Information Assurance Center
Seminar

Cyber Insider Threat Training Research and Research on the Mitigation of Cyber Friendly Fire

Dee H. Andrews, Ph.D. and Patricia Fitzgerald
Air Force Research Laboratory
Mesa, Arizona

Friday, October 8, 2010
2:00 – 3:15 p.m.

Brickyard Room 210, 699 South Mill Avenue, Tempe, Arizona

Two themes will be addressed in this presentation. The first theme will describe research that the Air Force Research Laboratory with our contractor partners is performing to developing training to counter the cyber insider threat. The eventual training will be game based and will focus on training supervisors concerning behavioral indicators that might indicate a potential insider threat to an organization. Nothing in war is more tragic than “friendly fire”. Friendly fire, also known as fratricide, happens when someone from one side of the conflict is injured or killed by someone from that same side. In our current wars there have been many unfortunate occurrences of traditional fratricide (e.g., kinetic weapons) despite key advances in technology that attempt to mitigate this insidious threat. Friendly fire can also occur in cyber warfare. In attempting to defend a blue network or other cyber entity, or attack a red network, blue warfighters might mistakenly cause deleterious harm to a friendly network. This talk will address this phenomenon and describe our research aimed at mitigating the cyber fratricide threat.

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Dr. Dee Andrews is a Wing Senior Scientist in the 711th Wing Human Performance Wing of the Air Force Research Laboratory, Mesa, Arizona. His research interests include training research, human-system integration, and long term learning retention research. He has been elected as a Fellow in the American Psychological Association, Human Factors and Ergonomics Society, Royal Aeronautical Society of the United Kingdom, and the Air Force Research Laboratory. He obtained his Ph.D. from Florida State University. He teaches as an adjunct faculty member for four universities, including ASU.

Ms. Patricia Fitzgerald is a Research Psychologist at the Air Force Research Laboratory Warfighter Readiness Research Division in Mesa, AZ. She is conducting in-house research and providing technical guidance on contracted empirical studies to assess the effects of various training strategies on acquisition and retention of knowledge and skills. Her training research programs include investigations on flight instructor training and cyber insider threat detection. Ms. Fitzgerald holds a Master of Science degree in Aviation Human Factors from Arizona State University and a Bachelor of Arts degree in Psychology from the University of Connecticut. She previously spent 22 years working as a computer systems analyst and software engineer.

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