What Is Participation? Design Leads the Way to a Cross-Disciplinary Framework

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Introduction

In this paper we present a way of thinking that clarifies concepts of participation not only across diverse design areas but across other disciplines, allowing clearer comparisons and cross-referencing. We see this clarification as a significant first step to remove multidisciplinary barriers to the productive building of a knowledge base around participation concepts. We suggest that design is the best field to lead this elimination of barriers, and we show specific connections to several other disciplines.

Ideas about participation have been actively developed by designers for many years, through the separate traditions of user-centered design and participatory design, and more recently through various schools of co-design and human-centered design. All of these terms now carry multiple interpretations. The importance and role of the participation of "others" in design has been debated in multiple contexts involving functionality, culture, usefulness, social responsibility, identity, design education, and sustainability.[1]

Yet consideration of participation is important not only within the field of design. Participation has become a focus of debate among academics and practitioners in very diverse fields. One driver is the growing numbers of peoples of the world who demand active involvement in the planning and implementation of initiatives affecting their lives. In the health sector, participatory approaches to both research (e.g., community-based participatory research) and service planning have become commonplace. In international development, 1980s discourses of participation have now become mainstream.[2] "Sustainable"' development has embraced participation as a core ideal, both as a human rights issue and as a means of increasing the efficacy of interventions.[3] Mainstream processes of formal monitoring and evaluation are also becoming more participatory, as non-governmental and civil society organizations take increasingly active roles in

1 See, for example, Alastair Fuad-Luke, *Design Activism: Beautiful Strangeness for a Sustainable World* (London: Earthscan, 2009); John R. Ehrenfeld, *Sustainability by Design: A Subversive Strategy for Transforming Our Consumer Culture* (New Haven: Yale University Press, 2008); Elizabeth Sanders, "Design Research in 2006," *Design Research Quarterly* 1 (2006): 1–8; Stuart Walker, *Sustainable by Design: Explorations in Theory and Practice* (London: Earthscan, 2006); Yanki Lee, "Design Participation Tactics: The Challenges and New Roles for Designers in the Co-Design Process," *CoDesign: International Journal of CoCreation in Design and the Arts* 4 (2008): 31–50; Thomas Binder, Eva Brandt, and Judith Gregory, "Design Participation(-s)," *CoDesign: International Journal of CoCreation in Design and the Arts* 4 (2008): 1–3; and Joan Greenbaum and Daria Loi, "Participation, the Camel and the Elephant of Design: An Introduction," *CoDesign: International Journal of CoCreation in Design and the Arts* 8 (2012): 81–85.

2 Jules N. Pretty, et al., *Participatory Learning and Action: A Trainer's Guide* (London: IIED, 1995); Irene Guijt and Meera Kaul Shah, *The Myth of Community: Gender Issues in Participatory Development* (London: Intermediate Technology Publications, 1998).

3 Simon Bell, Stephen Morse, and Rupesh A. Shah, "Understanding Stakeholder Participation in Research as Part of Sustainable Development," *Journal of Environmental Management* 101 (2012): 13–22.

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defining appropriate indicators and assessment strategies.[4] Even environmental management is now characterized by a more "adaptive co-management" of natural resources.[5]

In most cases, conversations about participation were initiated at the periphery of disciplines (often as a reaction against "top-down" practices). In the field of design, however, different aspects of participation have been under direct and conscious consideration for some time. Designers thus now have an opportunity to potentially lead new discussions across other fields, if they are able to draw together their understandings of participation into a consolidated knowledge base that can seed and stimulate ideas elsewhere. A major challenge in the theoretical study of participation is that it does not yet have a dedicated academic literature of its own; instead, it exists in "clumps" of literature in diverse disciplines. We propose here to start conversations that link these disciplines to design, and to begin to build an explicit home for interdisciplinary research and scholarship on participation.

Two significant difficulties we have noted in our interdisciplinary study of participation are the diversity of approaches taken, and the lack of a common vocabulary for its characteristics. These might not at first appear obvious or problematic. However, mainstream paradigms in education, social science, development studies, environmental management, evaluation, and business can impose invisible inherent constraints on both research and practice. For example, positivist epistemologies may frame researchers or consultants as "experts" with a specialized knowledge that is inaccessible to "others" (e.g., community stakeholders). This positivist perspective would imply that those "others" should be studied objectively, and without the concept of participation. In different traditions, "others" such as community stakeholders might be consulted up to a point, but their pre-existing ways of knowing and understanding the world are viewed as inferior to those of the "experts." Thus, consultants in the project evaluation might involve clients in localizing data collection tools to make them more palatable, but they are unwilling to modify their generalized (and externally derived) evaluation criteria to better reflect local consensus views on which project outcomes are actually meaningful.

Approaches such as action research, empowerment evaluation, and co-design directly counter the expert-centered approach. These perspectives actively blur distinctions between researcher, practitioner, and user. They are guided primarily by practical concerns, sometimes are explicitly grounded in stakeholders' ways of knowing, and are often aimed at building local capacity and catalyzing change.

Thus, in different fields, discussions about different types of participation are emerging, but they almost always occur within the constraints of the paradigms in use—and often without

4 Jane Springett, "Issues in Participatory Evaluation," in *Community-Based Participatory Research for Health,* Meredith. Minkler and Nina Wallerstein, eds. (San Francisco, CA: Jossey-Bass, 2003); and B. Crishna, "Participatory Evaluation (I)—Sharing Lessons from Fieldwork in Asia," *Child: Care Health and Development* 33 (2007): 217–23.

5 Jack Ruitenbeek and Cynthia Cartier, *The Invisible Wand: Adaptive Co-Management as an Emergent Strategy in Complex Bio-Economic Systems* (Jakarta: Center for International Forestry Research, 2001).

awareness of those constraints. The result is that the same vocabulary is sometimes used to refer to different concepts, and authors repeatedly expend effort conceptualizing and communicating for local contexts. Instead of building increasingly higher-order concepts on foundations of earlier work, the result is a growing library of descriptive works that are not linked or generalized. The low awareness of paradigm boundaries maintains a lack of understanding across disciplines. Precisely for this reason, cross-disciplinary design is needed to lead discussions and theories by taking advantage of its knowledge space, which is not predefined by a paradigm. Its transcendence above paradigm boundaries gives design a privileged perspective, and provides a fertile ground for building up a framework of knowledge about participation.

To achieve this important interdisciplinary facilitation role, however, designers need to adopt an open-minded attitude toward other academic "languages." Much of the current design literature is based on narratives, conversations, and discussions of conceptual principles, and such communicative practices might not provide comfortable or useful tools for researchers in other fields. Likewise, the formal conceptualization, operationalization, and quantitative measurements that characterize, for example, environmental management or educational studies, might be anathema to many designers.

In this paper, we illustrate how consideration of participation concepts in our own design practice has led us to develop a middle ground. We set out a simple initial framework of generalized participation comprising three dimensions; the framework simply organizes participation concepts so that they can be referred to more cleanly, with less of the confusion that has been prevalent. This initial three-dimensional framework allows us to illustrate the relationship of a fourth dimension—outputs evidence—as a sample for further development. We acknowledge our oversimplification for every category we use, and concede that different categories, or indeed "mosaics," are possible. In pragmatic terms, however, we believe our framework can free up concept-building about participation, which is currently stuck in a mire of mixed vocabulary and terms. We illustrate this utility by using the framework as a lens to reflect *post facto* on two selected design papers—one on human-centered design and one on ecologically intentional design—to draw out their latent extra contributions to participation. In a subsequent paper, we expect to show how this initial framework can be expanded to map out, link, and unite concepts across different disciplines, and how complex topics, such as sustainable, trans-disciplinary, and values-led design, are simplified and made immediately more accessible for further conceptual development.

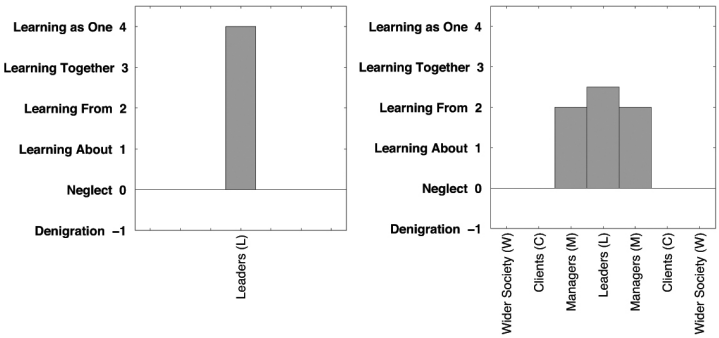


Figure 1
A generalizable schematic to represent participation depth (via the vertical axis: a "pole") and breadth ("skirts" drawn symmetrically on both sides of the central pole). These examples show participation found in the implementation stage of a case study of (a) a Mexican intercultural university involving local "wise persons" and (b) a Tanzanian (Maasai) secondary school involving participation via two indigenous "representatives" and village herbalists.

Relating Aspects of Participation across Disciplines

We first started developing our framework while designing evaluation methods suited to civil society organizations. In the field of participatory evaluation studies, increasing calls have been issued for the clearer conceptualization and operationalization of participation.[6] Definitions of what is meant by participation are often vague and informal, and the term "participatory evaluation" refers to a very diverse range of different scenarios. From their analysis of underpinning concepts, Daigneault and Jacob suggested conditions in each of three areas for an evaluation to be regarded as participatory: *control of the [evaluation] process, stakeholder diversity,* and *extent of involvement*.[7] We use these conditions as our starting point, renaming them *depth, breadth,* and *scope*.

Depth is used in various works to refer to the *extent of control over decision-making* by the stakeholders.[8] *Breadth* refers to the *diversity* of stakeholders invited to participate (e.g., decision-makers or clients).[9] *Scope* refers to the *various stages* of key decision-making,[10] which can be categorized as initiation, design, implementation, reflection, and communication. The exact category boundaries are not critical here; the five stages of design thinking of Brown et al. could be used instead.[11]

Depth of Participation: Linking the Concepts

The first project where we used these concepts was a study of indigenous participation in intercultural education initiatives,[12] where different depths of participation indicated differing *power relationships* between stakeholders of a lower status (e.g., indigenous community members) and higher status actors (e.g., conventionally trained educators). We categorized these relationships as denigration (Level (-1), neglect (Level 0), acknowledgement/"learning about" (Level 1), engagement/"learning from" (Level 2), interculturality/"learning together" (Level 3), and full partnership/"learning as one" (Level 4). We found it useful to portray these levels schematically, as in Figure 1, using a "pole" with (-1) "underground," and rising to (+4) (see Figure 1).

6 Pierre-Marc Daigneault and Steve Jacob, "Toward Accurate Measurement of Participation: Rethinking the Conceptualization and Operationalization of Participatory Evaluation," *American Journal of Evaluation* 30 (2009): 330–48.

7 Daigneault and Jacob, "Toward Accurate Measurement of Participation," 334.

8 Ibid. 342; see also Roger A. Hart, *Children's Participation: From Tokenism to Citizenship* (Florence: UNICEF and International Child Development Centre, 1992); Sherry R. Arnstein, "A Ladder of Participation," *American Institute of Planners Journal* 35 (1969): 216–24; Bec Hanley et al., *Involving the Public in NHS, Public Health,* and *Social Care Research: Briefing Notes for Researchers* (Eastleigh, UK: INVOLVE, 2004); and Patti-Jean Naylor et al., "Evaluating the Participatory Process in a Community-Based Heart Health Project," *Social Science and Medicine* 55 (2002): 1173–87.

9 J. Bradley Cousins, John J. Donohue, and Gordon A. Bloom, "Collaborative Evaluation in North America: Evaluators' Self-Reported Opinions, Practices and Consequences," *Evaluation Practice* 17 (1996): 207–26; Andrea Cornwall and Rachel Jewkes, "What Is Participatory Research?" *Social Science and Medicine* 41 (1995): 1667–76; and Daigneault and Jacob, "Toward Accurate Measurement of Participation," 341.

10 Daigneault and Jacob, "Toward Accurate Measurement of Participation," 338.

11 T. Brown, "Design Thinking," *Harvard Business Review* 86, no. 6 (2008): 84–92.

12 Gemma Burford, Susanne Kissmann, Francisco J. Rosado-May, Santos H. Alvarado Dzul, and Marie K. Harder, "Indigenous Participation in Intercultural Education: Learning from Mexico

Table 1 | A typology of relationships of participation between different categories of actors A and B

	Level (-1) *Denigration*	Level (0) *Neglect*	Level (1) *Learning About*	Level (2) *Learning From*	Level (3) *Learning Together*	Level (4) *Learning As One*
Typical Processes	A makes decisions without B's involvement, (sometimes contrary to B's interests)	A makes decisions without B's involvement: ignorant or dismissive of B's interests.	A asks B's opinions, but does not feel obliged to take them into account: A makes the final decisions.	A asks B's opinions and considers B's contribution seriously. A still makes the final decisions.	Major issues are negotiated through discussion between A and B. Most decisions are made jointly, e.g. by consensus-building.	A-B consortium discusses relevant issues by focusing on the ideas themselves, rather than the source of the ideas.
Typical Attitudes	A denigrates B's ways of thinking, knowing and/or acting.	B's ways of thinking, knowing and acting are not considered.	A acknowledges that B has different ways of thinking, knowing and acting.	A recognizes that there may be some value in B's ways of thinking, knowing and acting,	A recognizes value in B's ways of thinking, knowing and acting, and in the added value of working with B.	No dichotomy between A and B exists; focus is on seeking mutually satisfactory solutions to shared problems.
Typical Assumptions made by A	B's ways are inferior and possibly a threat (e.g. conceptually)	B's ways are inferior and of no real consequence or use.	B's ways are inferior, but worth noting.	B's ways may be inferior, but seem potentially useful.	A's ways and B's ways are equal in status but probably operate in different domains.	Superior ways are those that solve the problems (often co-created).
Typical Actions taken by A	Attempt to minimize/eradicate B's ways; teach B to adopt A's own ways.	Ignore B's ways; teach B to adopt A's own ways.	Learn about B's ways, without changing own ways. May find new methods of teaching B to adopt A's own ways.	Learn from B's ways and consider making limited changes to own ways. May teach B a modified version of A's own ways.	Take into account strengths and weaknesses of both approaches. Work with B to co-create new ways at the interface between A and B ways.	Work closely with B to co-create new ways of thinking, knowing and acting in response to shared problems, drawing on all available resources.

Studies in other disciplines can productively use the same levels as indicators not of power but of attitudes, approaches, assumptions, actions, or decision-making processes. We tabulate examples from several disciplines in Table 1 and show clear linkages across disciplines and paradigms: The levels provide a common "scale." Note that we do not mean to imply that a continuum is not useful, nor that higher levels are always preferable; the "scale" is intended as a neutral benchmark against which any project team can decide its targets, according to local contexts. As noted by Hayward,[13] there may be several reasons why less participation is appropriate in specific scenarios.

In Table 2, we review several typologies of participation depth that have been developed in public policy, agriculture, international development, community-based health, health and social care, evaluation, environmental assessment, and education.

and Tanzania," *Ecology and Society* 17 (2012): 33.

13 Chris Hayward, Lyn Simpson, and Leanne Wood, "Still Left Out in the Cold: Problematising Participatory Research and Development," *Sociologia Ruralis* 44 (2004): 95–108.

Table 2 | Participation typologies in contexts from different disciplines, linked by our generalized Levels of participation depth

	Level (-1) *Denigration*	Level (0) *Neglect*	Level (1) *Learning About*	Level (2) *Learning From*	Level (3) *Learning Together*	Level (4) *Learning As One*
Level descriptors relating to indigenous participation in education (Author et al., 2013)	**Denigration** indigenous knowledge (IK) explicitly denigrated in formal curricula	**Neglect** IK not explicitly denigrated, but devalued by omission from mainstream curricula	**Acknowledgement ('learning about')** IK described in formal curricula, usually by outsiders. Indigenous involvement in decision-making is very limited or non-existent.	**Engagement ('learning from')** Merits of IK are emphasized, but it is still seen as inferior. Limited indigenous involvement in decision-making, e.g. by boundary spanners.	**Interculturality ('learning together')** Recognition of equal status and collaborative decision-making, but dichotomy still exists.	**Full partnership ('learning as one')** Problem-based, change-oriented learning dissolves 'us and them' mindset, creating new knowledge towards shared goals. Decision-making is fully collaborative.
Level descriptors relating to resource-poor farmers' participation in agricultural research (Biggs, 1989)	**Non-participation**		**Contractual participation** One social actor or stakeholder group has sole decision-making power and can be considered the owner. Others are formally or informally 'contracted' to provide services and support.	**Consultative participation** Most key decisions kept with one stakeholder group, but emphasis put on consultation and gathering information from others.	**Collaborative participation** Different partners collaborate and are put on a more equal footing. Exchange of knowledge and sharing of decision-making power.	**Collegiate participation** Different actors work together as colleagues or partners. Ownership, responsibility and risk are equally distributed. Decisions made by agreement or consensus.
Level descriptors relating to stakeholder participation in environmental assessment (Hage et al., 2010)	**No participation** No feedback, no utilisation of external sources of information, no legitimisation	**Inform** No opportunity to make a contribution: no 'real' participation	**Study** Conduct surveys, interviews, focus groups etc **Listen** Set up channels for feedback/complaints	**Take advice/Consult** Interactive workshops at key points of the project: highly goal-oriented. Can result in new perspectives.	**Co-produce** Interactive scenario development: reflective approach and use of participatory methods. Can make a major contribution to knowledge production.	**Co-decide** Joint management (e.g. of nature databases). Fulfils democratic motives.
Level descriptors relating to people's participation in development projects (Pretty, 1995)	**Manipulative participation** Participation is simply a pretence	**Passive participation** People participate by being told what has been decided	**Participation by consultation** People answer questions but professionals are under no obligation to take on board their views **Participation for material incentives** People provide resources, e.g. labor, in return for incentives	**Functional participation** Groups are formed to meet predetermined objectives. Involvement may be interactive, with shared decision making, but tends to occur only after the major decisions have already been taken by external agents.	**Interactive participation** People participate in joint analysis, planning, and formation / strengthening of local institutions. Process involves interdisciplinary methodologies that seek multiple perspectives. People control local decisions.	**N/A**
Level descriptors relating to non-evaluative stakeholders' participation in evaluation (Daigneault and Jacob, 2009)	**Non-participatory:** Exclusive control by evaluator and/or nonparticipating evaluation sponsor		**Limited/weak control** by participants	**Shared control** between participants and nonparticipating evaluation sponsor	**Substantia/strong** control by participants	N/A
Level descriptors relating to service users' participation in health and social care research (adapted from McLaughlin 2010, citing Hanley 2004)	**Non-participation**	**Tokenism** Symbolic attempt to involve service users (to 'tick the box') or unintentional failure to establish meaningful participation	**Consultation (I)** Views of service users are asked, but not necessarily used to influence decision making	**Consultation (II)** Views of service users inform, and help to influence, decision making **Collaboration (I)** Service users collaborate e.g., as members of an advisory group.	**Collaboration (II)** Service users collaborate in all / most aspects of the research process	N/A
Level descriptors relating to community participation in community-based health research (Naylor et al., 2002)	**Non-participatory**		**Consultation** Experts present predetermined issues; community input sought only once to 'sell' program)	**Cooperation** Community offers advice and ongoing advisory input, but decision making rests with experts	**Participation** Equal decision making by experts and community	N/A
Level descriptors relating to citizens' participation in public policy and planning (Arnstein, 1969)	**Manipulation** Goal of participation is to create support for decisions that have already been made, through public relations strategies	**Therapy** The job is to cure or educate the participants **Informing** One-way flow of information, with no channel for feedback	**Consultation** Attitude surveys, neighborhood meetings and public enquiries. But still is just a window dressing ritual.	**Placation** Co-option of hand-picked 'worthies' on to committees. Citizens can advise or plan ad infinitum, but power holders still have the right to judge legitimacy or feasibility of the advice.	**Partnership** Power is redistributed through negotiation between citizens and power-holders. Planning and decision-making responsibilities are shared.	**N/A**

Although some variation is inevitably appropriate, we can, with only minor adjustments, map all of them onto each other, and onto our six-category Participation Framework. Table 2 thus reveals the remarkable consistency in underlying understandings of participation depth across very diverse academic disciplines.

We realized, then, that our level descriptions used in intercultural education could actually be generalized for multidisciplinary use. In the generalized sense, Level (-1) represents non-participation, where self-styled "experts" dominate and *denigration* of stakeholders' own views might occur.[14] Level 0 represents a unidirectional flow of information from "experts" to other stakeholders *("informing"),* with no attempt to elicit their views. The generalized Level 1 represents the *acknowledgement* of other stakeholders who have potentially differing perspectives and are invited to contribute via consultation, study, or listening. However, the views of the others are unlikely to exert a substantial influence in decision-making here. Level 2 is characterized by active *engagement* with other stakeholders, whose views significantly influence and inform decision-making, although major decisions are still undertaken without them (collaboration, co-operation, or placation). Level 3 is characterized by *interaction,* meaningful exchanges of information, and shared responsibilities for planning and decision-making. "Level 4" represents a scenario in which dichotomies (expert/community, researcher/respondent, or designer/user) are entirely dissolved, and both partners consciously contribute knowledge and skills toward the achievement of shared common goals. This level represents *full partnership,* where all decisions are undertaken by consensus.[15]

This rich expansion of the "participation depth" dimension across disciplines using our generalized levels (see Tables 1 and 2) can thus correlate terms used in other literatures and illustrates their overlapping concepts, allowing each to be identified with respect to the others in a unified context. Most importantly, it reduces the chances of any one concept being confused with another, which currently happens repeatedly; reconceptualizing and redefining terms in every study becomes unnecessary, which allows cross-disciplinary scholars to build upon and develop higher-order concepts. The cross-mapping in Table 2 bridges the vocabulary and concepts laid out in Table 1, suggesting that our framework has potential for strong and consistent theory-building across disciplines. Also remarkable is that this theory-building seems possible even across paradigms, which is very encouraging for building a sound knowledge base. Note that we are not claiming any novelty in setting out a "Ladder of Participation," nor that

14 Burford et al., "Indigenous Participation in Intercultural Education," 33.

15 Some authors regard the desired endpoint as a scenario in which a previously marginalized stakeholder group assumes full control of decision-making. We do not consider this scenario as an additional level of participation, but rather a new beginning: The members of the newly autonomous party can then decide what level of participation they might choose to facilitate with their partners.

Figure 2 (opposite page)
Schematic of participation depth and breadth using the example of evaluation studies of some CSOs for each stage: (a) Participation characteristics achieved for most of the CSO studies, (b) Characteristics achieved for an outstanding CSO study, (c) Characteristics achieved for a disappointing CSO study. In each case the lower line represents the depth of participation that was evidenced in the outputs of each stage. Boxed items represented the overall focus target of the studies.

our levels are fundamental; rather, we are suggesting that when the levels are generalized, they can form the first of several dimensions that together can be used to build concepts of participation across disciplines—as shown in the subsequent sections.

Expanding in the "Participation Breadth" Dimension

Which types of stakeholders are participating? We group stakeholders in our framework so as to capture some essence of seniority and representation, as well as the numbers of people involved; for example, stakeholders include decision-makers/leaders (L), project implementers/staff managers (M), project beneficiaries/clients (C), and the wider society (W). The idea that the boundaries of such groups sometimes need to be "spanned" by special actors means some projects use "boundary spanners"—individuals who can relate to several groups.[16] These participants can still be broadly represented by our schematic: Figure 1 illustrates one case study in a Mexican intercultural university, where local wise persons *(sabios locales)* were participating at around Level 3–4, while in a second case study in a Tanzanian intercultural secondary school village, herbalists were participating at Level 2.

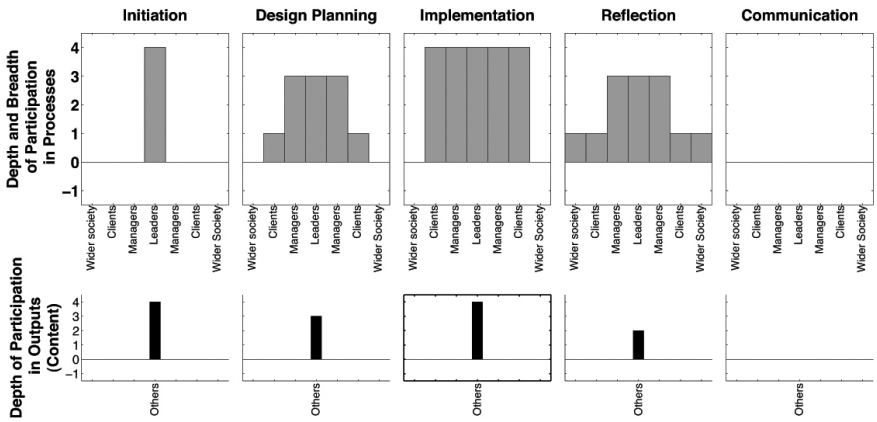
Integrating Depth, Breadth, and Scope

The previous sections clarify depth and breadth dimensions of participation, and Tables 1 and 2 show they can be used in many contexts across disciplines. In a recent project, we realized the power of clearly setting these dimensions out against the third dimension: *scope*. Scope relates to the key stages of a project (e.g., initiation, planning, implementation, reflection, communication). Many papers suffer from a lack of clarity about *which stage* is under discussion: The subject is under-conceptualized. Two recurring examples are that projects that are co-designed (in any sense) may not necessarily be co-initiated, and that wide participation in planning does not guarantee wide participation opportunities during implementation. Papers might start a discussion about participation in one stage but finish it in the context of another. Further, participation of any given stakeholder group often actually fluctuates throughout the life cycle of a project,[17] but specific project reports seldom clarify these changes. For all of these reasons, we have found that clearly setting out the participation landscape for every individual project, using schematics such as in Figure 2, can be very useful.

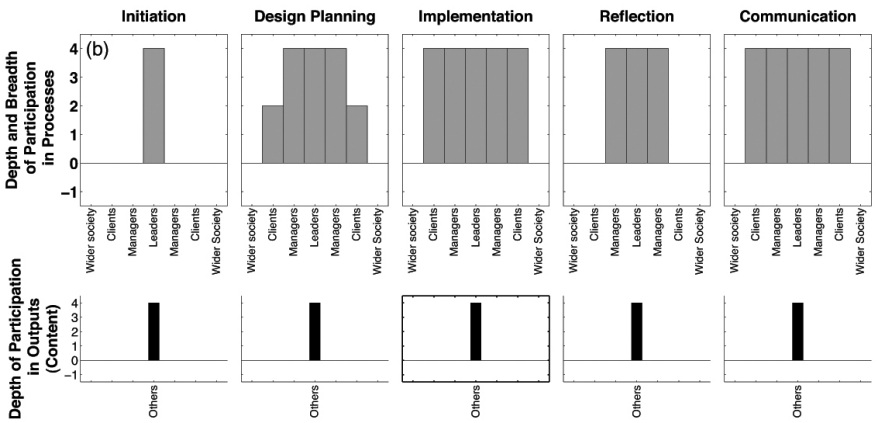
16 Angie Hart, Elizabeth Maddison, and David Wolff, "Introduction," in *Community-University Partnerships in Practice* (Leicester, UK: National Institute of Adult Continuing Education, 2007); and Etienne Wenger, *Communities of Practice: Learning, Meaning and Identity* (Cambridge, UK: Cambridge University Press, 1998).

17 Naylor et al., "Evaluating the Participatory Process," 1180.

a.


Initiation
Design Planning
Implementation
Reflection
Communication
Depth and Breadth of Participation in Processes
Depth of Participation in Outputs (Content)
Wider society
Clients
Managers
Leaders
Managers
Clients
Wider Society
Others

b.


Initiation
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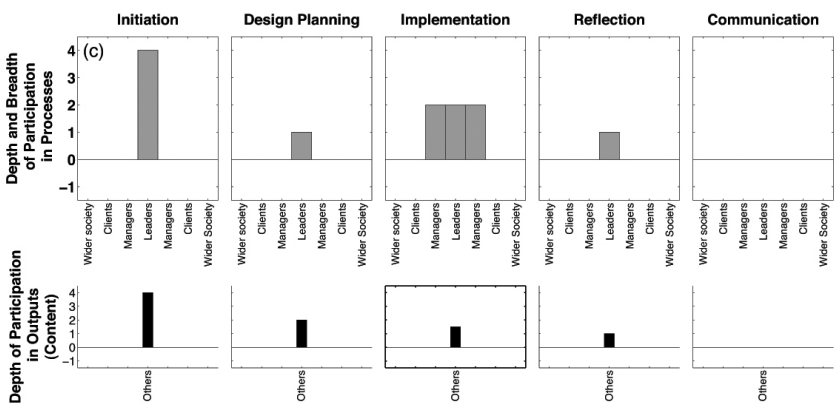
Depth and Breadth of Participation in Processes
Depth of Participation in Outputs (Content)
Wider society
Clients
Managers
Leaders
Managers
Clients
Wider Society
Others

c.


Initiation
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Communication
(c)
Depth and Breadth of Participation in Processes
Depth of Participation in Outputs (Content)
Wider society
Clients
Managers
Leaders
Managers
Clients
Wider Society
Others

We use a specific example for illustration—one in which the schematics helped so much with conceptualization that we recognized our need for its regular use, and it led to the establishment of the 3-D framework. One of our recent projects involved participatory evaluation of civil society organizations (CSOs),[18] whereby a menu of indicators was offered so that the CSOs could choose the ones with which they wished to evaluate themselves. A leader from each organization had been involved both in identifying the original need (i.e., for the evaluation in the first place, and for this type of evaluation in particular) and in overseeing the development of a menu of indicators that the groups could each choose from, depending on which ones they thought were relevant and useful. The indicators selected by each organization were allowed to be localized to modify any aspects that were deemed "alien," and our researchers then facilitated members in developing their own assessment tools to measure each indicator, using whichever media they were comfortable with (e.g., questionnaires, theater, painting). The main objective of the project was to produce a final assessment of the work of the organization, using the indicators it had itself chosen from the menu as most relevant, measured with its own assessment tools. Participation was thus possible to a Level 4 depth, with no restrictions on breadth, for each and every stage. Using the pole as shown in Figure 1 to represent participation depth, and skirts to represent the breadth of the stakeholders, we then used a different pole for each stage and arranged them in chronological order, as shown in Figures 2a, 2b, and 2c, for different organizations.

For each organization, a senior staff member (or leader, L) was typically involved in the initiation stage and directly helped to build the reference menu of indicators. Thus, in Figure 2a (top line), the first pole shows a Level 4 depth (learning as one) and a narrow breadth that includes only leaders. For the planning stage, both leaders and staff customized the items they had chosen from the menu of indicators, typically being involved at Level 4, as shown in the second pole. Further breadth was achieved when the clients (i.e., children in eco-clubs) were asked for input on the localization of the indicators, achieving Level 2.

The third pole in Figure 2 shows the implementation stage, where all staff members and clients were typically quite deeply involved in developing and using assessment tools with which they were comfortable to actually measure the indicators they had agreed on. Figure 2b shows the results of a particularly interesting case: the use of a "hand painting circle," in which the young participants were each asked to paint something on their neighbor's hand that reflected their feelings after a reforestation campaign. Words used to describe the paintings were recorded as examples of emotional vocabulary associated with the campaign, allowing a

18 "Civil society organizations" (CSOs) is a term that is increasingly used, particularly by the European Union, to encompass non-governmental organizations (NGOs), community-based organizations (CBOs), faith-based organizations (FBOs), and similar third-sector institutions. Gemma Burford, Ismael Velasco, Svatava Janouskova, Martin Zahradnik, Tomas Hak, Dimity Podger, Georgia Piggot, and Marie K. Harder, "Field Trials Of A Novel Toolkit For Evaluating 'Intangible' Values-Related Dimensions of Projects," *Evaluation and Program Planning* 36 (2013): 1-14.

qualitative understanding of its affective impact on the youth. This "learning as one" with the researchers achieved a participation depth score of Level 4 for that particular project.

Most of the organizations had moderate scores in the reflection and communication stages (Figure 2a) because they were not priority stages in this study; however, the organization represented in Figure 2b produced deep reflection from leaders, staff, and clients, and it used the measurements generated to communicate in an articulate way to its donors and other organizations about the worth of its work.

The results described can be contrasted with those of a third organization, in which only leaders were involved in the initiation, design planning, and reflection stages, and only few staff were involved (via written questionnaires) in the implementation stage, scoring a depth of Level 1 (Figure 2c).

All together, the schematics in Figure 2 allow clear visualization and communication of participation activities in several dimensions, facilitating cleaner analysis, reflection, and exploration of the related topics. Without such a schematic, reflection remains murky, analysis difficult, and communication hampered. With or without the schematics, we propose that this 3-D participation framework provides a basis for clear conversations. However, yet another dimension is also useful.

A Fourth Dimension: Evidence of Participation in the Output Content

In the previous sections, we discussed the characteristics of participation, but not its effect—the processes, but not the outputs. In our example, the main objective was to obtain evaluation measurements of each organization's performance—in its own terms and in self-determined domains. Such results were not achievable by the researchers alone because they had insufficient understanding of the organization's context. Neither was it achievable by any organization's leaders alone because they had insufficient understanding of evaluation methods. Thus, the quality of the *overall output* for this particular work actually depended critically on the depth of the partnership, and evidence of such collaboration could be sought in the content of the output from the implementation stage. We have thus included a second (lower) line in each figure that represents the outputs from each stage. Because of its prime importance to our project, the *Implementation Output* is highlighted by being boxed. To better understand participation concepts overall, the outputs from all stages are also shown in this example. For other studies, and in other disciplines, other output types (or none) might be important, but the same framework and schematics can be used.

What would this new dimension, "evidence of participation" in the output content, actually look like? At level 1 or 2, the content would predictably contain contributions primarily from the higher-powered partner. At Level 4, full, appropriate contributions from both partners would present, and possibly would no longer be separable (Table 1). In our example, the indicators (and related measurements) were creations that were not obtainable from either partner alone, nor could they be "broken down" into component contributed parts from each: They were thus deemed Level 4.

In other studies, a different output might be the priority. If co-creation were key, then the initiation stage might be expected to produce an output (e.g., the target product) showing evidence of Level 3 or Level 4 participation content. For community engagement projects, the final plans coming out of the planning stage might be the most crucial and might be expected to show Levels 3 to 4. In user-centered design, user feedback in the reflection stage would probably be the most significant, and participation in earlier stages almost irrelevant. Thus, although the schematic is generally applicable, different components are critical in different work. Other aspects of output have not been presented here, such as stimulation of secondary participation. However, they can be incorporated into this dimension, and we encourage other researchers to do so.

In Figure 2 we displayed the outputs for all stages of our own evaluation projects because, although the one highlighted was our priority, we wished to see the entire participation picture as an overview and to enhance conceptualization. These schematics are more than simplistic repetitions of "ladders of participation" for each stage. By laying out participation concepts by depth and breadth at each stage separately, the clear, detailed visual allows higher level conceptualization, not just in our work but in any work concerned with participation. Areas for exploration could include possible causal effects, as well as hypotheses of missing parameters, such as intersubjectivity or evolutionary effects. For example, co-conception could be said to have occurred in 2a, 2b, and 2c, but the target outputs differed: 2c achieved only a Level 1. Co-conception is sometimes equated with ultimate co-production in design literature: This schematic shows otherwise.

We expect that this "helicopter view" will be very useful for most studies that entail a participation emphasis, both for the researchers who seek to make higher-level discoveries and for others who seek to better understand which "type" of participation is being communicated. We illustrate this usefulness briefly with two examples plucked from published papers in design journals.

An Example from Human-Centered Design

One paper that we have understood better by using the lens of our Participation Framework is a recent paper by Steen.[19] In it, he advocates for changes in human-centered design (HCD) practice—both for deeper participation in general and for more user influence on the initiation stage in particular. To make his point clearly, Steen refers to philosophers who write about tensions between the "self" and the "other," and the need for HCD practitioners to consciously overcome the inclination of their "self" to "grasp" (and thus effectively nullify) the other by assimilating the other's differences as variations of themselves. The alternative is to be "open" with the other, accepting the other as a sentient being to be kept separate from themselves, and then to listen, learn from, and consort with the other as equal.

That the author brought in such deep philosophies when the main subject was participation at first seemed curious. However, what became apparent is that the currently available vocabulary of participation simply did not provide the clarity needed. First, HCD is described, in broad terms, as "…including participatory design, the lead user approach, co-design, ethnography, contextual design, and empathic design."[20] But this collection of terms does not provide a clean concept of what is common in HCD—especially with each separate term's having several common interpretations. The vocabulary available to the author is not useful.

Second, one of the specifications of HCD is repeatedly referred to with its own standard vocabulary: that HCD practitioners and users "jointly learn."[21] This term strongly suggests deep companionate learning, or what we have termed "learning as one," at Level 4 of our Participation Framework. However, the phrase is later mixed with the word "about," which undermines completely the "learning as one" perspective: "Another key assumption in HCD is that the people involved can jointly learn new things—that they can, for example, develop knowledge *about* users and their experiences."[22] The point we are making is that "jointly learning with users" is quite different from "developing knowledge *about* users," yet the vocabulary in common use does not make this distinction. In our framework, these two types of learning are two full levels apart. The philosophy vocabulary seems to have been brought in to make up for deficiencies in participation vocabulary and conceptualizations.

An actual HCD project is then described wherein designers collect information from police officers regarding parameters for a new information and communications technology (ICT) item. However, the designers choose to ignore comments indicating that the police officers (users) actually have a greater need for items that they can use in their cars. From this example, we can construct our schematic to represent the participation landscape for this paper (Figure 3a).

19 Marc Steen, "Human-Centered Design as a Fragile Encounter," *Design Issues* 28, no.1 (2012): 72–80.

20 Ibid., 72.

21 Ibid., 75.

22 Ibid (emphasis added).

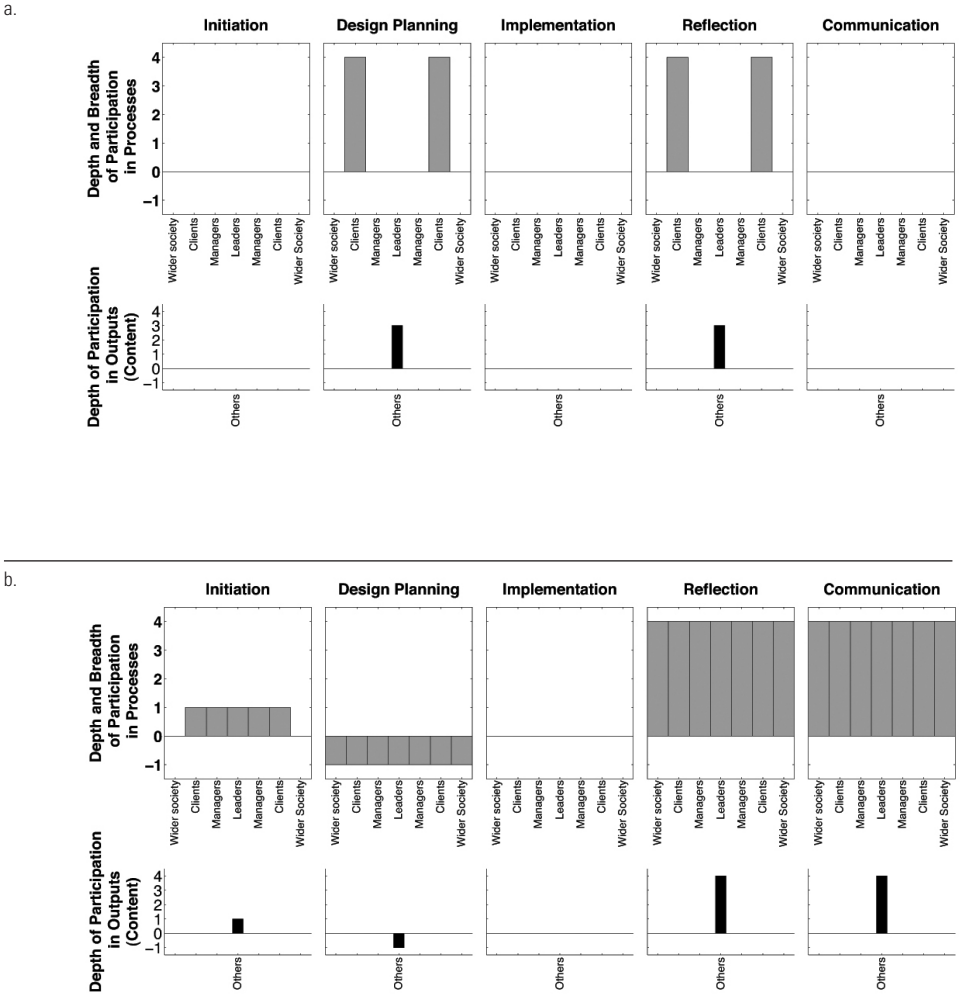

Figure 3
Schematic of participation depth and breadth as discussed in (a) Stegall (2006) regarding ecologically intentional design with emphasis on the planning and reflection stages and (b) Steen (2012) concerning Human Centred Design, with emphasis in the later stages of reflection and communication.

The main participation has occurred with users in the planning reflection stages, and none are specifically mentioned elsewhere. But in fact, the apparent lack of clear conceptualization of participation concepts and vocabulary in design seems to create a barrier to the communication of the main point of the paper. The main point is Steen's plea that HCD practitioners move toward deeper participation—to an inter-subjective appreciation of the other, transcendence to Level 4, "learning as one." Yet the term user fundamentally implies a barrier that cannot be crossed: It implies an item to be used, which means that an agenda has already been set (based on the concept of the item, however embryonic). The HCD practitioner has not invited the user to join in the initiation stage. If she did, the work would probably be considered another class of design, such as socially responsible design.[23] Our framework schematic shows the true situation rather starkly: HCD does not involve participation in the initiation stage, at least as Steen describes it. Thus, Steen's call for change is left clouded by vocabulary: Is it a call for deeper participation within

23 See, for example, Victor Papanek, *Design for the Real World* (Chicago: Academy Chicago Publishers, 1994) and Victor Margolin, *The Politics of the Artificial: Essays on Design and Design Studies* (Chicago: The University of Chicago Press, 2002).

HCD's current paradigm (i.e., in which the planning and reflection stages dominate), or is it a plea for HCD practitioners to cross paradigms—to convert to participatory action research, where intersubjectivity is a guiding principle? Either way, it is an interesting and provocative call—but the available vocabulary leaves the intent unclear. Our point is that the confusion illustrates the dire need for better frameworks of understanding of participation, for both conceptualization and communication. The same need can be found in other disciplines; design could lead the way by developing and using such frameworks.

An Example from Ecologically Intentional Design

As a second example of the generalizable usefulness of our Participation Framework to improve conceptualization, we present a rereading of a second paper. Stegall puts forward a well-structured case for "ecologically intentional design" that emphasizes the designer's role and responsibility for influencing individuals and societies: "one must persuade the general public to adopt sustainable behavior."[24] He maintains that products should, through their design, increase the "ecological literacy" of individuals (e.g., by demonstrating the superiority of natural systems, raising awareness of environmental cycles, and developing a kinship with the natural world). The ultimate aim is for the worldview of individuals to be affected by their reflection on the products—to effectively "interact" with the "learning" of the designer when they come into contact with the product and at that point to be raised to a deep level of "learning alongside" the designer. Even though this interaction with the designer's concepts takes place remotely, we interpret this statement as a call for deep participation (Level 4) by all of the wider society during the reflection stage (see Figure 3b). If the interaction is successful, the concepts would enter into the wider discourse, implying Level 4 participation in the communication stages. Signs of output success would include the embedding of the newly acquired ecological literacy by members of the wider society, and wide discussion of it. Level 4 would thus be achieved for both the process and the output of the communication stage.

Figure 3b uses our Participation Framework to represent Stegall's proposal. What is striking is the contrast between the earlier stages and the later ones. The paper is unequivocal in its portrayal of the designer as an "expert," separate from the public: "Designing for sustainability requires skilled communicators who can, through artifact rhetoric, conceive effective arguments for how a group of people *should live*…."[25] Although intentional design intends to advance humanity by raising ecological literacy, this proposal is made without recourse to other local needs, and thus in our Participation Framework, it is represented near Levels (-1)/0 for planning and implementation. In the initiation stage, Stegall

24 M. Stegall, "Designing for Sustainability: A Philosophy for Ecologically Intentional Design," *Design Issues* 22, no. 2 (2006): 57.

25 Ibid., 63 (emphasis added).

implies the need for: "…designers who can enter a local environment, observe and understand how its people relate …,"[26] representing Level 1.

Figure 3b gives a useful, concise, visual summary of the participation elements of Stegall's ecologically intentional design. It represents well the philosophy that the then-urgent need was to trigger society into becoming more aware of ecological principles—in this case, through artifact rhetoric and resulting discourses (i.e., deep participation in the later stages). The schematic also clarifies two contrasting concepts developed in the paper: Buchanan's idea of the role of designers as influencers of society (reflection stage),[27] and Papanek's idea of the role of designers as facilitators that enable people to "become their own designers" (initiation stage). If people really do become vernacular designers, then they should be permitted to be involved in initiation and planning stages—and such a closing of the loop is now a significant element of sustainable development discourse. The schematic of Stegall's intentional design provides a snapshot of the participation characteristics understood to be needed for sustainable development in 2006, and such deep participation in the implementation stage was not put forward. It can be contrasted with the schematics in Figure 2, which show how deep participation in the initiation, planning, and implementation stages—possibly seen as the rise of the ecologically literate vernacular designer—might seem more mainstream six years later.

Conclusion

In this paper, we have presented a way of clearly thinking about, and setting out, different aspects of participation associated with projects at different stages. In Tables 1 and 2 we show how participation concepts in many fields outside of design are linked to our Participation Framework. We have offered a schematic tool to efficiently and usefully represent participation depth, breadth, scope, and outputs, and we have illustrated how it contributes beyond being an organizational tool to provide foundations for building higher level conceptualizations. Other researchers can use this schematic to communicate and clarify participation concepts from other studies and for their own work. To facilitate wider use, we provide a free online template of the schematic, in both Excel and Matlab formats (http://www.brighton.ac.uk/sdecu/resources.htm).

Note that we are not making any arguments in this work about the importance or necessity of participation in design, nor that all of design should be defined in terms of participation. The Participation Framework is not proposed as an end in itself. Rather, it is intended to be a significant conceptual aid to facilitate much deeper conversations about participation—to clarify, distinguish, and unite related concepts. We offer it as a tool, in the hope

26 Ibid.

27 Richard Buchanan, "Declaration By Design: Rhetoric, Argument, and Demonstration in Design Practice," in *Design Discourse,* Victor Margolin, ed. (Chicago: University of Chicago Press, 1989), 93.

that scholars and practitioners across diverse fields can more easily and quickly place each other's conversations without confusion, and thus move toward deeper understandings and a linked body of knowledge. We hope it will catalyze step-wise advances toward a sound knowledge base for participation—across disciplines.

Although this paper has clarified some details regarding the depth, breadth, and scope of participation in a manner useful to a variety of disciplines, we have not yet introduced discussion on the *purposes* that participation can have in different contexts. We leave that for future work.

In future work, we expect to build on the Participation Framework presented here to specifically explore paradigmatic differences and paradigm crossings, not only in design, but as a general discussion across diverse disciplines. We also hope to use it to stimulate clearer discussions about more complex design concepts, such as sustainable design and spiral dynamics, which we think could lead to parallel advances in other disciplines where participation is a current topic.

In summary, our simple Participation Framework can allow the rich variety of participation concepts under discussion in design to be organized and generalized and thus to generate significant advances in conceptualization and communication. It also links participation concepts across other fields, paving the way for designers, if they wish, to lead in participation studies.

Acknowledgement

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