PaperTab: Tablets as Thin and Flexible as Paper

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Abstract

We present PaperTab, a paper tablet computer that allows physical manipulation of windows embodied in multiple flexible displays. PaperTab offers the benefits of updating electronic information on the fly, while maintaining the haptic/kinesthetic feedback of tangible documents, as each document is a fully functional, paper-like E Ink display. We present windowing techniques for a paper computer that relies on multiple physical windows. Our between-display interactions are based on the proximity of a display to the user. They are categorized into hot zones, for active editing, warm zones for temporary storage, and cold zones for long-term storage. Our within-display interactions use pointing with a display as a focus+context tool.

Author Keywords

Flexible Displays; E Ink; Physical; Manipulation; Organic User Interfaces.

ACM Classification Keywords

H.5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

General Terms

Design; Human Factors.