Information Science and Technology Seminar Speaker Series

Laura McNamara

Sandia National Laboratory

Our Analytic Systems are (Mostly) Failing End Users ... But the Problem is Fixable!

Wednesday, November 30, 2016

3:00pm - 4:00pm

TA-3, Bldg. 1690, Room 102 (CNLS Conference Room)

Abstract: Over the past decade, the United States has invested heavily in the development and deployment of remote sensing systems and novel analytics for intelligence, surveillance and reconnaissance activities throughout the national security community. But as algorithms, software and hardware have evolved in leaps and bounds, end-users increasingly find themselves swamped in systems that are simply unusable. It's time to pause and ask ourselves hard questions about what we expect people to actually do with the systems we create: How can we make sure our analytics are adoptable, useful and usable for the people whose work we intend to 'improve?'

Based on a decade's work of human-information interaction research across the national security community, this talk examines the challenge of designing analytic systems to be usable, useful and adoptable in the complex, highly fractionated world of the national security workplace. I'll discuss a set of practices and principles that our researchers are using to inform the development of analytic systems that actually for human users and operators, drawing on frameworks from human factors, design ethnography, and human-computer interaction. Finally, I'll talk about the need for new human-information interaction evaluation frameworks that can help analytic system developers gain insight into the real-world usage of tools, so that we can better understand the perceptual and cognitive requirements of their human users.

Biography: Laura McNamara has spent the past 18 years in the Department of Energy's national laboratory system as an anthropologist working in contextual design and evaluation for national security technology systems. She wrote her dissertation about knowledge loss in the post-Cold War nuclear weapons programs at Los Alamos, then spent a couple of happy years as a staff member at LANL's Statistical Sciences group before accepting a position at Sandia National Laboratories in 2003. These days, most of her work deals with the design and evaluation of human-information interaction systems across a wide range of domains, from cybersecurity forensics to synthetic aperture radar (SAR) operational interfaces. At Sandia, she gets to work in a wide range of technical areas, from software design and evaluation, visual cognition and human-information interaction; mostly within Sandia's Airborne Intelligence, Surveillance and Reconnaissance (ISR) research community. She holds a Ph.D. in Anthropology from the University of New Mexico.

For more information contact the technical host Curt Canada, 505-665-7453, cvc@lanl.gov.

Hosted by the Information Science and Technology Institute (ISTI)

Los Alamos
NATIONAL LABORATORY
EST.1943

ISTI
INFORMATION SCIENCE & TECHNOLOGY INSTITUTE