



# **WE'RE ALL WINNERS! GAMIFICATION AND SECURITY AWARENESS**

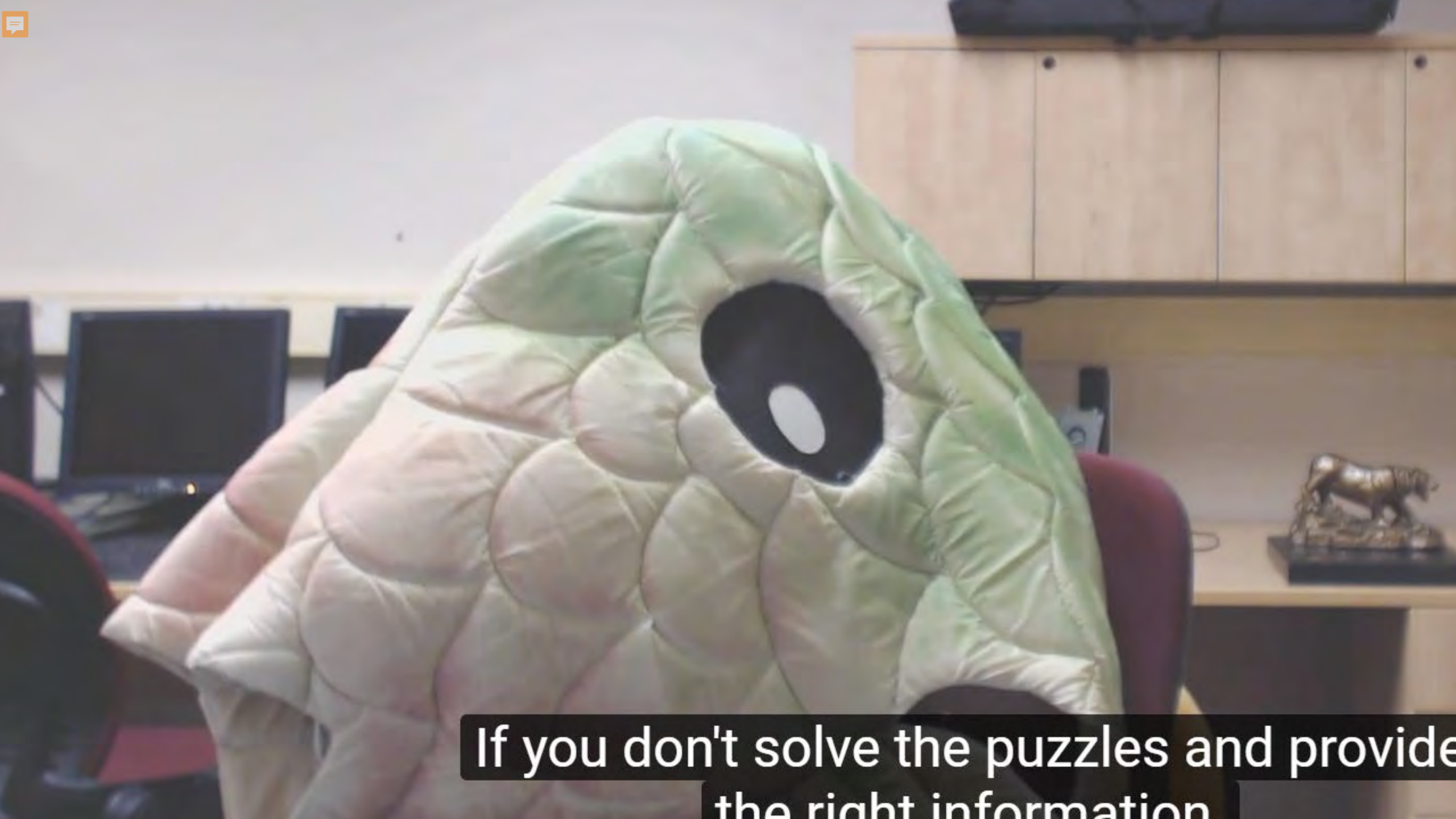
**Rochester Security Summit 2019**

**Ben Woelk**

**ISO Program Manager**

**Rochester Institute of Technology**





If you don't solve the puzzles and provide  
the right information

# **What is Gamification?**

# **Why Gamify Security Awareness?**

# Guiding Principles

## Wind, Trees, and Security Awareness

by **Ben Woelk** ⌚ Friday, September 13, 2019 **Security Matters**

A security awareness program that develops a well-rooted community is essential for helping colleges and universities withstand cyberattacks.



Credit: Gabi Wolf / **Shutterstock.com** © 2019



# Build on Foundation

- **DSD classes**
- **Monthly topics**
- **Social media**
- **Leverage events**





**Inspiration**







**DSD Dojo**



# Digital Self Defense (DSD) Dojo



# Dojo Goals

- **Socialize best practices**
- **Increase training participation**





# Structure

- Badges and Belts
- Website
- Physical Badges
- Gift Cards









A close-up photograph of a clownfish (Amphiprioninae) nestled within the tentacles of a sea anemone. The anemone's tentacles are thick, pale yellow-green, and have rounded tips. The clownfish has a bright orange body with a prominent white stripe running vertically through its eye and along its side. The background is a blurred view of the ocean floor, showing some rocky structures and more anemones.

# Escape Room



# Goals

- **Leverage escape room popularity**
- **Educate about phishing**
- **Educate about passphrases**



# Structure

- Portable
- 7 Puzzles
- Various locks
- USB drive
- Fishing game
- Email samples







# Self Phishing



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# Goals

- **Improve end user recognition of phishes**
- **Improve timeliness of reporting**
- **Improve baseline detection rate by 25%**
  - **For example, 70% detection rate to 87.5%, NOT 70% to 95%**



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# Guiding Principles

- **Self Phishing**
- **Positive Experience**
- **Non punitive**
- **Anonymized results**







Don't get hooked!

**NEVER** respond to e-mail  
requests for your password.

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# Phish Handling Communications



***R*eport**



***I*nspect**



***D*elete**



# PhishBowl

APPROACHING STORAGE LIMIT  
Week of August 16, 2019

## Phish screenshot:

From: [REDACTED] >  
Date: Wed, Aug 14, 2019 at 11:45 AM  
Subject: Info From System Service Desk  
To: [IT\\_admin@help.com](mailto:IT_admin@help.com) [IT\\_admin@help.com](mailto:IT_admin@help.com)

The storage limit of your mailbox is over 80% full on the email server.

At 100% limit you will not be able to access some email features like sending and receiving messages, Visit the new G-suite RIT Storage Access and [Sign in](#) your account to send a request to ITS Desk admin to adjust and increase your mailbox storage.

2019 System Service Desk Admin  
Information Technology Services

Grammar mistakes

Don't need to sign into an account to request assistance from the ITS Service Desk.

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# Structure

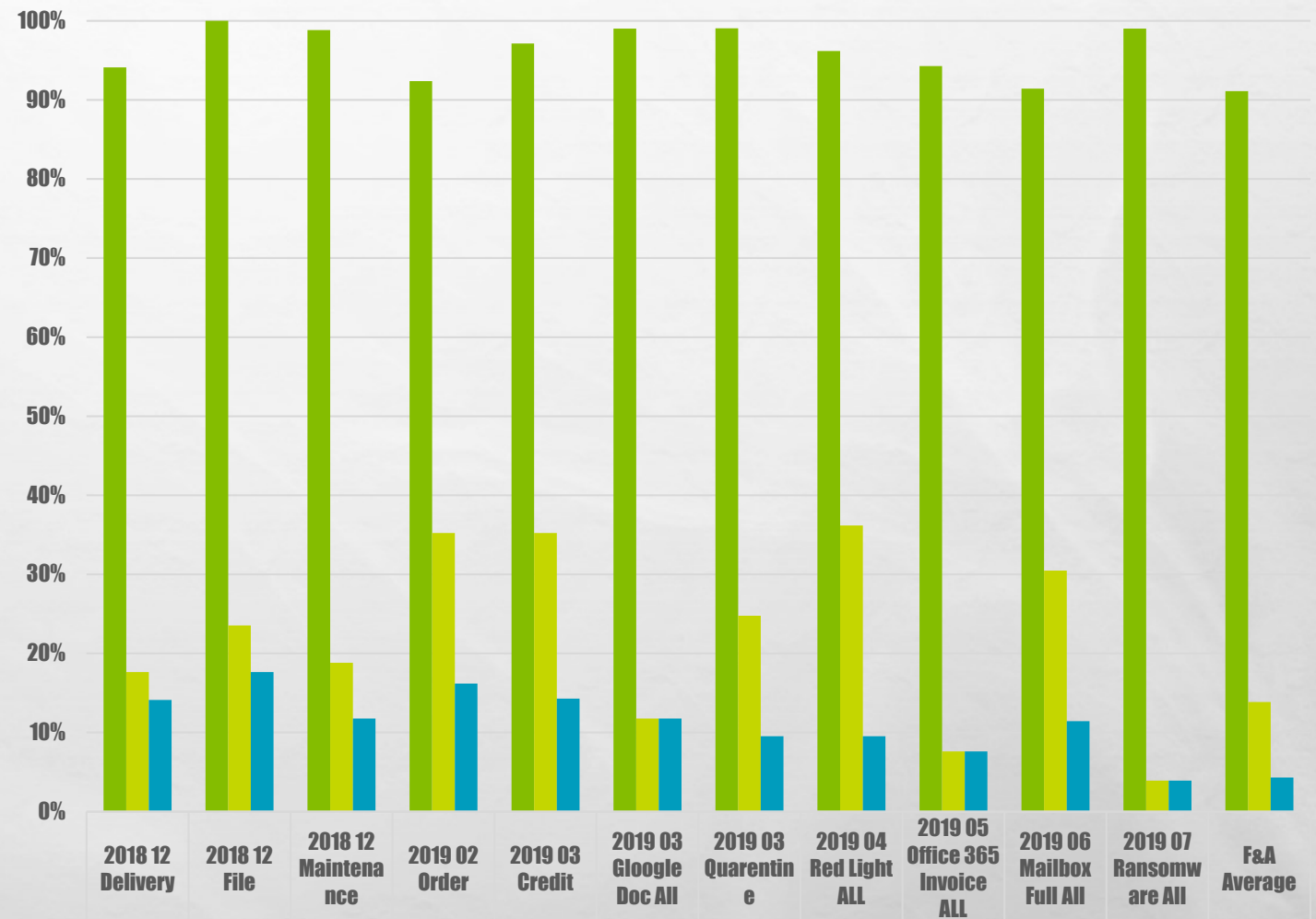
- **Initial Announcement**
- **Division/Department**
- **3 and 1**
- **Follow up presentations**



# Reporting Results

- Ignored
- Reported
- Reported in First Minute

Phishing (by template)



Ignored	94%	100%	99%	92%	97%	99%	99%	96%	94%	91%	99%	91%
Reported	18%	24%	19%	35%	35%	12%	25%	36%	8%	30%	4%	14%
Reported in First Minute	14%	18%	12%	16%	14%	12%	10%	10%	8%	11%	4%	4%



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## Department Results (March)

Phish	First-minute reports	First-minute report rate	Reported	Report Rate	Ignored	Ignore Rate
2019 03 Credit	15	14%	37	35%	102	97%
2019 03 Gloogle Doc All	12	12%	12	12%	101	99%
2019 03 Quarantine	10	10%	26	25%	104	99%

# RIT

Information  
Security



**CTO Phishing Expert**

**7/7 phish reported**  
(Through 3/31/19)





A group of four students are sitting on a low stone wall in a sunny outdoor setting. From left to right: a young man in a grey long-sleeved shirt with a 'treeze' logo and a blue cap, a young woman in an orange shirt, a young woman in a grey shirt, and a young man in an orange 'RIT' t-shirt and blue shorts. They are all smiling and looking towards the right. A soccer ball is on the ground near the first student, and a pink backpack is on the ground near the second student. In the background, there is a large, modern university building with many windows and a glass facade. To the right, there are tall, abstract metal sculptures. The sky is clear and blue.

# New Student Orientation



# Laptop Stickers

# WANTED



## Visit RIT PhishBowl

[rit.edu/security/phish-bowl-view](http://rit.edu/security/phish-bowl-view)





**and...**

!?!



# SO MANY SECRETS: USING A PASSWORD VAULT

Mark Kimble, ITS Network Engineer III

Tiger Tech Talks

RIT

Information  
Security





# Phishy: Phrends and Phoes Security Awareness Costume Contest



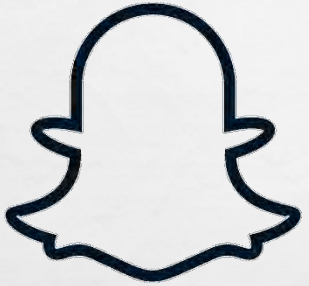
**October 19-30**

Phishy will be  
returning to campus....  
**IS HE GUILTY?**

Visit the RIT Information Security Facebook Fan  
Page for Details

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# Snapchat



**Filters and  
Geofencing**

Safeguard Your Identity



**INFORMATION  
SECURITY**

Protect your private information.

Digital Defender



**RIT Information Security**





# Discussion

- **Should you gamify?**
- **What would you gamify?**
- **What would you not gamify?**



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**[www.rit.edu/Security](http://www.rit.edu/Security)**

# References

- Jessica Barker, ["The Human Nature of Cybersecurity,"](#) *EDUCAUSE Review*, May 20, 2019.
- Julianne Basinger, [A Campus Culture of Cybersecurity,](#) (Washington DC: *The Chronicle of Higher Education*, 2019).
- Valerie Vogel, ["Security Awareness Made Simple: 2019 Security Awareness Campaign Materials,"](#) *Security Matters* (blog), *EDUCAUSE Review*, December 17, 2018.
- Ben Woelk, ["Building a Culture of Digital Self Defense,"](#) *Security Matters* (blog), *EDUCAUSE Review*, September 20, 2016.
- Ben Woelk, ["Wind, Trees, and Security Awareness"](#) *Security Matters* (blog), *EDUCAUSE Review*, September 13, 2019.