Cooperative Design and Personal Utopias

Opportunities and Challenges for Nordic CHI in a Networked World

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1. INTRODUCTION

For better and worse, the spread of trade and culture is diminishing regional differences. We move slowly toward a global consensus on basic human rights, we move more rapidly toward a consensus on fast-food restaurants and shopping malls. The fact that these trends are probably irreversible makes it more important to establish and create an accessible record of the diversity that exists now, to make it part of the practice that is carried forward.

NordiCHI has a singular opportunity to contribute in this way to the field of human-computer interaction. The Nordic countries have a long history of information system design, development, and use. Some digital technologies are more widely used here than anywhere else in the world. In addition, without ignoring the differences among the five countries, there is an unusual degree of cultural homogeneity. The voices in a Nordic gathering are varied, but together they produce a distinct and unique contribution to the international discussion.

2. WHEN TO COOPERATE IN DESIGN

One of the strongest Nordic influences on the theory of systems design has been the cooperative design experiments described in the opening plenary address. Cooperative design may be uniquely consonant with Nordic cultures. The degree to which it has influenced practice here has been discussed and written about at length. Morten Kyng presented a nice summary of it in a plenary address at a Participatory Design conference several years ago. Many in the CHI community were receptive to the ideas and they have slowly influenced practice around the world—a positive example of the blurring of regional differences. For example, Karen Holtzblatt and her colleagues drew explicitly on this work in formulating contextual design, and contextual design has in recent years had a strong impact within Microsoft and other companies internationally.

That was then—what about now? I suggest that cooperative design is not an interesting historical footnote, it is a new opportunity for the future. If it seemed more exciting in the 1970s and 1980s than in the past decade, I believe we are entering a third phase in which participatory methods will be more important. The participants and effective practices will differ, but the spirit of cooperation and mutual education will be the same.

From craft to mass production to niche marketing.

At one time, building a farm wagon meant considering the nature of the specific farm—does it have hills, is it particularly muddy, and so forth. Later, of course, farm machinery was mass produced and cooperative design was not called for. Only in the 19th century did standard parts and mass production of timepieces occur; for centuries each had been designed and built uniquely, often for specific customers. For one technology after another, craft has given way to mass production. In part this happened when the precise manufacture of interchangeable parts became possible, but it also required enough experimentation to understand what designs work well and what features would appeal to a mass market when inexpensive enough.

Software has similarly evolved from craft to mass production. Through the early 1980s, each computer had a proprietary operating system, and most applications were developed for a specific organization. Software was in its craft phase. Cooperative design made sense. Over the past 15 years this has changed, with standardization on a few operating systems and mass-produced commercial software coming to dominate.

The reality is complex. For one thing, change comes slowly, new application areas arise as others mature, and the flexibility and extensibility of software engenders greater fluidity. Cooperative design had a potential role in commercial software production, but it was not nearly as logically compelling as in the craft phase, nor were experiments in practice as easy to formulate. Usability studies were often as good as it got.

The history of the automobile illustrates how the story continues. Its craft phase was in the late 19th century. Scores of producers hand-crafted cars, primarily for their own use or for wealthy patrons. Henry Ford converted "the American system of manufacture" based on standard, interchangeable parts to producing relatively complex automobiles. Ford had experimented in a relatively user-centered way for years to design the Model T; he then produced identical, spectacularly successful cars for 19 years. That era of mass production left little place for cooperative design.

However, the market changed. People want cars for specific purposes—sports cars, station wagons, off-road vehicles. They want cars that are not black, cars that reflect style, which might mean a lot of chrome or no chrome. People wanted cars that reflected their standard of living and General Motors overtook Ford by consciously designing and marketing to different classes in a supposedly classless society.

The same progression is seen in everything from watches to running shoes. Obvious? Perhaps, but I see little evidence that the implications are recognized.

3. CULTIVATING A THOUSAND FLOWERS

As we move from mass markets to the market niches, success requires returning to the users, identifying the significant market segments, and designing for each. In this process, the logic of cooperative design again becomes particularly compelling, more so in some places than it has been over the past decade.

This is where those focusing on human-computer interaction in Nordic countries can contribute uniquely. HCI has focused on challenges inherent in developing for large markets. Each niche will be a large market itself—lots of sports cars, Swatches, and tennis shoes are sold. However, it will be necessary to identify the specific features of value in each niche, and what better approach than cooperative design?

The level of cultural homogeneity across Nordic countries is a strength and, for this undertaking, a source of challenge. It has shaped cooperative approaches and can facilitate their practice. The challenge is that the market niches of the future will be distributed around the globe. A given niche may draw on people from different cultures, or it may draw on those of one culture, but even in the latter case, the culture will not often be Nordic. Much more often it will involve Asians, North Americans, or euro-adopters.

For those who see design as both political and cultural, this level of indirection is potentially challenging, but technologies that are widely used within a population segment have more pervasive indirect effects. Getting the right people involved in designing and testing software is as important as ever. More challenging, though, to have a broad impact will require obtaining sympathetic understandings of people from different cultures. And when you truly begin to understand another culture, you have probably partly left your own.

Thus, there may be a tension between preserving one's unique cultural identity and contributing effectively to global change. I trust this group to find creative solutions. I will conclude my presentation by outlining under-examined challenges in technology design and use.