

RDSC: Project 09

Whirlpool® Slow Change Eco-Friendly Appliances

HOME APPLIANCES

*What's the use of a fine house
if you haven't got a tolerable planet to put it on?*

— Henry David Thoreau,
Familiar Letters

Background

Customers searching for Whirlpool-branded products often have an interest in eco-friendly alternatives. Historically, their interests are reflected in the products through various features. For example, the control panel on Whirlpool washing machines displays an Eco Monitor - a series of LEDs showing the relative



energy usage of the user's currently selected cycles and options. This helps users make an informed trade-off while still accomplishing their goals. Other products may have special cycles or modes which use less energy. As another example, recent Whirlpool ranges feature an AquaLift self-cleaning mode. Instead of using a lengthy high temperature process, a special coating activated by water and heat will easily release baked-on food from the internal oven cavity.

Whirlpool Corporation recently released their first generation of Smart appliances. These products were developed, in-part, with funding from the federal government to enhance the functioning of the Smart Grid infrastructure.



The Smart Grid seeks to reduce the load on the electric grid by providing two-way connectivity between the products in a home/business and the utility company. When periods of peak usage are imminent, the utility can request that systems temporarily reduce their energy usage to prevent a blackout or brownout. A clothes dryer may temporarily turn off the heater for a few minutes but still allow clothes to tumble - likely going unnoticed by most users. Because these peak usage periods are accompanied by higher utility rates, the consumer receives some small financial benefit by allowing their appliances reduce electric usage. Many consumers may also simply appreciate contributing to the greater good.



With the Internet connectivity that Smart appliances enable, even more can be done to support consumer needs. The current line-up offers features like Smart Delay which will allow a user to automatically delay a washing cycle until utility rates are at their lowest. An iOS app, which provides remote connectivity to the appliance, provides even more capability. It includes a visualization of upcoming utility rates, current power consumption, as well as tips.

Design Challenge

You might say that Whirlpool's current strategy is: "just the facts." Information is provided that allows the consumer to make a decision regarding the settings and options that best meet their needs. People even have the option to easily override the Smart Grid feature and use as much energy as they desire.

We would like you to imagine a future where Whirlpool wishes to *encourage and persuade* people to adopt more energy-saving behavior. In the spirit of slow change, we realize that this might not happen overnight. Some people may want clean clothes right now and the thought of waiting longer may not be desirable. Other people may feel that the few cents they will save off this month's electric bill is not worth the hassle. In fact, many energy-saving options are often counter-intuitive. For example, modern



dishwashers use far less water and power (internal recycling, etc.), but have longer cycle lengths which people mistakenly think uses more electricity.

Your challenge is create a design solution that encourages and persuades instead of just informing. You may consider changes anywhere in the holistic experience. This may mean changes to the interaction with the actual appliances (their control panels), new features in the app, or the creation of other support mechanisms to influence behavior.

Whirlpool Consumer

Whirlpool Corporation is a company of many different brands, each with a specific consumer target or persona. In the United States, this collection also includes KitchenAid, Maytag, Jenn-Air, and Amana. Within this project, we want you to mainly focus on Whirlpool-branded products. The current advertising campaign is: "Designed to simplify." This reflects the fact that many Whirlpool consumers lead very busy lives and the appliances should serve as a friendly partner to help them be successful. The appliances should not add extra work or get in the way of them spending time on what matters - their family, life and relationships. You may consider a young, dual-income, family with several children at home as one set of potential users. Of course, they are likely to have smartphones and be comfortable with technology, but are not early adopters. Their desire for eco-friendly products may vary widely from no interest to those motivated by either intrinsic or extrinsic factors.

Deliverables

Document your proposal in the best format that fits your solution. It could be a report, poster, or even video. Regardless, capture your thinking as you work - we would like to see your thought process and how you came up with your final solution. You are welcome to include any media or sketches which illustrate your concepts. Ideas do not need to be represented in high-fidelity; for example, wireframe-level is sufficient.

Resources

<http://www.whirlpool.com/smart-appliances/>
Compatible first-generation Whirlpool products.

<https://mysmartappliances.com/>
Find a link to download the Whirlpool Smart appliances iOS app (which can be used in a demo mode).



http://www.smartgrid.gov/project/whirlpool_corporation_smart_appliance_project

More details about the funding for the project.

<http://www.whatissmartgrid.org/>

Additional background information from the Smart Grid Consumer Collaborative.

Incentive

The entire class will be treated to dinner on Thursday, November 21st. Several members of the Whirlpool team, including recent graduates of the IU program, will visit and bring food. They will share feedback on some of the best ideas they saw in the reports. You are also welcome to ask them about life at Whirlpool or the UX field, in general.

IMPORTANT: Check frequently in the RDSC Project Blog for any changes to these requirements.

