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Publication date
2020

Document Version
Final published version

Published in
18th International Conference on the Ethical and Social Impacts of ICT

PHD STUDENT PERSPECTIVES ON VALUE SENSITIVE DESIGN

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EXTENDED ABSTRACT

This panel will explore doctoral student perspectives on Value Sensitive Design (VSD). VSD has already played a central role in a number of completed dissertations (e.g., Davis 2006, Deibel 2011, Nathan 2009, Van Wynsberghe 2012, Yoo 2018), and we expect to see additional such dissertations in the future. Further, PhD students and early career scholars have played a significant role in developing value sensitive design (Davis & Nathan 2015). In this panel, the participants will reflect on their own experiences, views, and problems in doing research (dissertation or otherwise) in which VSD plays a critical role, as well as encouraging questions and comments from the audience (in particular other PhD students so engaged).

Panel Focus. The goal of this panel is to encourage conversation about the past, present, and future of how PhD students engage with VSD. The panel will help better understand the evolution and development of value sensitive design, specifically, regarding how students encounter and explore, accept and resist, and appropriate or ignore VSD. The panel will also open a conversation on how junior scholars envision the future of VSD, while informing how senior scholars might continue to catalyze an international community of VSD practitioners. Further, we seek to put forward topics and questions that ask the panelists and audience to consider tensions, limitations, and controversies in value sensitive design, and in contrast to the other approaches that address designing for human values (e.g., Value Based Design, Values in Design, Values at Play, Worth-Focused Design, etc.).

Here are examples of the kinds of questions that we plan to ask to start the discussion.

- How are you using or extending VSD in your research? This might involve simply using VSD as an established method; or alternatively, extending, critiquing, and developing VSD, for example by developing new methods, investigating the use of a different ethical frameworks for VSD investigations, or exploring the integration of VSD with other methodologies.
- There are a range of long-standing controversies in philosophy and ethics, for example, regarding whether there are (or should be) universal human values, what is an appropriate moral theory (and who decides), and so forth. Have you engaged with any of these controversies in your research? If so, how are you addressing them, and what do you see as the implications for the further development of VSD?
- There are a set of other approaches besides VSD to designing with human values at the fore, such as Value Based Design, Values in Design, Values at Play, and Worth-Focused Design. Are

you using some other approaches instead of, or in addition to, VSD? If so, how have the differences in approach impacted your work?

- What kinds of coursework have been be helpful (or perhaps, what kinds of coursework do you wish that you had available to you)? To what extent should the coursework focus on the theoretical constructs? On methods? On research or design practice?
- What kind of mentoring has been helpful? What other kinds of mentoring would you like? What, if anything, do you think is unique about being mentored with respect to value sensitive design?
- Has using VSD required a more interdisciplinary approach than is standard in your department or school? If so, how did you navigate the resulting issues?
- If applicable, give an example from your own work of framing or conducting research from a value sensitive design perspective in which you felt the approach really helped you to address the research and/or design challenge. What were the insights you gained?
- Conversely, if applicable, give an example from your own work where you felt the approach fell short. In what ways? What happened? Are there lessons for evolving VSD, or recommending other approaches in such situations?
- Value sensitive design projects often engage underrepresented, marginalized, or vulnerable stakeholder groups. Did you work with such groups in your research, or are you planning to? In what ways can working with these groups be challenging for researchers, especially doctoral students? What (if any) special training is needed?
- How do you account for your own views and values when conducting research with a VSD approach? What strategies and techniques did you use, and how well did they work?
- Regarding the theme of ETHICOMP 2020, "Paradigm Shifts in ICT Ethics: Societal Challenges in the Smart Society," what potential dissertation questions from a VSD approach would be applicable here? Are any of these ones you plan to take up?
- What advantages and opportunities arise from conducting a dissertation with a VSD approach? What risks, if any, are incurred?
- How, if at all, does doing graduate work in value sensitive design position you or other doctoral students in the job market? What are the benefits? What are the risks?
- If you were to give prospective graduate students advice about studying and/or conducting their dissertation work with VSD, what would it be and why?
- As a PhD student working with VSD, what is your position on values? Are they pluralistic? Are they entirely normative, or entirely descriptive, or somewhere in between, or both at the same time? How does your position influence how to approach and apply VSD in your research?
- Does employing a VSD approach highlight any conflicts in your PhD research that perhaps might have gone unnoticed otherwise? How do you resolve or navigate these conflict or tensions?
- Based on your experience of VSD what do you see as the most pressing open questions in VSD? How have these impacted your work? Or how have you situated your work in relation to these open questions?

Panelists. The panelists are a set of current PhD students working in centers, labs, and research groups that support a value sensitive design approach, or engaging VSD directly in their work. Panelists come from institutions in North America, Australia, and Europe, and represent disciplines including design, computer science, information science, and ethics. We have tried to assemble a diverse panel, but are nevertheless missing voices from young scholars working in South America, Asia, and Africa.

Our panelists are as follows:

Naomi Jacobs is a PhD candidate at Eindhoven University of Technology in the Netherlands. Her research focuses on values in design of technologies for health-related behavior change. She focuses specifically on the ethical problems that might arise with the design and use of these types of technologies for vulnerable people. She has written on why VSD should be complemented by an ethical theory together with Alina Huldtgren. Currently she is exploring how the Capability Approach could complement VSD. Her research is conducted at the Philosophy & Ethics group and the Human-Technology Interaction group of Eindhoven University of Technology. Previously she obtained a BA and MA in philosophy from the University of Amsterdam and Utrecht University, the Netherlands.

Nick Logler is a PhD candidate in the Information School at the University of Washington, USA, working in the Value Sensitive Design lab. His research interests are located at the intersection between design, theory, and making and building. His work explores how we understand and interact with materials in technical systems. Lately, Nick has been asking children and families to disassemble common consumer electronics, such as desktop printers, computer mice, and keyboards, in hopes of understanding how we might rethink our relationship with the materials of technical systems. Nick has also worked on generative design toolkits, longer-term thinking in information system design, and incorporating VSD into technical education.

Anna Melnyk is a PhD candidate in the Ethics & Philosophy of Technology section at TU Delft, the Netherlands, as well as a PhD representative at the 4TU Center for Ethics and Technologies. Her PhD research is a part of the ERC Advanced Grant research project "Design for Changing Values in Socio-Technical Systems." Before joining TU Delft, she obtained MSc in Philosophy of Science, Technology, and Society (University of Twente) specializing in technologies and values. In her current research, she is exploring the theoretical foundations of VSD and developing the dynamic account of values to target the potential implications of value change for low-carbon energy transition through institutional and technological design. By scrutinizing the interplay between values, stakeholders, technologies, and institutions, Anna's research aims at the consolidation of design strategies that will better deal with the value change in the energy sector.

Adam Poulsen is a computer scientist and PhD candidate at Charles Sturt University, Australia. His research interacts with several fields including human-robot interaction, eldercare robots, social robots, robot and machine ethics, VSD, care ethics, and LGBTIQ+ aged care. Broadly, Adam's primary focus is on creating adaptive, value sensitive, person-centered care robots to assist in, or enhance, the promotion of good care. Adam's research aims to further develop VSD in the care robot space, grounding design decisions care values which are 'goods' that are both normative and descriptive. In his current research, Adam is using VSD to model socially connective healthcare robots for LGBTIQ+ elders experiencing loneliness. It is his hope that such robots can be helpful in the self-care of this community, assisting in creating human-to-human connection for this group and others in the future.

Molly Balcom Raleigh is a master's student in Collaborative and Industrial Design at Aalto University, with an emphasis on strategic and service design for the public sector. Her thesis project is with Finland's Criminal Sanctions Agency (RISE), researching how values are understood and used in design processes for family visitation services in a new women's prison. She is interested in the possibility that attending to values in complex systems can help them become leverage points for transformative change, and is using VSD methods in this exploration. Before turning to design, Molly worked as an artist making participatory performance and installation, and as a communications and development consultant for non-profit arts organizations in the US and Finland.

Till Winkler is a PhD student at the Institute for Information Systems and Society, Vienna University of Economics and Business, Austria. His interests lay between several fields including value sensitive

design, requirement engineering, software development processes and sustainable development. His work focuses on developing methods and processes for value oriented software development. In his current research project, Till is comparing several requirement identification approaches in terms of their ability to deliver quality, ethical and human-centered requirements. Till is especially interested in the context of navigation applications. He is an IEEE member participating in the IEEE P7000 standardization effort for ethical engineering.

Moderator. Alan Borning is Professor Emeritus in the Paul G Allen School of Computer Science & Engineering at the University of Washington, USA, where he was a faculty member from 1980 to 2016. He was also an Adjunct Professor in the Information School. He received a B.A. from Reed College in Mathematics (1971) and a Ph.D. from Stanford University in Computer Science (1979). He has done research in and around value sensitive design for several decades, and mentored multiple PhD students working with value sensitive design in a range of domains, including accessibility, civic engagement, implantable medical devices, public transportation, and urban simulation.

Panel Structure. The 90-minute panel will be organized as follows:

1. Introduction of Panel Topic and Panelists (10 min)
2. Remarks by Individual Panelists (4 - 6 min each; 24 min total)
3. Comments and Prompts for Panelists from the Moderator (20 min)
4. Comments and Questions from the Audience (40 min)

KEYWORDS: doctoral education, research practice, value sensitive design.

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