Doppio: Researchers unveil dual screen smartwatch

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A Dartmouth researcher and his collaborators have unveiled a prototype of a smartwatch with dual touchscreens called Doppio.

The researchers presented their findings Wednesday at the CHI Conference on Human Factors in Computing Systems.

Doppio is a reconfigurable smartwatch with two touch-sensitive display faces, one of which detaches from the wrist-bound screen and can be stuck above or to the side. "The orientation of the top relative to the base and how the top is attached to the base create a very large interaction space," says Xing-Dong Yang, an assistant professor of computer science at Dartmouth.

In their presentation, the researchers discussed possible configurations, transitions and manipulations in this space. Using a passive prototype, they conducted an exploratory study to probe how people might use this style of smartwatch interaction. And with an instrumented prototype, they conducted a controlled experiment to evaluate the transition times between configurations and subjective preferences. They used the combined results of these two studies to generate a set of characteristics and design considerations for applying this interaction space to smartwatch applications.

"Our proof-of-concept hardware prototype demonstrates how Doppio interactions can be used for notifications, private viewing, task switching, temporary information access, application launching, application modes, input and sharing the top," Yang says.

Provided by Dartmouth College