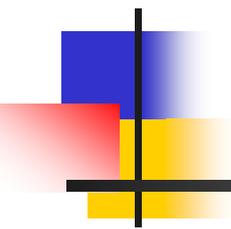


# Health and Safety Perceptions of Biometric Devices



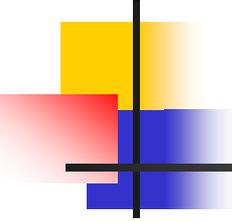
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November 28, 2006

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**NIST**

**National Institute of Standards and Technology**  
Technology Administration, U.S. Department of Commerce



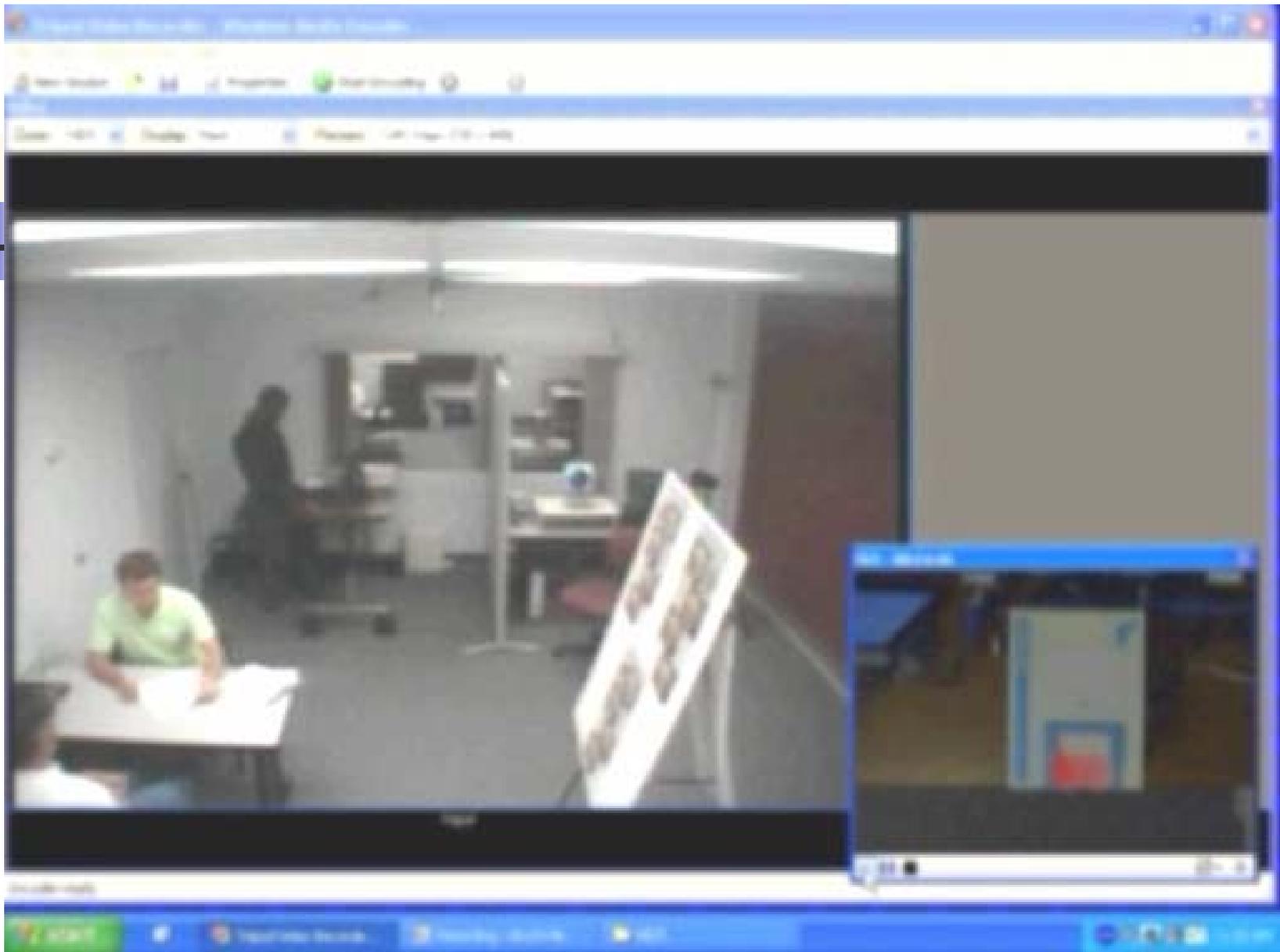
# What are the user perceptions of the health risk?

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In a Usability Study last summer of 300 participants collecting 10-prints:

- 2% of participants expressed concern about germs or health affects and touching the scanner
- Comments included:

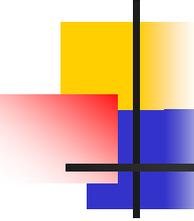




# What does this mean operationally?

An observation from US-VISIT:





# What influences the user perceptions?

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Research has shown that the following characteristics affect user perception:

- Tactile feedback
- Duration of contact
- Usage versus utilization
- Voluntary versus involuntary



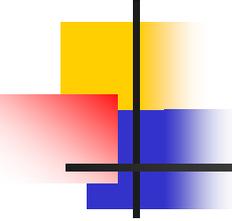
# Tactile Feedback

Glass and metal surfaces are perceived to be sticky

Versus

Hard matte textured plastic surfaces

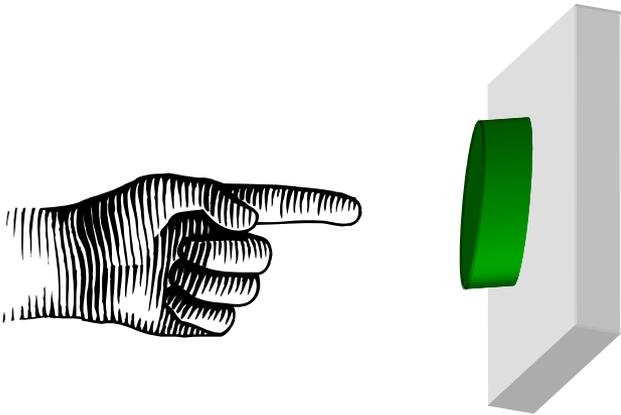




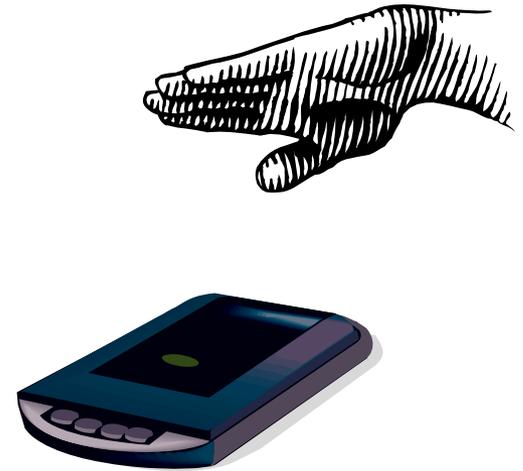
# Duration of Contact

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Push the button and  
release



Must maintain  
contact for a few  
seconds





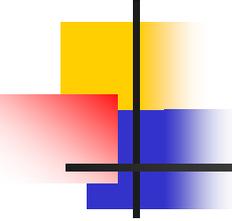
# Usage versus Utilization

Pushing a button is secondary to the task



Placing hand on scanner is the primary task



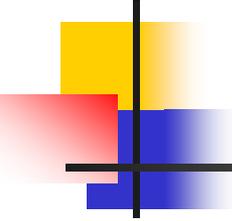


# Voluntary versus Involuntary

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Must touch the device  
You have no alternative  
Can't wear gloves  
Can't use elbow or pencil



# No available US guidelines for maintaining surfaces

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- Occupational Safety and Health Administration (OSHA)
- National Institute for Occupational Safety and Health (NIOSH)
- Centers for Disease Control and Prevention (CDC)
  - Outbreak Prevention and Response Protocol--  
Handwashing Guidelines