

# Organizing Design-for-Wellbeing Projects: Using the Capability Approach

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- 1 See, e.g., Kees Dorst, *Frame Innovation: Create New Thinking By Design* (Cambridge, MA: MIT Press, 2015); Ezio Manzini, *Design, When Everybody Designs: An Introduction to Design for Social Innovation* (Cambridge, MA: MIT Press, 2015); Dean Nieuwsma, "Alternative Design Scholarship: Working Toward Appropriate Design," *Design Issues* 20, no. 3 (Summer 2004): 13–24; Ilse Oosterlaken, "Design for Development: A Capability Approach," *Design Issues* 25, no. 4 (Autumn 2009); Nynke Tromp, Paul Hekkert, and Peter Paul Verbeek, "Design for Socially Responsible Behavior: A Classification of Influence Based on Intended User Experience," *Design Issues* 27, no. 3 (Summer 2011): 3–19; Pieter Desmet, Anna Pohlmeier, and Jodi Forlizzi, "Positive Design: An Introduction to Design for Subjective Well-Being," *International Journal of Design* 7, no. 3 (2013): 5–19; Victor Margolin and Sylvia Margolin, "A 'Social Model' of Design: Issues of Practice and Research," *Design Issues* 18, no. 4 (Autumn 2002): 24–30; and Victor Margolin, "Design, the Future, and the Human Spirit," *Design Issues* 23, no. 3 (Summer 2007): 4–15.
- 2 Victor Papanek, *Design for the Real World*, 2nd ed. (London: Thames & Hudson, 1991), x.
- 3 Desmet, Pohlmeier, and Forlizzi, "Positive Design: An Introduction to Design for Subjective Well-Being," 14.
- 4 For exploration of these two terms, see, e.g., Nynke Tromp, *Social Design: How Products and Services Can Help Us to Act in Ways that Benefit Society* (Delft: Delft University of Technology, 2013); and Lorraine Gamman and Adam Thorpe, "Special issue on Socially Responsive Design: Editorial," *CoDesign* 7, no. 3-4 (2011): 139–41.

## Introduction

Design expertise increasingly is being used not only to create products and services that benefit companies and customers, but also to bring about positive social change and to promote people's well-being.<sup>1</sup> Victor Papanek pioneered this approach and argued that "[d]esign must become an innovative, highly creative, cross-disciplinary tool responsive to the true needs of men."<sup>2</sup> Below, I refer to this approach as Design-for-Wellbeing (DfW).

Interestingly, most studies of DfW focus on the *outcomes* of projects—for example, on the products or services developed and their effects on people's well-being; meanwhile, relatively little knowledge exists on appropriate and effective ways to organize DfW projects. This problem is both practical and theoretical: "The process of designing for [...] well-being is different from a traditional, problem-focused design process. Therefore, the design field needs approaches that fit with this new vision and the intention to focus on opportunities, enabling people to thrive, and creating a lasting effect on people's lives."<sup>3</sup> In this article I, therefore, explore this question: *How can we organize DfW projects?*

First, I propose that DfW projects are different from "traditional" design projects in their aim to create opportunities for people to engage in meaningful and fulfilling activities, so that they can *flourish*. Then, I turn to the Capability Approach (CA), which focuses on creating conditions for human flourishing. I then discuss several principles that are needed in organizing DfW projects, drawing from the CA and referring to several design traditions. My intention is to help design practitioners to appreciate the CA and to apply elements from it in their projects.

## Design-for-Wellbeing

I use the term DfW rather broadly, to include social design and socially responsive design.<sup>4</sup> DfW also overlaps with (design for) social innovation, which aims to solve societal problems through innovation (e.g., in public services or via social interventions).<sup>5</sup> Examples of DfW can be found in so-called developed countries—

- 5 See, e.g., François Jégou and Ezio Manzini, *Collaborative Services: Social Innovation and Design for Sustainability* (Milano: Edizioni POLI.design, 2008); and Geoff Mulgan, Simon Tucker, Rushanara Ali, and Ben Sanders, *Social innovation: What It Is, Why It Matters and How It can be Accelerated* (Oxford: Said Business School, 2007).
- 6 Hilary Cottam and Charles Leadbeater, *Health: Co-creating Services* (London, UK: Design Council, 2004). C. K. Prahalad, *The Fortune at the Bottom of the Pyramid: Eradicating Poverty through Profits* (Upper Saddle River, NJ: Pearson Education, 2004).
- 7 See, e.g., Tim Brown and Jocelyn Wyatt, "Design Thinking for Social Innovation," *Stanford Social Innovation Review* 32, Winter (2010): 30–35; and John Thackara, *In the Bubble: Designing in a Complex World* (Cambridge, MA, England: MIT Press, 2006).
- 8 See, e.g., Joseph Stiglitz, Amartya Sen, and Jean-Paul Fitoussie, *Report by the Commission on the Measurement of Economic Performance and Social Progress* (Paris: INSEE, 2009); Hetan Shah and Nic Marks, *A Well-being Manifesto for a Flourishing Society* (London: New Economics Foundation, 2004); Philip Brey, Adam Briggles, and Edward Spence, *The Good Life in a Technological Age* (New York: Routledge, 2012); and Ilse Oosterlaken and Jeroen Van der Hoven, ed., *The Capability Approach, Technology and Design* (Dordrecht: Springer, 2012).
- 9 Robert Skidelsky and Edward Skidelsky, *How Much is Enough? The Love of Money, and the Case for the Good Life* (London: Penguin Books, 2012).
- 10 Sonja Lyubomirsky, *The How of Happiness: A New Approach to Getting the Life You Want* (New York: The Penguin Press, 2008).
- 11 One can distinguish three main views on well-being, according to Roger Crisp. (See Crisp, "Well-being," *Stanford Encyclopedia of Philosophy*, <http://plato.stanford.edu/archives/sum2013/entries/well-being/> (accessed on February 23, 2016). I discuss two of them here: a *eudaimonic* view and a *hedonic* view. The third view, based on *fulfilling desires*, is not discussed here because it cannot

for example, in projects in the UK that aim to improve health care services—and in developing countries—for example, in projects that combine social and commercial goals.<sup>6</sup> Proponents of DfW include John Thackara, a pioneer in the application of design thinking to solve social problems, and Tim Brown, CEO of design agency IDEO, which is active in social innovation and in projects that promote human development.<sup>7</sup> DfW is relevant both for society and for academia. The notion that governments need to play a role in promoting people's well-being, alongside economic progress, is gaining momentum, and the ways in which technology, innovation, and design can promote well-being is increasingly receiving scholarly attention.<sup>8</sup>

### Perspectives on Well-Being

Consuming material goods does not necessarily promote one's well-being; indeed, too much focus on material goods can even impede well-being.<sup>9</sup> However, products can *enable* people to engage in meaningful and fulfilling activities—especially if these activities involve using and developing one's talents and skills, contributing to a greater goal, creating and nurturing relationships with people one cares about, or improving one's health.<sup>10</sup> A DfW project would thus aim to create opportunities for people to engage in the types of activities that promote well-being. But is this intent specific to DfW? Don't *all* design projects aim to promote well-being—even if only superficially or momentarily? To clarify the distinction made here, I discuss two perspectives on well-being.<sup>11</sup>

Well-being has been debated in Western culture at least since ancient Greece. Aristotle (384–322 BCE) proposed that the proper development of human potential, or *flourishing* (*eudaimonia*), is—or should be—people's ultimate goal (*Nicomachean Ethics*). He advocated cultivating a virtuous character, living engaged and meaningful lives, and organizing a just society. Aristotle understood well-being as a social, life-long, and creative activity (*praxis*). This eudaimonic perspective on well-being has informed *positive psychology*, a field pioneered by Martin Seligman that aims to study and promote "positive subjective experience, positive individual traits, and positive institutions."<sup>12</sup> Seligman understands well-being as consisting of five elements: positive emotions (e.g., pleasure); engagement (e.g., in creative processes); relationships (e.g., with family or friends); meaning (e.g., contributing to societal goals); and accomplishment (achieving results in challenging activities).<sup>13</sup>

Another view on well-being with its roots in ancient Greece was articulated by Epicurus (341–270 BCE). He advocated pursuing happiness by pursuing activities that provide pleasure and by avoiding activities that cause pain (*Letter to Menoikeus*). His

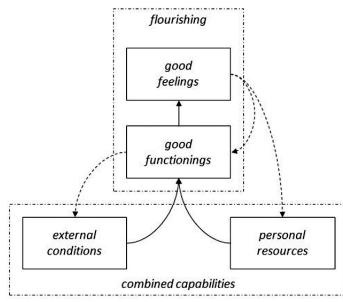


Figure 1  
A Dynamic Model of Well-Being (adapted from Abdallah et al., 2011).

- "[account] for so-called defective desires: ... such as base, poorly cultivated, and pointless desires." (Philip Brey, "Well-being in Philosophy, Psychology, and Economics," in *The Good Life in a Technological Age*, 2012).
- 12 Martin E. P. Seligman and Mihályi Csikszentmihályi, "Positive Psychology: An Introduction," *American Psychologist* 55, no. 1 (2000): 5.
  - 13 Martin Seligman, *Flourish: A New Understanding of Happiness and Well-being—and How to Achieve Them* (London: Nicholas Brealey Publishing, 2011): 24.
  - 14 Bentham proposed to objectively assess the pleasures and pains produced by specific activities, using a "felicific calculus," whereas Mill saw qualitative differences between different types of activities and the pleasures or pains associated with them, so that calculating pleasures or pains would make little sense.
  - 15 E.g., Patrick W. Jordan, *Designing Pleasurable Products: An Introduction to the New Human Factors* (London: Taylor & Francis, 2000); M. A. Blythe, C. J. Overbeeke, A. F. Monk, and P. C. Wright, *Funology: From Usability to Enjoyment* (Dordrecht, The Netherlands: Kluwer Academic Publishers, 2003); Pieter Desmet and Paul Hekkert, "Special issue on Design and Emotion," *International Journal of Design* 3, no. 2 (2009).
  - 16 Exceptions include Sara Ilstedt Hjelm, *Making Sense: Design for Well-being* (Stockholm: KTH Royal Institute of Technology, 2004); and Edan Weis, *Design for Social Wellbeing: A Case Study of Normative Design Thinking in Industrial Design* (Melbourne: University of Melbourne, 2010).

approach is called *hedonic*, but it is rather different from the current, colloquial use of the term. Epicurus advocated simplicity (illustrated by his famous quotation, "Will you please bring cheese, so that we can have a feast?"), as well as fostering social relations, economic and psychological independence and resilience, and contemplation and reflection. The notion of maximizing pleasure and minimizing pain was taken up by both Jeremy Bentham (1748–1832) and John Stuart Mill (1806–1873), who espoused *utilitarianism*, with *utility* defined as the sum of pleasure minus pain. However, calculating such utility proves difficult because different activities—such as writing poetry or watching television—can provide different types of pleasure.<sup>14</sup> Moreover, one person's pleasure—perhaps riding a jet ski in the sea's surf—can disturb other people's pleasures, in this case, enjoying a quiet day at that same beach.

For the discussion of DfW, I focus on a *eudaimonic* view of well-being. One motivation for this focus is that relatively more work has already been done on design for hedonic well-being and pleasure.<sup>15</sup> Meanwhile, little work exists on design for eudaimonic well-being and flourishing.<sup>16</sup> Moreover, design for hedonic well-being is relatively close to "traditional" design. Many design projects aim to promote pleasure and to avoid pain, for example, by improving products' usability. But design for eudaimonic well-being typically goes beyond "traditional" design by proposing policies for improving the accessibility of public spaces for people with disabilities, for example, or by developing intervention programs for improving community resilience in a specific neighborhood, or facilitating collaboration between organizations so that they can jointly develop and implement a complex product-service system in health care. A focus on eudaimonic well-being thus better contrasts DfW to "traditional" design.

### Creating Opportunities for Flourishing

It has been proposed that opportunities for flourishing can be created by improving external conditions and personal resources.<sup>17</sup> External conditions include income levels, stability of income, and social context, whereas personal *resources* include health, resilience, optimism, and self-esteem. Furthermore, flourishing can be conceptualized as comprising *good functionings*, which include autonomy, competency, safety, and connectedness, and *good feelings*, both day-to-day and overall feelings. In addition, dynamic relationships exist between these concepts: good functionings and good feelings enable people to positively influence their external conditions and their personal resources, thus creating virtuous feedback loops (see Figure 1).

- 17 Saamah Abdallah et al., *Measuring our Progress: The Power of Well-being* (London: New Economics Foundation, 2011). Abdallah et al.'s external conditions and personal resources are similar to the concepts of *livability* and *life-ability* as constructed by Ruut Veenhoven. See Veenhoven, "The Four Qualities of Life: Ordering Concepts and Measures of the Good Life," *Journal of Happiness Studies* 1, no. 1, (2000). Livability refers to the opportunities people find in their environment, such as the quality of one's neighborhood; and life-ability refers to the opportunities found within the self, such as health or resilience.
- 18 J. S. Mill advocated the protection of people's freedom, as long as doing so does not harm others, to enable people to develop to their full potential—that is, to flourish (On Liberty, available online: [https://en.wikisource.org/wiki/On\\_Liberty](https://en.wikisource.org/wiki/On_Liberty)).
- 19 Ilse Oosterlaken, "The Capability Approach, Technology and Design: Taking Stock and Looking Ahead," in *The Capability Approach, Technology and Design*: 3–26. I focus here on organizing design projects that aim to empower people to expand their capabilities to promote their well-being. This approach is different from the one proposed by Andy Dong, which aims to empower citizens to develop design capabilities so that they can effectively engage in design activities. See Dong, "The Policy of Design: A Capabilities Approach," *Design Issues* 24, no. 4 (Autumn 2008): 76–87.
- 20 See, e.g., Dorothea Kleine, *Technologies of Choice? ICTs, Development, and the Capabilities Approach* (Cambridge, MA: MIT Press, 2013). See also Ilse Oosterlaken and Jeroen Van den Hoven, "Editorial: ICT and the Capability Approach," *Ethics and Information Technology* 13, no. 2 (2011): 65–67.
- 21 Amartya Sen, *Development as Freedom* (New York: Knopf, 1999), 10.
- 22 Ingrid Robeyns. "The Capability Approach," in *The Stanford Encyclopedia of Philosophy*, <http://plato.stanford.edu/archives/sum2011/entries/capability-approach/> (accessed February 23, 2016).

DfW projects can aim to improve external conditions in many different ways—for example, by proposing policies that promote active participation of minority groups in local politics or by placing garbage bins in the shape of basketball hoops in public spaces to nudge people toward throwing their garbage into these bins. They also can aim to improve personal resources by, for example, creating prostheses for people who are missing parts of their body or creating programs for soldiers to train them in emotional resilience.

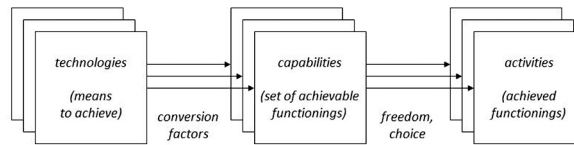
Moreover, a DfW project takes into account that people can have very different motivations, abilities, needs, and preferences—and different ideas about what would constitute *the good life* for them. A DfW project would therefore stay clear from prescribing specific behaviors, which would limit people's freedom. Rather, a DfW project would aim to create opportunities for people to use technologies in different ways and for different purposes, thus accounting for diversity and promoting people's freedom and flourishing.<sup>18</sup>

### The Capability Approach

For the discussion of ways to organize DfW projects, I now turn to the Capability Approach (CA). Ilse Oosterlaken, among others, has pioneered the application of concepts from the CA in the context of technology development and design.<sup>19</sup> Interestingly, the CA is often applied at the macro level of policies and nations, in evaluations, for example, of the effects of policies on human development in the *United Nations Development Programme*. Meanwhile, its application on the (micro) level of projects is in its infancy. (A body of knowledge on the role of information and communication technology in development (ICT4D) is a notable exception.<sup>20</sup>) I aim to contribute by applying concepts from the CA to the (micro) level of organizing DfW projects.

In very general terms, the CA aims to make sure that people have all the relevant capabilities they need to "lead the kind of lives they have reason to value."<sup>21</sup> The CA "is generally understood as a conceptual framework for a range of normative exercises, including most prominent[ly] the following: 1) the assessment of individual well-being; 2) the evaluation and assessment of social arrangements; and 3) the design of policies and proposals about social change in society."<sup>22</sup> The CA was originally developed by economist Amartya Sen and philosopher Martha Nussbaum to discuss, evaluate, and improve policies in developing countries.<sup>23</sup> However, it currently is applied in diverse contexts, ranging from public health and sustainability to fair trade and education.<sup>24</sup>

Figure 2  
Technologies, Capabilities, and Behaviors  
(adapted from Robeyns, 2005).



The CA promotes the development of freedom, conceptualized as human capabilities. Capabilities are understood as “what people are effectively able to do and be.”<sup>25</sup> They include the capability to eat healthy food, the capability to maintain meaningful relationships, and the capability to engage in recreational activities. On an abstract level, several categories of capabilities are recognized by many as central. Such categories encompass life: bodily health; bodily integrity; senses, imagination, and thought; emotions; practical reason; affiliation; relating to other species; play; and control over one’s political and material environment.<sup>26</sup> Moreover, capabilities often are “combined capabilities” in that they link “internal capabilities,” such as one’s bodily and mental capabilities and capabilities realized through training, as well as “suitable external conditions,” such as the existence and accessibility of relevant institutions and infrastructures that enable people to exercise and expand their capabilities.<sup>27</sup> This concept of “combined capabilities” is a correlate to the combination of personal resources and external conditions—both of which enable people to flourish (see Figure 1).

The basic structure of the CA can be visualized as three boxes connected by arrows: On the left are technologies (“means to achieve” in the CA vocabulary); in the center are human capabilities (“achievable functionings”); and on the right are activities or ways of living that people value (“achieved functionings”). (see Figure 2)<sup>28</sup> Ideally, people are enabled to access and use specific *technologies*, so that they can expand relevant *capabilities*, which enable them to pursue *activities* of their choice, such as eating healthy food or participating in a community.

### Avoiding Two Pitfalls

In the context of DfW projects, the CA can help to steer clear of two pitfalls that can arise. First is the pitfall of focusing too much on technologies and forgetting the broader context in which technologies are used. The CA draws attention to all sorts of *conversion factors* that need to be in place “before a certain artifact (merely a means) can truly contribute to the expansion of valuable human capabilities (its ultimate end).”<sup>29</sup> These conversion factors can be personal, social, or environmental. A project involving the development of a podcasting service for information on health and cattle management in a rural area of Zimbabwe can help to illustrate

23 See, e.g., Sen, *Development as Freedom*; and Martha Nussbaum, *Creating Capabilities: The Human Development Approach* (Cambridge, MA: Harvard University Press, 2011).

24 For additional examples, see the Human Development and Capability Association website, <http://www.capabilityapproach.com> (accessed February 23, 2016).

25 Ingrid Robeyns, “The Capability Approach: A Theoretical Survey,” *Journal of Human Development* 6, no. 1 (2005): 93–117.

26 Nussbaum, *Creating Capabilities*, 33–34.

27 Martha C. Nussbaum, *Women and Human Development: The Capabilities Approach* (Cambridge: Cambridge University Press, 2000), 84–85.

28 Robeyns, “The Capability Approach: A Theoretical Survey.”

29 Ilse Oosterlaken, *Taking a Capability Approach to Technology and Its Design* (Delft: Delft University of Technology, 2013), 91.

- 30 Ibid., 92.
- 31 Marc Steen, "Human-centered Design as a Fragile Encounter," *Design Issues* 28, no. 1 (Winter 2012): 72–80.
- 32 Kees Dorst, "The Core of 'Design Thinking' and Its Application," *Design Studies* 32, no. 6 (2011); Marc Steen, "Co-design as a Process of Joint Inquiry and Imagination," *Design Issues* 29, 2 (Spring 2013): 16–28.
- 33 For human-centered design principles, see: *ISO 13407: Human-Centred Design for Interactive Systems* (Geneva: ISO, 1999). This standard lists the following principles: 1) active involvement of users and a clear understanding of user and task requirements (related to focus on experience and participation); 2) appropriate allocation of function between users and technology; 3) iteration of design solutions (iterative process); and 4) multi-disciplinary design (multidisciplinary teamwork. For service design principles, see: *This is Service Design Thinking* by Marc Stickdorn and Jacob Schneider (Amsterdam: BIS Publishers, 2010), 34–45. They list the following: 1) user-centered (related to a focus on experience); 2) co-creative (*participation and multidisciplinary teamwork*); 3) sequencing (focus on experience, for example, in envisioning a customer journey); 4) evidencing (focus on *experience*, for example, in designing touch points); and 5) holistic (*multidisciplinary teamwork*).
- 34 See, e.g., Hugh Beyer and Karen Holzblatt, *Contextual Design: Defining Customer-centred Systems* (San Francisco, CA: Morgan Kaufmann, 1998); and Ilpo Koskinen, Katja Battarbee, and Tuuli Matelmäki, *Empathic Design: User Experience in Product Design* (Helsinki: Edita Publishing, 2003).
- 35 See, e.g., Douglas Schuler and Aki Namioka, *Participatory Design: Principles and Practices* (Hillsdale, NJ: Lawrence Erlbaum Associates, 1993); and Elizabeth B. N. Sanders and Pieter Jan Stappers, "Co-creation and the New Landscapes of Design," *CoDesign* 4, no. 1 (2008): 5–18.

these conversion factors. A voice-based technology was chosen in response to "the illiteracy of a significant proportion of the inhabitants in that area" (addressing a personal conversion factor); the system used speakers rather than headphones to match the prevalent social practice of "sitting and sharing under a village tree" (a social conversion factor); and its batteries were re-charged using solar panels, in response to "local infrastructural problems" with the electrical grid (an environmental conversion factor).<sup>30</sup> In DfW projects, the CA can help to understand people's daily life contexts and conversion factors and how they help or hinder in the expansion of relevant capabilities—rather than narrowly focusing on technology.

The second pitfall is the endorsement or privileging of only specific behaviors. The ambitions of project team members can all too easily create a bias toward the development of products or services that enable only specific behaviors, and such limitations can hamper people's freedom and thus their wellbeing, often unintentionally.<sup>31</sup> In the example of the podcasting service, developers and designers can promote flexibility and freedom by enabling people to use the system also for other types of information. Another example would be the provision of Internet access in a community facility, where people can pursue diverse goals and use the Internet for various purposes, such as recreation, learning, or commerce. In addition, measures often also are needed to protect people's freedom, to ensure that they can indeed choose freely. In DfW projects, the CA can help to ensure that people can indeed freely choose to live their different versions of *the good life*—rather than limiting their freedom.

### Organizing Design-for-Wellbeing Projects

Several insights from the CA can be applied to the discussion of how to organize DfW projects. Assume for the sake of making a distinction that "traditional" design projects involve the organizing of creative, collaborative, and iterative processes of identifying, studying, and articulating specific problems, and of developing, trying out, and evaluating solutions,<sup>32</sup> and that they follow principles of human-centered design and service design:<sup>33</sup>

- *Focus on experience*: Focusing on the experiences, motivations, abilities, needs, and preferences of (prospective) users in different contexts, for example, by following methods like contextual design or empathic design.<sup>34</sup>
- *Participation*: Involving (prospective) users in research, design, and evaluation activities, so they can contribute actively and creatively to the project, thus drawing from the traditions of participatory design or co-design.<sup>35</sup>

- *Multidisciplinary teamwork*: Organizing collaboration between people with different backgrounds or roles, and collaboration between organizations (or departments) with different concerns or interests.
- *Iterative process*: Organizing an iterative process of research, design, and evaluation and enabling project team members and relevant stakeholders to engage in joint problem-setting and solution-finding.

Because of their aim to create opportunities for people to engage in meaningful and fulfilling activities, DfW projects would typically need to go beyond “traditional” design projects that, for the sake of argument, are understood as typically focused on creating a product or a service. Therefore, it can be assumed that the organization of DfW projects would require additional principles beyond the basic principles listed. I draw from the CA, and from the traditions of participatory design, inclusive design, and transformation design, to explore three additional principles needed in organizing DfW projects.<sup>36</sup>

### Promoting Participation and Empowerment

Participation is a key concern in the CA.<sup>37</sup> Ideally, the people who are supposed to be benefiting from the project and its results—the “users”<sup>38</sup>—and other stakeholders can participate in the process of understanding and defining the problem and developing possible solutions (as discussed for human-centered design and service design). Furthermore, and typical for the CA, they would need to be involved in the process of identifying the specific results of the project which enable people to expand their capabilities. Ideally, users and other stakeholders can also participate in clarifying relevant personal, social, and environmental conversion factors. Moreover, people’s participation can empower them. Not only can the results that a project delivers (partly based on their participation) empower people by helping them to expand their capabilities, but the process itself of participating actively and creatively can empower them: “Participatory design can be an empowering process that results in empowering outcomes.”<sup>39</sup>

Participation and empowerment can be integrated into DfW projects by drawing from the tradition of *participatory design* (PD), an approach in which “the people destined to use the system play a critical role in *designing* it.”<sup>40</sup> The “tool perspective” in PD provides a similar combination of participation and empowerment.<sup>41</sup> This perspective foregrounds people’s tacit knowledge and skills and aims not only to empower them to participate in the process of designing tools, but also to empower them by delivering tools that they can use to deploy their knowledge and skills.

36 Other principles might also be relevant to DfW, e.g., related to ecology, gender or agency (Nieusma, “Alternative Design Scholarship,” 17–23). However, these alternative principles are not discussed here.

37 Alexandre Apsan Frediani and Camillo Boano, “Processes for Just Products: The Capability Space of Participatory Design,” in *The Capability Approach, Technology and Design* (Dordrecht: Springer, 2012), 203–22.

38 Users in this case are viewed as active participants, and not as passive recipients.

39 Sofia Hussain, Elizabeth B. N. Sanders, and Martin Steinert, “Participatory Design with Marginalized People in Developing Countries,” *International Journal of Design* 6, no. 2 (2012): 101.

40 Schuler and Namioka, *Participatory Design*, xi.

41 Gro Bjerknes, Pelle Ehn, and Morten Kyng, *Computers and Democracy: A Scandinavian Challenge* (Aldershot, UK: Avebury, 1987).

The aim in DfW projects to promote participation and empowerment thus requires viewing users as active and creative participants and organizing a participation process that is meaningful, fulfilling, and empowering, ultimately creating results that indeed empower people.

### Improving External Conditions and Personal Resources

Some projects deliver products, services, or product–service systems that directly enable people to engage in meaningful or fulfilling activities.<sup>42</sup> Other projects not only aim to create products or services but also aim to improve external conditions (e.g., the social cohesion in a local community) or people’s personal resources (e.g., their capabilities to engage in social relationships). Such intentions would require the creation of policies or social interventions, maybe in tandem with product–service systems. For example, improving social cohesion would require changing local policies to allow citizens to use public spaces for community activities, and improving capabilities for socializing would require the creation and delivery of a social skills training program.

Moreover, developing and implementing such policies, interventions, or programs often require promoting collaboration between organizations (or departments) and fostering innovation in these organizations (or departments). Such collaboration was needed even for a relatively simple intervention in a health care service for people with diabetes.<sup>43</sup> This project focused on creating a set of cards with topics for discussion that patients would use to steer their meetings with their doctors. Thus, patients are empowered to have more control over these meetings—and over their health. This project required creative collaboration between different specialists and client groups, in several workshops.

DfW projects must similarly be concerned with improving organizations’ capacities for innovation and collaboration to enable them to work collaboratively toward shared goals.<sup>44</sup> To that end, DfW projects can follow a *transformation design* approach, which promotes capacity-building within organizations so that they go “beyond traditional solutions” and “create fundamental change” by developing “tools, skills and organizational capacity for ongoing change.”<sup>45</sup> Capacities for collaboration and innovation also are critical for scaling up projects’ results. One prototype benefits only a limited number of people, whereas a scaled-up (social) innovation has the potential to promote well-being in a larger group of people.<sup>46</sup>

In sum, the aim to improve external conditions and personal resources in DfW often requires the creation and implementation of policies and interventions, which often requires the improvement of collaboration and innovation capacities in the organizations involved.

42 Anna Pohlmeier and Pieter Desmet describe the examples of Tiny Task, “a set of keychain tokens that trigger and remind users to commit to new experiences that are fun and virtuous,” and the Tea Shell, “a mug that subtly invites its user to enjoy the moment”; see Anna Pohlmeier and Pieter Desmet, “Designing the Road Of Happiness,” *CRISP Magazine* 4 (2014): 1–4.

43 Colin Burns, Hilary Cottam, Chris Vanstone, and Jennie Winhall, *Transformation Design* (London, UK: Design Council, 2006), 12–13.

44 The CA views human capabilities as having *intrinsic* value and organizations’ capacities as *instrumental* and of importance to the degree that they contribute to these human capabilities.

45 Burns et al., *Transformation Design*. They list the following principles: 1) defining and redefining the brief (related to the *iterative process*); 2) collaborating between disciplines (*multidisciplinary teamwork*); 3) employing participatory design techniques (*participation*); 4) building capacity, not dependency; 5) designing beyond traditional solutions; and 6) creating fundamental change. Principles 4, 5, and 6 are most distinctive for transformation design.

46 For more on scaling-up innovation, see Robin Murray, Julie Caulier-Grice, and Geoff Mulgan, *The Open Book of Social Innovation* (London: The Young Foundation, 2010); and Madeleine Gabriel, *Making it Big: Strategies for Scaling Social Innovations* (London: NESTA, 2014).



### Facilitating Freedom and Accounting for Diversity

The CA would involve asking questions like the following: *Can people use the available technologies, and do these technologies help them to expand their capabilities? Do these capabilities actually enable people to freely choose to engage in activities that they value?* (See Figure 2, the left arrow and the right arrow, respectively.) In DfW projects these questions can be addressed by facilitating freedom, so that people both can freely use technologies and can develop and expand capabilities that they value. Freedom and development are key concerns in the CA. Sen understands the “expansion of freedom” as both “the primary end” of development and “the principal means of development.”<sup>47</sup> Freedom can be facilitated in DfW projects by drawing from the tradition of *inclusive* (or *universal*) design.<sup>48</sup>

Inclusive design aims to create policies, interventions, environments, products, or services that are accessible, easy-to-use, and flexible-in-use for all people, regardless of their (dis)abilities. It aims to design not only for “40-year-old, able-bodied males,” as is often done (unintentionally), but also for women, children, older people, or people with physical or cognitive variations.<sup>49</sup> In inclusive design, one would “design artifacts for specific, sometimes previously ignored, users (like a manually operated tricycle for people in developing countries...)” or would “make designs that are appropriate for a wide diversity of users (such as buildings that are also accessible to [people in] wheelchairs).”<sup>50</sup> Such projects would aim to enable people to expand their capabilities to move freely from place to place or to enjoy recreational activities. Moreover, it can be worthwhile to combine inclusive design and PD: “The success of accessible products depends upon the participation of users with disability in the design phase itself.”<sup>51</sup>

The aim to facilitate people’s freedom and to take into account their different capabilities can thus be used as opportunities in DfW projects to create products or services that can be used by diverse people, and to collaborate closely with specific people who have specific needs.

### Principles for Organizing Design-for-Well-Being Projects

We set out on our exploration with the question: *How can we organize DfW projects?* Our tentative answer is that organizing such projects first requires focusing on (prospective) users and their experiences, and organizing participation, multidisciplinary teamwork, and an iterative process. In addition, I propose that the following principles, drawn from the CA, are necessary:

- *Promoting participation and empowerment.* A DfW project would aim to empower people to expand relevant capabilities, to promote their flourishing. This will require the active and creative participation

47 Sen, *Development as Freedom*, 36.

48 Roger Coleman, John Clarkson, Hua Dong, and Julia Cassim, *Design for Inclusivity: A Practical Guide to Accessible, Innovative and User-centred Design*, Design for Social Responsibility Series (Aldershot, UK: Gower Publishing, 2007).

49 Nieuwsma, “Alternative Design Scholarship,” 14–5.

50 Ilse Oosterlaken, “Inappropriate Artefact, Unjust Design? Human Diversity as a Key Concern in the Capability Approach and Inclusive Design,” in *The Capability Approach, Technology and Design* (Dordrecht: Springer, 2012), 224.

51 Mario Toboso, “Rethinking Disability in Amartya Sen’s Approach: ICT and Equality of Opportunity,” *Ethics and Information Technology* 13, no. 2 (2011): 115.

of “users,” organizing their participation as an empowering process and delivering outcomes that empower people, for example, by drawing from participatory design.

- *Improving external conditions and personal resources:* A DfW project would aim to deliver not just products or services, but also complex product–service systems, policies, and social interventions. This goal often requires the improvement of organizations’ capabilities to collaborate and to innovate—for example, by following a transformation design approach.
- *Facilitating freedom and accounting for diversity.* A DfW project would value people’s freedom, diversity, and dignity and would aim to create results that can be accessed and used by very dissimilar people to expand capabilities that they find relevant, and to live their different versions of the good life—for example, by drawing from *inclusive design*.

I argued that DfW is distinct in its focus on creating opportunities for people to flourish. This is not new, one might argue. In fact, design has always aimed at promoting well-being.<sup>52</sup> DfW projects would then seem to differ from other design projects in degree rather than in kind. It would then, nevertheless, be appropriate that the people involved explicitly discuss their aims to promote people’s wellbeing.

I propose that DfW can be seen as a next step in the evolution of design expertise—an evolution that moved from technology and functionality to usability and experience, and that now moves toward the promotion of well-being—a step that needs to be further investigated and developed and an approach that needs to influence practice more broadly.

### Design Expertise

One of the topics that needs to be further investigated is the changing nature of design expertise and the role of designers in DfW projects. They can find themselves in very diverse roles. They might need to promote collaboration between organizations, facilitate creative co-design workshops, organize a community event with citizens, negotiate between stakeholders with conflicting interests, study people’s local cultures and behaviors, or advise on shared value creation and business models. Recurring elements in these diverse roles are the expertise to promote collaboration and creativity, to move between perspectives, and to combine problem-setting and solution-finding. These recurring elements are certainly not new; they are key elements of design expertise.<sup>53</sup>

52 Harold G. Nelson and Erik Stolterman, *The Design Way: Intentional Change in an Unpredictable World* (Englewood Cliffs, NJ: Educational Technology, 2003).

53 Such themes are apparent in works by Bryan Lawson, *How Designers Think: The Design Process Demystified*, 4th ed. (Amsterdam: Elsevier, 2006); Nigel Cross, *Designerly Ways of Knowing* (London: Springer-Verlag, 2006); and Bryan Lawson and Kees Dorst, *Design Expertise* (London: Taylor & Francis, 2009).

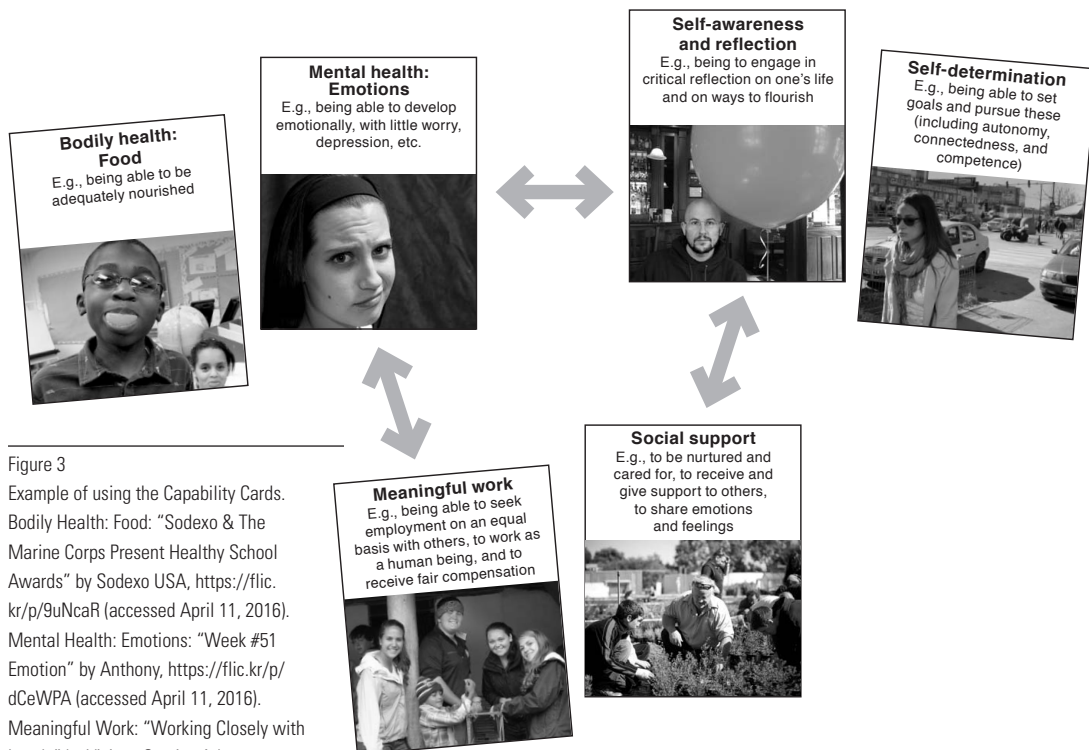


Figure 3  
Example of using the Capability Cards. Bodily Health: Food: "Sodexo & The Marine Corps Present Healthy School Awards" by Sodexo USA, <https://flic.kr/p/9uNcaR> (accessed April 11, 2016). Mental Health: Emotions: "Week #51 Emotion" by Anthony, <https://flic.kr/p/dCeWPA> (accessed April 11, 2016). Meaningful Work: "Working Closely with Locals" by Visions Service Adventures, <https://flic.kr/p/axjcw1> (accessed April 11, 2016). Social Support: "Youth Gardeners" by Social Traders, <https://flic.kr/p/bpfzWX> (accessed April 11, 2016). Self-Awareness and reflection: "The Good Life" by Kevin Slavin, <https://flic.kr/p/vnf5V> (accessed April 11, 2016). Self-Determination: "Determination" by Jake Stimpson, <https://flic.kr/p/Ea5LFQ> (accessed April 11, 2016).

The discussion of design expertise can be related to two recent contributions. First, Kees Dorst has put forth a new conceptualization of design expertise called "frame innovation," which he describes as the ability to create new approaches to today's open, complex, dynamic, and networked problems.<sup>54</sup> I propose that a focus on human capabilities can be used to "frame" the problem in terms of human capabilities that need to be expanded, and to develop solutions that enable people to expand these capabilities. Second, Ezio Manzini has written about "design for social innovation," in which "expert designers" (i.e., people trained as designers) can play key roles in triggering and supporting "diffuse design," which comprises efforts by citizens to bring about social changes.<sup>55</sup> This framework highlights the role of design expertise in making citizens' social innovation efforts more effective and consequential, so that they can make contributions beyond a project's short-term results.

### Tools to support Design-for-Wellbeing

Another topic to be further studied is the use of tools to support DfW projects. Many useful tools are available, such as IDEO's *Human-Centered Design Toolkit*, *Design for Social Impact Guide and Workbook*, *Frog's Collective Action Toolkit*, *NESTA's Development, Impact & You (DIY)*, and Friedman et al.'s *Envisioning Cards for Value-Sensitive Design*.<sup>56</sup> Currently missing, however, are tools to

54 Dorst, *Frame Innovation*.

55 Manzini, *Design, When Everybody Designs*.

56 See <http://www.ideo.com/work/human-centered-design-toolkit/>; <https://www.ideo.com/work/design-for-social-impact-workbook-and-toolkit/>; <http://www.frog-design.com/work/frog-collective-action-toolkit.html>; <http://diytoolkit.org/>; and <http://www.envisioningcards.com/> (accessed April 11, 2016).

1. Discuss and clarify the project's ultimate goal to promote well-being, e.g., to promote specific elements of well-being in a specific group. What does the desired situation look like?
2. Discuss which capabilities people would need to expand to flourish in that sense. Use the Capability Cards to select relevant capabilities, and clarify assumptions and relationships.
3. Discuss which organizations, companies, or people need to play a role in bringing about the desired changes (e.g., to improve frontline workers' skills or to improve collaboration).
4. Summarize: The project aims to deliver [results] that will help [organizations] to deliver [service or product], which will enable people to develop [capabilities], so they can [flourish].

Figure 4  
Workshop Instructions.

support the discussion and selection of capabilities on which to focus a project. To fill this gap, I developed a prototype set of 24 Capability Cards, along with workshop instructions to support project team members, "users," and other stakeholders to discuss and select human capabilities on which to focus in their project.<sup>57</sup> (See Figures 3 and 4.) These tools are intended to support discussions about human capabilities in the context of project management—to articulate shared goals in preparation for the project work in aligning different project partners' ambitions, or to evaluate progress in project meetings.<sup>58</sup>

Figure 3 illustrates the usage of the Capability Cards. Imagine that three partners collaborate in developing a service to empower disadvantaged people. One partner, a health service provider, wants to focus on helping people to expand their capabilities related to bodily and mental health. Another partner, for example, a government agency, wants to focus on people's capabilities to find meaningful work and to develop and strengthen social support. A third partner, a service developer, wants to focus on enabling people to expand self-awareness and self-determination capabilities. The cards can then help them to discuss and align their ambitions, to develop a shared vision and to see that their ambitions are complementary.

I have experimented with these tools in several workshops. Afterward, participants remarked that the tools supported communication between people with different backgrounds and interests and allowed for the articulation of longer term societal goals and a shared project vision. Moreover, they remarked that the workshop format and the cards helped them to start with a societal goal (an outcome) and then to discuss what the project would need to deliver (as output) to help to achieve that goal.

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57 The cards are based on Nussbaum's ten central capabilities (Nussbaum, *Creating Capabilities*, 33–34). To make them more practically applicable, I made some modifications. For example, I made three separate, more specific capabilities (i.e., food, shelter, care) for one abstract capability (bodily health), and I included blank cards to enable participants to use their own concepts or words. The Capability Cards are meant to be used in a project management context, such as in discussions about the project's goals. A similar card set was developed by Annemarie Mink; however, her cards are meant to be used in the context of field work, such as interviewing prospective users (Annemarie Mink, Floris van der Marel, Vikram Parmar and Prabhu Kandachar, "Approaching Design for Development from a Capability Perspective," *Current Science* 109, no. 9-10 (2015): 1639–50.

58 Marc Steen, "I am a Luddite—Well, Sort Of," *Interactions* 22, 5 (2015): 18–19.