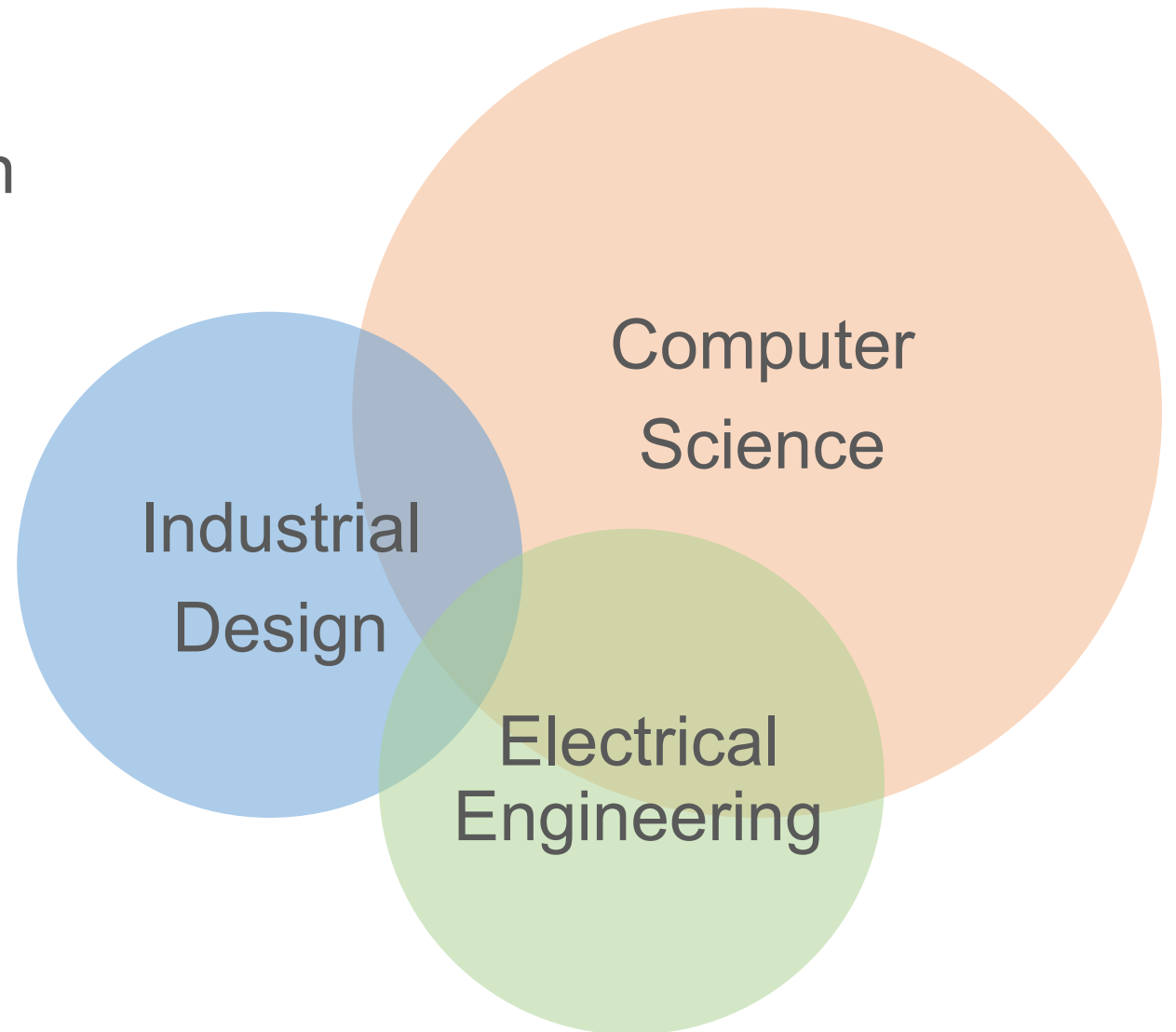


PhD student at the University of Manitoba, Canada

Human Computer Interaction
(HCI)

Input/output modalities,
Creative tools,
Mobile UI



PageFlip: Leveraging Page-Flipping Gestures for Efficient Command and Value Selection on Smartwatches

Teng Han, Jiannan Li, Khalad Hasan, Keisuke Nakamura, Randy Gomez, Ravin
Balakrishnan, Pourang Irani



UNIVERSITY
OF MANITOBA



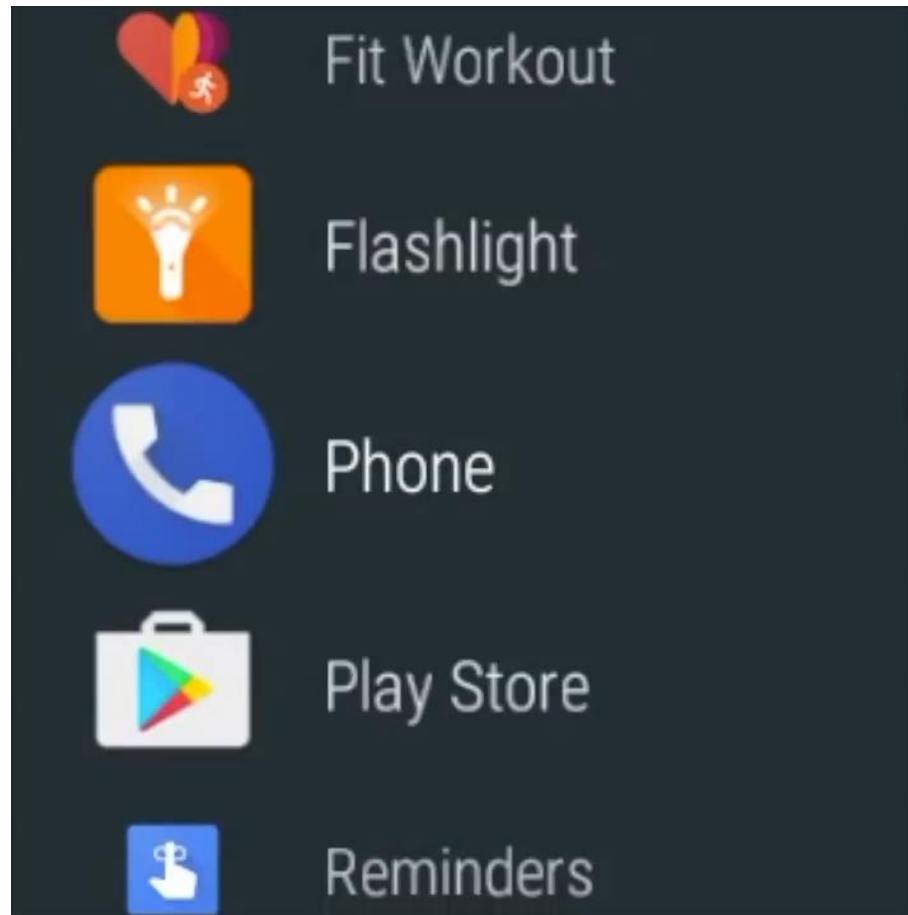
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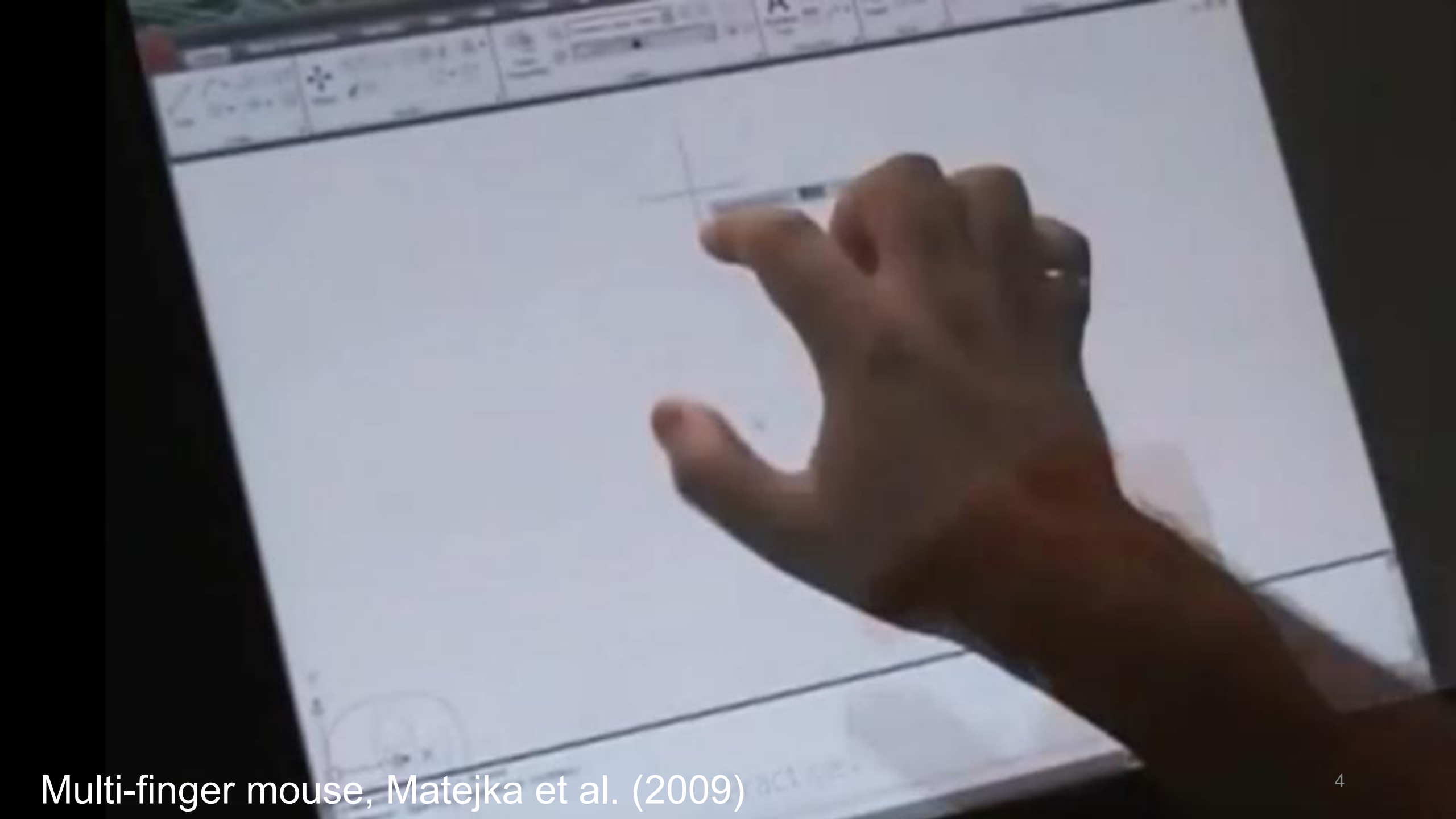


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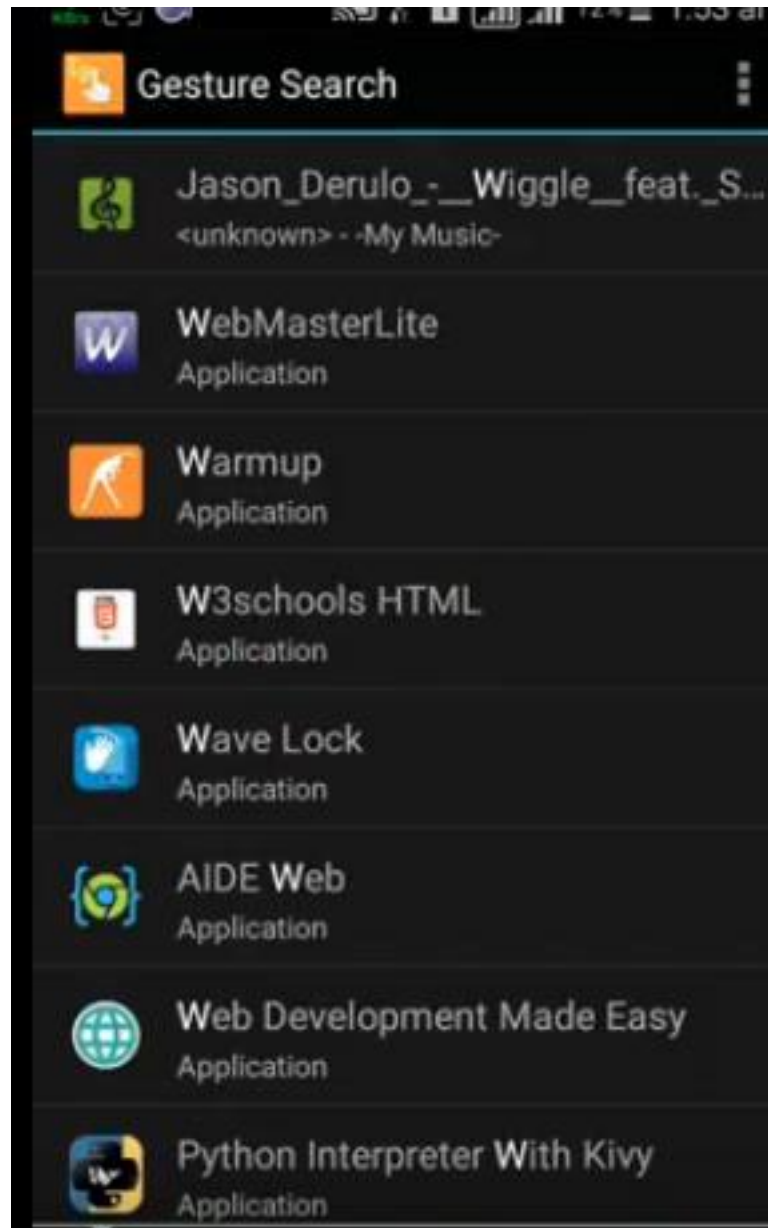
HONDA

Honda Research Institute Japan Co., Ltd.





Multi-finger mouse, Matejka et al. (2009)



Gesture search, Yang Li (2010)



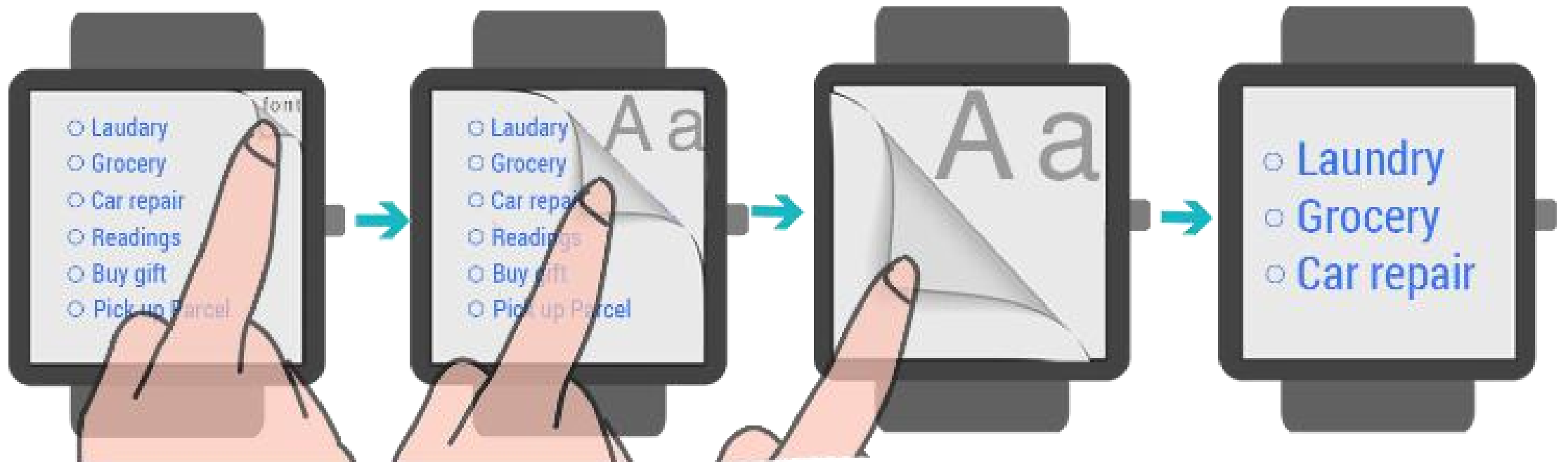
Pin-and-cross, Luo & Vogel (2015)







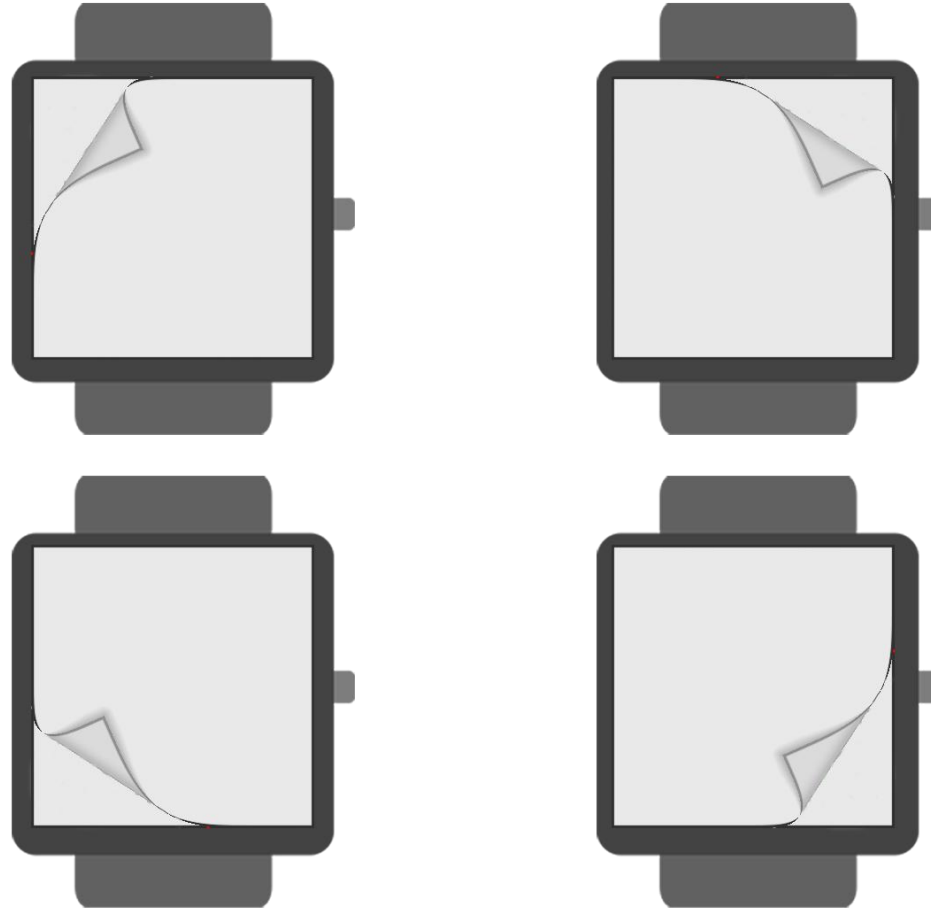
PageFlip for Command & Value Selection



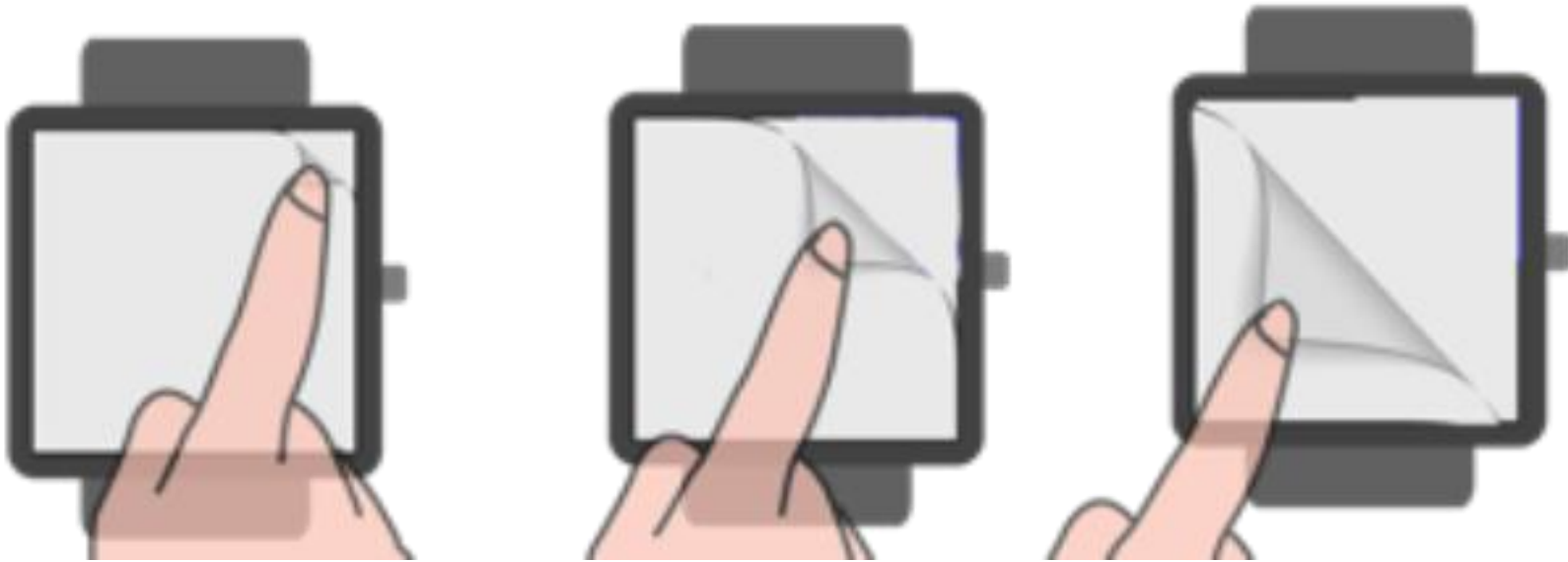
Demo of PageFlip



Features of **PageFlip**



Features of **PageFlip**

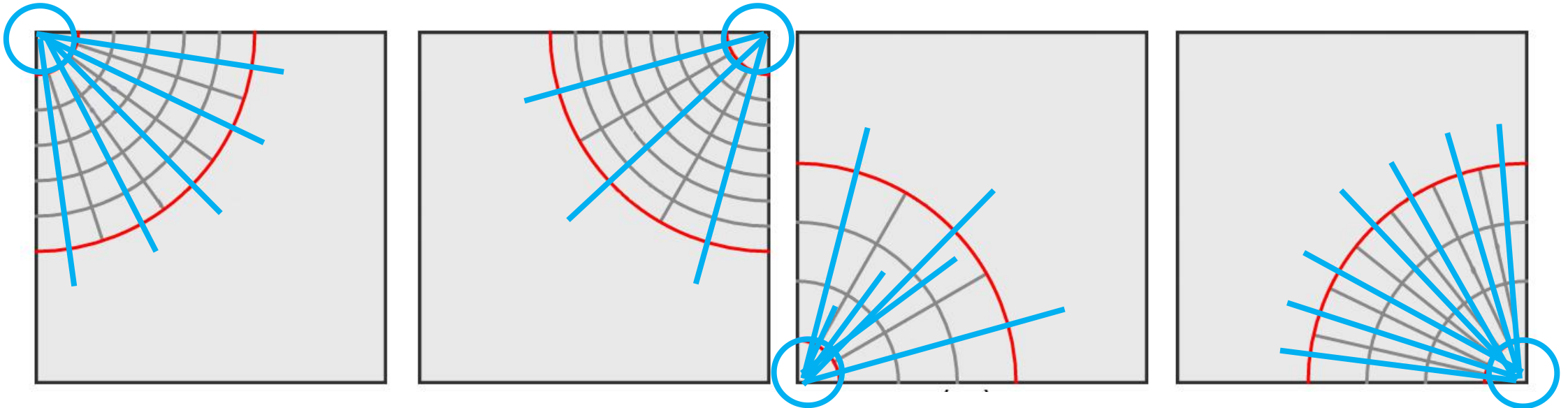


Features of **PageFlip**

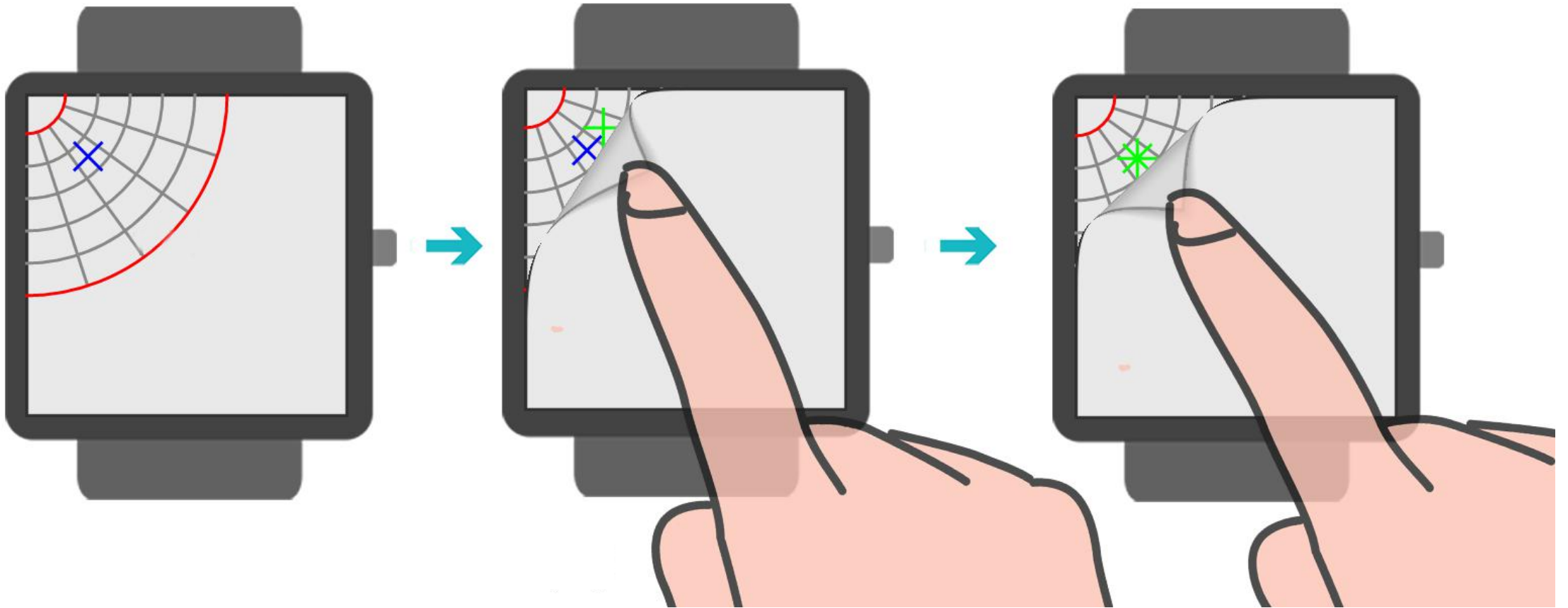


Study 1 – Designing **PageFlip**

corner, drag direction, drag distance

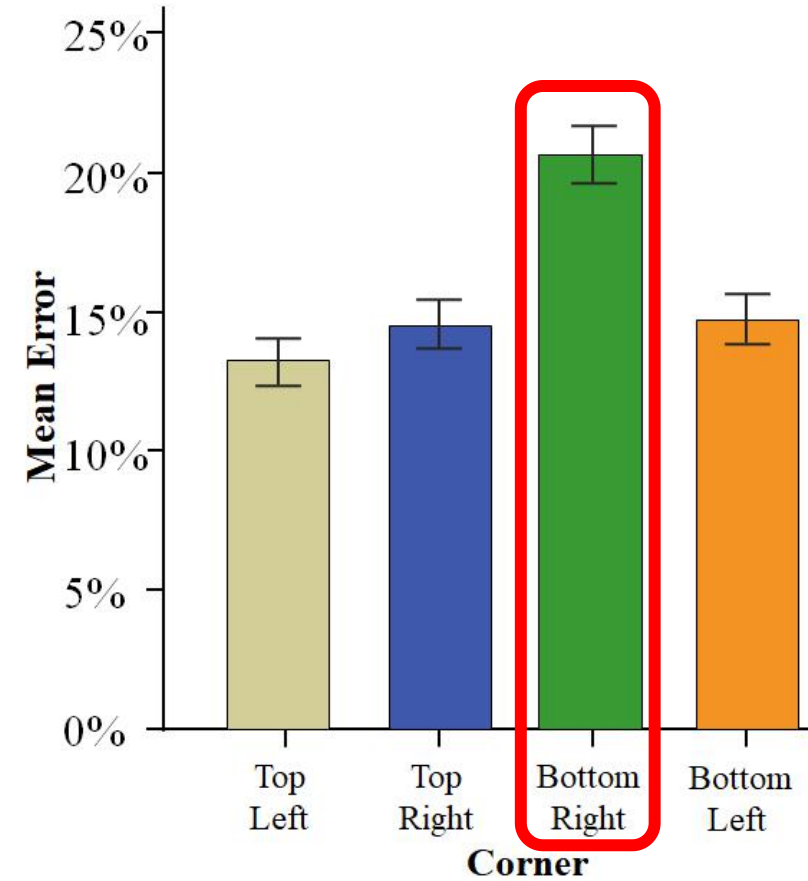
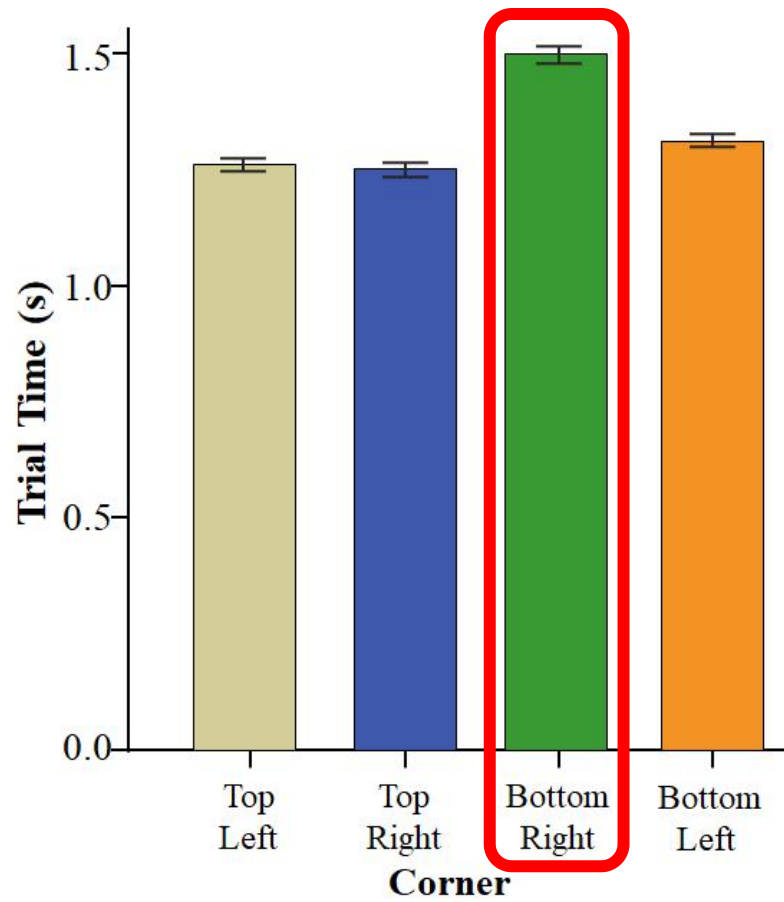


Study 1 Procedure

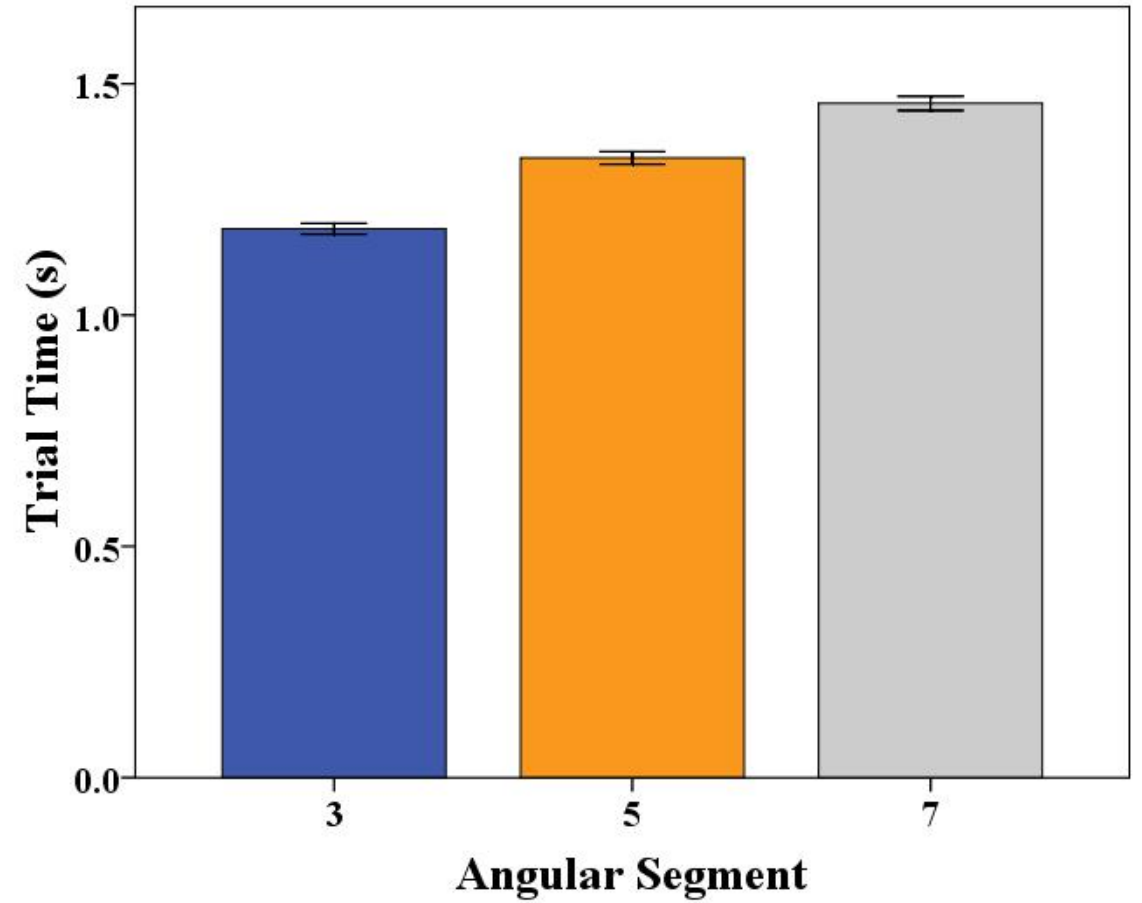
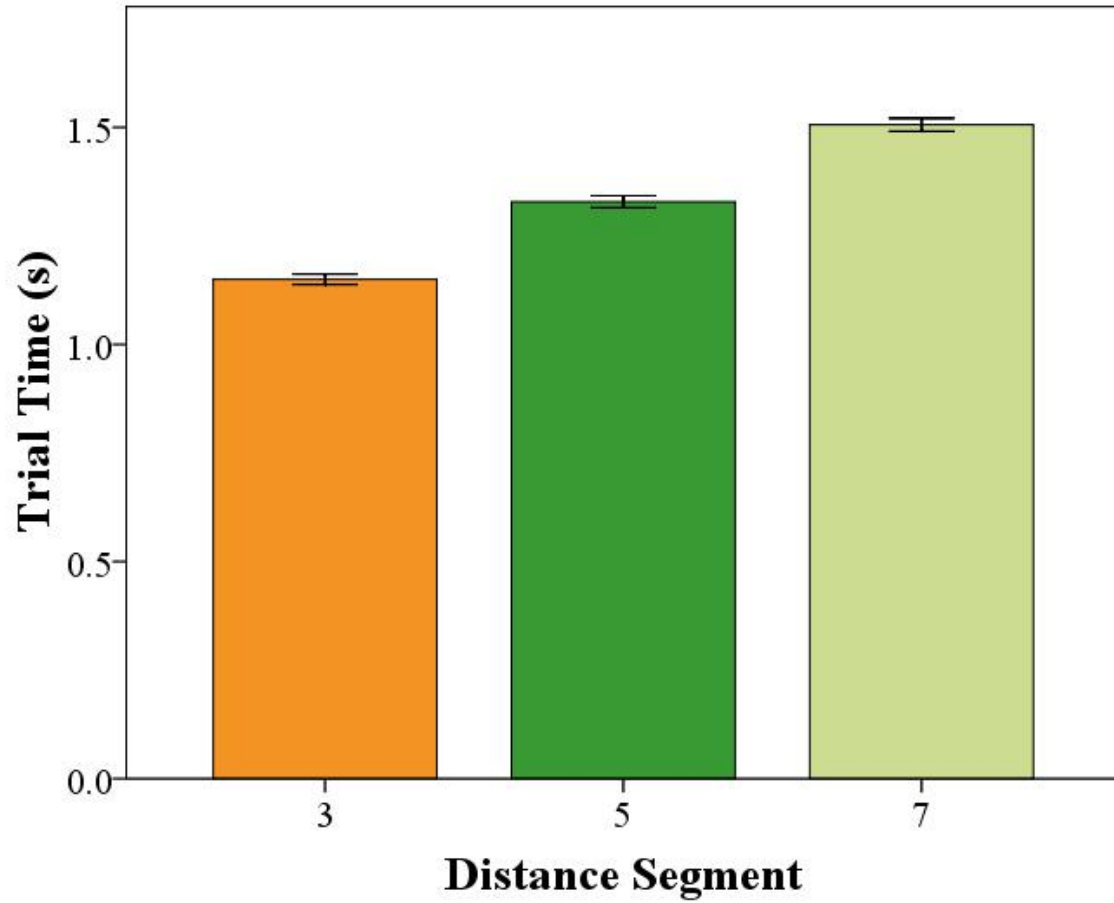




Study 1 Results



Study 1 Results



Study 2 – Performance of **PageFlip**

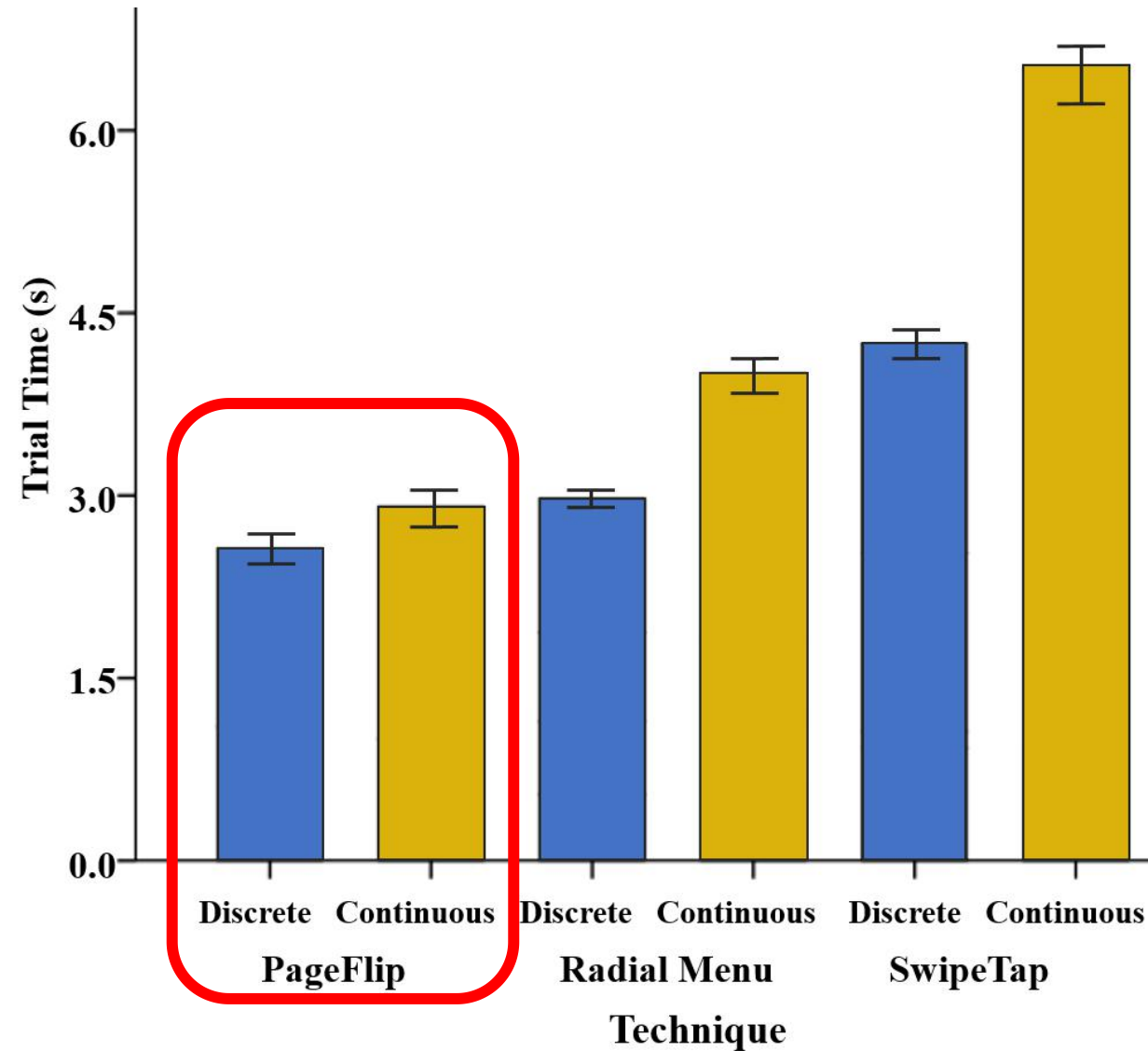
PageFlip, Radial Menu, SwipeTap

*Six Tasks: selecting a number, letter, shape
changing color, stroke weight, size*

Technique: PageFlip



Study 2 Results



Applications of **PageFlip**







Discussion

- PageFlip: intuitive and efficient.
- **But**, there are usability challenges:
Discoverability, Affordance and Learnability
- Round vs. Square face

Conclusion

- Design and performance of **PageFlip**
- Corner-command mappings
- Command invocation and value selection in a single corner-drag action

Thank you!

PageFlip

Leveraging Page-Flipping Gestures for
Efficient Command and Value Selection on Smartwatches

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