EAGER: Integrating Cognitive and Computer Science to Improve Cyber Security

Challenge:

 Limited understanding of personality, behavioral, and cognitive factors in cyber security

Solution:

- Dot probe method
- Simulations to create realistic cyber scenarios
- Self report assessment for validation

User personality trait Picture dot probe CU Word dot probe TA S Ρ ı User cyber behavior С Incentive motivated emails User Preconfigured cyber tasks response Hypothetical scenario based tasks **SPICE - Software Package for Investigating Computer Experiences**

Scientific Impact:

- Enable the development of more sophisticated mechanisms for improving cyber security postures
- Allows collection of important data to improve user interfaces and alerting mechanisms

Broader Impact:

 Help in protecting users from cyber attacks and protecting organizations from the impacts of insider attacks

Project info (1358723, Iowa State University, Carl Weems, University of New Orleans, Golden G. Richard III, and Irfan Ahmed)