

RESEARCH ARTICLE

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Survey Paper on Captcha Using Different Methods And Techniques

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ABSTRACT

The internet has been enjoying associate more and more vital role in our way of life, with the supply of the many web services comparable to email and search engines. CAPTCHA (Completely machine driven Public Turing take a look at to inform Computers and Humans Apart) was developed to tell apart between pc programs and human users that was initialized in 1997 and was developed in 2000. The development of CAPTCHA system is to supply artistic and validation tests that may be simply resolved by humans and tough for robot. There area unit four forms of strategies in development CAPTCHA that is that the text primarily based CAPTCHA, CAPTCHA supported image, CAPTCHA based audio and video {based mostly primarily based} CAPTCHA. This type of CAPTCHA had developed by mistreatment markup language, JavaScript / J question and Cascading vogue Sheets (CSS). Every CAPTCHA have its own techniques to supply security.. This paper presents a survey of Optical Character Recognition applications and more focuses on 3 important applications of Optical Character Recognition.

Keywords: Captcha, Video Captcha.

Date Of Submission: 10-01-2018

Date Of Acceptance: 27-01-2018

I. INTRODUCTION

Now a day, vulnerability may be a major issue in laptop security. Laptop and knowledge security is supported by passwords. The positive identification is US Graphical passwords are designed to do to form passwords additional unforgettable and easier for individuals to use and, therefore, suffered in Authentication method. Using a graphical positive identification, users click on pictures instead of sort character set characters. A key space in security analysis is authentication, the determination of whether or not a user ought to be allowed access to a given system or resource. The internet contributes deeply to several aspects of human life equivalent to communications, education, and on-line industrial activities etc. Some internet services have on-line registration where the users give info so as to attach and use services equivalent to email in Yahoo, Gmail and Hotmail. However, several programs are developed by hackers that automatically complete web site registration pages with cant which may cause traffic congestion, minimizing the performance of the system and in some cases, even inflicting it to fail, notably wherever a web site incorporates a vast range of accounts.

Therefore, researchers developed a mechanism to differentiate between human users and laptop programs within the case of on-line registration. The quality mechanism used presently to deal with this issue is CAPTCHA (Completely automatic Public Alan Matheson Turing check to inform Computers and Humans Apart). The idea of CAPTCHA relies on the power of humans to try to bound tasks that computer programs cannot, equivalent to asking users to A distorted text image or select a particular image from several displayed footage. Because of these advantages of CAPTCHA, the applications embody Preventing Comment Spam in BC logs, Protecting Website Registration, protective Email Addresses from Scrapers, on-line Polls, Preventing lexicon Attacks, computer program Bots, Worms and Spam. In period of time CAPTCHA provides high security, but now because of the growing technologies CAPTCHAs are liable to several types of attacks. Many software programs will attack CAPTCHA expeditiously. OCR is such a software system program CAPTCAH are sometimes called —reverse Turing testsl: because they are meant to permit a laptop to see if a far off client is human or not. In spite of their importance, their extremely widespread use, and a growing range of analysis studies there's presently no systematic

methodology for designing or evaluating CAPTCHA. In fact, as we tend to substantiate by thorough study, several fashionable websites still believe schemes that are liable to automatic attacks.[1], [2], [3], [4], [5], [6], [7].

Definition Of Captcha



"A Captcha could be a program that protects websites against bots by generating and grading tests that humans will pass however current laptop programs cannot. Parenthetically, humans will browse distorted text because the one shown below in figure one however current computers cannot". [2]

II. CATAGORIES OF CAPTCHA

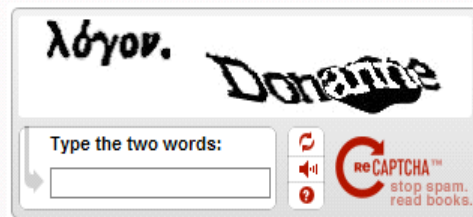
The means of CAPTCHA introduces a challenge response check to the users even supposing human or larva programs. The CAPTCHAs is classified into 4 varieties rely upon what's distorted that is whether or not characters, digits, or images. These varieties are given below: [7]

1. CAPTCHAs based on the text.
2. CAPTCHAs based on image.
3. CAPTCHAs based on audio.
4. CAPTCHAs based on video.

Captchas Based On The Text

Text-based CAPTCHAs is straightforward to implement. It is effective and needs an oversized question bank. In Text-based CAPTCHA, completely different categories of characters and digits are included. It enclosed alphabets with lower and higher cases and digits from 0-9 .[2],[7].

Please type the two words below to ensure that a person, not an automated program, is submitting this form.*



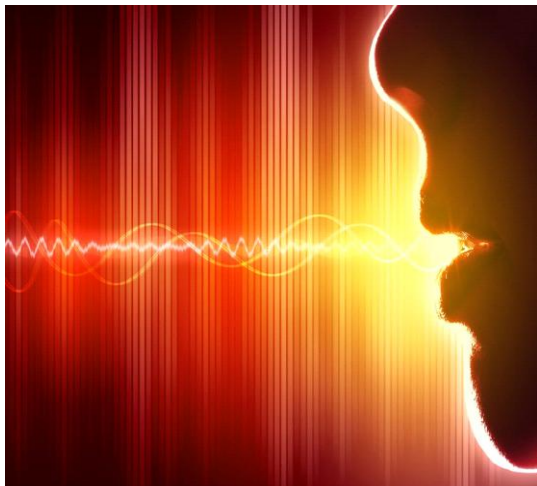
CAPTCHAs based on the image

Image primarily based CAPTCHAs are supported recognizing a particular image from similarity pictures and sometimes are mixed with some words it's troublesome for larva programs to spot the graphics where human users will solve that. The main advantage of CAPTCHA supported the image is that pattern recognition is tough AI downside and. [2] Therefore, it's challenging to interrupt this check victim pattern recognition technique. Varied ways that are image primarily based are shown as below [7].



CAPTCHAs based on audio

These CAPTCHAs is predicated on the sound-based systems. These CAPTCHAs square measure developed for users World Health Organization square measure visually disabled. It contains Associate in nursing audio-clip. During this style of CAPTCHA, the user needs to listen and subsequently submits the spoken word. The sound-based initial system name ECO was enforced by the Nancy Chan, from the Hong Kong.[2],[3],[7].



CAPTCHAs based on video.

Video CAPTCHA isn't utilized in CAPTCHA system because it needs image transfer through the internet. In video-based CAPTCHAs, 3 words are provided to the user that describe a video. The employment tag should match to a collection of mechanically generated ground tags then test taken by the user is claimed to be passed. The term video CAPTCHA is employed to any CAPTCHA that uses a video as its means to gift info to a user though video CAPTCHA is restricted, in each industrial and tutorial application that existing on video.[2],[3],[7].



ACKWNOLEGDMENT

We would prefer to impart all authors of analysis papers referred during this paper for his or her work. It had been terribly useful and data gaining for any future analysis to be done in this field. [4]

Literature survey:

Work by R. Biddle during this beginning around 1999, a great several graphical parole schemes are projected as alternatives to text-based parole authentication. They provide a comprehensive summary of printed analysis in the area, that covers each usability and security aspects, as well as system analysis. The paper 1st catalogs existing approaches highlights novel options of chosen schemes and identifying key usability or security benefits. They then review usability necessities for knowledge-based authentication as they apply to graphical passwords, identify security threats therefore such systems should address and review known attacks, discuss method problems involving empirical analysis, and conjointly establish areas for any research and improved methodology. Work by S. Benson king rule et al. Denial of Service is a common threat to network security and could be also considered to be automatic network attack. to forestall the system from such quite attacks to spot the difference and numbers. The user must establish the sequence of characters to urge access to the server resources. Work by Chen-Chung Hsieh. during this paper, by using embedding versatile characters within the pictures, they projected an innovative image-based CAPTCHA for identifying human and pc and in an exceedingly technique that they offered by

International Journal Of Engineering Research And Applications (IJERA) Is **UGC Approved** Journal With Sl. No. 4525, Journal No. 47088. Indexed In Cross Ref, Index Copernicus (ICV 80.82), NASA, Ads, Researcher Id Thomson Reuters, DOAJ.

Tejaswini Lokhande*. “Survey Paper on Captcha Using Different Methods And Techniques.” International Journal Of Engineering Research And Applications (IJERA), vol. 08, no. 01, 2018, pp. 98–100.