

BIOMETRICS LAB

Biometric Standards, Performance and Assurance Laboratory
Department of Technology, Leadership and Innovation

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COLLEGE OF TECHNOLOGY

BIOMETRIC TESTING

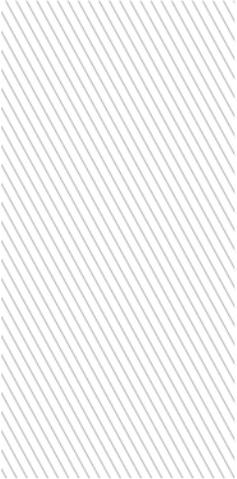
STEPHEN ELLIOTT
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RESPONSIVE RELEVANT RESULTS

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WHAT IS MISSING IN BIOMETRIC TESTING

BIOMETRIC TESTING

- Traditional biometric testing
 - Algorithm testing
 - Well established metrics
 - Well understood testing methodologies
- Operational testing
 - Harder to do
 - Access to environments
 - Test methodologies dependent in some cases on the test

RESPONSIVE RELEVANT RESULTS

TESTING AND EVALUATION

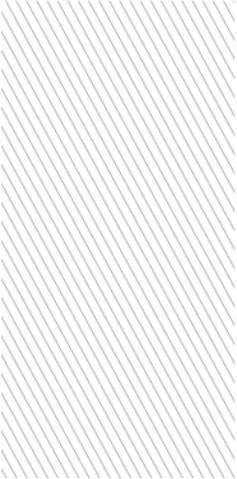
- Essentially trying to understand how a system performs
 - Maybe more fundamentally – who or what is causing the errors

RESPONSIVE RELEVANT RESULTS

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**PROBABLY NOT MISSING,
BUT HARD TO DO**

GAPS IN BIOMETRIC TESTING

- There have been several papers on the contribution of individual error on performance
 - What causes these errors?
- There are some papers that examine meta-data and the contribution of variables (age) and examines the training of algorithms

RESPONSIVE RELEVANT RESULTS

GAPS IN BIOMETRIC TESTING

- Training
 - How do users get accustomed to devices
 - Can they remember how to use them
 - How do we provide good training to the users that has a consistent message

RESPONSIVE RELEVANT RESULTS

GAPS IN BIOMETRIC TESTING

- Accessibility
 - How many people know people (!) who have problems with interacting with a biometric systems
 - How do we deal with accessibility and usability issues
 - Hearing and sight issues

RESPONSIVE RELEVANT RESULTS

GAPS IN BIOMETRIC TESTING

- Human Factors
 - Testing and evaluating biometric systems by looking at how the users interact with the system
 - Are performance results different in an operational environment than collect in a lab?
 - Are these performance results due to the environment?

RESPONSIVE RELEVANT RESULTS

GAPS IN BIOMETRIC TESTING

- It the error always subject centric?
 - The role of the device?
 - The role of the operator?

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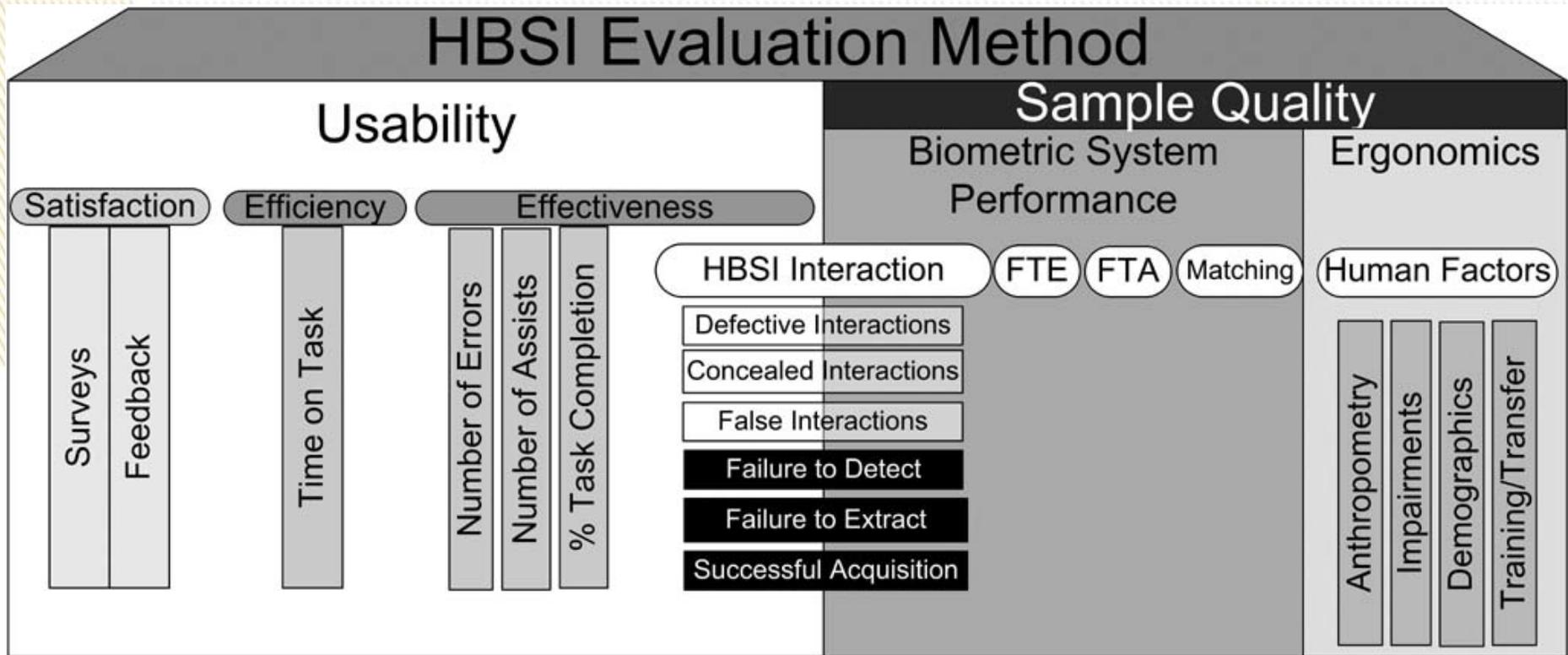
FILLING IN THOSE GAPS

WORK IN PROGRESS

- Interaction methodologies such as HBSI have been addressing issues such as interaction errors from the subject perspective
- Developed a framework for the establishment of metrics
- Continual work on defining those metrics
- Evaluation methodology

RESPONSIVE RELEVANT RESULTS

INTERACTION



RESPONSIVE RELEVANT RESULTS

AND MY TIME IS UP..

- An additional presentation on the Evolution of the HBSI model is tomorrow.

RESPONSIVE RELEVANT RESULTS