

# **Role of State: Protecting Children in Cyberspace**

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## **Abstract**

With the induction of a newer mass medium, Internet, horizons of mass media expanded from mass media society to a cyberspace and this brought more challenges to the media researchers, social scientist and civil societies. In our part of the world either people have no computers or no internet or very limited number of computers and very limited number of internet users. When our children go to cyberspace for information, these information are such overloaded that they cannot easily assimilate. Government with the help of stakeholders, Internet Service Providers (ISP's) and civil society can design strategies keeping in view the recommendations given at the end of this article to harness the effectiveness.

## **Mass Media and Society**

After the development of mass media, (news papers, film and broadcast) media owners, social scientists and research scholars became interested to know the effects of these means of communication on our societies. They eagerly observed the unanticipated repercussions of mass media on the lives of a common man. In the beginning researchers found out that media has a direct, powerful and quick effect on its audience and this concept remain valid till the end of twentieth century. Shift of the mass media studies in a society from strong effects to nil effects and from nil effects to again very great negative effects had been on the roll between 1920 to 1980 and all studies revolves around it with different

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research techniques, research designs, methodology and experiments, with more or less same results. After 1980 the paradigm changed and there came other theories as well depicting positive and pro-social effects of mass media in a society as well.

With the induction of a newer mass medium, i.e., Internet, horizons of mass media expended from mass media society to a cyberspace and this brought more challenges to the media researchers, social scientists and civil societies. Critics were already pointing their fingers at the contemporary mass medium that coupled with Internet brought astonishing advancements in our societies. In the beginning people used the mass media to get information, education and entertainment but due to the development of these mass media and with the invention of computers and especially internet these trends changed; information became infotainment, education became edutainment and entertainments got more audio, visual, 3D realities and all these transformations gave birth to a virtual world called cyberspace. This cyberspace is a virtual territory created by computer systems in which people interact, communicate with each other, acquire knowledge, share information, trade or can perform any activity they would like to amuse them, more interestingly without physically being present in those lands. Some people call the users of cyberspace as residents and some name them settlers.

### **Theoretical Framework**

A number of communication theories strongly support the idea that the media affect people and media consumers are influenced by the media messages. However, some media theories suggest powerful media effects while others support the limited effects of media

on the audience. For example the magic bullet theory states that the media messages are just like symbolic bullets striking every eye and every ear producing the same results as desired by the media producers. (Lowery & DeFleur, 1995). George Gerbner (1994) presented the cultivation theory which states that the media cultivate its effects on the society and with the passage of time the media reality becomes the social reality. Although the cultivation theory was presented about the television effects on society, it can be applied on the internet effects as well. On the other hand, some other media theories negated the powerful media effects and presented the idea of the limited media effects. For instance the uses and gratifications approach of media effects states that the actual power lies in the hands of the media users and not in the hands of the media producers. The theory argues that these are the people who decide which media to use and which not. According to this theory, people use the media which gratify their needs and desires. (Katz, Blumler & Gurevitch, 1974).

Yet, there is another important media theory of the times which is called as the agenda setting theory which argues that the media sets the public agenda and the media agenda becomes the public agenda with the passage of time. ( McCombs, 1974). A recent study conducted for the first time in Pakistan also states that the public agenda is influenced by media agenda except the obtrusive issues (Riaz, 2008). Keeping in view this theoretical background, it can be analyzed how media shape our lives and how our lives are influenced by the media.

### **Cyberspace an advanced means of communication**

Internet, the medium for infotainment, edutainment, and entertainment was not as much criticized as films and

televisions were criticized during their developmental stage due to the fact that computer coupled with internet has a great deal of good uses as well. People can run a business while staying at home even if seller and buyers are living at geographically disparate places on earth or next door. One can get an advanced degree from the United States while staying in Pakistan; doctors can get diagnoses from specialists of their fields anywhere around the globe.

Social scientists and critique used to drag the attention of societies and regulators towards the side effects of importing a technology; according to their point of view when we import gadgets from advanced countries there are no doubts that technologies brought their culture and traditions as well. For example if we start importing more cell phones and there is a facilitated regulation from Government for proliferation and tele-density, certainly the same cell phone technology and industry will flourish. Further more users of cell phone will start behaving and talking in the same way and manner as the inventors and users of the cell phone in first hand did.

Telecommunication proliferation is an advanced priority of Pakistan Telecommunication Authority (PTA), and government is striving to increase the tele-density with the help of stake holders. Cyberspace to a greater extent is already implemented and experimented in advanced countries, where new types of risk in cyberspace are growing with the development of new technologies, such as mobile internet access, peer-to-peer (P2P) file sharing, instant messaging, chat rooms, multi-player interactive games and web cameras. Developing countries can be benefited from the experiences of advanced countries. Developing countries can beforehand learn from their practices, do research and carry on different studies in different angles before the technology

reaches at its boom and then it started effecting our generation with all its good along with bad consequences, as it did in advanced countries.

### **What Children want?**

In a small survey conducted in three different cities of Pakistan 95 % children from the age group 8-15 would like to have a computer with internet connection at home for their education and entertainment, 99% children of age group 15-18 would like to have a computer for their educational needs, information and entertainment, the other benefits they can get from computers and Internet are; games, music, videos and to stay in contact with their friends and family. Children naturally of innocent spirit, with their raw mind are more prone to the bad effects of internet as they come across a vast variety of information they can surf just with a click on any hyperlink and the more they get into the deep hyperlinks there are chances that websites and smartly designed messages can lure them very easily towards the bad intentions of the creators of those websites.

### **Effects of Cyberspace in our Part of World**

Internet proliferation is not as much accomplished as it is in advanced countries so the side effects of such new technology need a long way to go in Pakistan. There is not a single case of child abuse, child molestation reported in any police station of Islamabad, traces of which can be linked with internet. Even though Islamabad is the most advanced and Internet connected city of Pakistan. People have strong family system and the social culture, ethical, religious values and up bringing of children under strict environment and parental control have helped us to be safe from cyberspace complications. Cell phone can be a cause of such incidences in our country, because we have reached to diffused the tele-

density of cell phone usage in our society so unscrupulous predators instead of looking for their victims over the internet, use cell phone due to easy accessibility, low calling rates and one on one direct conversation.

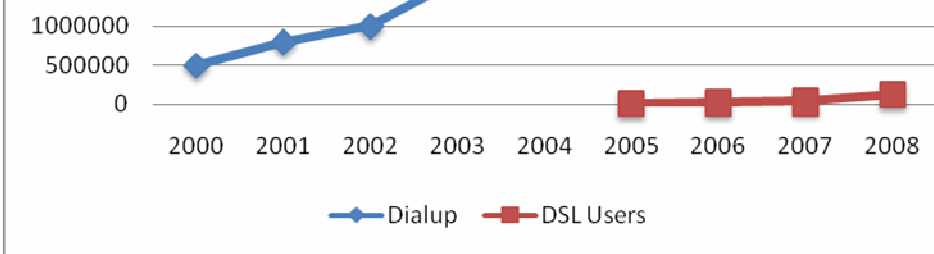
Side effects that can be seen in this part of the world in a cyberspace are of two types one is direct and the other one is indirect. As far as direct effects are concerned these are; creating of relationship at too early age over the internet especially with opposite sex, emotional attachments of the children with their cyber friends, pornography, excessive use of computers for games, videos, songs and movies, less attention to studies and other everyday work of life and indirect side effects can be categorized as anxiety, frustration of being alone, psychological problems, low grades in schools, less outdoor activities, going to bed late night, aggressive attitudes and behaviors, violent reactions for small things.

### **Internet Users in Pakistan**

The following table and figure elaborates status of the internet users in Pakistan.

Table 1: Internet Users in Pakistan, Statistics by PTA  
(Source, PTA website)

Year	Dialup	DSL Users
<b>2000</b>	500000	Nil
<b>2001</b>	800000	Nil
<b>2002</b>	1000000	Nil
<b>2003</b>	1600000	Nil
<b>2004</b>	2000000	Nil
<b>2005</b>	2100000	14,600
<b>2006</b>	2400000	26,611



**Fig 1 (Graph of Internet Users in Pakistan)**

The number of internet users in Pakistan is very low as compared to these in the advanced countries of the world. USA currently has as much Internet users as the whole population of Pakistan, so with so much diffused proliferation USA has started having complications and problems triggered by internet or host by cyberspace. In our part of world either people have no computers/internet or very limited access to computers and very limited access to internet. Even those who have an access to computers or Internet are not in real sense a part of cyberspace however due to the advancements and steps taken by government it seems sooner (as depicted in Fig 1) our part of the world will join the cyberspace at the same rate and intensity after some years as advanced countries did in their advancing stage. In the same way our country will start facing the challenges and same complications which are being faced by those advanced countries now.

In advanced countries a concept of Second Life is being introduced by Linden Lab, which introduced a new powerful medium for social interactions and it seems that this will bring into a real shape of a cyberspace. A replica of our existing cyberspace with more real time touch of other aspects of life as well, one can say it's more complex and advanced form of a cyberspace. According to a survey conducted in late 2001, in United States (Juvenile Bulletin Jan 2002)

*“Over 60 per cent of children and teenagers talk in chat rooms on a daily basis. Three in four children online are willing to*

*share personal information about themselves and their family in exchange for goods and services. And one in five children will be targeted by a predator or paedophile each year”.*

We are not facing such sort of problems in Pakistan, as we are far behind by number of internet users from advanced countries the same way we are far behind from such complications and problems of internet usage as well. But we shouldn't keep our eyes closed pretending its others problem, so let them handle it. We are advancing towards cyberspace and internet users are increasing day by day, so our policy makers should start thinking on the long run about the problems that may arouse due to emergence of cyberspaces and world becoming a global village.

### **One way of curbing Internet Complications:**

Firewalls of China sometimes so called the Great Wall of China (due to resemblance of walls) blocks the content not required for the Chinese nation through systematically designed networks. Computer servers block IP addresses containing the contents considered harmful for whole of the China. Human monitoring is not practically feasible in such big systems so computers automatically block the contents at the internet gateways. There is a wide range of laws in China and over 60 internet regulations of internet censorship. This is being implemented in deep penetration level by involving ISP's, business group and other stakeholders.

Reporters without Borders (RSF) have placed an Internet enemy list in which countries like Cuba, Iran, Maldives, Myanmar Burma, North Korea, Syria, Tunisia, Uzbekistan and Vietnam are implementing internet censorship at gateways and ISP's level to prevent the unwanted contents being accessed by their nations. In Saudi Arabia, pornography is strictly prohibited, and contents are being monitored before



they block any website. Even they didn't allow horror or terror contents they consider deemed not suitable for their generation to access.

In such cases the problems they came across are the right to freedom of speech and expression, the right of relationship sharing of information with others openly without any restriction.

### **Strategies of Advanced countries to protect children in cyberspace:**

Advanced countries where people use to talk about digital rights, free and easy access to Internet, freedom of speech, freedom of expression, right of interaction and communication through any medium including internet have developed to a great extent a free means of communication and cyberspace. Human rights have been termed the "missing link" between the technology oriented and the value oriented approaches of the Internet in Advanced countries. These countries have provided facilitation to the internet industry and people in such countries have started relying on it to a very extreme extent. In advanced countries there are special legislations to safeguard the rights of children. Establishment of task forces which implemented the rules and regulations and they create awareness among the children and parents to safer usage of internet and being in cyberspace. Some measures they have taken only seems to be suitable in their family systems but not practically implemented in our part of the world like checking of credit card bills, signing of an agreement between parents and children that they will not pass on personal information to strangers and cannot access pornography websites and keep their parents informed about their cyberspace activities.

## **Multi pronged strategies to protect Children in Cyberspace:**

As the scenario is different in our part of the world so to harness maximum effectiveness of the measures taken to overcome the problems due to cyberspace can be dealt accordingly. However we shouldn't forget the problems currently being faced by advanced countries where internet is a platform that provides complete privacy for interaction between offenders and children in the cyberspace. Our strategies should be only focused on the previously mentioned direct and indirect side effects that we are facing today in our part of the world. Our strategies must be so flexible for the demands of future needs so that when complications like advanced countries are facing today can be easily dealt.

Findings of a small survey conducted by the authors in three cities of Pakistan i.e., Rawalpindi, Islamabad and Gujranwala are given below; There were two categories of children and two categories of parents in the samples from these three cities. Children of age group 10-18 divided into two sub groups, i.e., one which has an access to computer/internet and the other which does not have an access to computer/internet. The same parental categories were divided in two sub categories one category of parents have complete knowledge of cyberspace and its effects and the other group was just given a glimpse of knowledge about the cyberspace and its effects and data was collected using questionnaire/interviews and interpreted. The facts that came out are as follows;

- About 80 % children, who have access to a computer and internet, would like to be protected by themselves, with awareness, education and training.

- Fifteen percent (15 %) children, who have access to a computer and internet, would like to be protected through parental control software's.
- Five percent children, who have access to a computer and internet, would like to be protected through law enforcement.
- Seventy percent (70 %) children who have neither a computer nor an access to internet would like to be protected by law enforcement and strict legislations. Rest of them think that it may be due to self awareness or parental control
- Ninety percent (90 %) parents who have knowledge about cyberspace, its side effects and are directly related to the telecommunication sector are of the view that you cannot control the cyberspace with legislation. If you block a lope hole, your kids are smart they will find out the other way out. The only thing that can protect children from cyberspace is either through awareness or ethical grooming of the children.
- Nine percent (9 %) parents who have knowledge about cyberspace, its side effects and are directly related to the telecommunication sector would like to protect their children through parental control software.
- There is very minimal percentage of the parents who are literate about the cyberspace and its side effects are of the view that there must be law enforcement to protect children in cyberspace.

- Very interestingly parents who have limited knowledge of the cyberspace were interviewed and 80 % of them are of the view that government should take initiatives to protect children in cyberspace as the computer is everyday changing and new technologies are being introduced; so children are well aware of the usage and can find loop holes in cyberspace easily. Parents emphasized that government should take some measures to legislate the cyberspace and its usage and this segment of the society laid stress that there is a need of awareness that government should take part in educating the society.

### **Recommendations:**

Cyberspace has very vast and expended terrain, limitless boundaries and no death at all, where people like Mother Teresa are still living, psychologist haven't forgotten the serial killer of the century, Theodore Bundy<sup>1</sup>. Pictures, animations and 3D art are giving a lively look for upcoming gigantic buildings and infrastructures. Great industrial estates and business towers of Indonesia that were all vanished from the earth by Tsunami are still giving a 100 % real look in cyberspaces, those beautiful shores of Thailand, great personalities of the earth, will always live in the cyberspace. Cyberspace is so interactive that smartly designed messages can teleport innocent minds millions miles away from their desired contents just by clicking the hyperlinks and navigating

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<sup>1</sup> Theodore Bundy was a notorious serial killer, who prey on his victims in the years 1974 to 1978 in United States. During his trial he pointed out that too much viewing pornography contents have derived him to think and act on these lines, social psychologist of that time paid no attention to what he said but later coupled with the theories of mass media psychologist found out that Ted Bundy was right in his sayings. He used to sneak into his grandfather's room and used to watch pornographic movies

from one page to another. Information overload is a model which was published in *Proteus, A Journal of Ideas*; in the year 1994, found out that when information being provided to someone exceeds the needs and requirements of that person/organization/institution can definitely reduce the efficiency and effectiveness of the users. The same thing goes for children when they use the cyberspace for information, these information are such overloaded that they cannot easily assimilate it.

The authors' suggestions are multi pronged, in which three sectors of the society can be involved to protect children in cyberspace, i.e., Government (for enforcement of law and other facilitations), Parents (for control, ethical and moral grooming) and Civil Society (for awareness, training and a link between parents, children and cyberspace technologies)

### **Governmental Role:**

1. Government can play a vital role to protect children in cyberspace by finding a way between the two extremes. On one extreme countries are so called "internet enemy nations", "closed societies" and on other extreme there are nations which have given a complete freedom of speech and choice of selection, where child abuse, child molestation cases are increasing and cyberspace being a link of these activities among those victims and predators. In our country we can allow certain sort of traffic and can block certain at TW1 or PTCL's gateways installed in Karachi. This is mammoth task to determine which content must be blocked or which must not, because content filtering has not matured to that extent however there are some countries in the world around, which are following

the same practices. In our country there is already a practice of PTA in which they directly contact with ISP's to instruct them to block certain websites at URL level instead of blocking the whole websites. Only to a certain level of pornography, racial, biased, anti social and anti cultural contents can be prevented to reach the young inhabitants of cyberspace in our country. This cannot be considered a cost effective way but a limited one and can have its positive effects to some extent.

2. Establishment of National Response Center for Cyber Crimes (NRC) is a positive way of Government of Pakistan to regularize cyber crimes; this response center is working under the direct supervision of the Federal Investigation Agency (FIA). This response center can be given an additional task of protecting children in cyberspace. Some relevant laws can be introduced and implemented (as the revision of electronic/cyber crimes bill by a new committee is already under consideration on the request of stakeholders). Officials of this response center can be given proper training to deal with upcoming complications and problems. We shouldn't take action only when some incident might took place, the government should educate the police force to deal with the challenges of the cyberspace.
3. PTA has installed state of the art equipment and software to curb and monitor grey traffic, in this activity PTA can easily differentiate between a normal internet packets and voice packet going through the same medium of internet but different

packet size to safeguard the rights of licensed voice/telephony service providers. On the same practices PTA can install servers with smartly designed software which not only keep on updating themselves according to the needs of nation but also keeping in view the charter they designed for the protection of children in cyberspace.

4. Safe Web feature, introduced by an ISP, Micronet Broadband (Pvt.) Ltd. /Nayatel Pvt. Ltd. is a very powerful tool to protect children in cyberspace. This facility of safe web is voluntarily offered by the ISP to add value in the society. In the same way Government or PTA can put this into practice on large scale by ordering all ISP's to introduce the safe web features in their services, so that, parents who would like to protect their children at their own will, can get the benefits of such services from any ISP. GPRS, WAP and Edge facilities can also be formulated on the same grounds so that children who access the internet using their cell phones or other technologies can have a safe access to cyberspace and parents can be at ease by making assure that services being provided to their kids are safe.
5. Government should raise its voice at international level where some countries are already in a progress to force the regulators to classify the adult websites with .sex, .adult or .xxx domain names like .org, .pk, .jp. When every adult website will be registered with a domain names ending with above mentioned criteria, every country can easily filter those websites.

## **Parental Role:**

6. In the survey that authors of this article conducted and highlighted the findings earlier, most of the parents were of the view that only parents should be held responsible for such activities. Education, awareness and information could be provided to parents how they can protect children in cyberspace. Through law enforcement and legislations parents can also be involved and held responsible if children found guilty on regular basis. For example there is legislation in some countries where if a child is driving a car without a valid license the parents of such child can be fined and panelized. If there is no provision of law for such circumstances in Pakistan, in a near future at least the government or the authorities can advice those parents along with children to attend correctional centers (can be established for such purposes) to go through the sessions designed for the purpose.
7. Most of the parents must be unaware of Prevention of Electronic Crimes Ordinance (PECO) under this ordinance it is a crime in Pakistan to take photographs of someone without their consent, sending obnoxious messages, IM's, SMS that can be considered vulgar and uncivilized shall be considered a crime which is punishable by law and the person found guilty of this act can be punished with seven years imprisonment or Rs. 300,000 penalty or both. How can parents control their kids if they are not educated about such ordinances?



8. There is a variety of parental control software available globally. Parents can not only install the built in Microsoft provided contents controllers, but can request government to provide them at subsidized rates such parental control software. Training of such software, its usage and how they can monitor the computers of their children can be provided free of cost.
9. Parents can also give ethical awareness to children in their parental capacity, for their grooming and with love and care. Schools and educational initiations can also be involved in such activities by the instructions of Government to play a vital role in educating our children for the safe utilization of cyberspace, and awareness of relevant lawas.
10. Breaking of family ties can lead a child to look for other substitute for sharing of feelings thoughts, happy moments, achievement and success. So parents must realize that how they need to take care and look after their children with changing technologies and its side effects.

**Role of Civil Society:**

11. Tightening of system and enforcement of law could never alone would be effective until and unless our nation is given awareness, education and information about the cyberspace. If we block a website by law there are chances that children can use the proxy settings and use other IP's to access harmful contents. Civil society, non government organizations can play a vital role in a society to carry on mass campaigns using all available mass

media to bring a positive change in mindset of children. They can not only persuade them to change their attitude and behaviors but also can advice them how to maximum utilize their efforts for the betterment of themselves and a better Pakistan.

12. Such organizations can also arrange some training for parents, children or the task force personnel to keep them up to date about the new technologies being introduced in a country, new techniques being adopted by offenders and how our generations can be protected in such environments of cyberspace. These organizations can also become a bridge between industry, academia and society for technical assistance to parents, children and governmental institutions.
13. According to the statistics of Juvenile Justice Bulletin, (Jan 2002) issue related to a task force working in United States of America, they have trained approximately 17000 police force by 2000 on the subject of protection of children in cyberspace whereas till that date only a minor portion of approximately 500 cases are reported where cyberspace became a reason for providing suitable space for victim and offender for their bad intentions. Therefore, our government should also start its programmes, mass campaigns to train our police force on such grounds.
14. Television being the cost effective medium of communication can be unutilized for awareness in masses, In 1986 Hearlod found out through a research on the effects of television, that media

effects are of two types, anti-social and pro-social and if there is 20 % increase in anti-social behavior of children after viewing anti-social contents, there is a 50 % increase in pro-social behaviors of children if they are exposed to pro-social contents. By taking these forward our societies a business sector and film industry can take a step further to educate our society and to create awareness of cyberspace and its effects.

15. Private organizations with the help of Government and ISP's can encourage kids to come out of their homes and participate in outdoor activities rather than indulging their mind all the time in cyberspace. Children can be involved in such healthy activities that they can come in grounds to play other games and where these organizations can highlight the main theme of such activities and create awareness among children and parents to keep a balance and healthy living in this real world and cyberspace.
16. Social Scientists and psychologists can also be a part of awareness programme and they can highlight how using a mass medium can change attitude and behavior of innocent children. There are extreme examples of psychopathology cases in our real world. And public must be well aware of the fact that communication messages can have impact on us knowing it. Psychological problems can manifest to dangerous repercussions especially for children at a young age of learning and exploration.

**Conclusion:**

In our global village, where organizations are delivering laptops in a very low price in ruins of Africa to connect them to the rest of the world, we shouldn't hesitate to stay connected with global village in cyberspace. It is extremely important for us to increase the upcoming trends of cyberspace and induction of new technologies as they are being introduced or invented. We as a nation should not be shy in facing the challenges cyberspace knocking at our door steps. We have talent and our children are more creative than us, thought of children must not be suppressed and restricted from freedom of access to cyberspace. The most beautiful thing is the mind of a child; It needs a cleaner cyberspace a better cyber environment and guidelines. We could only use the potentials of cyberspace by going along with it instead blocking it, and taking up the things that will make our children a successful nation. We must be well prepared with openness and a strategy must be devised on such lines to minimize its negative effects. Our approach must not be only limited to law enforcement and introduction of new legislations but awareness education and information to children, parents and to societies must be ensured.

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