The Effects of Online Anxiety on Cyber-Secure Behavior

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The Problem

There is a lack of basic cybersecurity knowledge among the majority of the population. The majority of cybersecurity education systems are not tailored to fundamental and novice users.

Research Questions

What factors affect the adoption of cybersecure attitudes and behaviors

i. Is there a correlation between cybersecure behavior and feelings of safety?
ii. Do perceived threats affect cybersecure behavior?

Online Anxiety

Computer anxiety is the fear of using a computer. It has been found to be fairly prevalent, occurring in 30-40% of people (Buche, Davis & Vician, 2007). It has been found to affect an individual’s willingness to engage with and learn about computers. Online anxiety is believed to be related and is the result of:

- Lack of knowledge
- Fear of making a mistake
- Lack of self-efficacy


Method

A survey was developed to measure each of the constructs identified. Data were collected using Amazon Mturk (N=300).

Results

1. People who feel more threatened engage in online behavior [r = .29, n=299, p<0.001].
2. Feeling safe online is strongly correlated with having positive experiences [r = .417, n = 285, p <0.001].
3. People who engage in cybersecure behavior do not threaten others online [r= -.233, n=300, p<0.001].
4. Experiencing harassment online strongly correlates with harassing others [r = .489, n=298, p<.01].
5. People whose jobs require an online presence are more likely to have experienced harassment [r= -.241, p<.001] and to have harassed others [r=.354, p<0.001].

Protection-Motivation Theory

This theory Rogers, R.W. (1975) assumes that behavioral intention is the result of an individual’s analysis of the threat posed and is based on four factors:

- the perceived severity of a threat
- the perceived likelihood of the threat occurring
- the extent to which they can cope with the threat based on the mitigation measures they have available to them
- their self-efficacy regarding their ability to enact those measures

Correlations