# Captcha as Detailed Security New Protecting Primeval based on Crypto Problems

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***Abstract*** **-** The verification word based on these families with artificial intelligence problems has a win-win situation: either problems remain unresolved, there is a way to differentiate people from computers, problems are solved, and there is a way to communicate clandestinely on some channels. We offer many new constructions of captchas. Because captcha has many applications in the field of practical security, our approach presents a new category of difficult problems that can be exploited for security purposes. As in cryptographic research, it has had a positive effect on algorithms for the factoring log and separate record. We hope that the use of artificial intelligence problems for security purposes will allow us to advance in artificial intelligence. We believe that the areas of encryption and artificial intelligence have a lot to contribute to each other. Captchas represent a small example of this possible co-existence. The cuts, as they are used in encryption, can be very useful for progressing in the development of the algorithm. We encourage security researchers to create captchas based on various AI problems. A new way to address the problem of known hot spots in common graphical password systems, such as traffic points, often results in poor password options.

***Keywords*** **-** Online password, failed trials, CAPTCHA, Computer security, graphical user interfaces, machine vision, image processing, human factors,

## I. INTRODUCTION

The main task of security is to create cryptographic beginnings based on difficult mathematical problems. For example, a problem of integer analysis is essential in the RSA public key cryptography system and Rabin encryption. The problem of the separated logarithm is fundamental for the ElGamal cipher, the DiffieHellman switch, the digital signature algorithm, the elliptic curve coding, etc. The use of artificial intelligence problems difficult for security, initially proposed, is a new exciting model. Under this model, Capcha is the most primitive invention, which distinguishes human users from computers by offering a challenge, a mystery that goes beyond the power of computers but is easy for humans. Captcha is now a standard Internet security technology to protect email over the Internet and other services from being abused by robots. Intuitive countermeasures, such as attempts to accelerate the login, do not work well for two reasons:

**1.** leads to a denial of service (which has been exploited to close a higher auction in the final minutes of eBay auctions) and costs the expensive help desk to reactivate the account.

**2.** Test each password filter in multiple accounts and make sure that the number of tests in each account is less than the minimum to avoid releasing the account lock. CaRP also provides protection against relay attacks and a growing threat to avoid Captcha protection, where the Captcha challenges are transferred to humans for resolution. Koobface was a relay attack to elude Captcha on Facebook by creating new accounts. CaRP is strong in shoulder skiing attacks if combined with dual screen techniques. CaRP requires a Captcha Challenge solution at each session start. This impact on usability can be mitigated by adapting the level of difficulty of the CaRP image based on the log-in of the account and the device used to log on. Typical application scenarios for CaRP include:

**a)** CaRP can be applied to touch devices where typing passwords is uncomfortable, especially. For secure internet applications such as electronic banks. For example, ICBC (www.icbc.com.cn).

In a recent report, SANS identified password guessing attacks on websites because they are higher than cybersecurity risks. As an example of SSH password guessing attacks, it was reported that the honeypot test setup for Linux suffered an average of 2805 malicious SSH attempts per computer per day. Interestingly, SSH servers that do not allow standard password authentication can also suffer from divination attacks, for example, when exploiting the lesser known / user SSH configuration called interactive keyboard authentication. However, online attacks have some inherent disadvantages compared to attacks that do not work outside the Internet: attackers must participate in an interactive protocol, so that all attackers can discover more easily and, in most cases, An attacker may experience only a limited number of attempts from a device before closing them. Either by delaying or having problems responding to Turing's automatic tests (for example, CAPTCHA), attackers often have to use a large number of devices to avoid detection or closure. Large robots, which defend against automatic password guessing attacks on the Internet, restrict the number of failed attempts that do not contain ATT in a very small number (for example, three), which reduces automatic programs (or bots) that the attackers use. In three free password riddles for a destination account, even if the different devices of a robot are used. However, this bothers the legitimate user who then has to respond to ATT on the next login attempt.

However, users are increasingly disliked by ATT because they are considered an additional (unnecessary) step; Consult Yanand Ahmad for information on usability issues related to common CAPTCHA. Due to the successful attacks that are divided into ATT without a human being, ATTs that are considered more difficult for robots are published. As a result of this arms race, existing antiretrovirals have become more difficult for human use, increasing the growing tension between safety and usability. Therefore, we focus on reducing the hassle for the user by challenging users who have less ATT and, at the same time, submitting the robotic logon information to more ATT, to increase the economic cost of the attackers.

## II. RELATED WORK

This document is the first of its kind to thoroughly investigate Turing's automatic tests and address the problem of proving that it is difficult to write a computer program that can pass the tests. This, in turn, leads to the discussion about the use of artificial intelligence problems for security purposes, which have never appeared in the literature. We also offer the first automatic Turing tests that are not based on the difficulty of character recognition. Relevant general interest sheet [1]. Accepted by ACM connections. This document provides reports on our work, without formalizing concepts or providing security guarantees. The use of passwords is essential for computer security, but it is often easy to guess passwords through automated programs or tools that manage dictionary attacks. In the current system, an automated test is performed that humans can approve, but current computer programs can not be traversed. Any program that has been very successful in these tests can be used to guess passwords that cause security risks. In the Blonder proposal [2], users click on a set of predefined click zones. Jansen et al. [3] Suggest a formula that requires users to click on an ordered sequence of visual frames imposed on a background image; The tables are intended to help users repeat the click points at subsequent log-ins.

## III. PRAPOSED WORK

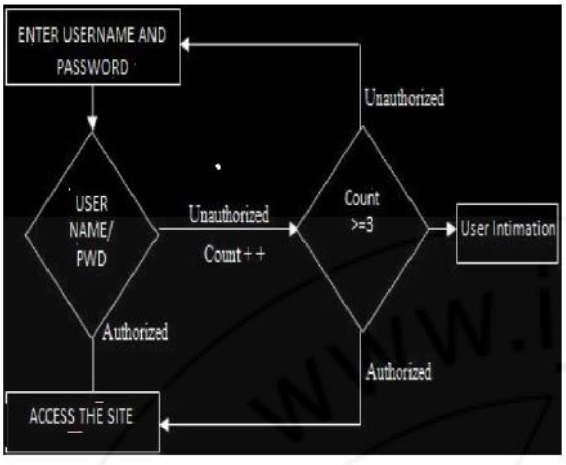


Figure 1: The system Architecture

The system is more convenient than the current system and consists of the minimum steps for the legitimate user to log in. Two processes are involved in this:

**1.** If a reliable system fails on the first attempt to start the session, it is given two more opportunities (three opportunities in total). If the user fails the third login attempt, a hint will be given.

**2.** If an unknown system cannot attempt the first login, no possibility or suggestion will be given.

**3.** If the third attempt fails, the user will not be able to log in with the same username. There is a change if it is. The graphic password based on the click is based on the order in which the points attract your visual attention. Therefore, mathematical models of visual attention can help identify more potential points of click. Because these attacks are motivated by this idea and a subset of them are used as mathematical models of visual attention, we provide basic information about models of visual interest.

**Algorithm 1**

**GenerateDictionary** $(G_h, r)$
% $G_h$ is a digraph with vertices 1 to $n = |A|$.
$D_h \leftarrow \emptyset$
**for** $i = 1$ **to** $n$
  $paths \leftarrow$ FindPaths$(i, G_h, r-1)$
  % *paths* is a set of paths of length $r-1$ (i.e., passwords).
  $D_h \leftarrow D_h \cup paths$
**end for**
**return** $D_h$

## IV. CONCLUSION

Word guessing attacks are increasing rapidly. To end this we use PGRP. PGRP will limit the number of attempts made by a system or device and allow the legitimate user to obtain full and secure access through their account. PGRP seems appropriate for organizations with large and small user accounts. PGRP can restrict brute force attack and dictionary attack, thus improving the security of the user's account. We have studied the usability of two diagrams executed by CaRP. For example, a larger number of participants considered that AnimalGrid and ClickText were easier to use than a Pass Pass and a combination of text and Captcha passwords. Animal Grid and Click Text could remember a better password than conventional text passwords. On the other hand, the use of CaRP can be further improved by using images at different levels of difficulty depending on the user's login and the device used to log in. The optimal exchange between security and ease of use remains an open question for CaRP, and more studies are needed to improve the CaRP for the actual implementation.

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