23. Participatory Design

Ian R. Weaver
University of North Carolina Wilmington

Definition and Background

Participatory design engages users as full participants in each phase of the design process. It joins human- and ***user-centered design*** in prioritizing users' design input, but it first and foremost "raises questions of democracy, power, and control" (Ehn, 1992, p. 41), seeking to equalize power between designers and users by ensuring users become co-creators, not simply informants (e.g., Sanders & Stappers, 2008). The methodology originates from Scandinavian researchers' response to industrial power struggles. In the 1970s, researchers like Kristen Nygaard (e.g., Nygaard & Bergo, 1975) and the Norwegian and the Iron and Metal Workers Union project pioneered the methodology under the concept of "cooperative design" (Sundblad, 2010), in which trade unions collaborated with workers to influence how technologies were implemented in workplaces. The goal was to "engage workers in designing systems that would enhance rather than eliminate their jobs" (Simmons, 2007, p. 109). Participatory design has since been employed under varying terms—"codesign" and "cocreation" (Sanders & Stappers, 2008)—and related methodologies—community-based participatory research and participatory action research (The Denizen Designer Project, 2022).

Participatory design (PD) aims to position users as indispensable experts in creating and implementing—not merely improving the usability of—workplace technologies. From its inception, PD "has always given primacy to human action and people's rights to participate in the shaping of the worlds in which they act" (Simonsen & Robertson, 2012, p. 4). Holding to this intent, technical communication researchers and designers have applied PD beyond the workplace, including users as participants in design work such as community building and health literacy technologies (Green, 2020), health insurance guidebooks (Rose et al., 2017), environmental policy making (Simmons, 2007), neighborhood revitalization (Silverman et al., 2008), and urban and transportation planning (Moore, 2016; Moore & Elliott, 2016). Participatory design is an important methodology for design thinkers seeking to do community-based and participatory design work.

Common methods and techniques used and studied by technical communicators include usability studies with think-aloud protocols and task-based tests (Rose et al., 2017); narrative-based user experience (UX) interviews (Green, 2020); design ethnographies with rich descriptions, ride-alongs, and video diaries (Rose, 2016); focus groups, journaling, and surveys (Rea et al., 2018); gameplay (Thominet, 2021); and participant observations (Moore & Elliot, 2016).

DOI: https://doi.org/10.37514/TPC-B.2022.1725.2.23

Design Application

Two primary values guide applying design thinking with a PD framework: 1) incorporating users' tacit knowledge into the design process and 2) building a democratic community through genuine participation (Bjögvinsson et al., 2012). Technical communicators assume users have tacit knowledge—"know-how"—a type of implicit knowledge "about how a product will be used" that designers lack (Simmons, 2007, p. 109). Involving participants as doers and creators in design activities therefore becomes imperative in PD. In application, designers strive to make participant expertise discernible, visibly or through a sense of shared ownership. For example, Monique Janneck et al. (2006) sought to integrate freelance IT and consulting professionals' knowledge into new management software. To do so, the designers used activities such as workshops, interviews, and focus groups as well as techniques like brainstorming and creating use scenarios to engage participants. Over an 18-month period, and through such "ongoing dialogue," the IT and consulting professionals came to regard the new software as "their development instead" of the designers' (Janneck et al., 2006, p. 276). Ownership was shared, and the users' expertise became visible.

The second guiding value is genuine participation (Simonsen & Robertson, 2012), which can be paired with building inclusive and democratic communities. Technical communicators have applied PD as a community-building methodology in ***social justice*** work. Joining other decolonial methodologies, such as Godwin Agboka's (2013) participatory localization, PD unites with "resource-weak" (Bjögvinsson et al., 2012) participants to co-create knowledge and honor community practice. One such example comes from Mckinley Green's (2020) work to include end users in the design of an HIV youth outreach and education program. Using narrative-based UX interviews, Green observed community members resisting the program's deficit-based communication assumptions. The community members' participation through resistance "opened possibilities to redirect the organizational strategy toward empowerment and community building as frame-works for promoting equitable health outcomes" (Green, 2020, p. 11). Seeking genuine participation among community members, PD can help reshape contexts (like health literacy) defined by marginalization and oppression.

Seeking genuine participation is not without its problems, however. Andrea Cornwall (2008) censures designers' feigned democratic attempts and warns that applying a participatory approach does not guarantee socially just outcomes. Scholars like Luke Thominet (2020) also warn against standardizing "genuine participation" as doing so may overlook other forms of legitimate participation "not limited to events or processes created by the designer" (p. 362). Others point to the important difference between representative and full participation (e.g., Rose et al., 2017). Technical communication scholars have therefore produced heuristics (e.g., Simmons, 2007; Spinuzzi, 2005; Thominet, 2020) for assessing participation and altering PD practices to meet local needs, such as Lisa Mel-

onçon's (2017) patient experience design. Some guiding principles of genuine participation include ensuring users become decision makers, prioritizing mutual learning between users and designers, involving if not all then at least representative users, and making sure users participate in each stage of the design process.

Pedagogical Integration

In the classroom, PD can help students apply design ethics, cultivate empathy, and exercise inclusive design. Key questions for students to consider when designing a PD project include the following:

- Who is or will be impacted by the design?
- Who should we include?
- When, for how long, and in what ways should we involve participants?

Students may learn to facilitate PD by practicing ways to engage users, perform observations, and collect data. Key methods to introduce include contextual inquiry, ethnography, card sorting, product reaction cards, and focus group interviews (Rose, 2016). Students may be assigned into teams to create a mock PD session where they collaboratively devise a goal and plan (recruitment, logistics, agenda items) for the session, create prompts and instructions for participants, and run the session with classmates acting as participants (Rea et al., 2018).

After the students practice such activities, the instructor may help them reflect on the process and outcomes of the PD session, identifying ways to improve. Considering the project's purpose, context, and the chosen research vs. design activities can encourage conversations about why certain methods were selected and how such methods might be applied in future projects (Bratteteig et al., 2013). Dividing methods and techniques into classifications such as "say, do, make" activities may help students reflect on ways they can involve participants and for what purposes one method/technique is chosen over another (Sanders & Stappers, 2018; see also Brandt et al., 2013). It also might help to reflect on the limitations of PD, such as the required time and resources needed (Spinuzzi, 2005). Scholarship for such critique can include the conversations on "distributed PD" (e.g., Danielsson et al., 2009).

References and Recommended Readings

Agboka, G. Y. (2013). Participatory localization: A social justice approach to navigating unenfranchised/disenfranchised cultural sites. *Technical Communication Quarterly*, *22*(1), 28-49. https://doi.org/10.1080/10572252.2013.730966

Bjögvinsson, E., Ehn, P., & Hillgren, P. A. (2012). Design things and design thinking: Contemporary participatory design challenges. *Design Issues*, *28*(3), 101-116. https://doi.org/10.1162/DESI_a_00165

Brandt, E., Binder, T., & Sanders, E. B.-N. (2013). Tools and techniques: Ways to engage telling, making and enacting. In J. Simonsen & T. Robertson (Eds.), *Routledge international handbook of participatory design* (pp. 145-181). Routledge.

Bratteteig, T., Bødker, K., Dittrich, Y., Mogensen, P. H., & Simonsen, J. (2013). Methods: Organising principles and general guidelines for participatory design projects. In J. Simonsen & T. Robertson (Eds.), *Routledge international handbook of participatory design* (pp. 117-144). Routledge.

Cornwall, A. (2008). Unpacking "Participation": Models, meanings and practices. *Community Development Journal*, *43*(3), 269-283.

Crawford, K. (2009). Following you: Disciplines of listening in social media. *Continuum*, *23*(4), 525-535. http://doi.org/10.1080/10304310903003270

Danielsson, K., Gumm, D., & Naghsh, A. M. (2009). Distributed PD: Challenges and opportunities. *Scandinavian Journal of Information Systems*, *21*(1), 23-26.

Ehn, P. (1992). Scandinavian design: On participation and skill. In P. Adler & T. Winograd (Eds.), *Usability: Turning technologies into tools* (pp. 96-132). Oxford University Press.

Green, M. (2020). Resistance as participation: Queer theory's applications for HIV health technology design. *Technical Communication Quarterly, 30*(4), 331-344. https://doi.org/10.1080/10572252.2020.1831615

Janneck, M., Finck, M., & Obendorf, H. (2006). Participatory Design: An issue for web-based community development?! In *Web Based Communities 2006: Proceedings of the IADIS International Conference Web Based Communities* (pp. 274-277).

Melonçon, L. K. (2017). Patient experience design: Expanding usability methodologies for healthcare. *Communication Design Quarterly Review*, *5*(2), 19-28.

Moore, K. R. (2016). Public engagement in environmental impact studies: A case study of professional communication in transportation planning. *IEEE Transactions on Professional Communication, 59*(3), 245-260.

Moore, K. R., & Elliott, T. J. (2016). From participatory design to a listening infrastructure: A case of urban planning and participation. *Journal of Business and Technical Communication*, *30*(1), 59-84. http://doi.org/10.1177/1050651915602294

Nygaard, K., & Bergo, O. T. (1975). The Trade Unions-New users of research. *Personnel Review*, *4*(2), 5-10.

Rea, J. M., Cannon, P., Sawchyn, A., & Walkup, K. L. (2018). Journaling and bibliotherapy participatory design as a heuristic for program development. In G. Y. Agboka & N. Matveeva (Eds.), *Citizenship and advocacy in technical communication* (pp. 153-174). Routledge.

Rose, E. J. (2016). Design as advocacy: Using a human-centered approach to investigate the needs of vulnerable populations. *Journal of Technical Writing and Communication*, *46*(4), 427-445.

Rose, E. J., Racadio, R., Wong, K., Nguyen, S., Kim, J., & Zahler, A. (2017). Community-based user experience: Evaluating the usability of health insurance information with immigrant patients. *IEEE Transactions on Professional Communication*, *60*(2), 214-231.

Sanders, E. B.-N., & Stappers, P. J. (2008). Co-creation and the new landscapes of design. *CoDesign*, *4*(1), 5-18. http://doi.org/10.1080/15710880701875068

Silverman, R. M., Taylor, H. L., & Crawford, C. (2008). The role of citizen participation and action research principles in Main Street revitalization: An analysis of a local planning project. *Action Research*, *6*(1), 69-93. http://doi.org/10.1177/1476750307083725

Simmons, M. W. (2007). *Participation and power: Civic discourse in environmental policy decisions*. SUNY Press.

Simonsen, J., & Robertson, T. (Eds.). (2012). *Routledge international handbook of participatory design*. Routledge.

Spinuzzi, C. (2005). The methodology of participatory design. *Technical Communication*, *52*(2), 163-174. https://repositories.lib.utexas.edu/bitstream/handle/2152/28277/SpinuzziTheMethodologyOfParticipatoryDesign.pdf

Sundblad, Y. (2010). UTOPIA: Participatory design from Scandinavia to the world. In *IFIP Conference on History of Nordic Computing* (pp. 176-186). Springer.

The Denizen Designer Project. (2022). *The Denizen Designer Project Report*. http://www.thedenizendesignerproject.com/denizendesigner/report

Thominet, L. (2021). Open video game development and participatory design. *Technical Communication Quarterly*, *30*(4), 359-374. https://doi.org/10.1080/10572252.2020.1866679