

## Handmaking food ideals

### Crafting the design of future food-related technologies

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# Handmaking Food Ideals: Crafting the Design of Future Food-Related Technologies

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**Abstract**

Much technology is designed to help people enact processes faster and more precisely. Yet, these advantages can come at the cost of other, perhaps less tangible, values. In this workshop we aim to articulate values associated with *handmade* through a co-creative exploration in the food domain. Our objective is to explore the potential of integrating such values into future food-related technologies. In a full day workshop we will: critically reflect on the notion of *handmade*; engage actively with food—production, plating and consumption—as design material; and conduct collective discussions around the values that these processes and materials can embody when attended to through lenses other than efficiency. By *handmaking*: touching, smelling, tasting, listening, speaking and enacting choreographies with the materials at hand, we hope to deepen the discussion of the meaning associated with the *handmade* and bring a richness to ways that designers imagine future food-related technologies.

**Author Keywords**

Food; Crafts; Handmade; Futures.

**ACM Classification Keywords**

H.5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

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### Introduction

Technology is increasingly sophisticated, carefully designed, and ubiquitous. Yet, the integration of technological artifacts into everyday activities can compromise important values: the richness of local heritage, personal and cultural traditions, historical legacies and more. Such values are commonly aligned with notions of *craft* and *handmade* [1, 13]. There has long been salient debate about the schisms and similarities between crafted, *handmade*, and highly technologized production processes [5, 8, 13, 6, 10]. For example, in 1998 McCullough cautions that the role of new technologies in production processes is growing to the detriment of “talent, of inarticulable knowledge, of contextual understanding and dedicated practice” [8]—qualities he attributes to craftspeople. A decade later Pallasmaa cautions that technological practices are overwriting “our magnificent, multi-sensory, simultaneous, and synchronic capacities of imagination” [10]. He explains that this is because technology-mediated artifacts afford interactions that are often virtual and intangible: the process happens through engagement of the eyes with the screen, until a machine manufactures the outcome. While this is not necessarily the case with food-related technologies, we often see the manipulation of forms become passive as the cook’s hands shape the outcome through engagement with a controller, rather than with the food itself. In this scenario, the raw materials, and the chemical reactions engendered by their combination, become increasingly abstract, and compound the distance the machine already affords.

The schism between technological mediation and direct material engagement is not an easy boundary to fix. *Handmade* is a complex concept that embodies far more than the direct manipulation of materials. It is often considered an essential factor in defining the quality and value of a product yet seems far removed from any notion of advanced technology development. Recognising this challenge, our workshop investigates if a reflective process involving food preparation might

assist the DIS community to bring food-related technologies and handmade values together.

Cooking has long been considered an archetype of handmade practice. Eating, of course, is essential to life, and cooking is an activity that humans have engaged in for millennia. In the food domain the use of digital technologies is gaining momentum, both in commercial kitchens and the home environment. Processes that were once carried out entirely by humans using hand-held tools are increasingly being performed with support from advanced technological artifacts. As a result, the influence of *handmaking* practices, and thus the presence of handmade values in food preparation, are diminishing.

To counter this trend, we take the view that even with heavy technological intervention, cooking can—and should—be approached as a craft: a reflective conversation with material [15], an activity in which “form is conceived in a continuous state of (de)composition” [7]. When cooking, combinations of food ingredients are defined and re-defined; temporal and spatial relations are composed and de-composed; time is used as a material ingredient; space is used to display, mix and combine flavors. Like with any craft, the way ingredients and processes are mixed and matched by the craftsperson reflects the judgment, dexterity and care which the maker exercises as she works, to determine the quality of the final outcome [11]. Cooking thus engenders the special human condition of being engaged with the materiality of the object [13] and the workmanship of risk [11].

Through a series of tightly structured tasks, over four acts, our workshop will open up the debate about *handmade* values in technology-mediated processes, in the domain of food. Participants will be invited—through direct engagement with food materials, tools and techniques—to uncover and articulate nuanced understandings of the interplay between food and tool

### Background and Methodologies

Our workshop builds on prior experiments with Participatory Research through Gastronomy Design (PRGD) [12].

PRGD brings together Participatory Design, Research through Design and Food Design to afford the design of eating experiences that are more meaningful to end diners. In our workshop, it will help us creating a participatory context for participants to discuss the values associated with handmade food while directly engaging with food materials.

PRGD recognises that the experience of eating does not rely on food alone. It is influenced by many factors: multi-sensory stimuli [16], cultural factors [9] and social interaction [18] and the nature of our methodological approach seeks to recognise and utilize these.

use; and to consider how the handmade, in its nuanced understanding, might be foregrounded through future technology development.

*Handmade* food carries cultural appeal for those who cherish artisanal production processes, locally sourced ingredients and materials [4]. We believe that such processes—and the associated values—can be made more accessible through considered development of technologies. For this to happen, the associated values must be articulated in terms that make sense to technology designers and developers.

The new digital revolution is producing crafted artifacts that harness and celebrate the potential of technology [14]. Through the workshop we aim to reflect on how the digital revolution might become a powerful force for extending artisanal values of *handmade* crafted objects into the realm of food, by considering what kinds of thinking is needed to support such a shift. Our objective is threefold: (1) to grapple with how people experience *handmaking* food, (2) to articulate the values associated with *handmade* food in terms that resonate for the HCI community, and (3) to consider how those values might be embedded into wider technology-mediated production processes [c.f. 17].

### Structure

The workshop will be a day long. It will involve 10 to 15 participants and will unfold over four phases. Phase 1 and 2 serve to familiarise participants with the possibilities and constraints of food as a material for designing and thinking. They also bring focus to the possibility of food as a playful domain of exploration. Phase 3 and 4 enable participants to draw on their findings from phases 1 and 2 to design and prepare dishes that embody notions of *handmade*.

Phase 1: Through a series of hands-on activities, participants, in groups, will prepare food using different artefacts as tools, ranging from a 3D food printer to

woodcarving tools. Through an active engagement with the materiality of both the food and the utensils, participants have the chance to freely explore the potentialities the materials afford. Their challenge will be to convey their reflections on the values of *handmade* into experimental prototypes (or provocative prototypes [3]). Those prototypes are not meant to look like a finished piece; the focus is not on functionality or aesthetics, but on raising discussion over the idea of handmade when they are experienced alongside lunch.

Phase 2: The provotypes, presented using selected tableware, will be touched, tasted, discussed and considered, through a guided reflective conversation, over lunch. Participants will taste each others' creations to experience the explored values from the perspectives of preparing, presenting and consuming. In order to broaden the range of feedback on the provotypes, and we hope, provide an engaging addition to the wider conference, the tasting will be open to all attendees to engage and reflect on the central theme of the workshop. Verbal and/or written comment will be collected by the workshop organisers.

Phase 3: After lunch, participants will be re-grouped and invited to choose food, tools, and vessels for plating, in an open-market style set-up. The aim is for participants to choose the materials they will use to design (prepare, construct and plate) a dish that embodies –as far as possible– their ideals of *handmade*. Using a recipe template, participants will precisely document the steps taken for their *handmade* dishes and address which ideals have been represented in their final outcomes.

Phase 4: Each group will present their final dish to the other participants. The recipe templates will help generating discussions over the outcomes. The participants will explore if the assumptions concerning technological mediation, both in terms of mission and

process, have been challenged or changed throughout the day. The attempt of this forth phase will be articulating how our extended understanding of handmade values could be integrated into new approaches to technology development.

### Goals and outcomes

We contend that future food-related technologies will benefit from a strong association with *handmade* values. Through the workshop we will identify and articulate values associated with *handmade* food and artefacts and explore how those values could be integrated into yet-to-be imagined food-related technologies. We ask: What if—rather than standardizing the food-making process—kitchen technology enhanced cooks' agency as food artisans, along with their technical capabilities? What if food-related technologies transformed not only food preparation, but the entire dining experience? And, how might engaging with handmade values inform the development and use of advanced production/making technologies more generally?

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