

Star User Interface, Commentary

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The STAR UI design process pioneered modern UX guidelines by focusing on how the user interacts with the technology first and foremost; the development process was mostly not coding and implementing but prototyping and learning to understand the user. The designers built the system on the foundation of ideas that the user already understands- in this case, the mouse is an extension of the hand, the desktop an extension of the physical office- to reduce the learning curve¹ and achieve a more human design. The choice to transition from the command line and shortcut-based interface to a well-designed GUI shows that the focus of the designers was squarely on providing the user with the most comfortable and intuitive experience.

The STAR team focused heavily on reducing the “short-term memory load” for the user- a design principle solidified by Schneiderman’s “Eight Golden Rules for Interface Design,” originally published five years after the Xerox 8010 was released. Instead of remembering shortcuts and commands, the user simply presses a button on the GUI- a much more intuitive approach for new or non-technical users². The self-explanatory buttons combined with visual feedback are far more effective at providing users with a sense of control³- “visual signals that provide feedback from the interface are fundamental design features”⁴, and without this feedback, we struggle to make “consistent connections between our actions and their results”⁵.

One of the foci indicated by the design team was to avoid concepts relating to “programming” and “abstract” topics, broadening the appeal of the product and making it more usable for all at this time, many did not have a truly “personal” computer, and those that did were engaged in a “technical hobby”⁶- the design of STAR is a pivot from this way of thinking. The “barriers to entry”⁷ for the computer market at the time included “primitive software” and “low-level computer skills among the general public,” and STAR removed these barriers.

¹ Lawrence Sambrooks and Brett Wilkinson. 2013. Comparison of gestural, touch, and mouse interaction with Fitts' law. In Proceedings of the 25th Australian Computer-Human Interaction Conference: Augmentation, Application, Innovation, Collaboration (OzCHI '13). Association for Computing Machinery, New York, NY, USA, 119–122. <https://doi.org/10.1145/2541016.2541066>

² Remington, R. W., Yuen, H. W. H., & Pashler, H. (2016). With practice, keyboard shortcuts become faster than menu selection: A crossover interaction. *Journal of Experimental Psychology: Applied*, 22(1), 95–106.

³ Blair-Early, Adream, and Mike Zender. “User Interface Design Principles for Interaction Design.” *Design Issues*, vol. 24, no. 3, 2008, pp. 85–107. JSTOR, <http://www.jstor.org/stable/25224185>. Accessed 5 Nov. 2022.

⁴ Visual Design for the User Interface, Part 1: Design Fundamentals, Patrick J. Lynch, MS. Yale Center for Advanced Instructional Media. *Published 1994, Journal of Biocommunications*, 21(1):22-30

⁵ Farrer, C. et al. ‘Effect of Distorted Visual Feedback on the Sense of Agency’. 1 Jan. 2008 : 53 – 57. Print.

⁶ M. V. Wilkes, "Computers into the 1980s," in *Electronics and Power*, vol. 26, no. 1, pp. 67-71, January 1980, doi: 10.1049/ep.1980.0015.

⁷ Lynn Blinn-Pike (2009) Technology and the Family: An Overview From the 1980s to the Present, *Marriage & Family Review*, 45:6-8, 567-575, DOI: [10.1080/01494920903224459](https://doi.org/10.1080/01494920903224459)