New study highlights risk of fake popup warnings for Internet users

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A new study by researchers at North Carolina State University shows that most Internet users are unable to distinguish genuine popup warnings messages from false ones – even after repeated mistakes. The fake ones were designed to trick users into downloading harmful software.

"This study demonstrates how easy it is to fool people on the Web," says study co-author Dr. Michael S. Wogalter, professor of psychology at NC State. The study examined the responses of undergraduate students to real and fake warning messages while they did a series of search tasks on a personal computer connected to the Internet. The real warning messages simulated local Windows operating system warnings, whereas fake messages were popup messages emanating from an exterior source via the Internet.

The physical differences between the real and the fake messages were subtle, and most participants did not discern them. Participants were fooled by the fake messages 63 percent of the time, hitting the "OK" button in the message box when it appeared on the screen despite being told that some of what they would be seeing would be false.

The ways people responded could potentially open them up to malevolent software, such as spyware or a computer virus, Wogalter says. Safer options, such as simply closing the message box, were infrequently chosen. The study was led by psychology graduate student David Sharek and co-authored by undergraduate Cameron Swofford.

Wogalter notes that companies and other credible entities may want to incorporate additional unique features into the real messages to allow people to differentiate between genuine warning messages and fake popups. However, he says, "I don't know if you could develop a legitimate message that could not be duplicated and used illegitimately."

Wogalter says the results of the study highlight the need to educate Internet users to be cautious. "Be suspicious when things pop up," Wogalter says. "Don't click OK – close the box instead."

Source: North Carolina State University