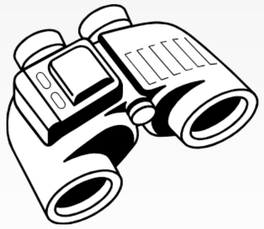
Research Approaches vs. Contribution Types



Empirical science

Ethnography

Engineering and design

Empirical | Artifact | Methodological | Theoretical | Dataset | Survey | Opinion

Seven Research Contribution types

[Wobbrock, 2014]

In-Class Exercise: Contributions and Benefits

Vulture: A Mid-Air Word-Gesture Keyboard

Markussen et al., CHI 2014

"Word-gesture keyboards enable fast text entry by letting users draw the shape of a word on the input surface. Such keyboards have been used extensively for touch devices, but not in mid-air, even though their fluent gestural input seems well suited for this modality. We present Vulture, a word-gesture keyboard for mid-air operation. Vulture adapts touch based word-gesture algorithms to work in mid-air, projects users' movement onto the display, and uses pinch as a word delimiter. A first 10-session study suggests text-entry rates of 20.6 Words Per Minute (WPM) and finds hand-movement speed to be the primary predictor of WPM. A second study shows that with training on a few phrases, participants do 28.1 WPM, 59% of the text-entry rate of direct touch input. Participants' recall of trained gestures in mid-air was low, suggesting that visual feedback is important but also limits performance. Based on data from the studies, we discuss improvements to Vulture and some alternative designs for mid-air text entry."

Vulture

A Mid-Air Word-Gesture Keyboard

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Source

In-Class Exercise: Contributions and Benefits

"Presents an empirical evaluation of the potential for Word-Gesture Keyboards (WGKs) in mid-air text entry and compares how performance compares to touch based WGKs." [Markussen et al., CHI 2014]