

Analysis of Internet Censorship and Its Appliance in Afghanistan

Mohammad Salem Hamidi, Baldev Singh

Index terms- Internet censorship is a most discussed part of internet and its users; it applies the roles and technics to block specified websites and domains. It's considerable for internet users to know their use of internet in a legal way of use to save the society norms and culture. The censorship of internet requires software and hardware tools and technics used by the level of country, ISPs, organizations and user. The appliance of technics is troublesome for each part of these levels, but they must attempt at their level of expertise. My research paper described the real act of government and Internet service providers against the censorship of internet, their use of content filtering software, monitoring of user usage of internet, and the end user applications for censoring actions and their expectancies and anti-censorship actions they would follow against censorship. This paper is useful for ISPs and organizations to accurate their internet censorship and complete the demands of users.

Index Terms- Censorship - Block- content block, internet censorship, filtering, anti-censorship, Internet service providers.

I. INTRODUCTION

The internet censorship is actually denies access to certain topic or website in internet, this process is done in many ways and in many countries in the world. This process is becoming more technical day by day, by forcing of opponent of internet censorship. Censorship is no new idea to people, it has been around for many years, but as new technology is developed the idea of what can be censored and to what degree comes into question. Censorship is a necessity in order to maintain a particular moral standard, if there should be a standard. What information should people have access and what information they should not access in internet.

II. LITERATURE REVIEW

As I went through some research papers which have been done by the researchers on the censorship topics I found out the researchers have done many things in the past for censoring the media and web censoring since the beginning till now, Censorship is a long lasting operation and as such it has been part of human history (Oboler, 1980:80).

there is no evidence to decrease censoring in a country, day by day the censoring increase in countries. (Robotham & Shields, 1982:58). Censorship is the concern of parents, trainers, teachers and clergy as well as politicians, law-enforcement officials, political candidates, school and

university administrators or board members and trustees of various organizations (Robotham & Shields, 1982:58).

Internet Censorship

As early of 1990s when proliferation of network and internet started, countries were already enacting legislation on web and internet censorship. This is evidenced by (Cohen, 1997:12) who noted that more than 30 countries have enacted or are in the progress of enacting internet censorship legislation. The rationale for these censoring or censorship measures include routine motivations such us the desire to protect child and children, public safety, public morals, political objective, to silence racists and hate speech. Despite these disparities in policy and rules, types of governance and divergent approaches in support (adherence) to international human rights treaties, so restrictions on internet content and access were noted to be increase in worldwide in 1997 (Cohen, 1997). And now it is more so. Along with rapid growth of networking and internet use, internet censoring and censorship has also increase visible.it has been started to gain attention from institution and scholars in different disciplines, include media and communications ,law, information technology, political science and economics.

Censorship Methods and Topology

Internet censorship is the act of control and stoppage of internet contents that can be accessed and published. These censoring and censorship some time apply by government, ISPs, private sector, parents, and individual for religious, moral and business reasons, to control the cultural, economic, religions and governmental normal status.

The internet censoring or censorship is the same concept as traditional censoring content such as media, magazines, journals, and books in place, but also has some differences , which in this case the content are not physically present, we must block the access of user to special contents in the networks and internet. Internet censoring and filtering may be done by blocking specific blacklists or dynamically by searching content. Blocking of contents and methods of blocking contents are different in different countries and ISPs. Sometime block websites show us "Not Found and 505 Error in Internet". And sometime appear other message. The processes which collect, review, assess and catalogue (index) contents, to identify which content should be blocked, these processes are complex and intensive. These processes need to be developed, tested and implemented and personal need should be identified and trained. There are many different methods in use to identify which content should be filtered (blocked).

Mohammad Salem Hamidi¹, Research Scholar, Vivekananda Global University, Jaipur, India

Prof. (Dr.) Baldev Singh², Associate Professor, Vivekananda Global University, Jaipur, India

1. Block-Lists

Block-list is the most common type involves "block-list" indicating which content should be blocked. A blocking list can be created, which contains the details list of content to be blocked on the internet.

2. Automated Identification

The Second method of identifying contents to be blocked involves automatically reviewing the image, text, and video contents, by using sophisticated modern software to determine the probable (predictable) level of harmful or illegal content contained in the target contents.

3. Internet Protocol Address blocking

By this method just block the requested IP address for website IP and deny access to requested websites, sometime it also block all websites, those which are shared with the block websites. This type of blocking effects also the IP based protocols, like Hypertext transfer protocol (HTTP), file transfer protocols (FTP).

4. IP blocking

This is the most fundamental method used to filter content. It involves (include) blocking the IP address of target website. Unfortunately, all websites sharing (participate) the same IP address, which is usually the case on a shared (participate) hosting server, are also blocked.

5. Uniform Resource Locator (URL) Filtering

The URL or web address is a kind of link address which shows a website or some specified page address. In this method the string and words are scanned and verified for finding the specified keyword. When the keyword found in URL the URL would be blocked, and couldn't access to that URL. This method just affects the HTTP and HTTPs protocol.

6. Domain Name Service (DNS) Blocking

DNS server are the server that translates IP address to Name and vice versa, when someone type a web address like "www.yahoo.com" it translate it to the Yahoo website IP address and resolve it. The DNS blocking happened when the server not resolved the specified website IP address. The result page would be "NOT FOUND" or "NO Record Found" and sometime it returns a different website address. This method works only for IP based protocol, like HTTP/HTTPs and FTP.

7. Packet Filtering

The internet contents are transferred using packets to reach the destination(receiver) address, every packet contain text or data, packet filtering methods filters or blocks packets that contains the defined irregular keywords, this methods is applicable (appropriate) with transmission controls(TCP) and related connection protocols.

8. Portal Censorship or Search Result Removal

Search engines are engines or servers that provide search result from seeking (searching) the entire web for the users keywords. These engines can ignore or exclude some search results. The portal censorship or search result removal applies on search engines that remove or exclude websites.

Tools Used in Internet Censorship

The internet censoring and censorship are applied by the special software called the control software, also Censorware. These software's are design to control and restrict

what the user read and access in private network or internet, and which time they can access to networks or internet, by which priority.

Censorware is the category of software that is also referred to as internet blocking or internet filtering software. Censorware limits the user's access to content on the internet. The term is often used pejoratively as it implies that certain internet content is being censored from the users. Libraries, schools and universities commonly use this type of software filtering to restrict its users from accessing irregular content such as pornography or religious discussion.

Analyses of Censorship Software

Growing of internet and easy publishing of web contents, cause to increased pornography, so it's not compatible with culture and custom of every country, so there is need to prevent from pornography material, violent speech, and against political speech.

III. ANALYSIS OF INTERNET CENSORSHIP IN AFGHANISTAN

Internet in Afghanistan began in 2002 after the Karzai administration took over office in Kabul .it was banned in 2001 because the previous Taliban Government felt that it broadcast obscene, immoral and anti-Islam material. And because the few internet users at the time could not be easily monitored as they obtained their telephone lines from neighboring Pakistan country.

The current government recognizes the internet as an important source of growth and development for the country, believing that information and communication technology (ICT) can create opportunities for disadvantaged groups and improve the access of the rural poor markets.

With the approval of the telecommunications services regulation Act in 2005 (telecom law) and independent regulatory agency called the Afghanistan telecom regulatory Authority (ATRA) was created out of the merger of the telecommunication regulatory board and the State Radio Inspection Department (SRID) under the ministry of communications.

The ATRA assumed responsibly for telecommunications licensing, making the law for appropriate internet censorship as well as promoting

Sustainable competition for all telecommunications services.

Now Afghanistan gets the internet from Iran, Pakistan and Kazakhstan by the fiber optic cables. The internet which come throw these internet highways are completely free of censored. These three highways bring about 80% of internet use in Afghanistan. And recognize and manage by the afghan telecommunication company. The censorship of these free (uncensored) are done by the center of afghan telecom in Kabul, by the help of criminal office, and IT Department of afghan telecom company and the Afghanistan telecommunication regulatory authority (ATRA).

This group is made to facilitate the rapid development of affordable, high quality telecom services to the entire population of Afghanistan by providing a transparent,

non-discriminatory and legal-regulatory framework that encourages innovative private sector participation and accelerates the adoption of Information Society Services as soon as possible.

The total bandwidths of internet not come from these three fiber optic cable form Pakistan, Iran and Uzbekistan. There are also the satellite communication distributions. That they direct got there connection from foreign country .and those are not completely under the control and manage of Afghan telecom. So the censoring of these links is so difficult, because they are not under the control and manage of afghan telecom.

IV. ANALYSE OF CURRENT CENSORSHIP SYSTEM IN AFGHANISTAN

The current internet censorship that done by afghan telecom and ISPs, that use the firewalls (endian firewall, cisco ESE 5520, 5530 series and NETGAR ProSafe 403), that is not enough to all bandwidths. So these systems can filter the IP address, URL and DNS filtering, but it couldn't be complete filtering system to response the current situation of Afghanistan. . And this kind of filtering can bypass by different method that discuss before in research. So we can prove the current system not responsible for current situation.

V. RESULTS AND DISCUSSION

To have best censorship system, like the country they are success in censoring, like China, Iran, Saudi Arabic and American, we should use different methodology and technics, to resolve the current situation. The points are here:

First: all fiber optic cables should be connect to a central office, process and analyze and then could be distributed.

Second: just the current firewalls not enough, the number of firewall should be increase, with new bios update.

Third: just by using firewall, it couldn't possible to censor completely, there are need to use international censoring and censorship software, like SurfWatch, Cyber Patrol, Cyber sitter and Net Nanny, beside the firewalls.

Forth: firewall and censoring software are not enough, there should be research and analyze in period of time, for update and change of censorship systems.

Fifth: there should be PENALTY for those users they go outside the rules and policy.

VI. CONCLUSIONS

The exploding growth of the internet access over the past decade not only surpassed the expectations of the ISPs and industry, but serves as a practical model for the larger development of infrastructure and services in Afghanistan. The internet access provides ability of users to learn other idea and use them accordance of their life. This ability sometimes may fill useful and sometime vice versa.

REFERENCES

- [1] Michael Warren, Alan, Website Filtering, (2010), An evaluation of local education agencies, 106(1), 4-50.
- [2] Stark, Philip B, (2007), the effectiveness of Internet Content Filters, 19 (1), 3-10.
- [3] Federal Communications Commission. (2010). Children's Internet Protection Act. Retrieved from <http://www.fcc.gov/cgb/consumerfacts/cipa.html>. Retrieved: 2015, 10, 05.
- [4] OpenNet Initiative, Afghanistan [online] at: <https://opennet.net/countries/afghanistan>. 8 May 2007. Retrieved: 2015, 10, 25.
- [5] Deibert, Ronald and others, (2011), Circumvention tools, Censorship and the net, 240(1), 19-40.
- [6] Ronald Deibert, John Palfrey et al. (2008) Access Denied - The Practice and Policy of Global Internet Filtering.
- [7] Jonathan Zittrain and Benjamin Edelman, Berkman Center for Internet & Society at Harvard Law School, 20 March 2009, at <http://cyber.law.harvard.edu/filtering/china/appendix-tech.html> retrieved: 2015, 09, 30.
- [8] Kihara Kimachia, how to bypassing the internet censorship, November 12, 2013, retrieve on 2015, 10, 25.