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TRENDS ANALYSIS

The connection of the stove follows the trend of the internet of things and the connection of household objects. The internet of things has various definitions but each typically address the relationship between data and noise, data collection, new tools available to the enduser, and the advancements of sensors and technologies[1]. In the case of our device, it offers new tools to the user to increase safety in the home while also providing a possibility for data collection such as cooking frequency and safety habits.

This device fits in with the trends of smart devices in the kitchen, and most of these new products are equipped with different sensors that facilitate easy operation for users. Further, some of the smart kitchen appliances feature connectivity options that allow the appliance to connect with other household items and/or handheld devices such as smartphones and tablets[2]. Thus, users can operate these items remotely, thereby increasing their ease of use. Items as such currently range from large appliances such as the refrigerator and dishwasher, to scales and coffeemakers - the stove is no exception.

There are currently a few companies attempting to connect and redesign the stove. Two notable examples come from Dacor and Whirlpool. Dacor's Discovery iQ wall oven allows users to watch cooking tutorials from the range, set it to automatically switch heat levels, receive text messages when a meal is done, and control the range remotely from a smartphone or tablet[3]. While Dacor's stove does little to improve safety, it does allow for some ease of use through the tutorials and remote control. In contrast to this, Whirlpool is currently designing an interactive touchscreen cooktop that also allows for ease of use, but completely changes the user's interaction. This is achieved through the use of induction (which only reacts with metal) to heat pots and pans, while keeping the counter cool to the touch. Additionally, pots and pans can be placed anywhere on the cooktop as the sensors will detect and interact with the metal[4].

These types of redesigns, connecting, and attempts to make kitchen appliances 'smart' is only projected to continue. According to a new market report published by Transparency Market Research, the market was valued at 476.2 million dollars in 2013 and is expected to reach 2,730.6 million by 2022[5]. However, a major factor hindering the market growth is the high costs of these appliances over traditional kitchen appliances. Thus, these types of items, including the two aforementioned examples, are only available to the wealthy consumer as they require a complete replacement of one's kitchen appliance. In contrast to this, our product is simply an attachment. Our device would perform many of the same functions as more expensive appliances, such as user interaction and ease of use, but would be available to a much larger audience.

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[1] The Internet of Things, Rob van Kranenburg, Erin Anzelo, Alessandro Bassi, Dan Caprio, Sean Dodson, and Matt Ratto, Paper Prepared for the 1st Berlin Symposium on Internet and Society
[2] http://www.marketwatch.com/story/smart-kitchen-appliances-market---global-industry-analysis-size-share-growth-trends-and-forecast-2014---2022-2015-06-03
[3] http://www.usatoday.com/story/tech/2014/01/06/reviewed-ces-dacor-ces/4340941/
[4] http://www.theverge.com/2014/1/7/5285250/whirlpool-touchscreen-stovetop-concept
[5] http://finance.yahoo.com/news/smart-kitchen-appliances-market-expected-143320864.html