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Friends, Firewalls and Passwords: Does Social Media Effect Cybersecurity Behavior

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Friends, Firewalls and Passwords: Does social media effect cybersecurity behavior?

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Not participated previously

Project summary: In the digital age we are all responsible for keeping our smartphones, computers and cybersecurity behavior safe from threats of malware, identity theft, ransomware and trolls. In order to keep ourselves secure we need to choose complex passwords, change our passwords frequently, update our anti-virus software and perform a plethora of cybersecurity actions. However as individuals we do not get training in how to secure ourselves in the digital age, unlike say learning how to drive a car. In addition, whatever training and advice we receive is constantly outdated because of rapid changes in technology. We decide on our cybersecurity behaviors based on what we hear and read in the news, and from our friends and social media. Some of this advice is contradictory and some of it too complex and hard to understand or costly or time consuming to implement. How then do we decide what security behaviors to execute on our websites, computers and smartphones? What is the extent to which we rely on news, websites, and social media to determine appropriate cybersecurity behavior as compared to face to face relationships with friends and coworkers? This research project will consist of design and conduct of experiments that will test the role of websites, news and social media on individual cybersecurity behavior,

Student Prerequisites: Students with majors in information systems, business, economics, engineering, computer science, math, statistics or psychology who have interest in cybersecurity

Student Duties:

1. The student will familiarize themselves with the cybersecurity literature provided by the faculty member.
2. The student will work with the faculty member to identify the appropriate categories of cybersecurity behavior such as selecting passwords, updating antivirus software and providing private information online.
3. The faculty member will guide the student in developing the problem statement and the hypotheses.
4. The student will select the experimental design, identify the control and independent variables and recruit study subjects with the guidance of the faculty member.
5. The student will assist the faculty member in running the experiments.
6. Finally the student will analyze the data from the experiments and present the final results.

Mentor Supervision and Interaction:

1. This faculty member will train the student in the process of experimental research from end to end, from designing experiments to running them and analyzing the results.
2. The student will meet with the faculty member twice a week and set up goals and tasks to be completed for the next week and review the progress made.
3. The faculty member will supervise the student in recruiting subjects and running the experiment.

| Tentative Project Schedule | |
|-----------------------------------------------------|-----------------|
| Activity | Time |
| Cybersecurity Literature Review | Week 1 |
| Experimental design Literature Review | Week 2 |
| Develop the hypotheses and Problem statement | Week 3 |
| Design the Experiment | Week 4 |
| Recruit the subjects | Week 5 |
| Run the Experiments | Week 6, 7 and 8 |
| Data Analysis | Week 9 and 10 |
| Present Results | Week 11 |