

**kPod: Selecting Kosher Products Faster**  
Design Proposal for LIS519  
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<http://www.pgabor.com>

Members of the orthodox Jewish community carefully need to check whether food items are suitable for them, i.e. kosher, or not, when shopping in the grocery stores. Currently each packaged item has to be lifted off from the shelf and carefully examined whether the packaging has a small sign, called *hechsher*, showing that the item's ingredients and preparation has been supervised by a rabbinic authority and deemed kosher. This examination takes a lot of time when performed on a regular basis. I propose a device that could reduce the time spent on searching for *hechshers* significantly. The same technology can be adjusted to be used for displaying nutritional information for people with other dietary restrictions.

The proposed system would consist of five elements.

1. The solution assumes that each packaged food item in a supermarket will be tagged with an RFID (Radio Frequency Identification) chip.
2. Information about the products--including type of *hechser*, if any--is stored in a frequently updated database.
3. The information from the database is available in store via wireless network
4. A multiple function add-on hardware to Apple Inc's iPod would act as an RFID reader and as a wireless modem to access the database mentioned above. The device could be called kPod, a play on the "kosher iPod" idea.
5. Software for the iPod would
  - a. read the RFID chip information of the product the device is pointed at
  - b. match the product in the database access via the wireless network
  - c. display the product information on the iPod, based on the user's preference.

The first assumption is based on current trends and research supported by the food retail industry itself. An alternative for the second and third points would be a database that the user could download into the iPod at her home. The advantage of this method would be that the kPod would not need to act as a wireless modem. A disadvantage is that it places the burden on the user to gather/update the information in the device before visiting the store.

My paper will focus on the latter two elements, with special attention to the software component. I will use Value Sensitive Design method to investigate the conceptual, empirical and technical aspects of the solution. I will explore and explain the stakeholders' interests, values and their implications on the product and process. The primary stakeholders are the users and the supermarkets. The formers' values include privacy, trust, and attention to the details of special dietary needs based on their religious belief. The latter would set up the first three elements of the proposed system, because their interest is to provide excellent and speedy service. The service offered would place them in a new market niche, setting them apart in a competitive market economy.

I will place the product into the context of Alfreda E. Chatman's Small World theory. The orthodox Jewish community can be construed as a small world, where "everyday happenings occur with some degree of predictability." I will examine to what extent Chatman's concepts (social norms, worldview, and social types) apply to Orthodox Jews and how they influences the design of kPod.

The paper will include the design description of the software to be used on kPod, including the reasoning for particular features and behaviors. I may cover the expandability of the product, because the same technology can be used for displaying nutritional information, for those with special dietary restrictions.