

BinarySwipes: Fast List Search on Small Touchscreens

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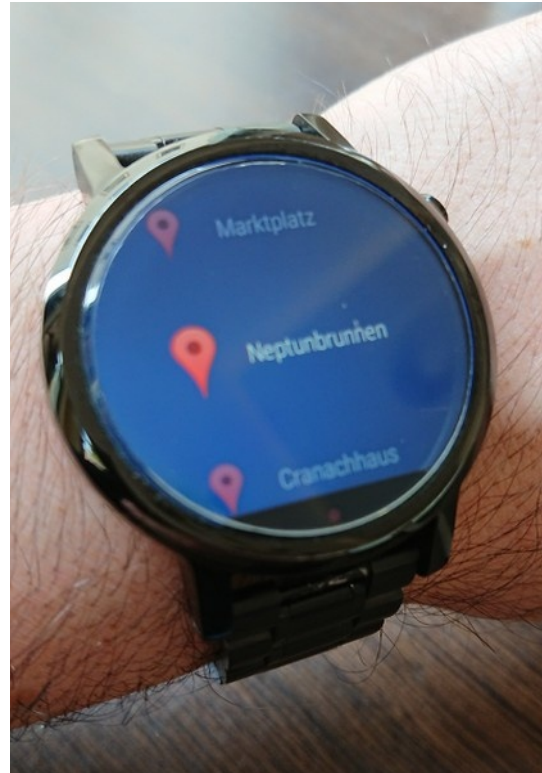
Twitter: [@floemuc](https://twitter.com/floemuc)



Lists on tiny screens?



Music



Navigation



Contacts

MultiFi
Grubert et al.
CHI 2015



FAT FINGER PROBLEM



<https://www.youtube.com/watch?v=bwkgVYQMkEw>

Related Work



Text Entry
Dunlop et al.
CHI 2014 EA



Generalized Search
Chittaro and De Marco
Interact 2005

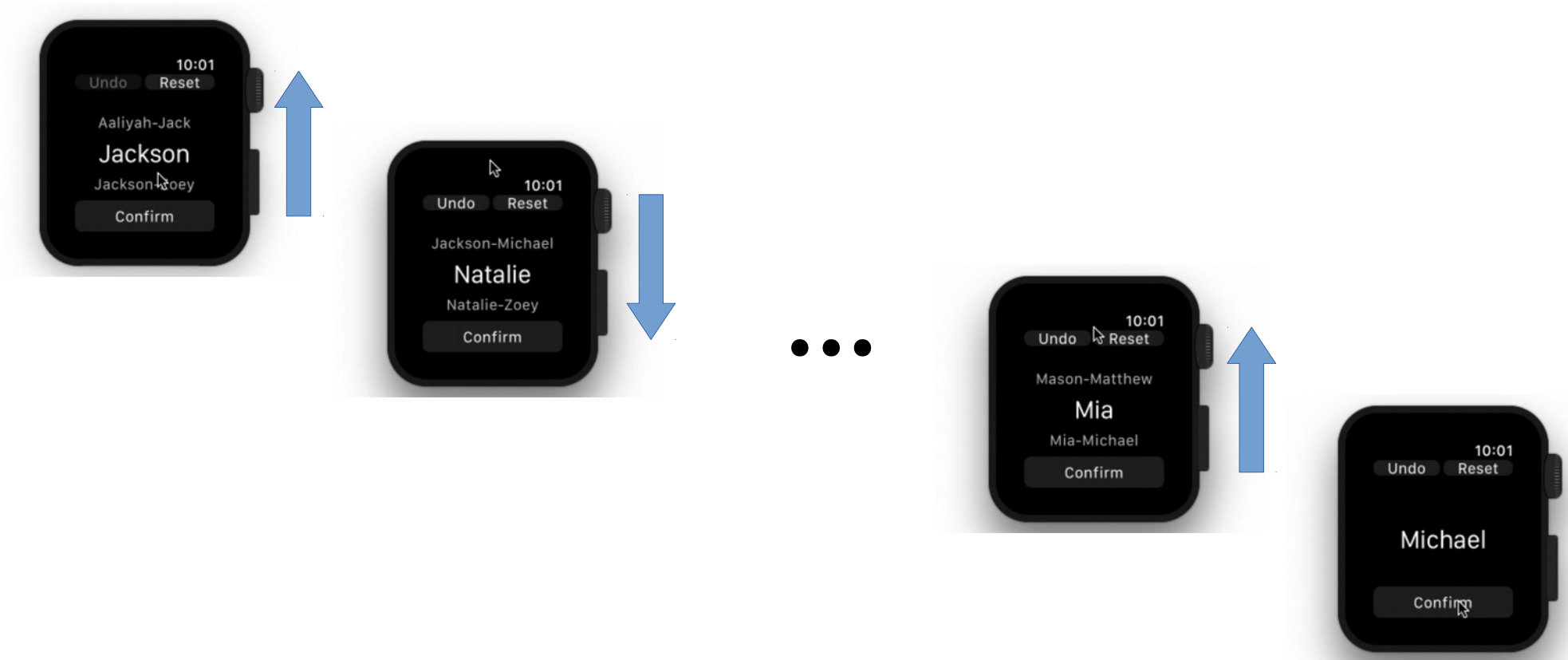
Character Pinning
Shani et al., CHI 2009

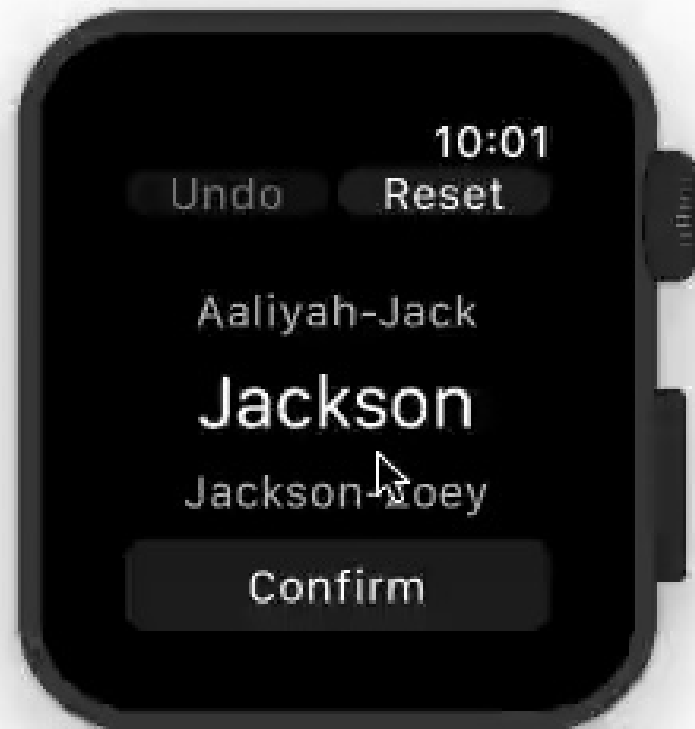


List Selection
Plaumann et al.
ISWC 2016

BinarySwipes

Where's Michael?





Apple Watch Series 2 - 38mm - watchOS 4.1

Evaluation



Linear



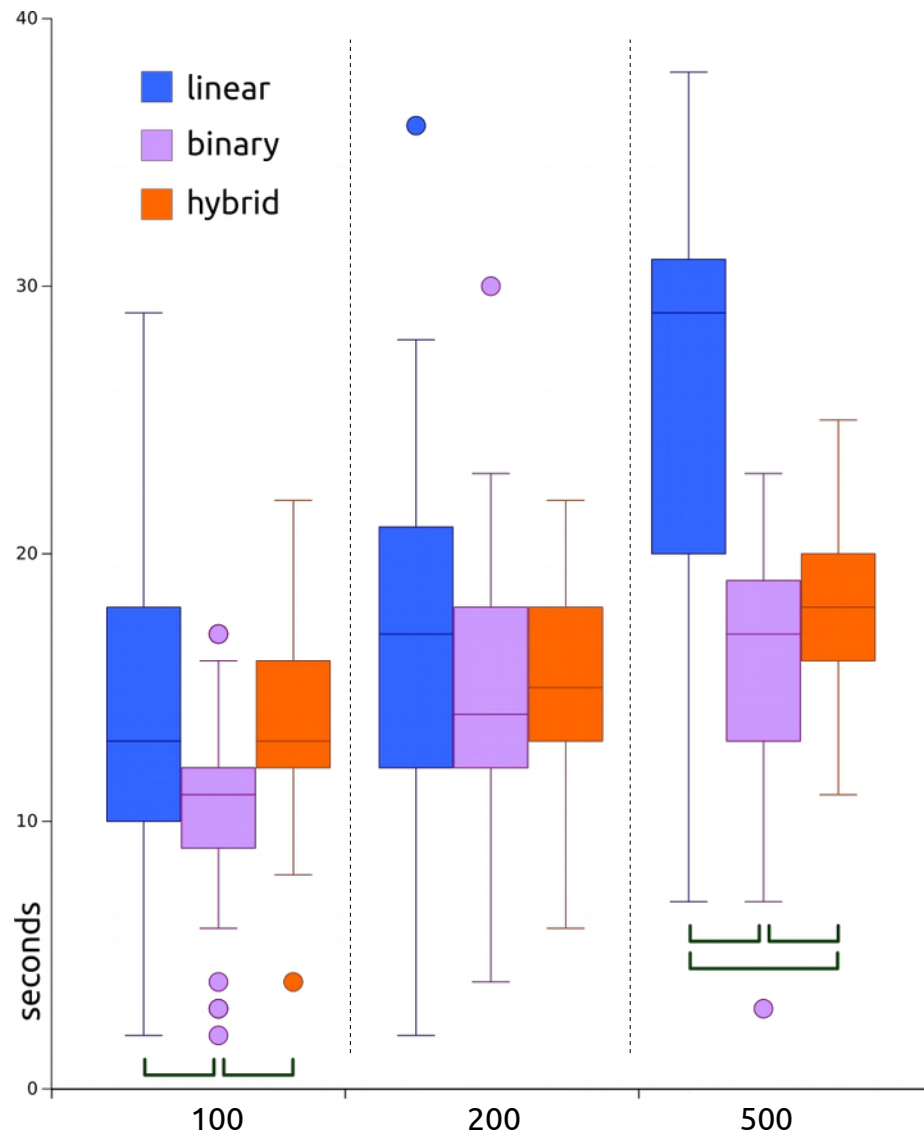
Binary



Hybrid

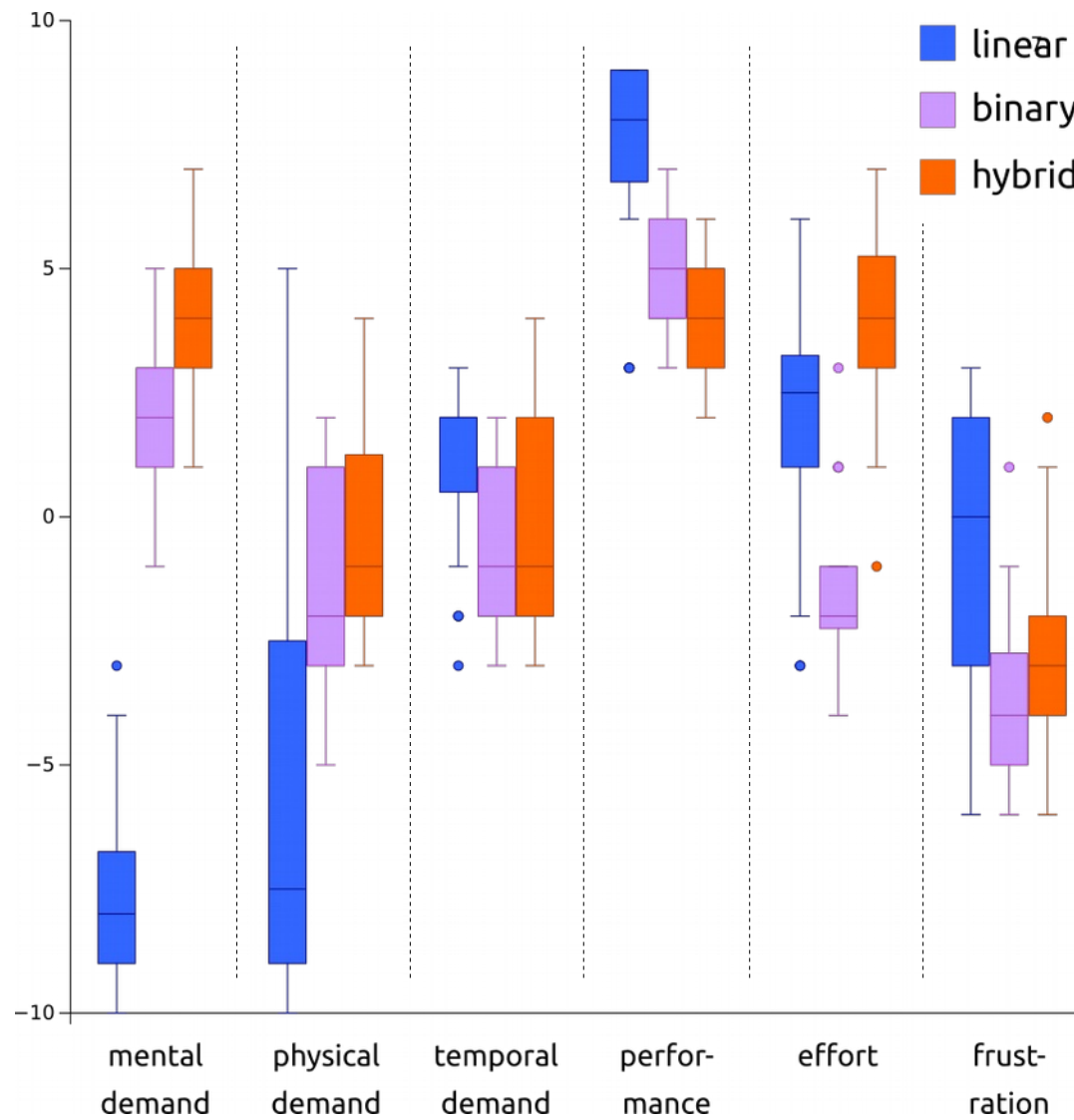
Results

Task Time

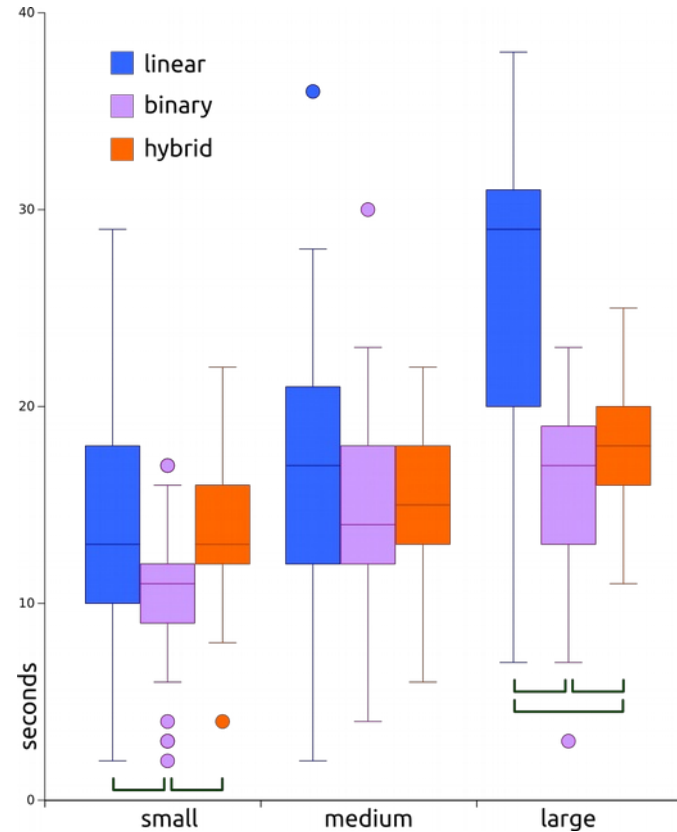


Results

Nasa TLX



Thank you!



Statistics

Comparison	Mental Demand	Physical Demand	Temporal Demand	Performance	Effort	Frustration
Linear & Binary	< 0.001	0.004	0.018	< 0.001	< 0.001	< 0.001
Linear & Hybrid	< 0.001	0.002	0.058	< 0.001	0.021	0.056
Binary & Hybrid	0.003	0.190	0.720	0.040	< 0.001	0.038