

# Watch Out for AI-Powered Spear Phishing

How hackers will use machine learning to sharpen the spear

For hackers, spear phishing has always been a tradeoff. But that's coming to an end.

Artificial intelligence will enable the creation of large volumes of targeted messages meant to steal user credentials.



# What is phishing?

**Definition:** Sending emails, text messages, and other communications that trick users to click on a malicious link often with the end goal of obtaining the user's ID and password.

Phishing is about volume, **casting a wide net.**

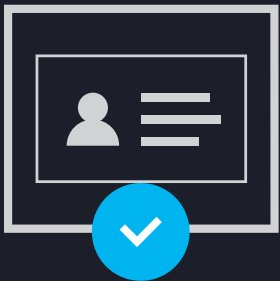


# What is *spear* phishing?

**Definition:** Similar to phishing, except the messages are much more targeted, increasing the chances of the user falling for the attack.

Spear phishing is often used for the **big fish, like the C-suite and privileged users.**

## HOW HACKERS SPEAR PHISH:



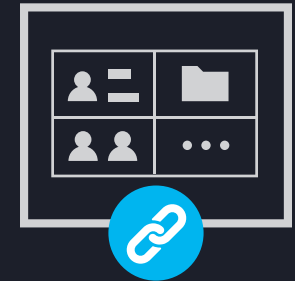
Gather information about the target.



Craft a high-quality, personalized message.



Send the message with a link to malicious software.



Let the linked software/website steal the user's credentials.



# The Spear Phishing Tradeoff

**INCREASED LABOR FOR INCREASED CHANCE OF SUCCESS**

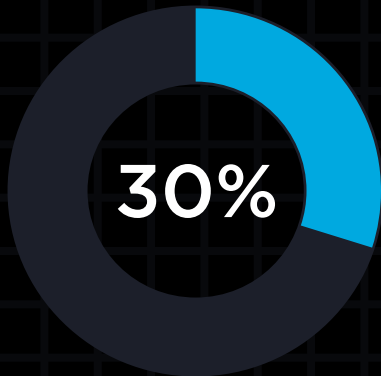


Gathering information  
is time-intensive.



Crafting a quality message takes  
time and requires fluency in the  
target language, adding expense.

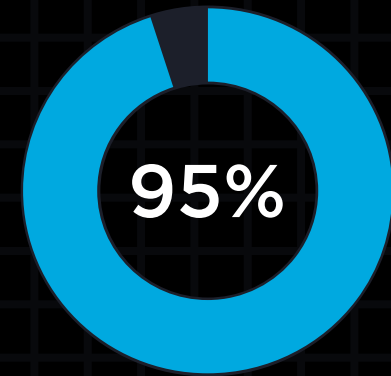
## SPEAR PHISHING WORKS



30% of spear phishing campaigns are deemed successful



Spear phishing has a 40X greater return rate than regular phishing



95% of attacks on business networks result from successful spear phishing

## BECAUSE SPEAR PHISHING IS HARD, ATTACKERS TARGET A LOW NUMBER OF VICTIMS

77%

77% of spear phishing attacks target only 10 email inboxes

33%

33% of spear phishing attacks focus on just one email inbox

**BUT THAT'S ABOUT TO CHANGE...**



# AI Eliminates the Tradeoff

Three ways hackers will use AI and machine learning for spear phishing:

1

## **Quickly gather useful personal information.**

Using algorithms like those in marketing and ad targeting systems, machine learning leverages data to create a sense of urgency in the victim.

2

## **Find personal data that users are willing to pay a ransom for.**

Based on demographic data and gathered personal information, attackers can leverage machine learning to predict the best victims and approach.

3

## **Natural language text in phishing emails.**

By using natural language AI, attackers can make an email sound like it came from a victim's boss, financial institution, co-worker, or friend.

# AI CAN HELP HACKERS DETERMINE:

1

Personal information such as work relationships

2

Events and planned activities shared on social platforms

3

The tone of writing to create a sense of urgency

1

2

3

James,

At AMA and have a prospect meeting in five minutes.  
Having connection problems! Do me a favor. See if there is a spreadsheet at <https://secteil.com/tonneys/conf/ama/meets>.

Toney

Reply Forward

AI will allow spear phishing hackers to target

**BETTER and AT SCALE.**



# How do you protect yourself and your organization?



## STOP THE CLICK

Educate users about the growing sophistication of hackers, so they question unknown messages they receive.



## BLOCK THE MALWARE

Erect barriers, like anti-malware software and tools such as [OneLogin Shield](#), that warn users about dangerous websites and actions.



## PREVENT ACCESS

Use multi-factor authentication or, even better, contextual authentication tools such as [SmartFactor Authentication](#) to add AI to your security defense. As a last line of defense, MFA requires additional information during login to thwart criminals trying to access your corporate data and systems using stolen credentials.



## About OneLogin

OneLogin is the identity platform for secure, scalable, and smart experiences that connect people to technology. With the OneLogin Trusted Experience Platform, customers can connect all of their applications, identify potential threats, and act quickly. Headquartered in San Francisco, CA, OneLogin secures over 2,500 customers worldwide, including Airbus, Stitch Fix, and AAA. To learn more visit [www.onelogin.com](http://www.onelogin.com).

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