

Yaminabe YAMMY: An interactive cooking pot that uses feeling as spices

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ABSTRACT

“Yaminabe YAMMY” is an interactive hot pot which provides a new way of cooking and sharing our memories and feelings. The feelings extracted from the contents of an email, associated with a photo will be interpreted into different “spices” which will then be sprinkled into the pot to alter the food’s flavor.

Categories and Subject Descriptors

H.5.2 [Information Interfaces and Presentation]: User Interface
– Interaction styles

General Terms

Design, Experimentation

Keywords

Affective Computing, Entertainment, Cooking, Memory, Taste

1. INTRODUCTION

In recent years, people have become wealthier and demand better quality food. However, we think that from now on food will not be consumed just for its taste and nutritional value, but also for some entertainment value.

As a food for entertainment, in Japan we have “Yaminabe”, which literally means a hot pot in the dark. Yaminabe is a hot pot of unusual ingredients and color eaten in the dark with close friends. Most of the time, instead of being a meal, it is more of an entertainment where people enjoy thrills and laughter.

Yaminabe YAMMY is an interactive cooking pot which adjusts flavor according to user’s memories. It provides different “spices” to change the taste of meals. We can enjoy the hot pot as we look back on our memories. It is a cooking media as an entertainment.



Figure 1. Yaminabe YAMMY and SPICE Maker

2. RELATED WORKS

Noda et al.’s recent work “Landscape Bartender” [1] connects taste with image, in which taste is assimilated to landscape.

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Different elements of landscape are assigned to each drink, and when the cocktails are actually made, the landscape will appear. Yaminabe YAMMY connects photos with feelings and produces the spice of memories. We can create our original taste based on our memories and episodes. In this way, users can participate more actively, and friends and lovers can share the same memory and feelings.

“pHotOluck” [2] by Amano et al. is a cooking media that uses photos. It aims at enhancing communications at the dining table. By projecting the pictures taken by mobile phones on the dining table, it provides a topic for people during meals. It is similar to Yaminabe YAMMY in the respect that it uses photos to encourage conversations and trace back our memories.

Other than this, Food Simulator [3] also has its focus on food. It is a haptic interface that presents biting force.

For decades, human’s five senses (sight, hearing, smell, taste and touch) has been an area of interest in academic and technological studies. There have been considerable amount of researches done on the senses of sight and hearing while the studies on taste is relatively few. It is believed that such field will draw more interest in the future. Yaminabe YAMMY is a device that combines the sense of taste and digital media to produce a new interactive experience to users.

3. COOKING AS ENTERTAINMENT

Cooking is a multimodal entertainment that simulates one’s sense of taste, smell, sight and hearing. In the traditional way of dining, people are served with ready-to-eat food, which means they are in a passive position. In Asian food culture, however, there are dishes like Nabe (hot pot) in Japan which embody an element of interactive cooking by multiple users.

In Yaminabe YAMMY, the psychological situations of the users are analyzed from their emails and the analyzed information is made into spices. Thus, the taste of the hot pot reflects the feeling of multiple users. As you add in more kinds of feelings to Yaminabe YAMMY, it will become a mixture of various tastes. Hence, it is more like an amusement than a meal, which provides fun, thrills and laughter to the users.

One of the characteristics of Yaminabe YAMMY is that it analyzes feelings and in response to the feeling, a certain spice is added. A spice container is installed in Yaminabe YAMMY and the user can freely choose the spice which he/she thinks best describes his/her feelings. For example, when one associates “happiness” with “sweet”, one can put sweet seasonings such as sugar into the container with the tag “happy”. Thus, when the email sent to Yaminabe YAMMY is analyzed as “happy” feeling, sugar is sprinkled into the hot pot.

4. IMPLEMENTATION

4.1 SPICE Maker

The system can be mainly divided into two parts [Fig 1]. The first part is an iPhone application called “SPICE Maker”. The application is able to create meaningful relations with photos and message phrase, and then it extracts and interprets the words related to feelings into a data set referred to as “spices of memories”. When an email message from the user is sent to the application server, it searches the key phrase that is registered in the server database. The server responds with the corresponding taste data related to the message phrase and transmitted from the server to iPhone application and Yaminabe hardware. The user will be able to see the taste data chosen from the email phrase in SPICE Maker application. The words of feelings are interpreted as a pattern of color and flavor: e.g. “blue, sour” for the word “sorry”, and “pink, sweet” for the word “like” or “love”. Words to feeling interpretation are inspired by the ILU Electronic Mail Comprehension Engine [6] which can interpret emotional words or phrases into other visual aids to enhance the communication of feelings.

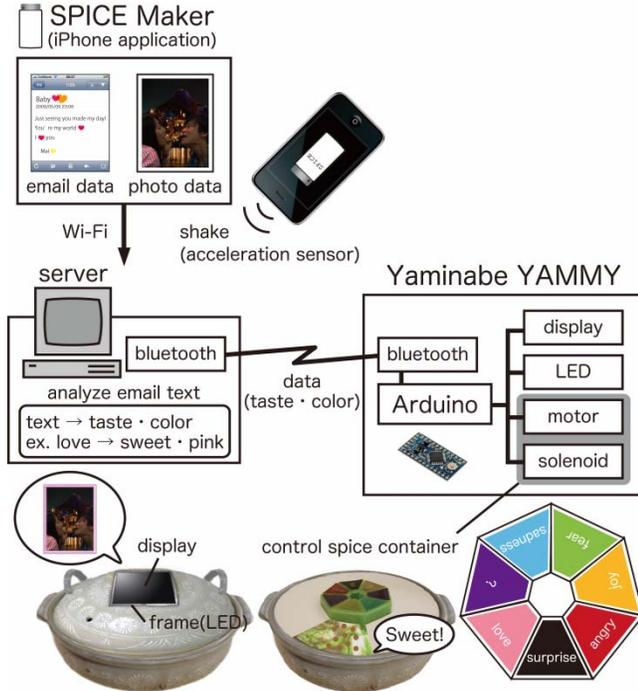


Figure 2. System of Yaminabe YAMMY and SPICE Maker

4.2 Yaminabe YAMMY

The second part is hardware of Yaminabe YAMMY to cook a real meal. As we shake the iPhone, a trigger pulse will be sent to the application server where it will forward it as an acknowledgement to the previously sent “spice of memories” data to Arduino using Bluetooth. The spice container inside the pot selects the flavor and sprinkles it according to the “spice of memories” to change the taste of the meal.

Photos are also sent to be displayed on the mini display on top of the pot. The photos can be pre-selected from device image database and programmed according to the user’s selection. The process will be completed with the image being displayed in the device synchronous with the taste data sent for actuation. In addition, the color of the photo frame is changed with consideration of the “spices of memories”. For example, in the case of a photo of two lovers, the frame becomes pink, and sugar is sprinkled to make a sweet hot pot.

5. USER EXPERIENCE

We can use Yaminabe YAMMY in many occasions, such as birthday parties and other kind of celebrations. People can gather together to make their own spice according to their memories and put them into the pot and warm up the party, or on the first anniversary of a married couple, they can look back on their memories as they enjoy the hot pot. We can enjoy different taste of the hot pot based on different memories, and we can also share our feelings and memories with others. Yaminabe YAMMY can be used not just for one time, but for many times. Because we can enjoy a different taste as we “accumulate” different memories. Yaminabe YAMMY enables us to share our memories and feelings with families, friends and lovers, and enables us to make new memories. Eating from the same pot together itself becomes a good memory and helps to build a stronger relationship with one another. In this way, it gives rise to a chain of memories.

6. CONCLUSION

There is a saying in Japan: "Eating from the same pot". By eating the same thing from the same pot, at the same table, as a community, a sense of belonging to the community will be developed or strengthened. In other words, we add our spice of memories to the pot, and by eating the hot pot made from various spices, we can build a strong relationship by sharing the memories and feelings.

Yaminabe YAMMY provides people the experience of having enjoyable meals with their families, friends or lovers as they share their memories and feelings together.

7. REFERENCES

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