Factoring User Behavior into Network Security Analysis
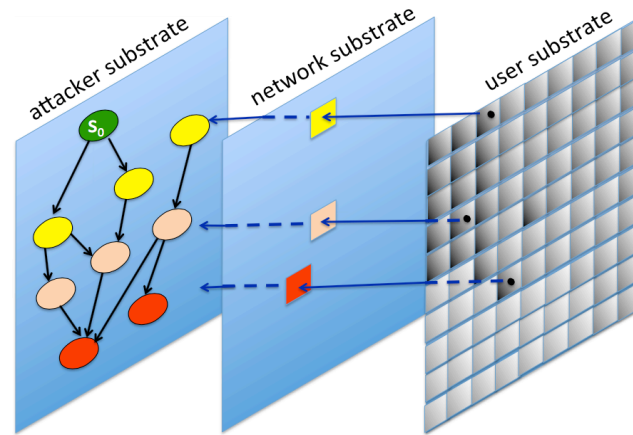
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Challenge:

- Understand user situational behavior
- Understand how user's cyber behavior impacts network security

Scientific Impact:

- Integrated human-network system level security assessment
- New vulnerability induced by human factor

Solution:

- Integrate behavioral models into network vulnerability analysis
- Close the vulnerability through better protocol design
- Improve user security awareness through better HCI design
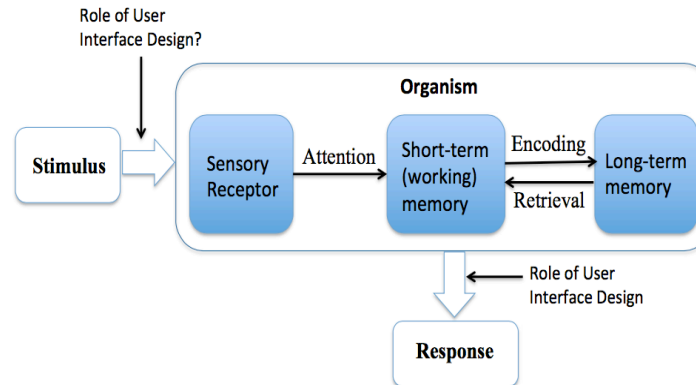
Broader Impact:

- Improved national security in cyber space
- Curriculum change in network security/privacy
- Everyone is impacted!