

Photocopier Interface

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1 Introduction

With project one in hand we set forth to explore the vast realm of user interfaces. We chose to focus on the photocopier interface due to its wide range of users. The photocopier interface faces the challenge of being able to satisfy the casual user while handling the demands of a copier with specific requirements. The objective of this experiment was to evaluate the success of the designed interface in meeting that challenge.

2 Methods

The experiment was conducted in the Geisel Library using a Minolta EP4050 as the interface of interest. A variety of users was chosen to minimize bias. Subjects for the experiment were gathered at random and asked to participate in an evaluation of interface design. An Imprints employee was selected in an attempt to gain insight from an expert user. Subjects were asked to create a two-paged copy on the machine. We felt this specialized task would be a valid test of the interface because it required more interaction than simply using the default settings. We recorded which features of the copy machine seemed easy or difficult to use. We also recorded which aspects of the interface were used more frequently. The subjects were also questioned as needed to clarify their actions.

3 Observation

3.1 Math Major

The math major appeared baffled when first brought forth to the copy machine. His initial response was to orient himself with the controls. He boldly fiddled with the touch screen to explore the available options. When questioning what he was doing he stated that *he was lost and did not know what he was doing*. His lost feeling was prompted by the fact the he felt the controls were poorly labeled for the casual user. He stated that the paper sizes that were presented to him were unfamiliar and that more and better pictures would have helped. He went as far as stating that if he were to design the controls he would reject words altogether for a fully graphical interface. He recommended that the interface be targeted towards the average student with no degree in photocopying.

3.2 Liberal Arts Major

A liberal arts major was the next to use the photocopier interface. She also expressed confusion when presented with the copier challenge. The subject apprehensively examined the controls, her confidence visibly dwindling. She stared quizzically at the LCD screen before her, finally inquiring as to whether she could "*like, touch it.*" When she realized that the screen was touch-interactive, she aptly proceeded to copy two complete pages onto one.

3.3 History Major

The next subject identified himself as a history major. We assumed he was fairly adept at its use since he was making copies for class. Similar to the math major, this subject proceeded to familiarize himself with the photocopier interface. When asked about this behavior, he stated that *you have to kinda, play with it.* The subject appeared to be confident and in control throughout the process and proceeded to produce a copy.

3.4 Imprints Employee

After observing a common trend in the average user, we felt that expert intervention was needed. The Imprints employee seemed to be giving us a tour of the advanced options available in the Minolta EP4050. She even indicated that the Minolta was inappropriate for our application, and that the Xerox machine should have been used instead. Her interaction with the machine was controlled and precise. The copy was rapidly produced and the experiment was concluded.

4 Conclusion

We observed that although some users were able to produce the photocopy as requested, the interface could use improvements. Although the Imprints employee demonstrated high proficiency, the average user seemed to be intimidated by the variety of options presented. Most of our subjects seemed uncomfortable thinking outside the domain of making a typical 8.5 x 11" copy. The common consensus was that a more user-oriented graphical interface would have significantly improved the interactive experience. Users seemed to desire appropriately scaled pictures instead of the abstract descriptions *A4* and *Legal*. Although the typical usage of the Minolta EP4050 is a straightforward push of a button, advanced usage of the machine may pose too much of a challenge for most users. This is representative of the typical problem in interface design where multiple high level options makes it difficult to perform generalized tasks. However, all users managed to perform the task successfully, some with more difficulty than others. The Minolta interface design seemed to favor the more advanced user, but did a fair job overall of satisfying a wide range of users.