Methodology

Initial Survey

In order to identify important aspects of customers' in-store shopping experience to retain and important aspects of the on line experience to incorporate, we first sent out a survey via social media. We asked users to identify ways that the on line and in-store experiences help and inhibit them. We also gathered what factors are most important to them when making shopping decisions about a product. We gathered data on shoppers' propensity to use a phone or tablet when shopping and to research a product before making a purchase decision.

Low Fidelity Prototype

In order to test the concept of an in-store shopping experience, drew content on transparency sheets and overlaid the sheets onto a picture of the user's expected view of a Best Buy store. The low fidelity prototype was an A/B test of a menu-based, hierarchically structured user experience and a context-aware overlaying of content. We instructed participants to use the prototyped system to aid in making a laptop purchase decision. TODO: ADD FIGURES OF PAPER PROTOTYPES.

High Fidelity Prototype

After eliciting feedback on the low fidelity prototype, we used Unity 3D game engine to mock out the intended scene and to create panels of product information, overlaid onto the scene. Users were able to navigate virtual representation of a store with laptops on tables, digesting the static content provided by the panels. The virtual reality scene was presented to users in an HTC Vive. Given space constraints, the track pad on one of the Vive's controllers was employed for users to navigate within the scene.

After navigating the scene, users were prompted to fill out a survey to give feedback on the prototype's usability and feasibility as well as the potential for use of augmented reality for an in-store shopping experience. The survey asked for specific product-domains to which our system could be applied (i.e. electronics, furniture, books). The survey asked for opinions on how the platform enhances decision-making, useful features for an augmented reality shopping experience, perceived trade-offs compared to existing technologies and concerns about a system such as this one.