The harm of pop-up advertisement and its prevention

Huan Gao, jike Wan, kun Jiang, Yongping Yu, Rui Li

School of Mathematics and Statistics, Information and Computational Science, Sichuan University of Light and Chemical Technology, Zigong, Sichuan 643000, China

Abstract

Pop-up ads have been doing great harm to people's lives.Pop-up advertising exists in a variety of web advertising, but also to the user has brought very serious interference.This paper mainly discusses the harm of pop-up ads, the basic principle of making pop-up ads, the automatic closing of pop-up ads on computer tables and the commonly used software shielding methods. First, the pop-up advertising is not only harmful to computers, but also to the psychological and physiological hazards of computer users.This paper analyzes the reasons why the majority of users dislike pop-up ads from the subjective level and the objective level.Secondly, the basic principle of pop-up advertising production is briefly introduced, mainly for the introduction of the basic structure of the pop-up webpage and how to run the function to carry out the regular pop-up advertising.Discussed a pop-up advertising automatic closing procedures, using the inside of the module, through the code of the program automatically close the pop-up advertising. At the end of this paper, the prevention and control of pop-up ads are simply explained. The use of computer browser's own shield makes the web content more concise and clear.When using the computer, always pay attention to the situation of the computer, avoid the computer download too many useless applications.

Keywords

Pop-up advertising; Automation; AD blocker.

1. Introduction to the background of pop-up advertising

The source of pop-up advertising is diverse. Here is a brief introduction of its source.

First, pop-up advertising[1]An AD that pops up automatically after a website is opened. It will appear in front of the user whether it is clicked or not clicked.Users are generally annoyed by this compulsive form of advertising, which slows down the speed of visitors and carries a lot of insecurity, as most browsers provide plugins to block pop-up ads.

Second, the general pop-up advertising is mandatory, and may contain horse virus, Trojan virus[2-5]. Although some browsers have the function of anti-advertisement themselves, they can not completely intercept, so for such advertisements, you should not click, immediately turn off, and if you browse, you should kill the virus later.

Third carrier, games, with the aid of the browser can register directly into the game server, from the operation, such as users to download games at the same time of developing cycle is relatively short, this leads to the game, how to get more chips in a limited user, game makers racking their brains, most by pop-up ads to attract users to click on to register, etc., the relevant departments for some ways such as using chip diddle user registration and other advertising to halt, at the same time must be warned. Web Web Web The healthy development of the industry requires the joint efforts of the majority of manufacturers. Whether the theme of pop-up advertising is really reflected in the content of the game or whether it adopts some similar themes such as beauty temptation.

Fourth, pop-up ads have a particularly significant feature, which is difficult to turn off. According to the data, there is a comparison as shown in Figure 1.1, and pop-up ads are extremely small.
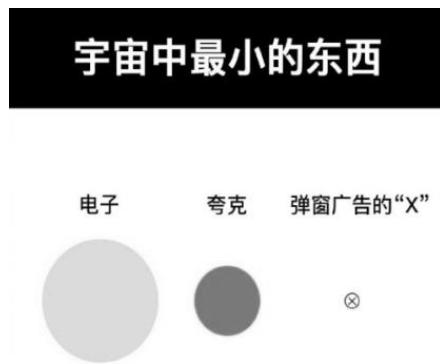
Figure 1.1 Size of pop-up ads

2. Hazards of pop-up advertisements

2.1. Disadvantages of pop-up ads

When it comes to this question, many people's first reaction is disgust, which is divided into two levels of objective and subjective.

2.1.1 Objective level

First of all, without the existence of "advertising", business and economy would be present[6-7]Will it still be so developed?Everything has its contradictions. It can not only bring about good economic development, but also bring about various problems. This is inevitable, and only the bad aspects can be guided to improve.Therefore, advertising is not good.It can only be said that advertising was originally good and beneficial, but now it has been led astray, so it does more harm than good.

That is to say, the existing point of view is: the current advertising, more harm than good (rather than advertising this thing, more harm than good), "wine is afraid of deep alley", "good goods will call", the other side will certainly mention such things.Therefore, we should say: advertising, there is a need to exist, but, due to the information is not equal, between the advertisement publisher and the advertisement audience, there is obviously the former can deceive, fool the latter conditions.

It would have been a good thing if the advertisers had acted conscientiously, or by law, and published the correct information. It would have been a good thing to increase the awareness of the product and let the people who wanted it know where to buy it.But now the reason why advertising is hated, the reason why the public is very disgusted with advertising (especially TV shopping advertising, pharmaceutical advertising, etc.), is because, advertisers propagate false information, deceive consumers, now the advertising, no one dare to believe;Be deceived by advertisement, have bitter nowhere to complain.

The current advertising, if the status quo is not changed, if still allow false propagandists everywhere, then, the advertising now and in the future, will definitely do more harm than good. We do not mean to beat "advertising" to death and say that it is harmful but not beneficial. The reason why we analyze "advertising does more harm than good" is just to remind everyone to see clearly the disadvantages of the current advertising industry.

If you can clearly distinguish between the true and the false, false advertising has no hiding place, the release of false advertising from now on no market, the network world is "pure and flawless", true advertising, then, the benefit, will not only be the consumer this side!

2.1.2 Subjective level

Brainless pop-ups are sure to annoy users, and have little to do with the content.In addition, pop-ups are actually more than one model, this model is seen in many poor advertising, so annoying.For most users, they just want a quiet fantasy, not a pop-up AD that looks low-end.

According to the questionnaire analysis, it can be seen that almost all users hate pop-up ads, and only a very small number of users like them or don't care about them.
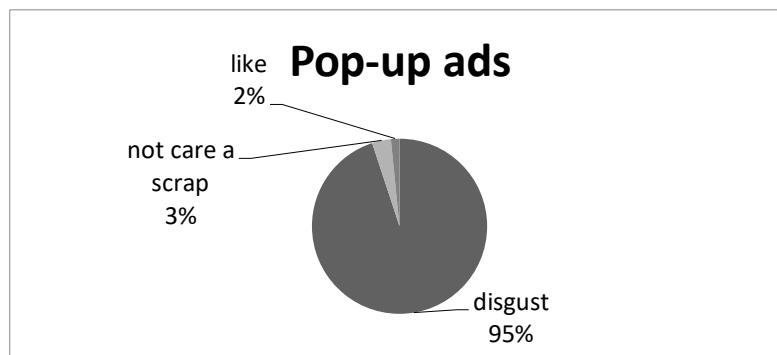

Figure 2.1 Attitudes towards pop-up ads

In addition, when investigating the reasons, it is found that about 26% of users hate the pop-up ads because they are pornographic and vulgar, 26% are afraid that the computer will become stuck, 6% are afraid that it will affect the network speed, and the rest 42% hate the pop-up ads because it will affect their own work.To sum up, for most users, pop-up ads are like tumors, which are not easy to remove and affect the experience.
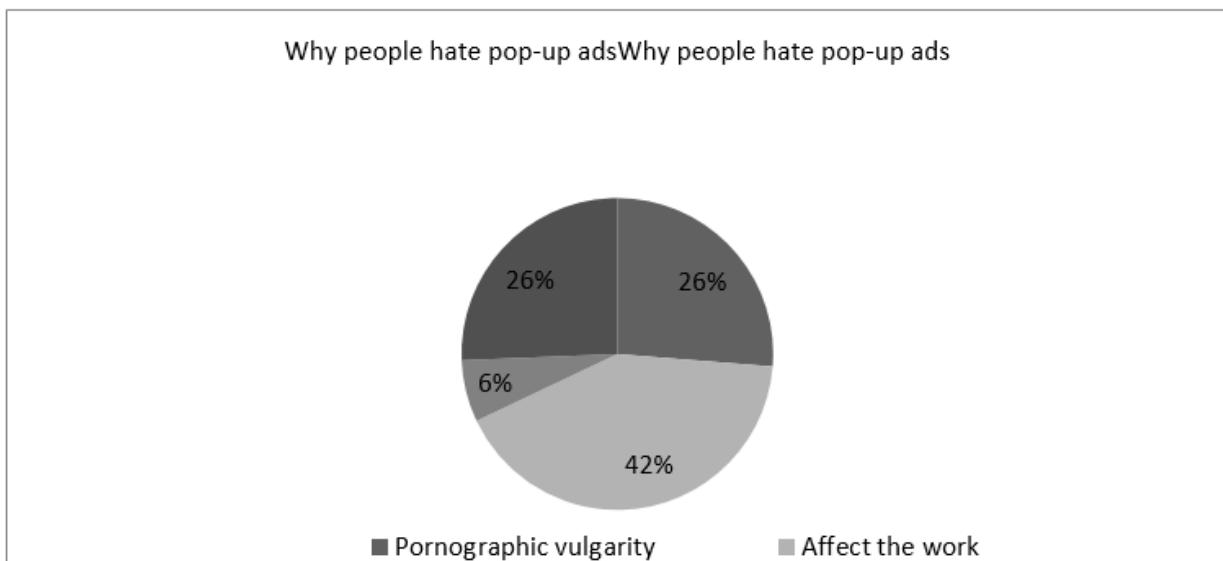

Figure 2.2 Reasons why people hate pop-up ads

2.2. Problems with unknown links

It is well known that the computer must be cleaned and antivirus regularly, but there are still a lot of people do not regularly clean the computer and the computer antivirus, resulting in a lot of unnecessary garbage and potential viruses inside the computer.Some people think that they will not browse on dangerous web pages, so it is not a big matter whether they have a computer virus and clean up.But the Internet is full of dangers, all kinds of viruses are most people will not feel, some viruses will not even make people aware that their electronic devices have been infected.There are various kinds of viruses on the network. Here are some of the most common network virus links.

Forms posted in various group chats

Figure 2.3 Virus links in common chat software

Each time sent in each group, most people in do not know this is a virus connection will be due to the hearts of all kinds of curiosity to click it, so most people's WeChat ID and QQ number will be stolen, and then the stolen account will issue a new link to attract more people stolen number.This is a very common link to steal the number, it will have a variety of skin every year, such as the academic affairs office notice, freshmen accommodation information, scholarship and so on, this link is the most easy to be cheated by the main group of family elders, young children and just went to college freshmen.There are various kinds of information in various groups every year. Every time, a lot of people will post all kinds of strange information through stolen accounts due to delayed clicking, as shown in Figure 2.3.

The emails come from group chats and viral links sent by friends

The links with problems in general email are all added by a variety of group chat, which is sent by a group of friends to friends in each group through mass email. When users see information about themselves or what they care about, they will put down their vigilance.After clicking on that email connection, the virus will quickly enter the user's account.The specific link style is shown in Figure 2.4.
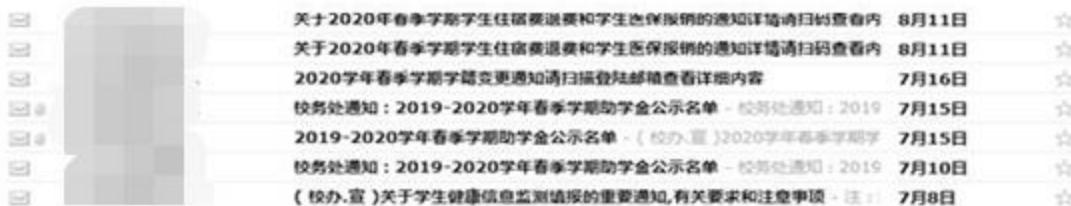
Figure 2.4 Virus links in common mailboxes

3. The basic principle of pop-up advertising

3.1. The most basic pop-up advertising code

$<$ script language $=$ " javascript " $>$

$<!--$ window.open $($'page.html'$)$

$-->$ $</$script $>$

window.open $($'page.html'$)$ Is used to control the pop-up window[8-10]When clicking on a page, a new window will automatically pop up. If it is not under the same path as the main window, the path should be written in front of it. 'page.html' 'page.html' In general, paths are divided into absolute paths and relative paths. The absolute path refers to the absolute location in the directory, directly to the target location.For example: indicate is under the E disk directory. "E：\Kugou\伦桑−烟雨行舟.mp3" 伦桑−烟雨行舟.mp3 Kugou Relative path refers to the path relationship between the file and other files (or folders) caused by the file's path.For example, the absolute path of the file is, and the current path is, then the relative path is. "C：\Inetpub\wwwroot\sites\blabla\index.html" "C：\Inetpub\wwwroot" ".\sites\blabla\index.html"

This code can be used anywhere in the entire code, the closer to the front the earlier the execution, when the code is too long, and want to make the popover appear early can be put in advance, such as in. $<$ head $><$ /head $>$

3.2. Adjust popover style

$<$ script language $=$ " javascript " $>$

$<!--window.open('page.html','newwindow','height = 100, width = 400, top = 0, left = 0,$

$toolbar = no, menubar = no, scrollbars = no, resizable = no, location = no, status = no') -->$

$</script>$

Through the above code can achieve the precise control of the pop-up position and size. 'newwindow'Is the name of the newly opened window, can be adjusted according to personal preference, or can not be written, that is, fill in the space: ".

$height = 100, width = 400$ Represents the width and height, respectively, which can be adjusted according to the needs of the window, or the default value can be left unwritten.

$top = 0, left = 0$ Represents the pixel value of the window distance from the top and left side of the screen respectively, and adjusts the pixel value of the right and bottom side respectively. Generally, two can be used to determine the position; right bottom

$toolbar = no, menubar = no, scrollbars = no$ Indicates whether to display the toolbar, menu bar and scroll bar, respectively. To display, or not to display; yes no

$resizable = no$ Is it allowed to change the window size, is allowed, is not allowed; yes no

$location = no, status = no$ Indicates whether to display the information in the address bar and status bar respectively (usually the file has been opened), to display, is not displayed. yes no

3.3. Function control popover

Here is the basic code for defining and calling popovers:

$<$ html $>$

$<$ head $>$

$<$ script language $=$ " javascript " $>$

$<!--$ function openwin() {

 window.open ("page.html", "newwindow", "height $=$ 100, width $=$ 400, toolbar $=$ no,

 menubar $=$ no, scrollbars $=$ no, resizable $=$ no, location $=$ no, status $=$ no")} $-->$

$</script>$

$</head>$

$<$ body onsubmit $=$ "openwin()" $>$

...the main content...

$</body>$

$</html>$

This code defines the function, and after the braces is the content of the call. $<!--$ function openwin() { ...... } $-->$ openwin() There are many ways to call this method, such as the following:

1) When the webpage opens the page, the pop-up window; $<$ body onsubmit $=$ "openwin()" $>$

2) When the page leaves the page, the pop-up window; $<$ body onunload $=$ "openwin()" $>$

3) pop-up link This is a link. When clicking "pop-up link", a function will be called to open a new window; $<$ a href $=$ "#" onload $=$ "openwin()" $> </$ a $>$

4) This code realizes that when clicking the button "Open window", a new pop-up window will be opened immediately.

$<$ input type $=$ "button" onload $=$ "openwin()" value $=$ "Open a new window." $>$

4. Simple screen desktop advertising blocker

4.1. Introduction PyAutoGUI

PyAutoGUI is a pure Python automation GUI tool, its purpose is to be able to use the program to automatically control mouse and keyboard operations, multi-platform support （Windows，OS X，Linux）. PyAutoGUI can simulate the movement of the mouse, click, drag, keyboard key input, press and hold operation, as well as the mouse + keyboard hotkeys at the same time press and hold and other operations, it can be said that the hand can move.For example, the following code can be used to move the mouse cursor to the center of the computer screen wherever it is.

import pyautogui

screenWidth, screenHeight $=$ pyautogui.size()

pyautogui.moveTo(screenWidth $/$ 2, screenHeight $/$ 2)'

import pyautogui is an import load pyautogui module to facilitate later use of functions related with pyautogui .

When pyautogui.size() is used, you can get the size of the current computer screen and assign the width and length of the screen to screenWidth, screenHeight . When you use pyautogui.moveTo' (screenWidth $/$ 2, screenHeight $/$ 2) , you can move the mouse to the center position. This function that is pyautogui.moveTo(x,y)' allows the mouse to reach any absolute position.

4.2. Specific process of the shifter

The pop-up ads pop up from time to time, and it is difficult to find the correct position of the pop-up ads. Even if the correct position is found and deleted, the software will automatically download the running program of the pop-up ads again when the software is run next time.Although pop-up ads are due to users downloading applications attached to various software, the main position of pop-up ads is also mainly in a few fixed positions.These are the center of the computer screen, the lower right corner and the upper right corner. The position is relatively certain, using the inside of the automatic click of the program code, simulate the process of closing the popup ads can achieve the effect of automatic click to close the popup Python [11-13].

Step1:When the pop-up AD appears on the computer screen for the first time, intercept the close button of the pop-up AD, for example: $\times$ And save it in the specified location and change the picture name;

Step2:Use the inside Python function that is location=pyautogui.locateOnScreen ('close2.PNG') to record the position of the close button on the screen and the size of the picture on the screen;

Step3:If the position coordinate is empty, then it returns to Step1 , then determine the next popover button; If not, then use the Python program code that is x,y=pyautogui.center(location) inside to get the position of the center point of the picture on the screen;
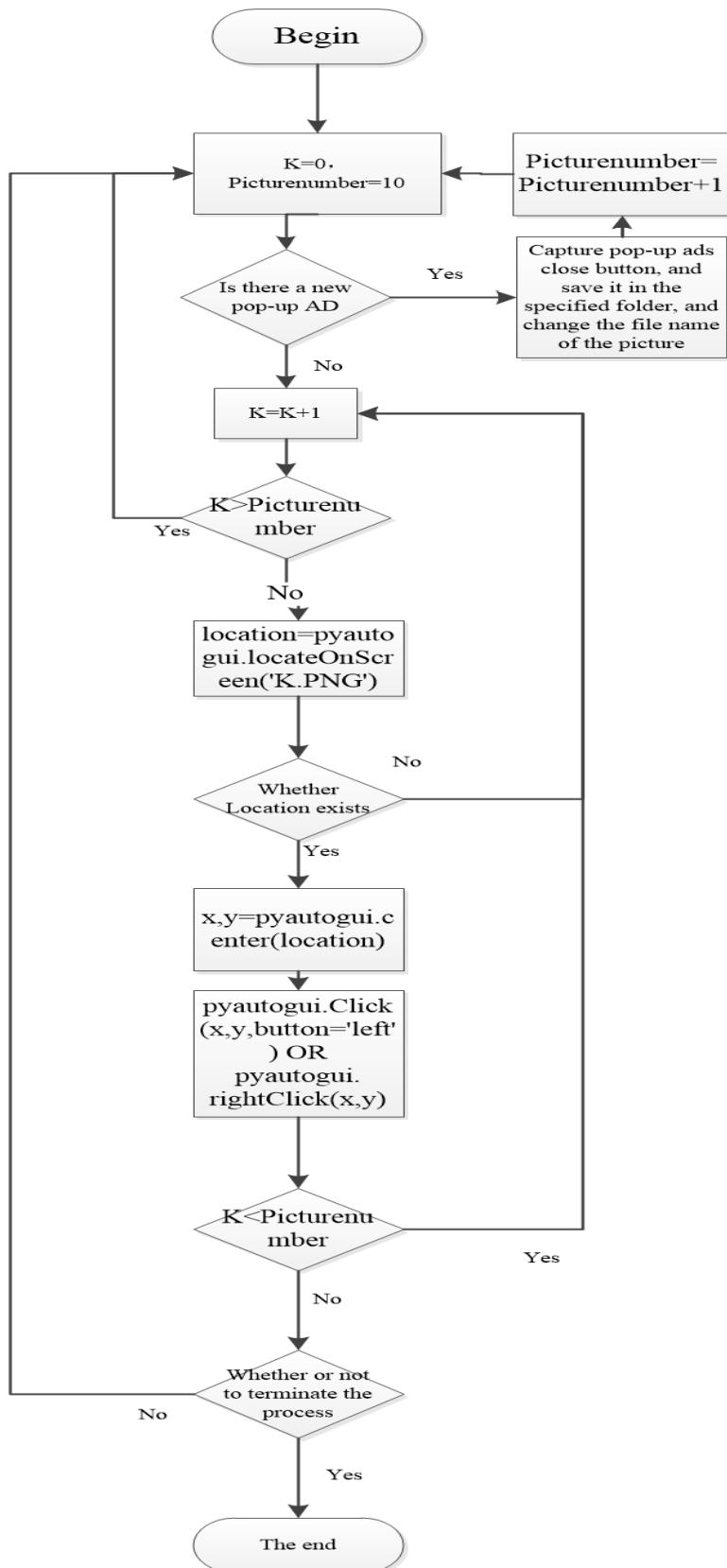
Fig. 4.1 Working flow chart of the shifter

Step4：After obtaining the center location of the close button, click the left mouse button to close it using the program code inside. The code is: Python pyautogui.Click(x,y,button='left') or pyautogui.leftClick(x,y).Then continue to monitor the computer screen;

Step5：Go back to Step1 and continue to monitor the computer screen.

Step6：When it is judged that the pop-up ads stored completely do not exist, it can be closed manually.

The flow chart of the above process is shown in Figure 4.1:

5. The prevention and treatment of pop-up advertisements

Most computer users will encounter such a problem, when they are using a bunch of pop-up ads and some pop-up ads will be relatively vulgar, seriously polluting the network environment, and some even can not be closed off. Windows Here are some solutions to this problem and ways to prevent it.

5.1. Solutions

Method 1: Install software interceptors

You can install the computer's anti-virus software, such as security guard, Jinshan drug, computer housekeeper, from the software Settings to open the computer's web page protection and browser advertising removal, basically advertising pop-up window will be shielded. ^{360} adsafe

Method two: Uninstall the pop-up software

In most cases, popover software is not shipped with the software used, but is bundled with the software when it is installed.So, just uninstall the pop-up software, or uninstall the entire software.The step is to find the recently installed software directly in the Software Manager and uninstall it.

Method 3: Turn it off from software Settings

This type of pop-up AD is the simplest of all the pop-up ads. You simply close the pop-up in its software Settings and set it to no longer show.The step is to open the software directly, go to Settings, and set the pop-up ads to no longer show.

Method 4: Disable software startup services

There are some pop-up software is to follow the system started, every boot pop-up advertising will start.The step is to go to the task manager, find the startup item, and shut down some of the unnecessary startup programs, or go to the service item, find the corresponding service, and set it to stop.If you are not sure which one is the popover software service, you can simply disable all the plans, which does not have much impact on the system.

Method 5: Change the software file type

It is also very difficult to deal with some pop-up modules, because the software will irregularly detect whether the advertising module exists.If an AD module is found to have been artificially removed, it will automatically download a new one. The step is to find the folder of the popup AD module in the task manager, delete the contents in the popup AD file, or delete the popup software, and create a text file with the same file name.In this way, the software detects that the AD is a module, but it does not start properly.

Through the above five methods to solve the $Windows$ pop-up ads can basically solve the vast majority of pop-up ads, to create a computer desktop without pop-up ads.

5.2. Prevention methods

Can not only rely on the interception to deal with the computer pop-up ads, computer users should learn to prevent in advance, develop good Internet habits.

Method one is when installing software, do not click blindly directly "next step" direct installation, when necessary, also want to see the installation interface to have a few can cancel the choice of rogue advertising installation entrance.

Method two is to download software as far as possible from the official website or other formal channels to download, avoid bundled advertising.

Method three is to browse the web page do not go to browse some irregular websites, do not click on the unknown advertising pages and links.

6. The small knot

In the era of rapid development of the Internet, the development of artificial intelligence and big data mining has penetrated into all aspects of social life.Making good use of the tools at hand, following the trend of development, and constantly updating science and technology are the basic ability to make life better.Small ads around in an endless stream, to really solve the pop-up advertising is basically impossible events.In the past advertising is annoying existence, now with the development of short video, small games opened another form of advertising, from passive to active.

The flood of advertisements in web pages brings users a very bad feeling of use, but such advertisements may contain malicious programs that violate users' privacy, which will bring more serious consequences. By understanding the basic principles of pop-up advertising and the application of its pyautogui modules in Python , we can understand that artificial intelligence has a great development prospect in the future and the shielding of pop-up advertising has become better and better in modern society. Compared with a few years ago, the advertising on the Internet has changed greatly.

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