

Biometric Consortium 2005 Conference



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Topic: Quantitative Review and Meta-Analysis of Biometrics

Abstract: In the last few years, biometrics has emerged as an interdisciplinary field with scientific, engineering, and social components. As the scientific and engineering components of biometrics mature, the biometric community will develop its own experimental culture. The biometrics experimental culture will consist of new experimental methods and adaptation of existing methods to meet the needs of biometrics. This talk will review progress in developing a biometrics experimental culture through a quantitative review and meta-analysis. The quantitative review will identify areas where scientific progress is being made.

Meta-analysis is a technique for consolidating a group of experimental results by performing a statistical analysis of the results from multiple papers on a research topic. The better known meta-analysis can provide conclusive results from a series of inconclusive studies, or spot trends that cannot be detected from a single experiment. However, there exists a second type of meta-analysis, which examines a field to identify potential methodological problems. The meta-analysis in this talk will identify potential methodological problems in biometric research.

Biography: Dr. Jonathon Phillips is a leading technologist in the fields of computer vision, biometrics, face recognition, and human identification. He is at National Institute of Standards and Technology (NIST), where he is program manager for the Face Recognition Grand Challenge and Iris Challenge Evaluation, and test director for the Face Recognition Vendor Test (FRVT) 2005. From 2000-2004, Dr. Phillips was assigned to the Defense Advanced Projects Agency (DARPA) as program manager for the Human Identification at a Distance program. He was test director for the FRVT 2002. For his work on FRVT 2002 he was awarded the Dept. of Commerce Gold Medal. His current research interests include computer vision, face recognition, biometrics, digital video processing, developing methods for evaluating biometric algorithms, and computational psycho-physics. His work has been reported in print media of record including the New York Times and the Economist. Prior to joining NIST, he developed and designed the FERET database collection and FERET evaluations at the US Army Research Laboratory. He received his Ph.D. in operations research from Rutgers University. He has co-edited three books on face recognition and empirical evaluation. He has been guest editor of special issues or sections of the IEEE Trans. on Pattern Analysis and Machine Intelligence and Computer Vision and Image Understanding. Dr. Phillips is an Associate Editor for IEEE Trans. on Pattern Analysis and Machine Intelligence, and guest editor of a special issue of Proceedings of the IEEE on biometrics.