The Safest Way to Scroll a List: A Usability Study Comparing Different Ways ofScrolling Through Lists on Touch Screen Devices

Abstract:
Seven different types of touch screen scrolling lists were compared in terms of input speed, input error rate, and subjective rating. The study was conducted on a 9” tablet computer. Participants had to find and select given items on lists of different length. The compared list scrolling variants were a scrollbar, page flipping with buttons, page flipping with direct manipulation, direct manipulation of a continuous list with simulated physics (inert list), direct manipulation of a continuous list without simulated physics, and the latter two variants with an additional alphabetically labeled index bar/scrollbar. The page flipping with direct manipulation and the continuous direct manipulation without simulated physics performed significantly worse than all others in terms of input speed and error rate. The differences between the other variants were insignificant. Participants favored continuous direct manipulation with simulated physics and an alphabetical index bar, which performed well overall.