

Specific hardware and software products identified in this report were used in order to perform the evaluations described. In no case does such identification imply recommendation or endorsement by the National Institute of Standards and Technology, nor does it imply that the products and equipment identified are necessarily the best available for the purpose

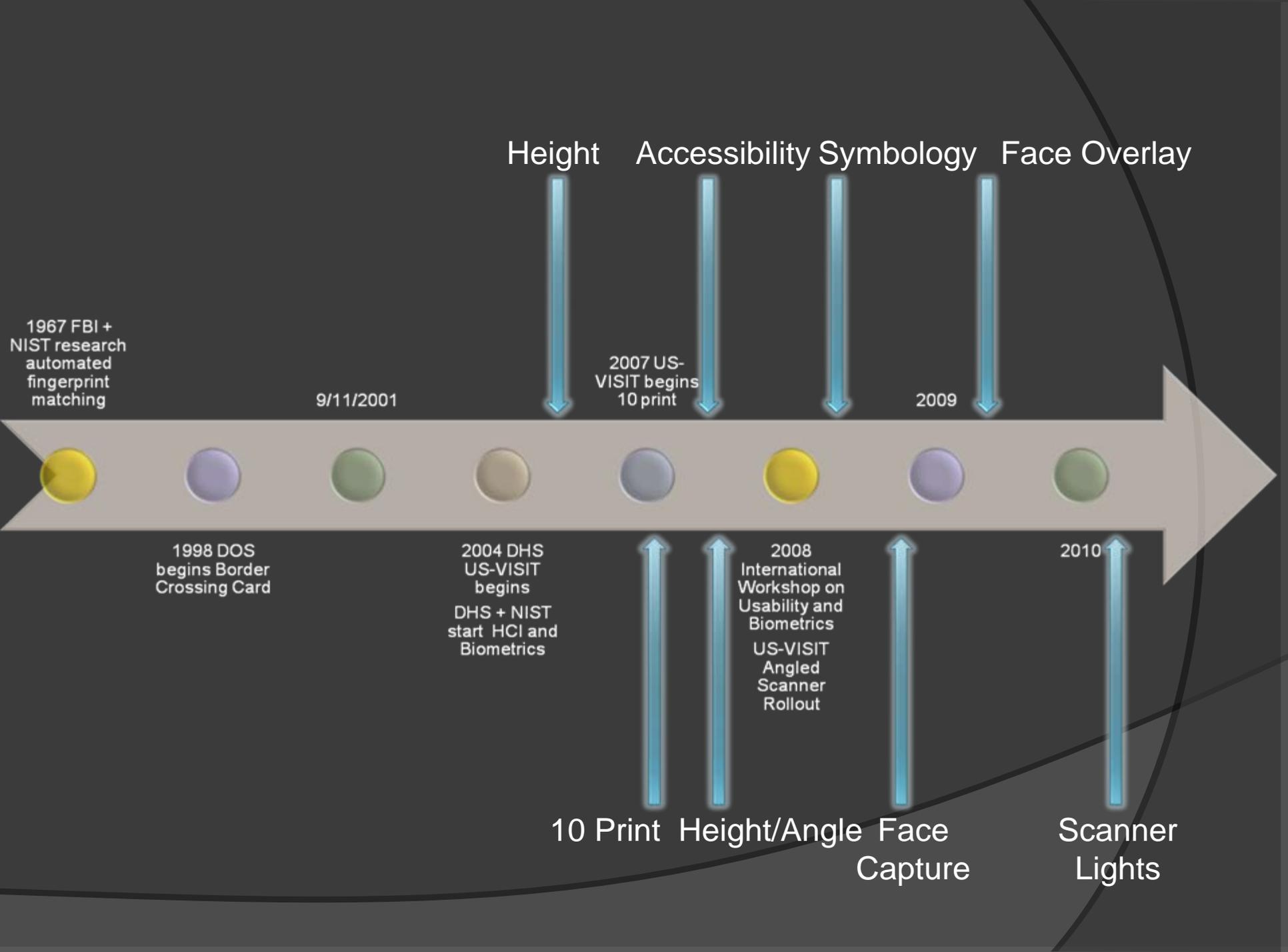
Mary Theofanos

Brian Stanton

BIOMETRIC USABILITY: THE POWER OF OBSERVATION

NIST
National Institute of
Standards and Technology
U.S. Department of Commerce





1967 FBI + NIST research automated fingerprint matching

9/11/2001

Height

Accessibility Symbology

Face Overlay

2007 US-VISIT begins 10 print

2009

1998 DOS begins Border Crossing Card

2004 DHS US-VISIT begins
DHS + NIST start HCI and Biometrics

2008 International Workshop on Usability and Biometrics
US-VISIT Angled Scanner Rollout

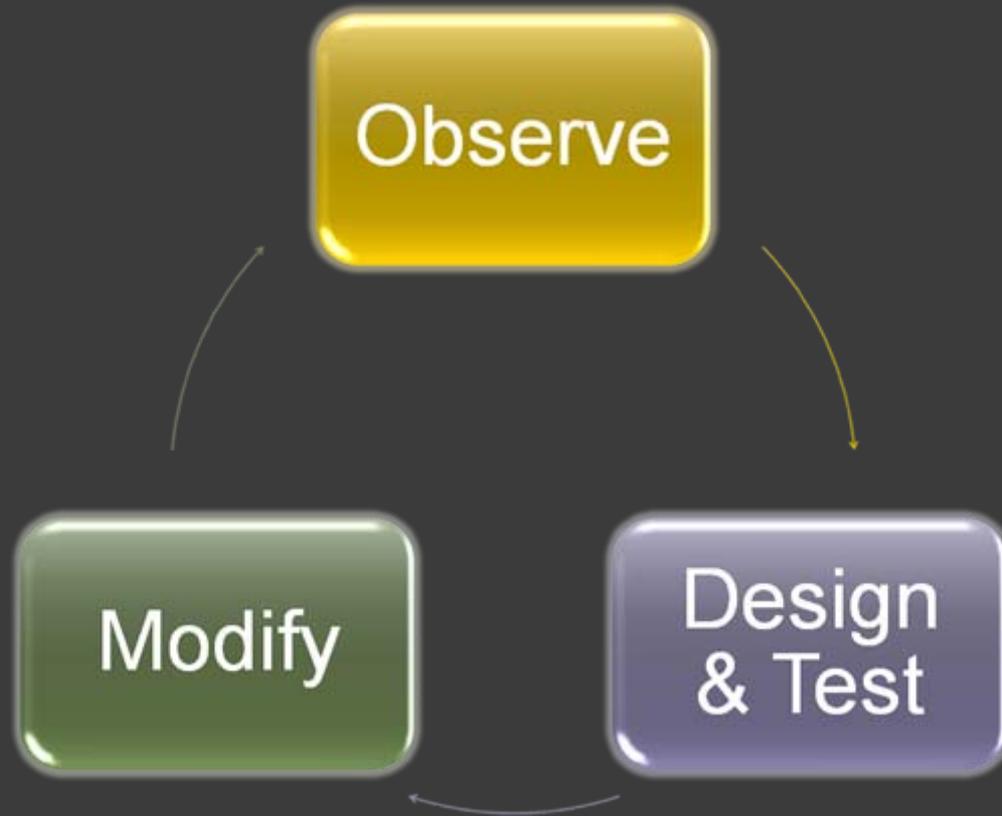
2010

10 Print

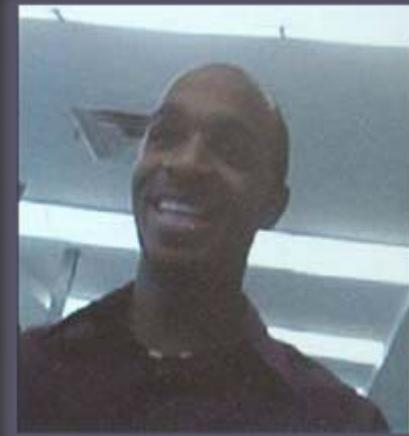
Height/Angle

Face Capture

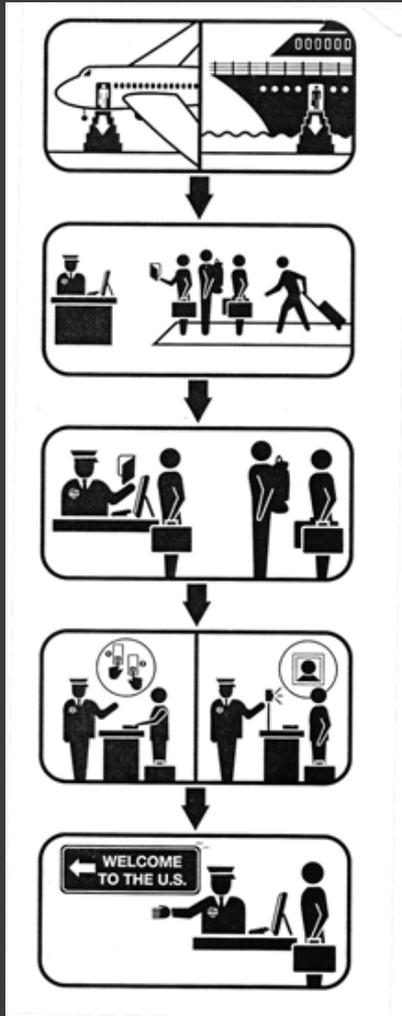
Scanner Lights



Taking a good picture is difficult



What do you want me to do?

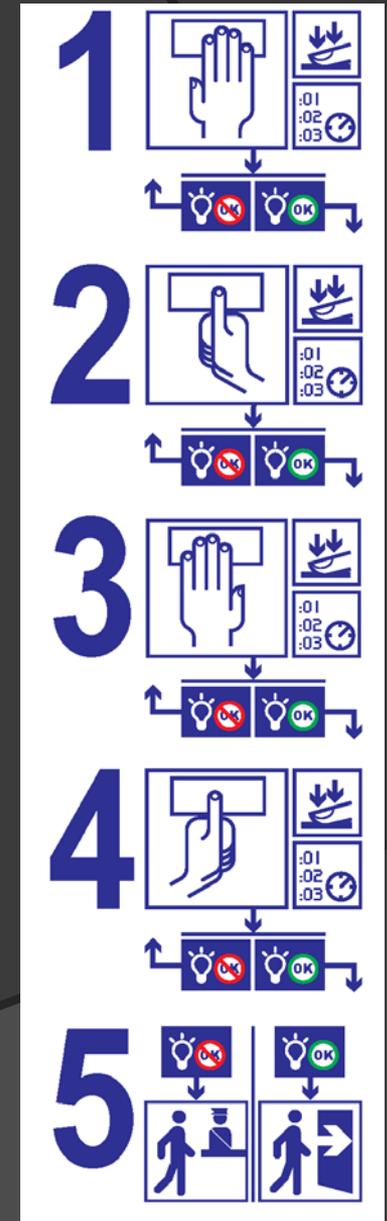


Welcome to the United States

US-VISIT Procedures: For All International Visitors

1	<p>Right four fingers Cuatro dedos de la mano derecha 右手親指以外の4本の指 Rechts vier Finger 右手的四個手指</p> 
2	<p>Right thumb Pulgar derecho 右手親指 Rechter Daumen 右手的大拇指</p> 
3	<p>Left four fingers Cuatro dedos de la mano izquierda 左手親指以外の4本の指 Links vier Finger 左手的四個手指</p> 
4	<p>Left thumb Pulgar izquierdo 左手親指 Linker Daumen 左手的大拇指</p> 
5	<p>Photograph Fotografia 写真 Foto 照片</p> 

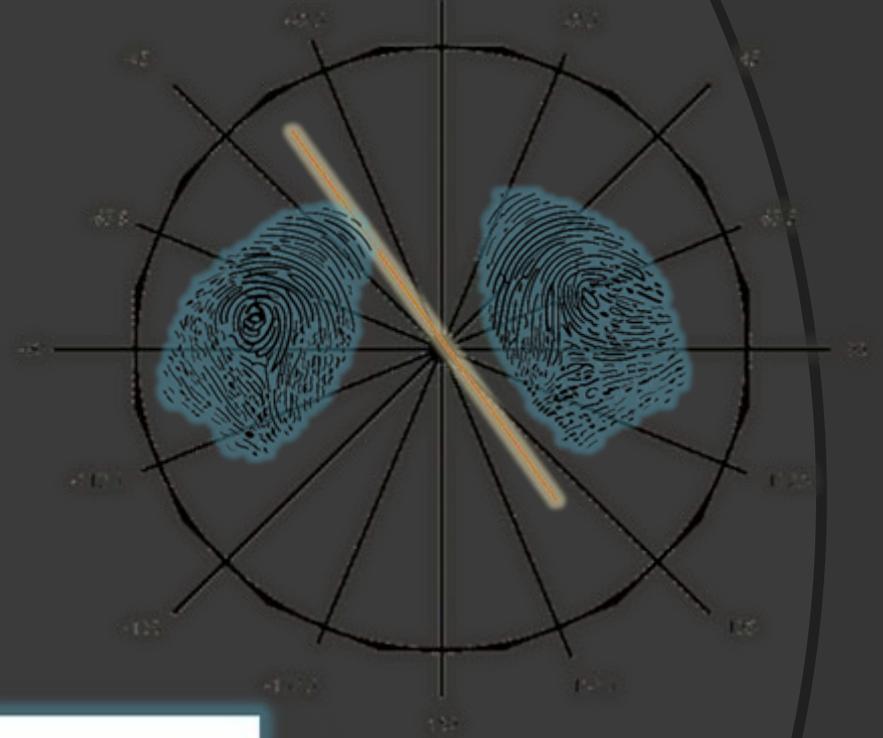

 Keeping America's Doors Open and Our Nation Secure
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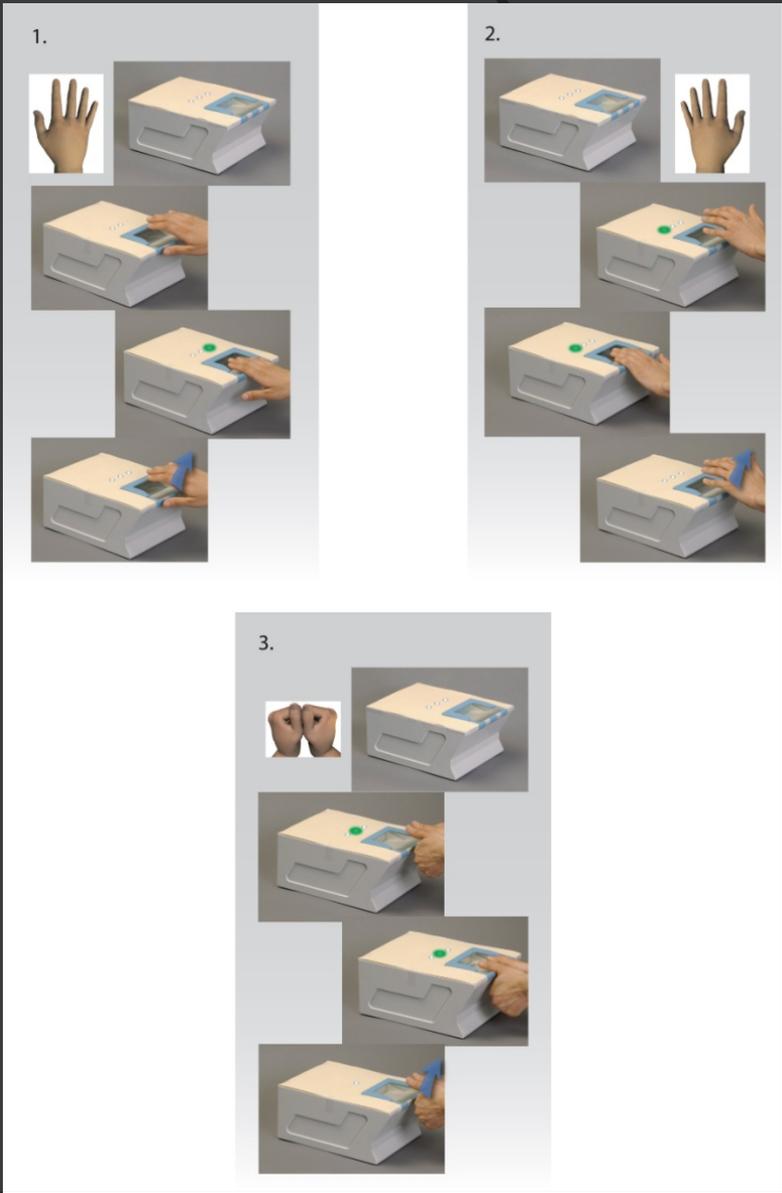
Some could not reach the scanner



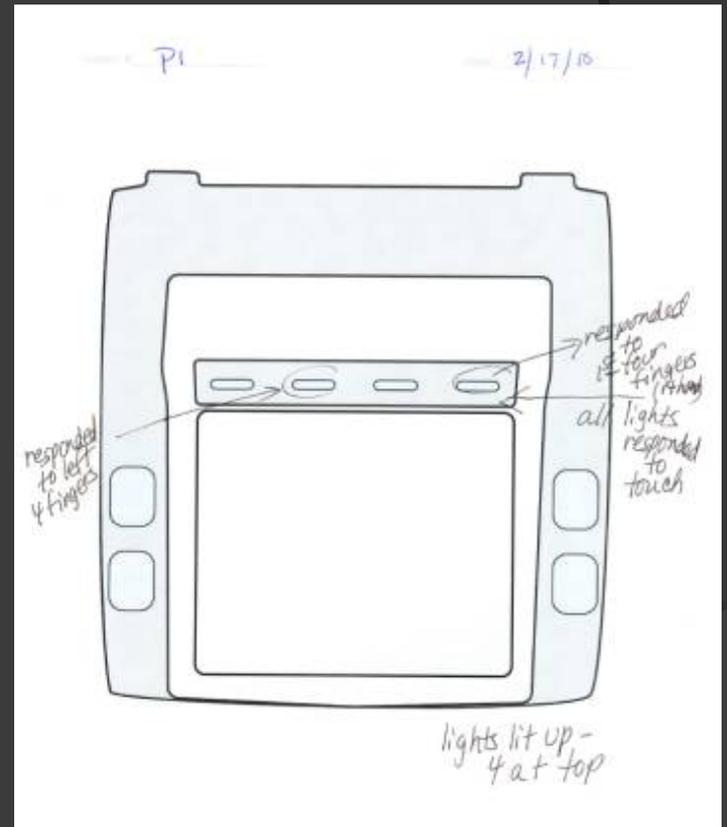
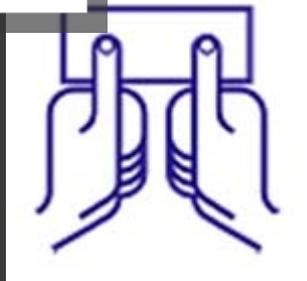
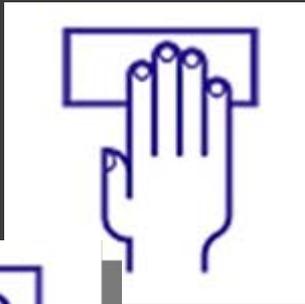
Where to place my fingers



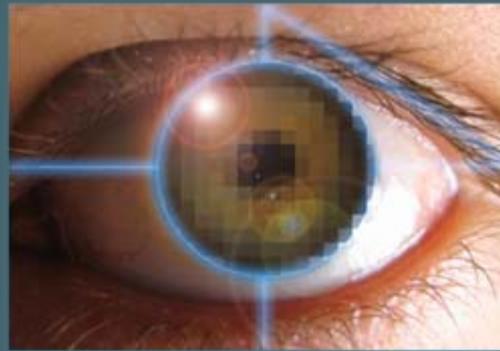
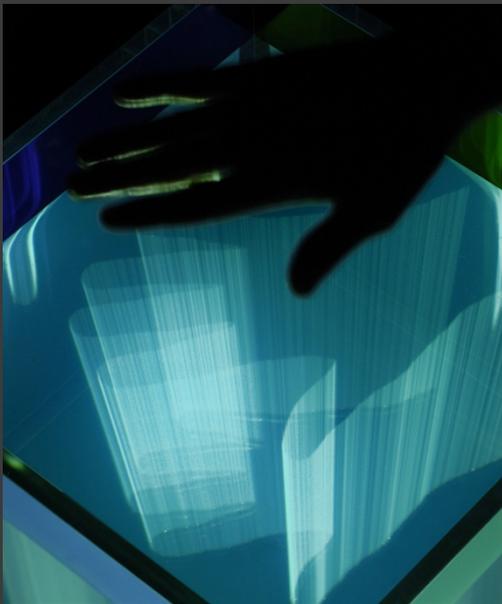
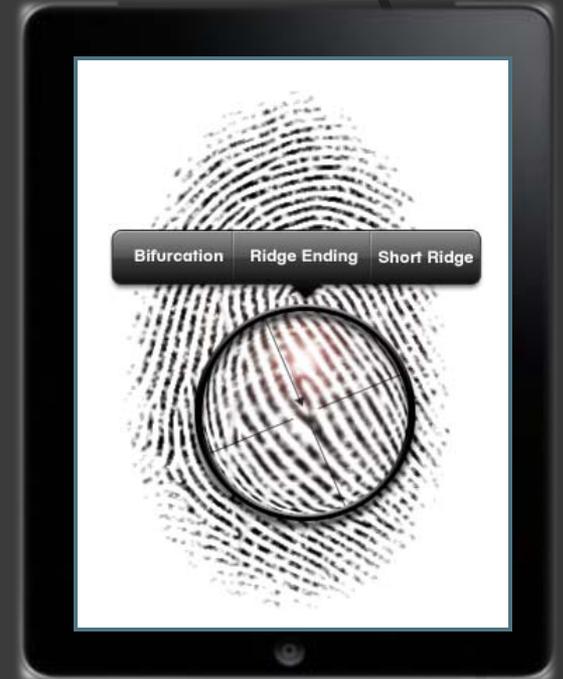
Show me what to do



So what do these lights mean?



What will we see in the new paradigms?



Thank you

Usability and Biometrics



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