

# Phishing Study Design Handout

## USEC - ECE750

### 1 Lessons from a real world evaluation of anti-phishing training

Kumaraguru, Ponnurangam, et al. "Lessons from a real world evaluation of anti-phishing training." 2008 eCrime Researchers Summit. IEEE, 2008.

#### Hypotheses

- Hypothesis 1: A large percentage of people who click on links in simulated emails proceed to give some form of personal information in the real world.
- Hypothesis 2: PhishGuru (embedded training) is effective in training people in the real world.
- Hypothesis 3: People trained with spear training material make better decisions in identifying spear phishing emails compared to people trained with generic training material.

#### Conditions:

- Control - no training
- Generic - general training
- Spear phishing - spear phishing specific training

#### Methodology flow:

Day 0 Generic and spear conditions were sent a fake phishing email asking to click a link. Received training if clicked even if didn't enter user/pass.

Day 2 All participants sent a fake phishing email, no training if they clicked.

Day 7 All participants sent a fake phishing email, no training if they clicked.

Day 10 All participants sent a legit email with a link.

Day 20 Post-study survey sent out.

### **1.1 CIAAA**

Think back to the definition of security we are using. What aspect of security is this training trying to improve?

### **1.2 Statistics tests**

How are they testing each of the hypotheses? Think in terms of dependent and independent variables. Also consider what aspects they have decided to hold constant.

### **1.3 Deciding company policy**

If you were asked by the company to recommend an anti-phishing approach that helped support users, would you recommend training users who click on fake phishing based on this paper?

## **1.4 Factors to consider**

When deciding on an anti-phishing approach for your company, what factors might you want to consider?

## **2 New ideas**

### **2.1 Alternative approaches**

We have only minimally covered other approaches in class. This question is asking you to think creatively. What other ways might a user be trained or otherwise supported that would be alternatives to this approach. Why might they be better or worse?