WantEat and Reward: Slow Technologies for Food

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ABSTRACT
In this paper we provide our vision of slow technology, presenting two interactive systems in the domain of food.

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Food, package-free purchase, systemic design, 3D printer.

ACM Classification Keywords
H5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

INTRODUCTION
In their seminal paper, Hallas and Redstrom [2] stated that "slow technology is a technology that amplifies the presence of objects in time and space". In our vision, slow technology can be interpreted in particular as technology which stimulates people to think over the origin and lifecycle of things, including for example the geographical area they come from, the raw materials or ingredients which are used to create them, and the steps and time required for their production processes. We chose to apply this vision to the domain of food for two reasons. On the one hand, food is an important part of cultural heritage and is deeply rooted in everyday life. However, food can also be seen as a means rather than as an end, and therefore be purchased, prepared and consumed quickly and mechanically: amplifying the presence of food and its packaging might allow to restore the perception of its symbolic and cultural meanings. On the other hand, food has already been the object of a successful rethinking process in the direction of positive slowness on the part of Slow Food [6, 11] and package-free purchase stores [12]. With this respect, while these experiences indicate that a slow approach to food has great potential, the role that slow technologies can play in such a process is still to be investigated. Starting from these motivations, we designed two *interactive systems* which demonstrate how slow technologies can play a role in the domain of food. The first, WantEat, is the result of a joint project with Slow Food and the University of Gastronomic Sciences [7]. It aims to show how present mainstream technologies can amplify the presence of food with no need to change the current production and distribution processes. The second, Reward, stems from a research project and a master thesis at the University of Turin [13]. It aims to show how niche technologies such as 3D printers can be used to disrupt habitual food purchase behaviours in a way that consumers are stimulated to reflect on the presence and sustainability of food containers and to reuse them.

SLOW TECHNOLOGY IS … *WANTEAT* TO AMPLIFY THE PRESENCE OF FOOD AND ITS TERRITORY.
WantEat can be considered as the result of a slow and non-spectacular approach to design, where design embraces a systemic vision -exploiting different disciplines and points of view- to deal with the complexity of networked systems in the gastronomy domain, where products can be linked to e.g. other products, their producers and their production sites, as well as having a very specific identity [3]. The design of WantEat system was inspired by the idea that food items such as wheels of cheese or bottles of wine are silent protagonists and witnesses of the cultural heritage of a territory. Thus, their presence could be easily augmented, and reflection about them could be stimulated, if they were enabled to tell stories about them and about the events in which they were involved. The goal of WantEat system was therefore to use mainstream technologies to give voice to food items in a non-invasive way, with no need to infrastructure either food items or their environment, and without intervening on the current production and distribution processes. In WantEat, knowledge about the gastronomy-related cultural heritage of a territory is represented as a mixed Social Web of Intelligent Things and people, where social relationships can depend on domain knowledge alone or on user behaviour (e.g., a cheese and a wine may be related if many users said that they match well in their comments). Users can get in touch with such a web through an interactive cross-media system, consisting of smartphone, tablet and web applications. More specifically, they can recognize food items by means of a smartphone application with label recognition functionalities: once an item is defined as the current focus of interest, users can both get information about it and explore its social network, discovering similar products, the territory it comes from, the farms which produce it and so on. In this sense, the food item acts as a sort of hub for the exploration of the gastronomy domain. Moreover, users can continue their reflections in different contexts, e.g., at the restaurant, where they can enjoy an interactive tablet menu which allows them to watch videos promoting the cultural heritage related to the dishes they choose, and at home, where they can relive their experiences using WantEat website.

SLOW TECHNOLOGY IS … *REWARD* TO AMPLIFY THE PRESENCE OF CONTAINERS.
As "food" is bound to its "territory" in WantEat, Reward highlights the relationship between "food containers" and

"social actors". Reward is an interactive system aimed to support package-free purchasing practices. Since we have found a gap in this practice, which prevents it to replace current consumption habits in a more sustainable direction, Reward enhances the presence of object-containers to help its users to develop a reflection upon materials. In package-free purchasing practices, containers, that should be used many times, are rarely reused. Lacking a reflection on its value, packaging is quickly discarded, as it happens for containers in supermarkets. We have observed that this mechanism depends on the aesthetic quality of containers, which are standardized and anonymous: since containers are considered only on the basis of their functionality, these objects are vulnerable to being replaced with any other with the same sign characteristics [9]. What is missing here (and needs to be created) is an involvement with these specific objects of our everyday life, food containers. For this reason, we have designed an interactive system in which a 3D printer allows each store to customize their own containers and the customers to create and personalize additional gadgets for the containers themselves. Reward is composed of a 3D printer, a mobile application for package-free store customers, a web application for the retailers and a Social Network of customers and retailers; the personalization process is accessible through a graphic composer tool, only after that customers have joined and sustained the practice of free-package purchase and have been involved in the habits that characterize it. This system, through this personalization mechanism, will allow users to reflect themselves in the objects involved in the purchase practice: the container will be changed firstly in its material qualities, such as sensual appeal and aesthetics, secondly in its symbolism, its meanings or sign values [9]. Since, as noticed by Odom et al. [4], symbolism can engender a high strength of attachment when it arises from augmentation that reflects back on its owner in a personal way, this system could fix a durable relationship between people and things. This change will arise even through the aesthetic quality of the object, from now on considered as a product of the creativity of users. Finally, Reward would be also a good tool to slow down the provisioning of objects themselves, giving room to reflection about the material objects are made of and about the process to create them. The presence of technology, that allows users to see the construction process of a container in real time, will highlight what was previously hidden [5]: the time, the process and raw materials needed to produce a single object-container, seen from now on as a "thing" and not only as an artefact that fulfils a function [10].

CONCLUSION

In our discussion we have described two interactive systems, WantEat and Reward. Nowadays, purchase and consumption practices are affected by the velocity of our everyday habits, leaving no room for an environmental awareness of our lifestyles. Starting from two sustainable perspectives, like Slow Food and the package-free purchase

practices, we wanted to rediscover the value and the presence of the ocean of available things that everyday we discharge or reduce to waste [1]. Through the slow technologies described we had the aim to sustain this rediscovery, stimulating reflection upon materials, producing a slowdown in the food and container consumption and perhaps changing the everyday actions of people in a more sustainable way. Thackara [8] in his "In the bubble" showed us the need of deep changes in our design perspective to address a lighter and slower impact in introducing new technology in a sustainable way, considering the complexity of the system surrounding our everyday life. The perspective we adopted tried to take into account this complexity, considering the dynamics these practices are made of and the contexts in which the everyday practices of people are held.

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