

# *Biometric Consortium 2006 Conference*

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**Topic:** Usability of Biometric Systems

**Abstract:** With the maturation of biometric technologies and algorithms, it is important to examine the human computer interaction and perform studies related to the usability of biometric applications for identification. While numerous guidelines exist for the design of user interfaces for desktop computers, no such guidelines have been developed for interacting with biometric hardware and software.

The use of biometrics will be new to many users, who will not understand the technology, nor be comfortable with using it. User behavior can affect both throughput of the system as well as the quality of the captured image. Guidelines for developing interactions with biometric applications that increase throughput and image quality would be extremely valuable to the biometrics community. This would help them develop hardware, software, and interaction techniques that would produce high quality biometrics. Designs that help end users understand the biometrics hardware and process would lessen the time it takes to obtain images improving the process for both the participant and the operator.

This presentation will examine the affect of height of the sensor on the quality of the fingerprints and the time required to collect prints. We will also examine the affect of training materials on quality and timing.

**Biography:** Mary Frances Theofanos is a Computer Scientist in the Visualization and Usability Group in the Information Access Division of the National Institute of Standards and Technology where she is the program manager of the Industry Usability Reporting (IUSR) Project and the Common Industry Format for Usability Test Reports developing standards for usability. She also works with the Biometrics Group evaluating usability of biometric systems. Previously, she was the Manager of the National Cancer Institute's (NCI) Communication Technologies Research Center (CTRC) a state-of-the-art usability testing facility for web sites, applications, and emerging technologies, as well as a training facility and collaborative design center where she established an extensive research program on the intersection of accessibility and usability.

Before joining NCI, Mary spent 15 years as a program manager for software technology at the Oak Ridge National Laboratory complex of the U.S. Department of Energy. A long-time member of both ACM and IEEE, Mary received her bachelor's degree in mathematics from the University of Richmond and her master's degree in computer science from the University of Virginia. She is currently a Ph.D. candidate in software engineering at George Mason University working on her dissertation [your biography here](#).