

Abstract

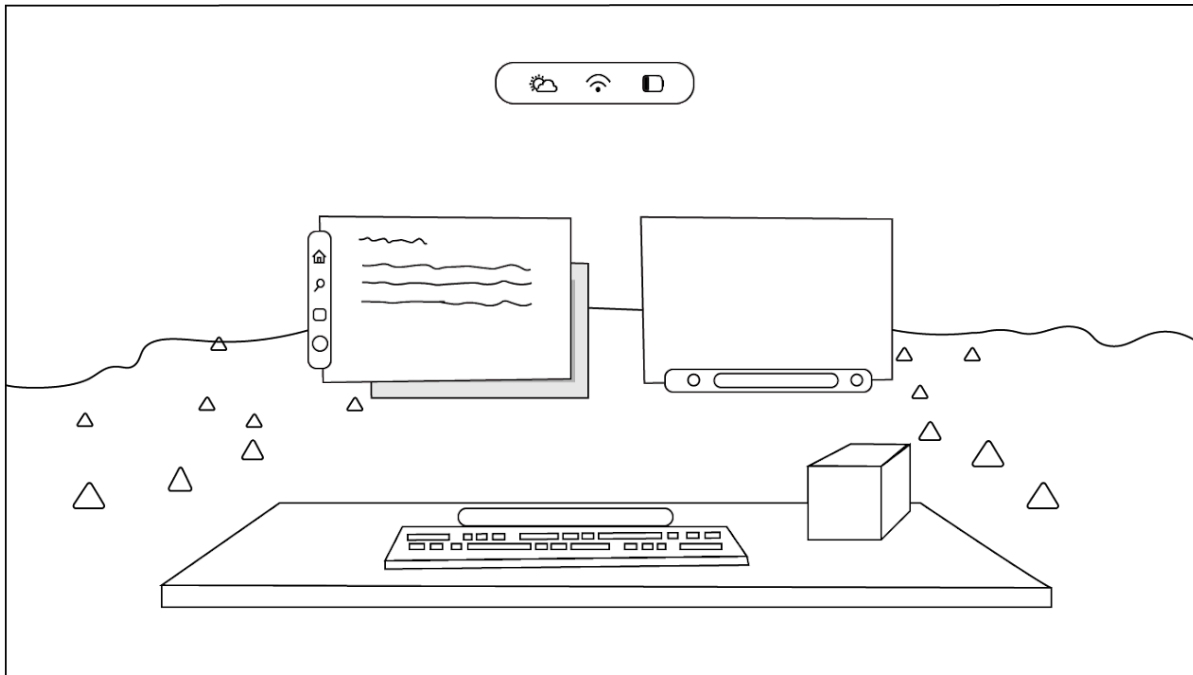


Figure 1. A mockup of a computer work application with windows, a volume and a virtual environment

The rise of HMDs brings forth possibilities for reimagining computer work in more immersive and productive ways indicating a shift in how humans interact with computers. HMDs and spatial interfaces are progressing towards becoming an alternative to two dimensional computer interactions. Designing mixed reality (MR) interfaces, which are more complex compared to desktop interfaces, requires standards for creating applications especially when leveraging the spatial capabilities of HMDs. Before HMDs can be widely adopted for tasks the tools currently used in a two-dimensional context will need to be redesigned to take advantage of the third dimension depth. This paper offers design guidelines for developing computer work applications for HMDs. These guidelines along with a methodology for redesigning 2D computer work for virtual environments are demonstrated through a sample application that explores how MR can enhance the research process. Findings from the design and implementation of this project, such as areas to focus the redesign around, are then shared to benefit future projects in the rapidly evolving field of interface design for HMDs.