Value sensitive design

Journalistica: The Methods Section

In this section, Journalistica puts a spotlight on research methods used in journalism studies and/or journalism practice.

FRANCESCA MORINI
Södertörn University

1. Description of the method

Value sensitive design is a methodological approach for the design and understanding of technology: a set of qualitative methods that foregrounds the well-being of humans (Friedman & Hendry, 2019). For journalism scholars – often interested in conducting transdisciplinary and participatory research – this set of methods is useful to study the relation between journalism and technologies such as AI, machine learning, or social computing (e.g. social networks).

In Human-Computer Interaction (HCI), the creation and evaluation of computer systems and software are central objectives. These activities require problem-solving techniques and user-oriented methods to improve the usability, and human experience with technology. While usability is typically seen as a functional concern in technology design, value sensitive design aims to prioritize ethical, moral, and human values throughout the process (Friedman, 1996). Overall, value sensitive design bears similarities with qualitative approaches like action research (Stringer, 2007) and participatory design (Spinuzzi, 2005). Like these approaches, value sensitive design promotes close interaction between researchers and their subjects (Baskerville & Wood-Harper, 1996; Morini et al., 2022) and enables the investigation of tacit and invisible aspects of human activity.

In the context of journalism, this translates to the study of how reporters work with technologies, formally and informally. Value sensitive design would enable journalism scholars to go beyond the

discourse on technology to break down the artifacts and the practices surrounding them. This has the potential to trace the evolution of ethical and moral values of journalism from their abstract ideations to their concrete manifestations in technological artifacts. For value sensitive design, concepts like democracy, privacy or respect are not exclusively abstract, but manifest themselves any time humans interact with everyday technologies. Researchers must work in tandem with potential users to understand the values involved in the usage of a particular technology (Friedman et al., 2002). Core to the approach are conceptual, empirical, and technical investigations (Friedman et al., 2008). Conceptual investigations are useful to discover what values are key in the creation of a technology. Empirical investigations translate values into prototypes and sketches. Technical investigations establish what human values are supported or hindered by existing technologies (ibid., p. 3).

Overall, value sensitive design comprises 17 methods. These methods should all be integrated within the research process (Friedman & Hendry, 2019, p. 64), however – for journalism scholars – some might be easier to implement than others. For instance, *value source analysis* is a diagraming task that helps in distinguishing what values are already explicitly supported by stakeholders and which ones should be added. *Value scenario* is a narrative technique that allows technical and human values to intertwine.

2. Example of use

Currently, there are few examples of studies in journalism using value sensitive design (e.g. Diakopoulos, 2012; Morini et al., 2022). Diakopoulos (2012) devised a hybrid method to generate new opportunities of innovation in journalism. Value sensitive design is used here to identify key human values in developing innovative forms of journalism through brainstorming and survey activities. Morini et al. (2022) used value sensitive design to run a conceptual investigation on how sensors – pieces of hardware capable of converting analogue input into digital information (Bui, 2014) – impact the journalistic practice. The authors set up *value-oriented semi-structured interviews* and *value-oriented scenarios* with journalists and scholars. The data collected from these activities has been analyzed using a *value-oriented coding manual* (Friedman & Hendry, 2019). During interviews, journalists were prompted to recall past and current experiences with sensors in relation to pre-identified ethical values, such as privacy (Morini et al., 2022, pp. 4–6). Then, the interviewees took part in building value-oriented scenarios. For each of these values, the authors were able to produce practical

considerations that account for ethical and moral risks. Other examples can be found across several domains, primarily HCI (e.g. Friedman et al., 2000), urban studies (Borning et al., 2008) and service research (Woelfer & Hendry, 2010).

3. Main advantages and challenges of using the method

Value sensitive design is a methodological approach useful to embed human values in new technologies as well as evaluate existing ones. For journalism scholars, this approach could serve different purposes, especially in considering the role of existing technologies in journalism. It could help in understanding how the ethical and moral values of journalism are reflected by the use of certain technologies. Its deeply investigative and participatory intents combined with its imaginative methods poses an ideal setting to explore how journalists' moral and ethical values translate in their everyday practices.

More specifically, conceptual and technical investigations could be used inside and outside newsrooms, combining observational or hands-on approaches. For instance, they could assess the creation of AI-generated content, the usage of data-driven dashboards, and the technical pipelines to create news graphics or data visualizations for journalistic stories. Alternatively, empirical investigations could be used to experiment with new formats or production strategies that center human values in journalists' daily work.

The main challenge with this approach is to find reliable ways to interpret the empirical data produced through value-oriented methods. The data resulting from observation and co-design activities are mostly qualitative. Results could be difficult to understand and relate to previous research in a broad and abstract manner. A practical solution to this problem could be to combine value sensitive design with other methods that produce more generalized results.

4. Ethical considerations

Within the domain of journalism research, the debate around the values and ethics of journalism occupies a prime position. This discussion centers on the assumptions that key values vary based on geographical and political contexts, with journalists adhering to different ideas of what journalism is and how it should be exercised. Value sensitive design methods should be carefully contextualized and tailored to fit local journalists' understanding of their practice and technical literacy, with due respect for their perspectives.

REFERENCES

Baskerville, R. L., & Wood-Harper, A. T. (1996). A critical perspective on action research as a method for information systems research. *Journal of Information Technology*, *11*(3), 235–246. https://doi.org/10.1080/026839696345289

Borning, A., Waddell, P., & Förster, R. (2008). Urbansim: Using Simulation to Inform Public Deliberation and Decision-Making. In H. Chen, L. Brandt, V. Gregg, R. Traunmüller, S. Dawes, E. Hovy, A. Macintosh, & C. A. Larson (Eds.), *Digital Government* (Vol. 17, pp. 439–464). Springer US. https://doi.org/10.1007/978-0-387-71611-4_22

Bui, L. (2014, September 20). *A (Working) Typology of Sensor Journalism Projects*. https://medium.com/@dangerbui/a-working-typology-of-sensor-journalism-projects-c0042a0410af

Diakopoulos, N. (2012). Cultivating the Landscape of Innovation in Computational Journalism. *Tow-Knight Center for Entrepreneurial Journalism*.

Friedman, B. (1996). Value-Sensitive Design. *Interactions*, *3*(6), 17–23.

Friedman, B., Felten, E., & Millett, L. I. (2000). *Informed Consent Online: A Conceptual Model and Design Principles* (Computer Science & Engineering Technical Report 00–12–2 8). University of Washington.

Friedman, B., & Hendry, D. F. (2019). *Value sensitive design: Shaping technology with moral imagination*. The MIT Press.

Friedman, B., Kahn, P. H., & Borning, A. (2002). *Value Sensitive Design: Theory and Methods*.

Friedman, B., Kahn, P. H., & Borning, A. (2008). Chapter 4: Value Sensitive Design and Information Systems. In K. E. Himma (Ed.), *The handbook of information and computer ethics*. Wiley.

Morini, F., Dörk, M., & Appelgren, E. (2022). Sensing What's New: Considering Ethics When Using Sensor Data in Journalistic Practices. *Digital Journalism*, 1–19. https://doi.org/10.1080/21670811.2022.2134161

Spinuzzi, C. (2005). The Methodology of Participatory Design. *Technical Communication*, *52*(2), 163-174(12).

Stringer, E. T. (2007). *Action research* (3rd ed). Sage Publications.

Woelfer, J. P., & Hendry, D. G. (2010). Homeless young people's experiences with information systems: Life and work in a community technology center. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, 1291–1300. https://doi.org/10.1145/1753326.1753520

FRANCESCA MORINI
PhD Student
Culture and Education
Södertörn University
Francesca.morini@sh.se