

Gesture-based interaction via finger tracking for mobile augmented reality

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Augmented reality

- real world view being augmented with virtual data, like computer generated 3D visuals

Gesture-based interaction

- finger used to select object
- menus based on object selected
- “pushing” objects

Experiments

- manipulating objects in midair
 - compare interfaces
- board game
 - types of interactions
- measures
 - time and accuracy
 - engagement

Results

- traditional touch screen was fastest
- gesture-based was most engaging

Problems with finger-based controls

- holding phone in the air was uncomfortable
- lack of accuracy
- finger being too close to the camera cause detection problems
- unintuitive translation of objects

Works Cited

Hürst, Wolfgang, and Casper Van Wezel. "Gesture-based interaction via finger tracking for mobile augmented reality." *Multimedia Tools and Applications* 62.1 (2013): 233-258.