Assisted Self-Design versus Free Self-Design: Application to Nike Shoe Configurator

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Our main goal in this project is to improve consumers' experience when suing Nike's shoe configurator (available at www.nikeID.com). Nike's shoe configurator is a web-based configuration tool which allows users to design their own shoes by selecting different color choices for seven different shoe areas (see Figure 1). A consumer can then purchase the shoe that she designed herself.

Figure 1. Nike's shoe configurator

Given that a consumer can select any color combinations for the seven areas, the choice space from which she can pick her most-favorite shoe is huge; a consumer can pick from more than two million different shoe designs (Deng and Hutchinson 2009). From a theoretical perspective, the consumer is faced with a high-dimensional optimization problem that involves numerous alternatives, which is made even more difficult because colors "interact" with each other (e.g., Matsuda 1995); for example, red may look great with pink, but not with purple, and so on. We expect that consumers may become cognitively overloaded due to the huge number of

possible choices (e.g., Schwartz 2004), and thus may not be able to optimally select the shoe that she likes best.

Our proposed solution to this problem is an "assisted self-design" paradigm. Instead of only allowing a consumer free and unrestricted choice, we assist them by providing recommendations during their design processes. That is, using an algorithm similar to collaborative filtering (Bodapati 2008), we recommend completed shoes to the consumer while she is still designing her own shoes. For instance, after the consumer selects a "red" base color, we offer a few recommendations (based on how other consumers design their shoes), which also has a red base color and other colors already configured. At any time, the consumer is allowed to switch to any of the recommended design and continue her design process from there.

To test our hypothesis, we propose a one-way between-subjects design. The control (free self-design) group uses Nike's system; the treatment (assisted self-design) group uses a system that provides them with recommendations during the process. (See Figure 2 for a screenshot of the system we developed for this experiment). Our goal is to demonstrate that the assisted self-design group has higher satisfaction, a more positive experience, and a higher purchase probability than the control group.

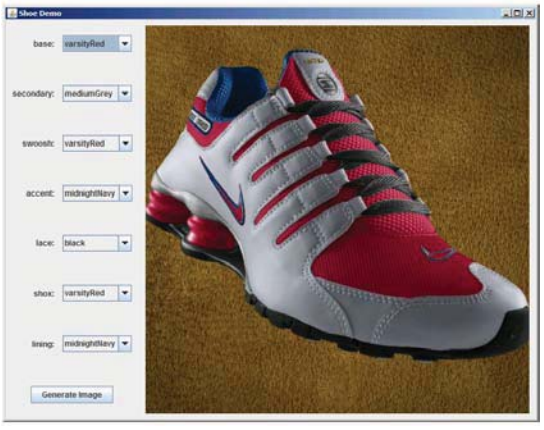

Figure 2. The configurator we developed for our experiment.

Reference

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