Considering Craftsmanship

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ABSTRACT

Craft involves the application of human skill and invested time. Some have argued technology has undermined human expertise by replacing craftwork with automation, disposing of human ingenuity and proficiency. Can new technologies integrate skill, materials and labor with the products of craft? How does technology affect the use and significance of the crafted artifacts? Conversely, how does the craft process engender cultural value for creative practitioners? In this poster, I present a research agenda for the study of craftsmanship in everyday creative practice through new Information and Communication Technology (ICT). In the design of new technology, I seek to support the personal and social value of craft by extending the skilled work of the creative practitioner.

Categories and Subject Descriptors

H.5.2. [Information Interfaces]: User Interfaces — input devices and strategies; interaction styles; user-centered design. D.2.2 [Software Engineering]: Design Tools and Techniques —User interfaces. H5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

General Terms

Design.

Keywords

Craft, Craftsmanship, Everyday Creativity, Design Research

1. INTRODUCTION

Craft—the skilled manipulation of materials—is an integral part of the human experience. Craft involves the connection between materials and the human mind and senses, often mediated by a technological tool. Tools for craft are wide-ranging, from paintbrushes and potter's wheels to computers and 3D printers. Similarly, the nature of craft can vary: some crafts rely on eyesight and physical manipulation using human hands; others rely on smell or voice. Yet through emphasis on efficiency, technology can undermine an individual's creative expertise. Automatic looms, for example, offer methods for easy reproduction and decreased production costs, but at the expense of flexibility in design choices, such as limiting 3D patterns. Furthermore, automation of the weaving process displaces the textile designer's investment of time and creative skill. How can designers of new technology consider the role of craftsmanship and the social stakes involved in creative practice?

Today's emerging craft practices have united with Do-it-Yourself (DIY) activity in creative subcultures across America, such as the

CRAFT and MAKE[1] communities. DIY encompasses a range of personal design activities that have become increasingly prevalent on the pages of blogs and online discussion forums. Using these largely public resources (Instructables.com or Raverly.com[2]), crafters discuss the intricacies of their work, tell stories around craft, and codify their creative process for others to remake or modify. Such 'Everyday Creativity' [11] has been an increasingly fruitful area of study for HCI and Design. Recent research has aimed to unearth motivations for customization and reuse (e.g., [11]), and to understand how DIY and craft cultures have affected, and been affected by, the design of new Information and Communication Technology (ICT) (e.g., [1]). Yet there has been little effort to understand the role of invested time, skill and care in relation to this creative work; that is, how ICT affect the continued cultivation of creative expertise, and how creativity and social relations can continue to be supported through craft. In this poster, I propose an integration of craftsmanship in the study of everyday creativity through the design of new ICT.

2. CRAFT & TECHNOLOGY

As a physical, skilled practice, craftwork has often been viewed in opposition to advances in new technology [9]. The displacement rather than disposal of labor is an often hidden outcome of new technology, carrying deep social and cultural implications [7]. In her critique of domestic technology, historian Susan Strasser has argued [7] that the emergence of industry in America resulted in more isolated labor for women, limiting the social relations enabled through craft. Sociologist Ruth Schwartz Cowan [1] furthers this critique, arguing that industrial advancements brought new expectations for craftsmanship and cleanliness, resulting in more housework for women. For example, with the advent of industrially-produced clothing, middle class Americans were able to own more clothing, thus replacing women's weaving and sewing with an increase in mending (a more isolated activity reserved for the home rather than sewing circles). However, in recognizing and celebrating the social value of human skill, technology has the potential to help strengthen social ties during productive practice.

The recent resurgence of craft practice reflects an effort to reclaim personal time, skill, and control in a connected global economy. First in the Arts and Crafts Movement of the early 20th century and later in the 1960s, a romanticized reawakening of Craft was provoked in the West. Manual labor has been continually embraced for its investment human expertise. John Ruskin echoed this sentiment, "For it is not the material, but the absence of human labour, which makes the thing worthless" [4]. But perhaps

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[1] See http://makezine.com and http://craftzine.com.

[2] Ravelry.com is a social networking site for knitters.

contrary to past craft movements, today's practitioners often appropriate new technology, using it as a means to share curiosities, inspire new ideas, and communicate around craft.

3. RESEARCH AGENDA

Through a series of design interventions, I aim to better understand how ICT can support crafters' social interests. For example, how can technology enable communication around skilled, productive practice? How can such communication strengthen ties between the craftsperson and the recipient of craftwork? The design interventions will build on the first of my design studies, the Spyn project—a tool that enables knitters to attach digital messages to locations on yarn while knitting and recall each message in relation to where it was recorded [10]. Spyn uses infrared ink printed on yarn to transparently correlate locations on the fabric with events recorded while crafting. I observed how knitters used Spyn to rethink their craft practice while creating hats, scarves and sweaters for friends and family as well as how the craft was reinterpreted by others. By allowing knitters to encode social relations into yarn, people extended their creative and communicative activity around craftwork (e.g., embedding a recipe into a scarf and documenting travels in a hat).

Expanding on this work in the domains of furniture customization and everyday cooking, I intend to explore extensions of everyday craftwork through technological expression. In addition to the social, I want to explore the somatic and sensorial dimensions of craft: how the craft process conditions affect and how craft challenges the mind-body dualism brazen in technology's intellectual heritage. In order to study this interplay, I will observe and build a socio-technical system for three craft-subcultures: craft-knitters, Do-it-Yourself furniture builders, and everyday cooks. In my study of knitting, I will consider its gendered and domestic implications, its use in generational cultural transmission, and the variance in technology use across generations. Through a study of DIY furniture building, I will examine notions of customization, reuse, and creativity, as well as the seemingly less-gendered nature of the customization practice (see Bean & Rosner 2008). Of particular interest is how the craft of furniture customization is related to traditional notions of artistry, which suggest an economy of means that requires "getting the most out of a limited medium" (McCullough 1996:10). Finally, through a study of everyday cooking, I will look at how the inherent ephemeral quality of food affects the value of cooking and how the variety of physical sensations (taste, smell, and sound) play into the craft process.

Each design intervention will involve three phases: First, I will closely observe each craft practice by participating in craft events (crafting circles and community fairs), interviewing individual crafters, and visiting sites for craft both in person (homes, stores) and online. Secondly, I will develop tools that extend the ways each craft uses materials to mediate relationships with others, both through the transfer of information around the making process as well as the transformation of the craft products themselves. Third, I will investigate how such tools affect the negotiation of identity [5] and creativity through craft. How is craftsmanship influenced through technological tools? When is it important for people to disrupt the mechanical process? How do breakdowns in the creative process shed light on the transfer of creative control? Through the design of new tools for craft, I will investigate how people *transform* the traditional medium of craft and *expand* communication around the processes of craft with the hope of inviting designers to rethink notions of craftsmanship in the design of creative tools.

4. ACKNOWLEDGMENTS

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