

Autistic individuals are less vulnerable to cyber phishing attacks than others

December 7 2018, by Yvonne Taunton



Credit: CC0 Public Domain

An interdisciplinary research study led by the University of Alabama at Birmingham's Department of Computer Science noted that the detailed-oriented nature of individuals with autism spectrum disorder may make

them better equipped to combat phishing attacks.

The study investigated the correlation between social health [disorders](#) and cyber [phishing](#), a type of social engineering attack usually deployed against average (healthy) [computer users](#) to steal their personal data. The study specifically examined if [individuals](#) who suffer from [autism spectrum disorder](#) are more susceptible to counterfeit websites than those without autism. The study results indicated that was not the case.

Due to diminished [social skills](#), the study began under the theory that individuals who have ASD are more likely to be deceived when it comes to phishing attacks.

"Based on this premise we suspected that people with autism may be more prone to phishing attacks compared to those without the disorder," said Saxena, the lead faculty investigator on the study and professor in the Computer Science department.

Autism Spectrum Disorder, a unique developmental disorder, is one of the fastest-growing developmental disabilities in the United States. ASD has increased from 1 in 88 children in 2008, to 1 in 68 children in 2014.

For this study, the UAB research team performed phishing detection in a controlled lab setting with two different groups. Each group had 15 participants, one diagnosed with autism and the others without. Each group was asked to distinguish real versions of particular websites from their fake counterparts.

Given the known gullibility and social vulnerability of users with autism, the [research team](#) had hypothesized that individuals with autism would be more prone to phishing attacks in comparison to the participants without autism.

Contrary to predictions, both participants with and without autism performed nearly as well in identifying the fake websites, with no statistically significant differences. However, participants with autism spent significantly longer on real websites than the fake websites. Both groups did slightly better in identifying fake websites when they were familiar to them.

Overall, the study's findings showed that individuals who were on the autistic spectrum may not be more prone to phishing attacks compared to people without autism. Saxena said the results show that users with autism may be equally capable to individuals without autism in detecting phishing websites.

"While our findings do not show evidence that people with autism are more susceptible to phishing attacks, future studies are warranted with larger samples of users," said Saxena. "Recruiting large sample of users with [autism](#) is a challenge in conducting such research which requires collaborations from the community as a whole."

Provided by University of Alabama at Birmingham

Citation: Autistic individuals are less vulnerable to cyber phishing attacks than others (2018, December 7) retrieved 26 April 2024 from <https://medicalxpress.com/news/2018-12-autistic-individuals-vulnerable-cyber-phishing.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--