

DinnerWare: Why Playing with Food Should Be Encouraged

Marcelo Coelho
XS Labs, Concordia University
email@cmarcelo.com

Abstract

DinnerWare is an exploration of eating as a medium for computation and aesthetic expression. The project consists of a dining service electronically equipped to react to the properties of the food that it holds and respond to a user's eating gestures.

1 Introduction

"Men think, dream and act according to what they eat and drink". With this Futurist assumption in mind, *DinnerWare* is an initial effort towards creating a synesthetic experience that can help us put some of our most ritualized eating habits into perspective.

The project is composed of 4 main dining utensils: plates, cutlery, wine glasses and a saltshaker. Each one of these instruments is embedded with electronics to examine an individual mode of interaction and to concomitantly incorporate food as an integral part of an electronic circuit.

2 Technique and Interaction

Similar to a conventional dining setting, the plates and cutlery [figure 1] are the most indispensable instruments in *DinnerWare*. The plate is outfitted with an array of LEDs and functions as a parallel switch network separating the voltage potential between the conductive tablecloth and the wired fork. The food, through its electric resistance, acts as a continuous circular sensor. The higher the conductivity of the food or the fork's proximity to an LED, the greater the light intensity is. The aesthetic response of the plate is ultimately determined by the eating behavior and the physical qualities of the food: temperature, acidity, moisture, etc.

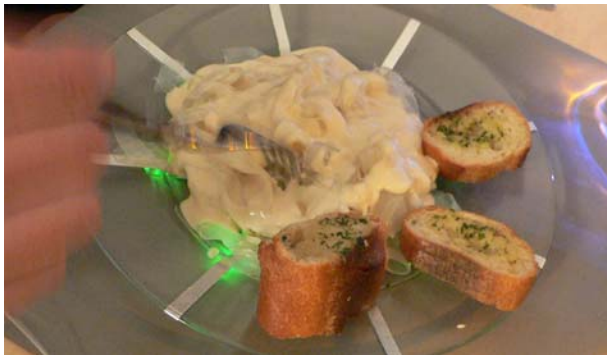


Figure 1. The "Fettuccine circular sensor"

This direct and continuous interaction between eater and food is contrasted by the collaborative interaction of the knives, which are connected to each other across the table to act as a jumper wire, so that both eaters can influence the lighting pattern on each other's plate. Secondly, the wine glasses predispose a negative interaction by "turning on" only when they are put to rest. When the eaters remove the glasses from the table and drink, the lights turn off. Finally, the salt shaker

activates a tricolor LED to scan through the RGB spectrum when it is shaken or turned upside down, and the salt further contributes to increase the salinity of the food and its conductivity. It is the equivalent of an edible potentiometer that chemically affects the sensing mechanism on the plate.

DinnerWare augments dining without bounding food and taste to the constraints of a digital domain [Maynes-Aminzade 2005]. Moreover, it makes an idiomatic use of the natural gestures and ordinary rituals surrounding collective dining. A couple of dining experiences with these devices have already proved very fruitful in reevaluating some of our eating expectations. For example, eaters ate from one another's plates, constructed simple circuits with food and touched their knives and forks against each other to create more elaborate lighting patterns.

By examining eating and dining etiquette, *DinnerWare* hopes to address several questions. The tools we use to eat have been the same for ages. How easy is it to undermine culturally reinforced gestures when the ritual of eating is challenged or re-contextualized? Moreover, is it possible to work with the more neglected senses, like taste and smell, with the same primacy that currently grounds video or music? What are the implications of eating the medium through which we interact and communicate?

There are currently two main directions of research for this project. The first comprises the creation of washable and aesthetically interesting electronic objects that can function in personal or collective contexts. The second direction involves the development of simple edible computational elements and their coupling with conventional computers and microcontrollers.

3 Conclusion

DinnerWare is about food and how we eat it. Its goal is to increase the potential of our dining experiences through simple electronic technology, by turning food into a medium for our sensory explorations.

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References

- MARINETTI, FILIPPO TOMMASO. 1989. *The Futurist Cookbook: Against Pasta*. London: Trefoil Publications, Ltd.
- MAYNES-AMINZADE, DAN. 2005. *Edible Bits: Seamless Interfaces between People, Data and Food*. CHI2005.