



Detection of Child Predators Cyber Harassers on Social Media

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Abstract: Professional psychologists need to be knowledgeable about how to safeguard children from sex predators and the risks associated with internet sex abuse. Although the internet has many positive aspects as well, one of its most negative characteristics is the possibility of sexual postulation. Online, sexual predators have easy access to many children while going mostly unrecognized. The major goal of our project is to identify child predators through comments and postings on social media so that the administrator of the cyber jail is aware of the predator's past. According to a recent national poll, one in five young adults engage in annual online sex activities (finkelhor, mitchell, & wolak, 2000; mitchell, finkelhor, & wolak, 2001). This project report details the most current changes we made to the system to make it function. Any accounts discovered to be child predators will be reported to the admin for further action in accordance with the established policy.

INTRODUCTION

This tool seeks out postings and remarks made by child predators on social media platforms like Facebook, Instagram, and others in order to report them to the cyber jail administrator. The need for a well-designed database to save all comments and postings of social online contact of minors with paedophiles is a problem that is continually growing on social media. In the UK, 16% of 11–16-year-olds have received unwanted sexual communications, and approximately 8% of 11–16-year-olds have been pressured to send or respond to a sexual message, according to data from the national organisation for the prevention of cruelty to children (nspcc) as of march 2014. There is a serious issue with identifying teenage sexual offenders online that has to be addressed. More and more teenagers are using social media as their main means of communication. A recent study on cognition, adolescents, and mobile phones found that by the time they are 14 years old, 90% of British children between the ages of 11 and 12 own a cell phone (scamp). The so-called "online kid grooming" practise, which is frequently used by paedophiles, involves adults sharing pornographic material on social media. A step in the grooming process that leads to the child being persuaded to meet the person in person is developing a trusting relationship with a child. The first global competition to detect sexual predators was one of the earliest attempts to find cyber-pedophilia online

LITERATURE SURVEY

1. "Mitigating online sexual grooming cybercrime on social media using machine learning: A desktop survey," Cyber threats such as identity deception, cyber bullying, identity theft and online sexual grooming have been witnessed on social media. These threats are disturbing to the society at large. Even more so to minors who are exposed to the Internet and might not even be aware of these threats. This paper describes a brief overview of different developments on cybersecurity methodologies that have been implemented to ensure safety of minors on social media, particularly; online sexual grooming. A desktop survey on Machine Learning technologies that have used to detect online sexual grooming is presented in this paper. The aim is to consolidate most of the work done in the past by scholars in this area of research, in order to develop insights on various algorithms that have been proposed and the reported performance results.

2. "Toward spotting the pedophile telling victim from predator in text chats" This paper presents the results of a pilot study on using automatic text categorization techniques in identifying online sexual predators. We report on our SVM and k-NN models. Our distance weighted k-NN classifier reaches an f-measure of 0.943 on test data distinguishing the child and the victim sides of text chats between sexual predators and volunteers posing as underage victims.

3. Overview of the international sexual predator identification competition at PAN-2012 This contribution presents the evaluation methodology for the identification of potential "sexual predators" in online conversations as part of PAN 2012. We provide details of the realized collection and analyse the submissions of the



participants, who had to solve two problems: identify the predators among all the users in the different conversations and identify the part (the lines) of the predator conversations which are the most distinctive of the predator bad behaviour. The methods proposed by the 16 teams participating in the contest made possible the recognition of common pattern for predator identification (e.g. no preprocessing of the conversations, lexical and behavioral analysis, blacklisting of predator terms) as well as possible extension to existing systems (e.g. victimpredator distinction, pre-filtering of not relevant conversations).

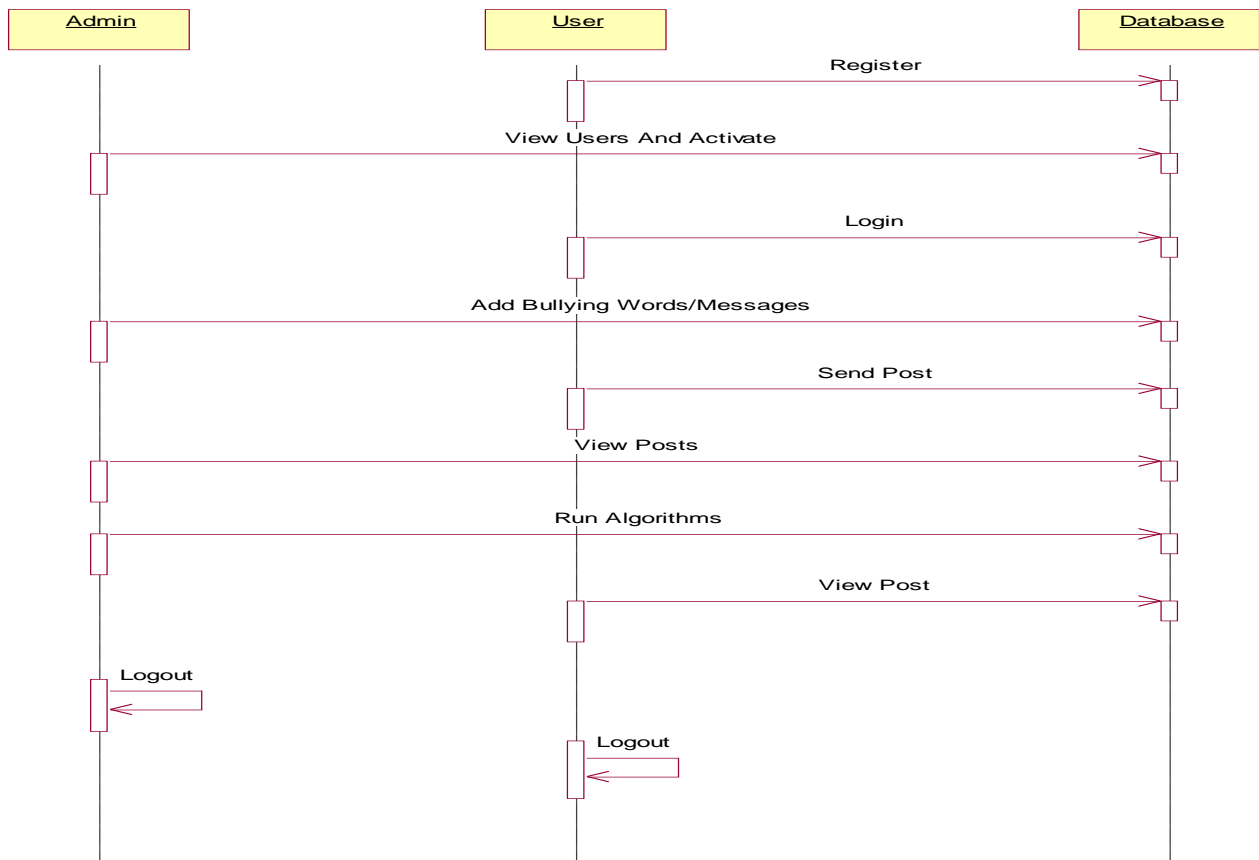
BACKGROUND ANALYSIS

Playing online games, audio chat, and other entertainment platforms frequently make use of child predator identification techniques. When playing games or using online voice chat, a child predator system that recognises online sexual harassment is available to prevent abuse or harassment by sexual predators. However, this tactic is only employed when kids are taking part in voice chats or playing online games. Because our world is internet-based, many kids use social media sites for a range of social activities today. We need a mechanism to identify child predators online to curb child molesting because they spend the vast majority of their time on social media.

Use the TF-IDF feature set as input for the communication approach using the Ridge or Nave Bayes classifier, or use the TF-IDF feature set as input for the five classification methods Neural Network classifier in the current system.

PROPOSED METHODOLOGY

In our system, text classification will be handled by a single algorithm. We shall therefore offer greater precision than the current method. The Svm Algorithm (SVM), a machine learning model, uses classification methods to address two-group classification problems. We will build a train model with usual and prowler words and messages using all methods available. This model will then be applied to those postings to ascertain if they are average or contain information that is unique to harassers.



**CONCLUSION**

Online solicitation puts adolescents and society at unnecessary risk given the costs of sexual assault. The groomer looks to establish a bond with the child in order to have access to them. When grooming a child, it is usual for an adult groomer to look like a child with comparable interests in order to build a rapport with the child that involves trust.

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