has facilitated the offenders seeking children for sex by providing them a perfect medium through which they can easily find

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<sup>4</sup>All data in this section is taken from: <http://www.internet-filter-review.toptenreviews.com/internet-pornography-statistics.html>

<sup>5</sup> Ibid

their prey while maintaining their anonymity. They reach for the children through chatrooms and online games. They no longer need to go out to search for the vulnerable children in parks and public places. Most painful part of this exploitation is that once a child has become victim of sexual harassment, it becomes almost impossible for him/her to turn back. Offenders take make photographs and videos in sexual positions which they use to blackmail the victims afterwards if they decide to turn back (Medaris & Girouard, 2002).

Some children are more vulnerable than others to the evils of Internet. Those children:

1. are in socially and economically difficult situations,
2. have been victim of sexual abuse and exploitation in past,
3. are lonely,
4. feel alienated from their parents and others,
5. are having low self-esteem, and
6. are lacking confidence (Hecht, 2005).

According to Microsoft, offenders are misusing chat rooms for their evil cause and it is not possible to moderate every single message. Hence as per their claim, only possible solution was to shutdown the free chatrooms (Hinze-Hoare, 2004).

In a commercial sex trade, more than one million children per year are exploited globally worth of which is estimated to be 20 billion US Dollars. Over 100,000 websites offer illegal child pornography which is responsible for the huge sum of 3 billion US Dollars annually<sup>6</sup>. The most recent form of child exploitation is live online sexual abuse. Interested customers pay online through credit card to watch live broadcast of child exploitation on designated websites. (ITU, 2006).

### **4.3 Dissemination of Personal Information**

One of the major concerns related to children's use of internet is 'Privacy'. By asking children to register with the site to win prizes or join children clubs etc, websites collect large amount of important personal information from children. The information then takes the form of list containing names, addresses, contact information, interests etc which is then sold to brokers.

Some websites offer free services in return asks for the credit card information. They promise not to charge the card and hence children

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<sup>6</sup> Data Source: <http://www.healthymind.com/s-porn-stats.html>

usually provide it. Afterwards the information is misused. In addition to financial loss, identity of the cardholder is reported with the card usage whenever this information is misused.

#### **4.4 Impact on Living Style**

One more issue related to the use of internet by children is the impact on their daily routine and behavior. With the millions of videos and photos, especially those related to fashion and music, children adopt how the characters dress, walk, sit, even how the characters behave with others. Very young girls were reported to be dressing and behaving like girls in the music videos (Rideout, 2007).

#### **4.5 Exposure to Violence**

Children are exposed to violent photos and videos online. This material has serious psychological influence on children. Children experience the violence they witness on their younger siblings or pets.

#### **4.6 Threat to Teachings of Religion**

In the name of freedom of expression, many websites are developed and marketed containing illegal and misleading information about religion; especially Islam. Websites like Islamicity.com, developed by enemies of Islam, can easily misguide children about the teachings of Islam. So it is very critical to monitor what children are learning on internet (Abdul Shukor, 2006).

#### **4.7 Bullying**

Cyber bullying is a new medium for harassment. Offenders take advantage of anonymity of cyberspace for bullying and harassing children.

#### **4.8 Threat to learning abilities**

The websites like Yahoo Answers provide free question answer services online to all and these valueable services are commonly misused by children by posting their homework questions online. Answers of the questions are usually posted in no time and hence without thinking about the question for a second, child gets his homework done by someone else.

## **5. Recommendations**

### **5.1 Policy-making**

It is recommended that governments should involve law enforcement bodies, industry, children/young people, parents, schools, welfare organizations and others to devise and implement specific policies and strategic steps to protect children and young people in cyberspace.

Private sector need to play important role in this fight and take responsibility to implement the rules and regulations formulated by government for the purpose. Their commitment is necessary to support new policies.

### **5.2 International mechanisms**

Scope of the policies should not be restricted to one country or region; rather an effort should be made to develop a strong international relationship worldwide to help globally protecting children in cyberspace. It would be a virtually impossible job for a country to implement protective steps if other countries are not taking proper actions for the same.

### **5.3 Software production**

Pakistan has the potential in software development. It is recommended that government should encourage software developers to work on internet security packages. Software industry can play vital role in child protection campaign in cyberspace by producing softwares to restrict inappropriate material to children, to stop child exploitation, to filter the web content with respect to users and to help in other possible ways to contribute in this campaign.

### **5.4 Financial transactions**

Credit card is one of the pillars of consumer banking. The boom of banking sector in previous years has exponentially increased the use of credit cards. Since it is an easiest and quickest way to do transactions, many people make negative use of it. Keeping this in view, it is recommended that the Government should make it mandatory for banks to report credit card usage of their users to law enforcing agencies so that they can trace down the offenders and criminals involved in such acts.

### **5.5 Comprehensive programs**

It is suggested that some comprehensive programs should be initiated to educate children, young people and parents to create awareness about how the parents and even children can save themselves in cyberspace.

Children should know what they are supposed to do when they find something on the internet with which they are not comfortable. A child should understand that he is supposed (Berson & Berson, 2002):

1. not to get into arguments or fights online. If someone does or tries to start an argument or fight he/she should not answer and immediately inform parents.
2. To get offline, close the webpage or click on Back button if he/she see something which he/she do not like or is uncomfortable with.
3. To keep parents informed about the online activities.
4. To avoid any link sent through email or in chat and inform parents.
5. To avoid meeting or calling someone from internet without parent's consent.
6. To avoid sending anything to anyone over the internet without parent's approval.
7. To inform parents if anything bad happens on the internet.

In order to make children understand the above mentioned points, some awareness programs are required to be initiated. Schools can be an effective medium for such awareness programs. Parents, teachers and children can be educated at one place if seminars and other training activities are arranged in schools by PTA. These types of programs can also help other community members like internet café operators who will learn about the ways through which they can stop negative use of the internet cafés.

## **5.6 Child and youth participation**

Since the issue is to protect children and young people, the policy making should involve the youth so that they can protect themselves in cyber space. A child should be committed and learn to stay away from the offenders and inappropriate websites. Children should be aware that someone claiming to be a 12-year old girl might actually a 40-year old man. Emails and offers informing the users about their win on million dollars or Ipods etc are fake most of the time (Privacy Rights, 2009).

## **5.7 Parent's Responsibilities**

Parents are required to carefully monitor their children. They should tell them not to give any personal information online by filling out questionnaires or any information requests of any type. Computers should be kept in common areas of household so that they are easy to monitor (Kessie, 2007). Parents need to update themselves about the software packages newly developed to protect children on internet by filtering, blocking and monitoring.

Parents should also ask children not to give their passwords to anyone and never post any photograph online without parent's consent (Wilson, 2009). Children should also be told to do internet transactions only under the supervision of adults and never give anyone their credit card information (Berson & Berson, 2002).

### **5.7.1 Tips for Parents**

Parents can protect their children in cyber space if they work on following tips:

1. Parents should setup house rules for computer and internet usage and make sure that children know about them and following them.
2. Children's time on computer and internet should be limited.
3. Parents should educate their children about proper use of the internet.
4. Parents should know about the online friends of the child in order to know with whom he/she is communicating.
5. Parents should be aware of the filtering and blocking softwares as well as the similar services provided by their local Internet Service Provider to make it easier to monitor and filter.

6. Children should be encouraged to share their online experience with their parents.
7. Children should be educated to effectively search for the particular information to complete their homework without getting off-track. They should also make sure that they are not letting others to do their homework.
8. Parents should make sure that their children are not exchanging emails with unknown people.
9. Parents should be aware of any other computers or places where their child is accessing the internet other than home.
10. Parents should keep all Internet accounts in their name to filter/block the contents and monitor usage.

### **5.8 Internet cafes**

It was reported that school children spend their time in cybercafes viewing inappropriate websites. Cybercafes also have been used for Internet gambling. The reason behind the misuse of cyber cafés is their open policy and unrestricted access to everything online. Although café administrators can see what is being watched on every PC in the café, they never bother to stop the user from doing it. This is because of the fact that majority of the users use internet café specifically to access inappropriate material therefore, stopping them would lead to major decrease in café revenues.

It is therefore recommended that PTA should device strict policies for cyber café to make sure all activities are monitored and prompt actions are taken against the offenders. License agreements with cyber cafes should include clause regarding the restriction of inappropriate websites at their cafes and they should also be encouraged to strictly monitor the use of their customers. Government can help café administrators to grant them access to monitoring and filtering softwares in order to ease policy implementation.

### **5.9 Protection Using Technology**

In order to make sure that impact of the internet on children's life is positive, we need to take help from the new software packages designed for the purpose. For example, Content Advisor in Microsoft Internet Explorer offers a mechanism to block access to the specified sites. Similarly, the Xbox video game console has an option to lock the games which are inappropriate to some users. Microsoft is still working

on advance technologies in collaboration with industry to enhance security over the Internet (Microsoft, 2002).

### **5.10 Internet Service Providers (ISPs)**

Due to weak policies of most of Internet Service Providers against websites of harmful nature, all harmful resources are accessible online. Cable internet providers are the most irresponsible and their networks are vulnerable to hacking, viruses and other harmful stuff. Peer-to-peer softwares are mostly free and provide unrestricted access to everything because of which, anyone who wants to access inappropriate material is free to do so. ISPs do not provide particular laws or policies to restrict the use of such softwares.

It is recommended that PTA should urge ISPs to take specific strategic steps like blocking the websites, reducing the anonymity of the users, creating a forum for the users to report harmful websites, softwares and illegal activities online. This will not only create awareness but also help PTA in policy development and implementation.

## **6. Concluding Remarks**

From above discussion it can be concluded that, in order to protect children in cyber space, greater cooperation is required amongst the public sector, private sector and head of households.

Having pointed out the weaknesses of ISP policies, one has to admit that actions on part of ISPs are complex in nature and vary across countries. For example, Adult pornography is legal for adults in some countries hence it is very difficult for ISPs to draw the line between adult and child user in order to block access. It is, however, easier in countries where pornography is illegal for all. Having said that, it is almost impossible to block all the pornographic material on web as number of pages containing porn is increasing at sharp rate and medium of exchange for this sort of material is not restricted to websites. Torrents, eMule, Kazaa, iMesh and other related softwares and technologies supporting peer-to-peer exchange are completely open to inappropriate material.

Unfortunately no technology is 100% effective when it comes to the internet safety/security and hence it is now on the shoulders of parents

and guardians to help children to be safe in the cyberspace. It should be noted that most of the children today are much more skillful than their parents in computers and they can fool any software or bypass any firewall to access the desired contents. Parents cannot be there every time to guard children against the evils of internet so it is necessary to teach them about the harms of Internet and educate them to differentiate between goods and bads. Children should be trained to be safe, keeping in view that wireless technologies like mobile phone, in medium price range, has the internet browsing technology today and it can be used anywhere.

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