

# Should the Culture of Participation inform a new Ethics of Design?

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**Abstract.** This paper aims to reflect on the role of Culture of Participation in fostering an Ethics of Design, as a means of true innovation in contemporary society. Participation often stands on commonalities, empathy and the desire to share our own beliefs and world views. The design of artifacts has as its first, though implicit purpose, to convey a message. Our economy relies even more on knowledge-intensive practices and tools, as a powerful lens of analysing problems and finding solutions. Being aware of the message that a powerful knowledge technology may convey offers a unprecedented instrument to improve ours and others lives, when wisely and ethically understood. Starting from a critical consideration of the “comfortable numbness” in mainstream IT design, we would like to suggest how inescapable reflections rooting in STS and in semiotic engineering may help discuss culture of participation from the alternative perspective of the “power” of design.

**Keywords:** Culture of Participation, Ethics of Design, Knowledge Technology, Gender Studies

## 1 Motivations and Background

The expression “ethics of design” refers to a set of “norms [...] that should be adhered to in the designing process and the qualities that should be present in the resulting design” [5](p. 306). We intend this expression in a quite provocatively way to highlight the need to make the IT designers’ intentions more explicit (i.e., their purpose), as a way to question if design is exerted from an ethical standpoint, or at least if designers are totally aware and responsible for the consequences of the machines they produce. We also speak of an “ethics of design” in the context of a discourse addressing whether the achievement and sustainability of a Culture of Participation [16] in design is really feasible, and whether it should be one licit, and also *legitimate* (according to the *norms* mentioned above) purpose of the introduction of Information Technologies (ITs) into human communities.

Historically, machine-centered (automated) information technologies have been introduced (and found pervasive diffusion), to allow the modern state bureaucracies to better control their material and economic flows, and to allow the consumerist market derived from the heavy industrialization of the 19th century to move goods and people faster and safer. Little wonder then, that ITs are considered a technology of control [6], on which “scripts” of action and interaction are inscribed and afforded [2]. However, ITs deal mainly with (linguistic) representations [7]. In virtue of the symbolic power of representations to move people towards some interpretations, and therefore actions (or non actions), designing a technology can also be seen as an “action at a distance” device, or a device to exert a “symbolic power” (or violence) [24] on its users, a power that many Science, Technology and Society (STS) scholars acknowledge as deeply *gendered* [13].

This capability is possible only if the designer (the inscriber) convinces (sic) the interpreter (the user) through the machine, which is just part of the world-changing project of the designer [34]: the machine is then a sort of semiotic device [30] through which who predicts (and longs for controlling) the “future” communicates with who is called to grant those predictions. This argument has some mind-boggling consequences whose discussion would be out of the scope of this position paper: here we just hint at the fact that from the new standpoint the so called “requirements” of an IT would be seen more as what the system *requires the users to comply with*, than what the users expressed as their fully appropriated “needs”<sup>1</sup>. To acknowledge this lie of the land is one step towards the diffusion of a new ethics of the design towards the ideal of the “conviviality” [20], i.e., supporting sociality, exchange, communication, interactions within human communities; rather than towards the ethics of the “(never-ending) want and desire”, which seems to be one of the most frequently recurring unintended consequences of IT adoption [19].

What does a conviviality-oriented ethics of design entail? The point here is that real communication can only be bidirectional: it is intrinsically participatory in that it is a “putting in common”, and also from the etymological point of view it cannot be divided by an “exchange”. Thus, while an “ethics of the need” [21] propagates from designers to users (“I tell you that you need this; and I need you to perform that task through my machine”), an ethics of conviviality and participation calls for new categories in which to conceive the development of IT artifacts.

These premises have been already expressed in the IS research, or at least they are periodically renovated (e.g., [1]). Nevertheless, we believe that they are worthy to be recalled nowadays that ITs can enable new – and more powerful, more conscious – forms of participation: we are not speaking of the surrogate of participation that current social networking sites so well exhibit nowadays (as cover of their surreptitious aim to improve product circulation and consumption); but rather of the participation that collaborative *produsage*-oriented [8] Open-

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<sup>1</sup> Interestingly, the English word ‘requirement’ subsumes both the meanings of ‘that which is required’ and ‘need’.

source Web-based platforms can enable, especially if left (at least partially) in control of the crowd, and free to evolve according to the needs and wishes of the majority and thanks to the competencies and efforts of the voluntary.

These new technologies have the power to overturn the idea that IT is script-inscribed [2], and imposed to users by the designers (and by those supporting their work, like the contractors), i.e., the *masculine* idea that conceives technology as a tool for highhandedness and control, at a potentially worldwide scale; and to introduce a different idea: the idea that IT is a tool for communication and conversation [14], to improve participation of individuals within communities (which are way smaller than the “global village”), mutual and reciprocal inter-est (i.e., being-between), and ultimately, “care”, i.e., the *feminine* idea of caring for the things and the people because these tell your stories, and give you (possibly only by reflection) your sense of identity, and reason to live for [10].

## 2 In the age of the smart design

Scholars in the field of STSs, and feminist studies in particular, made an effort to outline how technology and technologization of knowledge are not neutral phenomena that give equal chance to concordance and dissent [36], [18], [4], [35]. Some of these scholars, among which Lucy Suchman, push at the extreme the concept of design order [24], where Western culture is seen as prevailing, at the expenses of a critical vision of what is hidden: the invisible work of “others”, alternative cultures and sciences, and the taken for granted worldview often subsuming an uncritical acceptance of the “privileged (auto)-reference” [32], [33], [27]. Some philosophers highlighted the necessity of an ethics of information [17] as a commitment to preserve the good intentions of technology mediated actions (if any), without avoiding personal responsibility. Put it in other words, the design of artifacts has as its first, though implicit purpose, to convey a message [30]. And, as the most influential studies of communication predicted since the beginning, the message can be everything (or everything involved in communication can be the message) [26].

Investigations into the contemporary social assets highlight how objects mediate a steadily growing number of human relationships [22]. In particular, epistemic cultures [23], i.e. communities of experts heavily relying on science theories, are a prominent phenomenon regarding a way of living and constantly interacting with objects of knowledge. The peculiarity of this condition is the never satisfied effort of reaching the full knowledge, which, by definition, is always lacking a completeness of being (cf. the “ethics of the (constant) need” mentioned above). Knorr Cetina depicts such tension in two ways: as an oscillation of sense that displaces the self for the sake of creativity; as a personal development of a better care and emotional sensitivity towards the “other-than-self” (i.e., things, people), to something that feeds a virtuous circle for self improvement [23]: care for the others that is also self-care (or caring for oneself in caring for the others).

Our recent study on IT Knowledge Artifacts [9] shed light on the apparently divergent assumptions and values that inform the design of tools by which to

manage knowledge in organizational settings. On the one hand there lies the (positivistic and masculine) idea of computational tools that give as much autonomously as possible the best (i.e., effective, efficient, ...) output as a function of the available inputs and resources; on the other hand, the feminine and interpretivist idea of tools that mediate communication to foster socialization and cooperative practices (as also the making of decisions is) and that are flexibly adapted to contingent situations.

### 3 For a newer and braver world

Our point is that focusing on the culture of participation must be posed as a sign of real innovation, as an opportunity to change the ruling model of computational support, and as never-to-be-repeated opportunity to imbue IT development with a new ethics. We have argued that acknowledging the nature of the current ethics (behind) IT design necessarily leads to a reflection on the importance to adopt an alternative ethics: an ethics that poses the design itself into a collaborative process between people and that helps them to co-define the environment where they will have to work and interact with each other.

This means at least two things: first, to close the loop in a tighter way between designers and user, so that they can achieve and maintain a continuous and creative agreement *through* and *upon* the IT artifact. This would be a concrete way to adopt and unify the visionary ideals recently proposed by Carroll [12], Fischer [16] and de Souza [29]. But it also means, more importantly, to shift from an idea of IT as technology of control, to an idea of technology supporting conversations [28, 31] and human relationships. This would give again back responsibility to the users, now treated as mere consumer of an information and computation-based *megaservice* [25]: participation, then, as an opportunity to exert responsibility, active engagement and awareness of how a community can mobilize resources to shape a better future: as a return to “care” as the leading concept behind IT development and use [3].

In short we advocate new and renovated research efforts towards the design and the serious study of the feasibility of something at the intersection of the so called “epistemic objects” [23] and the “intellectual artifacts” [29]. The former are “ever unfolding” objects by which every member of a community can reflect, negotiate sense and critically express her own voice; the latter ones are defined as those artifacts that embed a way to frame (express) a problem and trigger possible ways to co-construct its solutions, that is to agree upon them, before at a linguistic level and then at the level of an effective and joined (co-ordinated) activity. These new “epistemic and participated” objects should be put to the test of life to see if they can improve: higher satisfaction in usage; higher representativity of stakeholders; a wider adoption and exploitation (or an adoption leading to less, or less severe, unintended consequences [19]); a lower cognitive burden and effort in appropriation [15]; a more focused attention to the affordances that are recalled to the mind and found in environmental and contextual signs, when people express and perform their “knowledgeable behaviors” [11].

## References

1. Adam, A., Howcroft, D., Richardson, H.: Absent friends? the gender dimension in information systems research. In: *Procs of the Conference on Realigning Research and Practice in Information Systems Development*. pp. 333–352. Kluwer, B.V. (2001)
2. Akrich, M.: The de-scription of technical objects. In: Bijker, W., Law, J. (eds.) *Shaping Technology/building Society: Studies in Sociotechnical Change*. MIT Press (1992)
3. Avgerou, C., Lanzara, G.F., Willcocks, L.: *Bricolage, care and information : Claudio Ciborra's legacy in information systems research*. Palgrave Macmillan, Basingstoke [England]; New York (2009)
4. Barad, K.: *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning*. Duke University Press (2007), <http://books.google.it/books?id=4qYorOpfB6EC>
5. Bausch, K.: The practice and ethics of design. In: *The Emerging Consensus in Social Systems Theory*, pp. 305–325. Springer (2001)
6. Beniger, J.: *The Control Revolution: Technological and Economic Origins of the Information Society*. Harvard University Press, Cambridge, MA, USA (1986)
7. Bloomfield, B.: The role of information systems in the uk national health service: action at a distance and the fetish of calculation. *Social Studies of Science* 21(4), 701–734 (1991)
8. Bruns, A.: *Blogs, Wikipedia, Second life, and Beyond: from production to produsage*. New York (2008)
9. Cabitza, F., Locoro, A.: Between form and perform: The knowledge artifact in organizations and its design. In: *the 7th IADIS Int.Conf. on Information Systems*. pp. 271–280 (2014)
10. Cabitza, F., Locoro, A.: From 'care for design' to 'matter of becoming': new perspectives for the development of socio-technical systems. In: *ItAIS 2015: Proceedings of the XII Conference of the Italian Chapter of AIS - Reshaping Organizations through Digital and Social Innovation 9th - 10th of October, 2015, Roma, Italy*. p. forthcoming (2015)
11. Cabitza, F., Simone, C.: Affording mechanisms: An integrated view of coordination and knowledge management. *Computer Supported Cooperative Work (CSCW)* 21(2), 227–260 (2012)
12. Carroll, J.M., Rosson, M.B.: Participatory design in community informatics. *Design Studies* 28(3), 243–261 (2007)
13. Cockburn, C.: *Machinery of dominance: women, men, and technical know-how*. Northeastern University Press (1988)
14. Coiera, E.: When conversation is better than computation. *Journal of American Medical Informatics Association (JAMIA)* 7, 277–286 (2000)
15. Dix, A.: Designing for appropriation. In: *Proceedings of the 21st British HCI Group Annual Conference on People and Computers: HCI... but not as we know it*. pp. 27–30. BCS-HCI '07, British Computer Society, Swinton, UK, UK (2007)
16. Fischer, G.: End-user development and meta-design: Foundations for cultures of participation. In: Pipek, V., Rosson, M., Ruyter, B., Wulf, V. (eds.) *End-User Development*, LNCS, vol. 5435, pp. 3–14. Springer (2009)
17. Floridi, L.: *The Ethics of Information*. Oxford University Press, New York (2013)
18. Haraway, D.: *Simians, cyborgs, and women: The reinvention of nature*. Routledge (2013)

19. Harrison, M.I., Koppel, R., Bar-Lev, S.: Unintended consequences of information technologies in health care - an interactive sociotechnical analysis. *Journal of the American Medical Informatics Association* 14(5), 542–549 (2007)
20. Illich, I.: *Tools for conviviality*. Harper & Row, New York, NY, USA (1973)
21. Illich, I.: *Toward a history of needs*. Pantheon Books, New York, 1st ed edn. (1978)
22. Knorr Cetina, K.: Sociality with objects social relations in postsocial knowledge societies. *Theory Culture Society* 14(4), 1–30 (1997)
23. Knorr Cetina, K.: Objectual practice. *Knowledge as Social Order: Rethinking the Sociology of Barry Barnes* 83 (2008)
24. Kvansy, L., Truex, D.: Information technology and the cultural reproduction of social order: A research paradigm. In: Baskerville, R., Stage, J., DeGross, J. (eds.) *Organizational and Social Perspectives on Information Technology*, IFIP The International Federation for Information Processing, vol. 41, pp. 277–293. Springer (2000)
25. Latouche, S.: *La megamachine : raison technoscientifique, raison economique et mythe du progres : essais a la memoire de Jacques Ellul*. La Decouverte : M.A.U.S.S., Paris (2004)
26. McLuhan, M., Fiore, Q.: *The Medium Is the Massage: An Inventory of Effects*. Gingko Press GmbH (2011)
27. Orlikowski, W.: Integrated information environment or matrix of control? the contradictory implications of information technology. *Accounting, Management and Information Technologies* 1(1), 9–42 (1991)
28. Searls, D., Weinberger, D.: *Markets are conversations*. In: *The Cluetrain Manifesto: The End of Business as Usual*. Basic Books (2011)
29. de Souza, C.: Semiotic engineering: bringing designers and users together at interaction time. *Interacting with Computers* 17(3), 317 – 341 (2005)
30. de Souza, C.: *The Semiotic Engineering of Human-computer Interaction*. MIT Press (2005)
31. Suchman, A.L.: Organizations as machines, organizations as conversations: Two core metaphors and their consequences. *Medical Care* 49, S43–S48 (Dec 2011)
32. Suchman, L.: *Human-Machine Reconfigurations: Plans and Situated Actions*. Cambridge University Press (2007)
33. Suchman, L.: Agencies in technology design: Feminist reconfigurations. In: 5th European Symposium on Gender and ICT - Digital Cultures (2009)
34. Suchman, L.: Anthropological relocations and the limits of design. *Annual Review of Anthropology* 40(1), 1–18 (Oct 2011)
35. Wilson, M.: Making nursing visible? gender, technology and the care plan as script. *Information Technology & People* 15(2), 139–158 (2002)
36. Zuboff, S.: *In the Age of the Smart Machine: the Future of Work and Power*. Basic Books, New York (1988)