

Computer Access

Human-computer interaction

Graphical interfaces

Expanding targets

Selection tasks

Improving Cursor Interactions for Older Users

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The Investigation

For older adults, computers can be difficult to use because of the need to position a cursor to select targets. This project investigates the response of older users in the selection of dynamic targets e.g. icons that expand or move toward the cursor, to see whether dynamic targets can improve performance.

Objectives

To identify performance differences between older and younger adults in the selection of dynamic targets.

To identify factors that can explain any performance differences observed between older and younger adults.

Plan

The project involves conducting a series of user studies in which participants select dynamic targets with a computer mouse.

In Study 1, participants will be asked to select an isolated target which will expand when the cursor is close to the target.

In Study 2, participants will be asked to select an isolated moving target as it moves across the screen.

In Studies 3 & 4, participants will be asked to select a single expanding target from among multiple expanding targets, and to select a single moving target from among multiple moving targets respectively.

References

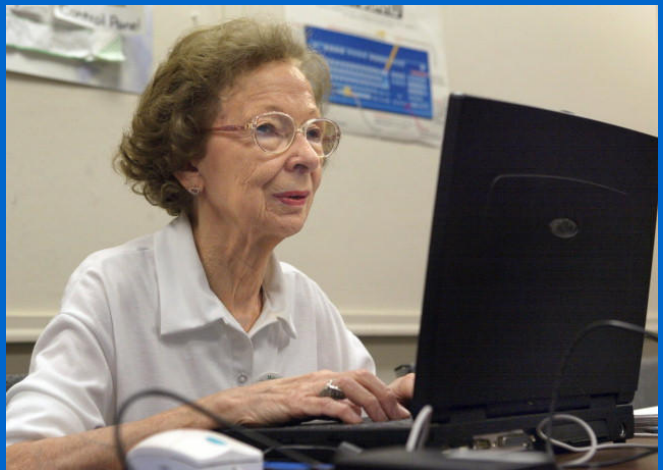
McGuffin, M. & Balakrishnan, R. (2002). Acquisition of expanding targets. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI'02)*, pp. 311-318.

Potential Benefits

For older people

Access to computers and the Internet can be beneficial to older people in many ways. For example, computers can provide a means for older adults to communicate with family and friends, access information about healthcare and community services, or enrol in distance learning courses.

This research will lay the foundation for the design of novel computer interaction methods that improve target selection for older adults. As target selection is integral to many aspects of computer interaction, making this fundamental task easier can significantly improve overall accessibility.



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