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BeasitesLAB: A Case Study on the Co-Creation of Digitally Printed Textile Products

With issues of financial uncertainty and climate change leading many to question the role of the capitalist system, is it time we look to the past in making our future? This paper describes ongoing doctoral research (within the context of textile-related disciplines) that uses digital technology and the Internet to create an economically and environmentally sustainable alternative to mass production - a new paradigm rooted in the principle of peer-to-peer collaboration that forms the basis of modern open-source and free culture movements. Although high-tech in its application, this approach seeks a return to the values of traditional craft practice and culture that characterised pre-industrial society. Drawing on examples from my own practice as a systems designer / developer, the intention is to illustrate how rich interface / interaction technologies can be used in conjunction with emerging design tools (software) and manufacturing systems (hardware) to establish a more appropriate model for contemporary craft practitioners engaged in digital making & selling.

The paper will present a case study conducted in collaboration with a prominent textile design firm, that examines how this model is structured to best take advantage of the on-demand capabilities of digital manufacturing equipment, thereby removing the separation of creators and consumers imposed by the just-in-time doctrine of industrial supply chains. After highlighting the significant economic and environmental benefits inherent to this switch in strategy, attention will turn towards the theme of co-creation that lies at the heart of this exchange. In particular, how the experience of co-creation influences the customer's perception of value and its potential contribution to cultural well-being.

Central to each application is the development of the retail installation housing a rich media interface that invites customers to design / remix product concepts in highly interactive ways. Sampling techniques from less static mediums (eg: web design, video production, games development); print compositions are dynamically generated based on algorithms that respond to physical gestures detected by various sensors and devices (eg: microphone, webcam, touch-screen, Nintendo Wii, etc). As such, the designer's vision can be brought to life through the use of content-specific behaviors (ie: birds fly, plants grow, etc).

Early feedback supports the view that value becomes experiential with customers forming strong emotional attachments to the physical products as symbols of their participation in the creative process. Contrast this with the disposable culture promoted by modern marketing.

The paper will conclude by expanding the scope of analysis beyond the level of the individual enterprise to that of collective market. My aim will be to consider how this craft-minded approach might evolve and propagate itself in order to deliver an open platform for making and selling - not unlike the social structures of the guild system. In assessing its potential to deliver a more sustainable economy, society and environment, this 'multi-production' platform will be contrasted with the existing cycle of mass-production and mass consumption.