**Working with human values in design**

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**AIM**

A survey of the literature confirms that engaging with human values when designing technology is an important undertaking. However, despite these efforts, there is still considerable divergence and a lack of agreement in how we conceptualize and approach values during technology design. This workshop seeks to bring expertise from different perspectives on design to explore theoretical, methodological, and relational issues when working with values in design. The aim is to better conceptualize, understand and establish ways we can work more systematically and productively with human values in future designs.

**INTRODUCTION**

Human values refer to enduring beliefs that we hold concerning desirable modes of conduct or end-states of existence in different situations, societies and cultural contexts (Rokeach, 1973; Almond & Wilson, 1988). Values have a transcendental quality, guiding actions, attitudes, judgments and comparisons across specific objects and situations and beyond immediate goals to more long-term goals. Desirable modes of conduct could be taking care of loved ones, or being active and healthy; while a desirable end-state could be a preference for peaceful existence or democracy.

Our values or value system comprise a structure or generalized plan, within whose frame or horizon we collectively try to determine, from case to case, what is good or valuable, what is preferable and not, what we endorse or oppose, what we believe in or not. Not all judgments we make about our conduct are values. Our preferences for certain kinds of foods, for example, do not qualify as values since they do not implicate ultimate modes of behavior or end-states of existence (Rokeach, 1973).

Besides acting as goals that give actions and decisions direction, values imbue actions with emotional intensity (Schwartz, 1994). Thus, values become criteria or standards that guide our actions, judgments and decisions, and are fundamental to what makes us human (Rokeach, 1973; Harper et al., 2008). And values – be they implicit or explicit - emerge through use and abuse of technology (Harper et al., 2008). This is because computer technologies are not neutral – they are laden with human, cultural and social values. This recognition has led to the establishment of value-sensitive agendas and efforts from different design traditions to engage with values to anticipate and design information and computational systems that support human values (Friedman, 1997; Friedman et al., 2006; Lloyd & McDonell, 2009).

One design tradition that has long engaged with human values at the fundamental level is participatory design (PD). The value of workplace democracy was a prominent in driving the early Scandinavian tradition of PD (Bjørknes et al., 1987, p. 2; Bansler, 1989, p. 14). This concern saw PD practitioners involving employees in active participation during technology design so that they could exercise a real influence on their own working conditions. Closely tied to the value of workplace democracy were values of quality of working life and designing for skilled workers (Bjørknes et al., 1987, p. 2) giving workers control over the computer system instead of being replaced by automatic systems. When discussing a work-oriented design approach, Ehn (1988) addressed cultivating emancipatory practice as a fundamental value of the Scandinavian PD tradition.

Some PD practitioners have grappled with ‘methods and processes’ to work with values in the design processes. For instance, the tool perspective from the Utopia projects emphasized designing for skilled works and enabled them control in their work practice (Ehn, 1988). Co-operative prototyping has been suggested as a design technique enabling users to actively participate in and contribute in design processes (Bodker & Grønbæk, 1991), and design collaboration has been proposed as a process model for enabling active user participation in design processes. Iversen et al. (2010) recently argued for a rethinking of how we approach values – from operationalizing values through methods or process, to viewing values as the engine that drives the entire design process. This is not just value-sensitive (Friedman et al., 2006) but value-centered design.

Although there has been some focus on values in the PD process, we argue that there are still great barriers to overcome; not least, on the conceptual and methodological levels. They include:

**Understanding values**

- A lack of agreement in the conceptual framing of values: Are values the starting point and primary engine of PD or are values one of the elements in “stakeholders requirements”?
• How can researchers and practitioners find a shared understanding and language about values in Participatory Design?

Designing for human values:
• How do we solicit values from stakeholders?
• Given that designers also bring their values to the design process, how do we navigate values from multiple perspectives, i.e. designers, end-users and/or stakeholders?
• How can we operationalize values into design?
• How do we work with tensions of values among stakeholders?

Evaluating values led design
• How do we evaluate value-centered or value-led PD?

WORKSHOP FORMAT
The full-day workshop is proposed to have researchers and practitioners share their experiences when working with values in participatory design. We ask participants to submit a two page ‘best practice’ description of their work with values. This could take the form of a case study, a concrete design intervention such as a workshop or a design technique that is particularly useful when working with values. We recommend that participants submit a paper that reflects actual design work based on their own experience within a participatory design project.

In the morning, we will discuss the submissions in subgroups and address the conceptual questions proposed in this workshop description. The outcome of this session will be a 10-minute presentation from each group followed by brief discussions in plenum.

In the afternoon we will work with three concrete design briefs provided by the workshop organizers. Accepted participants will be sent design briefs prior to the workshop. Based on the morning’s work, participants will work in groups to develop a value-centered design inquiry to respond to the challenges of the design brief.

The outcome of the afternoon program will be to produce design approaches that emphasize human values in Participatory Design. We aim at finding ways to re-conceptualize human values as the core design activity of PD.

BEYOND THE WORKSHOP
The workshop will aim at a special journal issue involving various perspectives from different design traditions on how they work with values. Perspectives from different traditions such as experience-centered design, STS, PD, CSCW, and value-sensitive design, will be developed.

Organizers:
Geoffrey C. Bowker is Professor at the School of ICS, UC Irvine. He is co-author with Leigh Star of Sorting Things Out: Classification and its Consequences; his most recent book is Memory Practices in the Sciences.

Judith Gregory is co-director of the Values in Design Lab at ICS, UC Irvine with projects on ‘design by youth’ and ‘design for negotiation of disparate logics.’ She is also Honorary Professor, Aalborg University.

Ole Sejer Iversen is Professor in Child-Computer Interaction at University of Aarhus, Denmark. He has conducted several research studies in values-led participatory design.

Tuck Leong is a Senior Researcher at Newcastle University’s Culture Lab, UK. His work with values is aimed in part at enriching experience-centered design approaches.

Peter Wright is Professor in the School of Computing Science, and Culture Lab, Newcastle University, UK. He is co-author with John McCarthy of Technology as Experience (MIT Press) and Experience-Centred Design (Morgan Claypool).

REFERENCES


