



Educational Entertaining Web Browser for Children using Security System Design

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ABSTRACT

Recently, the world face a huge technological revolution over internet applications making the using of the internet occupies an important place among the people and made a large proportion of people from different classes and ages since the using of this kind of applications used for long hours on the Internet (using social media applications and important websites). Although, those applications provided without controlling all available components, though the using it increases with the progress of days. Hence, because this lack of interest causes many of the sites that are harmful to personal interests and threaten the safety of children and their personal thoughts. The basic idea is to provide educational assistance to children through the sites and help them to learn new useful stuff. Hence, must provide an improved web browser that brings the capability for the child to browse the internet in a safe form from harmless website.

This kind of browsers contains a big amount of useful information that provided in the aim of educate them (learning information related to a specific field of study), e.g. games, videos and social media applications, by this way it considers as an attractive and interesting way that makes the learning way in an advanced stage of development when browsing the sites. This kind of sites and browsers protect children from using the internet for bad and non-useful information by controlling all the data that transmit and revived by this browser. Though, it supports many of activities in highly degree of interest and censorship in rule system. This paper aims to create web browser for children to protect them from the crime and bad sites in addition to give all benefits in interesting way.

Keywords

Website, browser, security, services, web browser and system design.

1. INTRODUCTION

Recently, the wide use of the internet makes it to cover many of services and needs in the life. Hence, it makes internet in an important view as a part in our daily life related especially for students, children experts, researchers and many others in order to achieve high level in learning capabilities. Hence, internet becoming important part in the family space, which may cause many problems, which found in our life especially, to the children, who acquire and collect ideas from the surrounding environment and imitate what they see without the jury what that or why they doing it (Stein, R. J. 2009).

Bad and dangers sites are founded in every place over the internet; e.g. advertising pages, images, games, YouTube and other places to create crime and corrupt morals in a large area.

Although, the idea to create a system that control at least the children habits in using the internet in order to provide a higher level in protecting them from the bad using to the internet.

Children use the internet many and long times for playing and meet their interests with desiring to do research and exploration for all new things in the internet, though the problem in providing dangers sites that available in every part over internet without controlling that in officially (Sherman, J. 2003).

As a definition a children browser is a web browser that provides many useful services for children such as provides advices about good food that considers as a primary thing used for growth and living of children, how to improve the children intelligence, happy stories which holds lessons and develop the child's ability to cope with situations and interesting cartoon to add fun to the websites pages and attract children to it. Although, this browser aim to provide general information about children in interesting way e.g. in the bottom of the home page you can see exciting game called "Test the information".

In order to make sites more useful in which you can search for information that meets the child interest through the search buttons and search spaces. Though, not all of the available information is allowed to the child use. Meanwhile, bad sites are blocked because the data which need is stored in database related to this browser under the control of this website administrator who manages all stored data. In addition, the children can follow many of learning and interesting lectures in YouTube as videos in a wonderful and effective learning way. Child can do many activities in safe ways in away from possible risks that they may face it while all of this is control in highly level of protection. The project will be created using C# language to apply method and ASP.NET to design the site and project page in wonderful and interesting shape. A strong programming system will be created to apply the security for all data that shown in the site. Hence, each website contains data firewall that filters any data or information that request an entry to the website screens also it block all bad or dangers source from video, music, images and any other data from anonymous source.

The aim behind this paper is to design and create web browser for children to protect them from the crime and bad sites in addition to give all benefits in interesting way.

2. RESEARCH PROBLEM

The research problem is about designing a security system including in a web browser for children that show all benefits from the educational habits and entertaining information such



as: learning lectures, games, stories and many others that provide learning information to the children.

Many of the latest researchers search in one part of information importance and uses such as games or learning in websites. Though, the bad true that makes the exciting and attraction for the site that sometimes it shows some photos and videos harmful and immoral that effects into children in which it leads to emergence of a crime. Meanwhile, source who produce bad or dangers data is used this data in order to provide advertising capabilities for products and published it in subtle ways without showing it in clearly way inside internet pages that makes a difficulties in controlling that source. Meanwhile, there is a need to use an effective programming system in order to structure and implement the adopted security and controlling methodology by this research. So, achieving the goal in construction the site depending not only on building it by using a strong programming system but also it depends on making the interfaces that included in this site very attractive to the users in order to attract them to use this website (graphical user interface GUI design).

3. RELATED WORKS

Many of researches on one hand provided information about the dangers of the internet contents over children while on the other hand the protection of children from this danger contents still a challenge in many recent studies. Meanwhile, There is a relation between the behavior of the person and what seeing in front of him (like the using of personal information in deciding what the person prefer to see), that explaining the wrong behaviors from many different categories and the prevalence of cybercrime that spread widely (Stein, R. J. 2009).

Many of parents do not have enough experience on how to protect their children from the dangers of the Internet or they haven't enough time to follow up the behaviors of their children every time the use the internet. Hence, many problems have appeared recently that's due to the recent

technological revolution that has conquered the world which makes the technology invades life and houses without restrictions. (Smith, G. S. 2007).

Today, the Internet is a source of a nutrient culture in the minds for the children; social media, games, chat and many of these actives making children take more times using the internet that caused issues which lead to the emergence of challenges over many fields in the life. Hence, this led to the emergence of crime around the world. There are many studies and research on adjusting the contents of the web in addition to dissemination of culture among the people and skills to enable them to get proper use of computer programs and web pages (Livingstone, S. M. 2009).

System that protects sites on the internet is one of the key important things at many networks sources over the internet systems, that provide services over the world in order that many companies using firewall systems in the internet to protect their related formation from any theft or scam. (Wack, J. P., & Carnahan, L. J. 1994).

However, the world needs to use security system in companies and other facilities in children website to protect them from many of ethical behavior. As an analysis for previous studies we must take these issues and think to build web site for children by using a security system database to control all available data.

3.1 Comparative Analysis

The table 1 below shows a comparative analysis of the existing techniques which mentioned previously in related works section studies. The table shows that web browser project is the best way to provide a security using for internet contents for children. Since web browser works as an integrated system that have all useful thing and block all bad sites and programs.

Table 1. Comparative analysis of existing techniques

Title Study	In comparison	Security percentage
"Internet safety".[1]	This study shows the seriousness of the Internet without showing protection system to save the children.	0%
"How to protect your children on the Internet".[2]	This study shows that the protection of children from internet must be done by parents in controlling their kids.	35%
"Children and the Internet".[4]	This study shows the importance of the correct using to the internet in positive way by raise the level of awareness among children.	17%
" Keeping your site comfortably secure".[15]	This study shows the use of firewall projection system in children programs as companies system to block bade sites.	50%
"Educational Entertainment Web browser for children Using Completed Security System Design". [project study]	This study shows the use of educational entertainment web browser for children by using a completed security system to control all available data. It contains many of objects of interesting information to children under administrate from accountable, confidence institutions.	90%

4. DISCUSSION

The Internet can be a best friend for the children to play games and have fun in exploring new websites. However, this can create a concern for parents who worry about the online safety of their children. Therefore, this paper developed a child-friendly web browser that parents can use to ensure internet safety without hampering the fun. The browser has

parental-control tools to give the possibility of control for parents to block inappropriate sites in many categories and monitor the internet that used by their children. The children browser also removes a lot of the complexity of internet Explorer or Firefox by providing to children general information in an interesting way.



4.1 Significance of the Study

Create web browser for children to protect them from the cyber-crime and bad sites in addition to give all benefits in an interesting way.

4.2 Research Hypothesis

- How to build modern web site for children that provides many services in an effective and protected way?
- How to control the site and block any dangers source to protect all available data which showing in the site?

5. PROCEDURES AND METHODOLOGIES

The work of the research has been divided into four phases. The breakdown of the research phases is described as follows:

5.1 Phase A of the Study

The first phase of the research will address the following preliminary tasks:

- Conducting extensive literature survey on security system programming and how to apply it in the process of designing website.
- Conducting extensive literature survey on previous researches and systems.
- Study and analysis of software tools for design – management.
- Systems and general-purpose tools in asp.net with cC#.
- Review of previous researches and software for use in the research.
- Study and analysis the website design.
- Preparation of the preliminary research report.

5.2 Phase B of the Study

The second phase of the research will address the following tasks:

- Definition the technologies of security systems.
- Analysis and design the web browser to identify available tools in it.
- Testing and documentation of all developed items.
- Defining the requirements, evaluation, testing, and use of the needed design.
- Organizing the work and submitting for possible publication.
- Preparation of the 2nd phase research report.

5.3 Phase C of the Study

The third phase of the research will address the following tasks:

- Analyzing and evaluation of the results, specification of the percentage of completed work and identification of any problems and overdue tasks.

- Preparation of the 3rd phase project report.

5.4 Phase D of the Study

- The fifth phase and the final phase of the research will be addressing the following tasks:
- Thorough testing of the system and enhancement of the results.
- Evaluation of all of the completed artifacts and producing a report on the status of all completed tasks and any delayed tasks.
- Discussing results and enhancing the system based on the collected feedback.
- Finalizing the system and completed functionality by identifying any problems or overdue tasks.
- Finalization of the documentation of all developed works of the research publication.

6. CONCLUSION

Protect the children thoughts consider as an important task. Hence, there are many methods and strategies which used in the aim to block any bad sites or unappropirate data for children but that must take strict laws and procedures to apply the important task in the aim to protect the children from internet crimes and many other problems so it will enhance the children security level while browsing internet.

The riskiness and challenges from using internet are found in many types and forms so the overcome of these problems needs to integrate all responsible sides together from schools, Homes, companies and so on.

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