Computers and the History of Censorship

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Abstract – One of the earliest nicknames for the World Wide Web was the “information” superhighway” because it was supposed to provide the average person with fast access to a practically limitless amount of data. And as is often the case, that is exactly what using the Internet is. However, recent overall advancements in technology have also given rise to something more sinister. For some people, the information superhighway has been barricaded and road-blocked. These obstacles come in the form if Internet censorship.

The motivations for censorship are often very diverse and range the need to protect children from obscene content, to the desire of totalitarian rulers to suppress the spread of knowledge and limit access to information which might be detrimental to the positions of those in power.

This paper will analyze the various causes and motivations or censorship, discuss certain cases in which censorship is needed and justified, and then conclude with a few practical applications.

Index Terms – censorship, media, computers, society, Web filters, Censorware, morality of censorship.

BACKGROUND OF CENSORSHIP

Precision in terminology is often essential to being able to solve and discuss difficult questions. Let us start by suggesting working definitions for the key terms in the topics this paper aims to address. These definitions are only intended to set up a premise from where logical argumentation can build, are tentative, and subject to change if proved to be defective. We must define and classify 3 important things: “Censoring” or “censorship”, “mass media”, and “morality.”

To start with, the standard definition of “censorship” as defined by the Encyclopedia of the Social Sciences is:

"... the policy of restricting the public expression of ideas, opinions, conceptions and impulses which have or are believed to have the capacity to undermine the governing authority or the social and moral order which that authority considers itself bound to protect."

In other words, this paper will discuss censorship as the act of restricting the expression of thoughts or feelings.

Concerning the definition of the “media” or “media of mass communication,” this can be split into two categories: First is the group which employs the use of written/printed words. Under this category would be newspapers, books, pamphlets and magazines. The second group is the group which utilizes spoken words: radio, public speeches, televised news and school-teaching.

Finally, the last term that needs to be precisely defined is “moral.” Though this is a very broad term to define, especially given the pluralistic society of today, W.E. Hocking, formerly of Harvard University does a good job in laying the foundations of what is considered the touchstone of our social morality. He lays out the following principles:

1. Each human person is the equal of every other person in his basic rights.
2. These rights are claims to some degree of self-fulfillment.
3. These rights are not mere privileges conferred by the state; to some thinkers who remember the Constitution, they are conferred by the Creator; to others, they appear to stem from man's higher nature, or from his conscience.
4. It is morally good and right for each person to seek and work for his own perfection and happiness, provided he recognize and do no direct injury to the similar rights of other persons and of his community.
5. Governmental authority is exercised primarily for the common good of all persons subject to such authority, and secondarily for the private good of individual persons within the same group.
6. It is possible to determine from experience, and from reflection thereon, certain standards of moral judgment whereby distinction may be made between what is good and what is bad for the community, and for the individual person.
7. There are some actions, and some omissions of activity, which, under given circumstances and stemming from conscious intention or culpable negligence, are bad and deserve restraint or punishment.
8. A morally valid law is the general and overt expression of a regulation calculated to promote the common good of those persons subject to the legislating authority.
9. Applications of such laws, in a morally approvable way, require further reflection on the character and
Taking these definitions are preliminary to our discussion on censorship and why it exists, let us discuss the change that censorship has brought upon society and how it was influenced by the rise of technology. The goal of this paper is to analyze censorship holistically, from off-the-shelf Web filters, to totalitarian national policies

**Societal Change due to Censorship**

Censorship has never been just a tool used by the government to limit access to information so that the masses can be controlled, or just a tool used by parents to control their children’s access to obscene content. Censorship actually exists on the consumer market. Many people use it as a good, a good that comes in the form of **web filters**. Due to the rise of the computer age, and the subsequent rise of big data, data has become a commodity, and the most precious data today is information on the spending habits of potential customers. Companies pay MILLIONS for this kind of information. It comes as no surprise then, that since the Internet has been engrained into our lives so deeply, that it is also filled with consumer advertisements, advertisements which are so abundant and sometimes so aggressive that people have become sick and tired of them. To address this problem, certain software engineers have devised algorithms to filter out advertising content on websites that intends to take over the activity of the user on the website and just bombard him/her with advertisements of all sorts.

As consequence then, though the Internet and the information available on it are seen as a precious good that should remain free to use for anyone (a view held especially by people living in the Western Hemisphere) it is not possible to say that ALL censorship is detrimental to society, because clearly a form of censorship has made its way into being accepted into mainstream internet use. Adblock is one of the most common software installed on a typical web browser these days. Many Web filters, such as Adblock, use two main techniques to block content:

1. Blacklists
2. Keyword blocking

**I. Blacklists**

A blacklist, as it pertains to internet censorship, is a list of websites that a particular web filter maintains in order to avoid granting access to the websites on the list whenever the user attempts to use the internet using the web filter firewall. These lists change over time, and most companies post new versions for free. If a web filter censorware is in place, any attempt to visit websites on the blacklist will be denied unless the firewall is taken down.

**II. Keyword Blocking**

This is the more advanced (and harder) part of Internet censorship. With keyword blocking, the implemented software scans the webpage just as the user is trying to use it, and based on a list of pre-determined words that are considered inappropriate, the software decides if the user should be denied access to the website.

This form of censorship is very commonly used by corporations. Companies usually restrict employee internet access in order to increase productivity by preventing distractions (like Facebook, etc) and to maintain a professional environment in the workplace. Professionalism is important in the workplace because if every employee had unrestricted access to obscene content such as pornography, other employees may feel harassed and may even sue the company for damages. Thus, companies often heavily restrict internet access for their employees in order to protect the interests of everyone. In the company

As far as censoring content not fit for children, CYBERsitter is one of the most common software packages available to parents. It is fully customizable and allows parents to know exactly what web sites their children will have access to. It is used to censor the use of pornographic content, hate speech, gambling websites, or chat rooms.

**ISPs and Net Neutrality**

Taking it a step further in our discussion on censorship, an issue that is very pertinent to the impact of computers in the access of information is Net Neutrality. We’ve discussed Web Filters and Filters. These are software packages that would filter out results on web queries on the client-side of the internet transaction. The concern that most opponents have against censorship during the internet age is censorship on the server-side of the internet. That is, censorship at the level of the Internet Service Provider (ISP). The reason that this kind of censorship is so concerning is because as far as the end-user is concerned, what he searches for does not even EXIST if the ISP does not provide it. There’s nothing the client can do to remove a server-side restriction on access to the internet. That is why Net Neutrality is such a powerful concept. If governments manage to pass legislation to slip past the heavy resistance there is to server-side content filtering, literally anything can happen, because at that point, any kind of information can be kept out of the hands of the masses.

Another important issue with Net Neutrality is the concept of “every bit costs the same.” This brings a unique point of interest to the discussion table on censorship. Absent of Net Neutrality, ISPs can make ridiculous amounts of money by charging fees to clients for use of certain websites which are impervious to the actual websites themselves. For example, Netflix is very commonly used by many across the United States. People pay a fee to the corporation that owns Netflix in order to use it. However, without Net Neutrality, monolithic ISPs like Comcast could make HUGE amounts of money by charging extra for more bandwidth to a PARTICULAR website like Netflix. Reference [2] indicates:
“Without net neutrality, ISPs can charge content providers a fee for bandwidth usage. Content providers that pay the fee will get more broadband access, meaning their Web sites will load faster than competitors who didn't pay the fee. For example, if Yahoo pays a fee to an ISP and Google didn't, the ISP's customers would discover that Yahoo's search engine loads much faster than Google's. Supporters of net neutrality argue that such preferential treatment amounts to censorship.”

Internet Censorship at the International Level

Every country restricts access to the internet in one way or another. North Korea does it to an extreme point. But the United States does as well. Because the censorship of information is such a powerful way to keep masses uniformed and thus controllable, an organization called the OpenNet Initiative (ONI) has been created in order to inform the general public about Web filtering and censorship policies around the world.

Some countries also go WAY beyond simply censoring information. China has VERY advanced filtering system known to the rest of the world as The Great Firewall of China. It implements all of the previously discussed methods of content filtering to an extreme level. It filters and updates its databases in real time. It can also search personal blogs for content that speaks out against the government and immediately block access to those blogs nationally. Cuba has also completely ended all semblance of private internet access. There is no paying a private ISP for internet in your home. In a Cuban home, in order to have internet access, you must connect to a publicly owned Wi-Fi access spot.

EVALUATION OF IMPACT ON SOCIETY (GOOD OR BAD?)

The impacts of censorship remain diverse and very hotly debated throughout society. Western cultures seem to be very bent upon keeping the content of the Internet as free as possible, while countries like Cuba, China, and North Korea are heavily censored in order to restrict subversion against the government. The takeaway message about censorship is two-fold:

- Censorship is necessary, but should be left to the client-side to decide what content is displayed to end-users
- Server-side censorship is what allows totalitarian regimes to take over and maintain control of the masses. Pertinent examples are the countries named above.

Censorship has played an overall positive role in society. Web filters and firewalls have truly helped in keeping harmful content away from where it is not desired. The problem is that regimes of power, and also big corporations would like to push that even farther in order to advance their own political and economic interests. This is the form of censorship that a vast majority of the populous using the Internet opposes.

FUTURE RELEVANCY

As previously indicated, the problem of censorship during the age of the internet could not be more pertinent. And it will only get more hotly debated in the future as special interest groups press more towards control of information. Everyone knows that “Knowledge is power” so therefore a lemma to that is also relevant: “Prevention of obtaining knowledge is power, but for the other party.” As mentioned before, there are many countries that are pushing for more and more censorship of a vast majority of the content that is available on the internet. As more content is developed, and more events transpire, there will always be a special interest group that has the power to push through the morality of censorship for their own self-interest. As this happens, the general public should keep in mind the moral laws indicated above, and push back against any attempt to defeat the goals originally established for censorship. Information should be publicly available to all upon request and desire. Only information that is unwanted by the CLIENT should be censored by the client himself. In order to live in a moral and progressive society, we must keep these principles in mind in order to live in peace and avoid being overtaken by a totalitarian regime.

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