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Teaching ethical-participatory social design

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How to incorporate critical and societally relevant thinking and acting into Higher Education teaching formats? The article proposes social design workshops, which teach ethics through design by explicitly addressing and building on the functional diversity of participating stakeholders, and by fostering ongoing mutual reflection. These workshops are inspired by participatory design, political theory, disability studies and psychological practice research. By drawing on empirical material from a design workshop with Bachelor students and external collaborators including psychologically vulnerable stakeholders, we argue for an adaptive framework of analytical-pedagogical inquiry that can be continuously co-designed. In particular, ethical design requires a broad and emergent definition of participation. Ethical design is participatory-democratic co-design, which acknowledges and bridges across the various stakeholders' functional diversity.

Introduction

How is it possible to teach social scientific co-design in ethical ways not only for particular stakeholder groups, but for a variety of highly diverse stakeholder groups? This question becomes pertinent when considering sustainable design processes, and when assessing what conceptual and methodological developments are needed in order to teach design for diversity.

Teaching via participatory design attempts to achieve ethical effects in the sense of better life (and most often work) conditions that cater to specifically targeted stakeholder groups involved in a design project – even though this ethical commitment is seldom specifically referred to as 'ethical'. Participatory design tends to conceive of ethics and particularly ethical effects consequentially in terms of future 'user benefits' (e.g., Spinuzzi, 2005) or 'user gains' (Bossen, Dindler and Iversen, 2010).

This article argues that the sustainability and thus beneficence of participatory design and design projects in general depends on the ethics explicitly implemented in the project design, i.e. how the various stakeholder groups come to meet and collaborate with one another throughout the project. The design of ethically sustainable design projects depends on the one hand on how intertwined networks that reach across diverse perspectives, functionings and capabilities can be established via the project design. On the other hand, the development of sustainable intertwined networks, which may ensure long-term gains or benefits for as many project participants as possible, depends on designing a frame of mutual understanding and reflection which renders it possible for the participants to acknowledge the relevance of one another's diverse diversity, both for the duration of the design project as well as after the project has finished. In reality this means that research participants are offered opportunities throughout the design process to explore one another's *functional diversity* (Toboso, 2011), one another's diverse relations to the world, and to draw on insights gained throughout this process of mutual reflection in order to renegotiate and redesign the initial design frame of the collaboration.

The teaching of such an ethically sustainable design process will be exemplified via a case description and analysis. The case builds on a 2-week intense design workshop for Bachelor students on the topic *Design for All: Life quality and possibilities for action*. It gathered a multitude of stakeholders: the workshop designers and teachers (us), Bachelor students and external collaborators from the collaborative-project 'Inclusive Partnerships', including its target group of psychologically vulnerable stakeholders. After illustrating how the various iterations of the workshop's design process developed and democratized renegotiations across diverse perspectives, we argue that teaching such ethically sustainable design fundamentally requires making explicit the notion of participation whilst acknowledging that diversity of perspectives, functionings and capabilities is what all human beings have in common.

Analytical Framework: Prototyping Ethically Sustainable Concepts

It is stressed by Slegers, Duysburgh & Hendricks (2015) that specific methodologies and concepts are necessary to ensure a 'hybrid space' for mutual learning and development in the design process, when wishing to design for and with specific stakeholder groups. This article adds to this recent research and aims to develop a teaching concept for participatory ethical design, which takes into account how different stakeholder groups can collaborate around the development of a collective design process. Such collaboration also needs to acknowledge and accommodate the subjective specificities of the various stakeholder groups' members.

A reconceptualization of the participant stakeholders requires a comprehensive discussion of what participation is and what participation entails. In this project the aim is to create participatory structures that are amenable to iterative redesign by all stakeholders within the design process. With this in mind, reference is made to Toboso's (2011) conceptualization of *functional diversity*, we will also draw on Carpentier's (2011) discussion of democratic theory to highlight that a maximalist notion of *participation* may lead to an ethically more sustainable design process. Further, we theoretically argue that a radical democratic participation concept can be related to the feminist notion of *situated ethics* (Piper & Simons, 2011), which implies that researcher-participant interrelations require iterative renegotiation – as both research context and aim are undergoing ongoing transformations. In combination with collective reflection as methodological principle for analyzing our case, we finally illuminate how these deliberations serve as conceptual points of departure for designing future ongoing mutual learning processes across different target groups.

Functional diversity: designing for difference

Science and Technology Studies researcher Mario Toboso (2011) introduces the concept of functional diversity in his article on disability and the design of information and communication technology (ICT). Functional diversity rises "above the ability/disability conceptual dichotomy" (Toboso, 2011, p. 109) and points to a positive vision of humanity which underlines that 'in terms of functioning – physical, mental, and sensory – human beings are diverse, and all societies should view this diversity as a source of enrichment' (Toboso, 2011, p. 109).

Toboso interprets functional diversity as "'diversity on functionings' describing the reality of persons who have the potential to access the same functionings as other people but in a different way" (Toboso, 2011, p. 112). 'Functionings' is a concept he borrows from economist Amartya Sen's framework for analyzing well-being and quality of life (e.g., Sen, 1993). They "represent

what a person manages to achieve or become in life. Some functionings may be very basic - being properly nourished or having good health”, while others “such as achieving self-esteem and being well integrated socially may be more complex but equally valued. However, people can differ widely as to how much weight they place on functionings” (Toboso, 2011, p. 109). Functionings could easily be misread as an individualizing concept, if it was not for the complementary concept of capability, which “reflects the possible combinations of functionings a person may achieve” (Toboso, 2011, p. 109). Capability encompasses the societally ordered opportunities for the person to function and attain well-being. Hence, as “an approach to evaluating human well-being and equality of personal freedom, the capability theory assesses the particular position of a person within a social order from two different perspectives: (1) well-being, defined as the valued achievements and functionings attained, and (2) freedom, defined as the real opportunities a person has to attain well-being” (Toboso, 2011, p. 110).

Toboso draws on these concepts and considerations to argue that technology design must approximate the ideals of design and the promotion of well-being by systematically incorporating functional diversity into the design process. This is, as mentioned, understood as diversity of functionings, but not without ignoring the capability set that the stakeholders participating in the design process have at their disposal qua their positioning in the social order. Maximizing openness to functional diversity in the design process helps us not only enhance the capability set or life conditions of those commonly considered ‘different’, but fundamentally of everyone.

In a similar but philosophically differently grounded vein, *Psychology from the Standpoint of the Subject* (Motzkau & Schraube, 2015) also argues for an acknowledgement of epistemic asymmetry or diversity (cf. Schraube, 2013). This implies that each human being has a particular, experientially unique relationship to and understanding of the world. In this diversity, they are ontologically symmetrical: it is this diversity that all human beings have in common. Furthermore, they always engage with one another in collectively co-constituted activities and practices, and irrespective of their unique experiential first person perspectives, they are, at least in principle, able to meaningfully communicate with and act in relation to one another. Actually, human beings *need* to exchange perspectives in order to transcend their own, particular and partial understanding of the existing world so as to purposefully act on and transform it (cf. also Axel, 2011). In that sense, the practice of exchanging understandings not only enriches society as emphasized in the diversity model: it is an unavoidable tenet of maintaining and transforming society and herewith humanity. But how can participation that not only accepts but also acknowledges diversity as a positive, productive element of being human be ensured? We will argue that facilitation of an ethical space of reflection is needed to provide experiential, challenging learning opportunities to pave the way for these changes to occur.

Towards a maximalist, radical-democratic notion of participation

Media and communication researcher Nico Carpentier (2011) differentiates participation into relatively more minimalist and maximalist notions. He primarily draws on conceptual developments of participation in democratic theory. He negatively distinguishes the concept from two of the most widespread uses in communication and media studies: participation as access and participation as interaction, i.e. *access to or interaction with* technological devices, media content or people and organizations producing and/or receiving technology and content. These understandings of participation point to more minimalist versions of democratic participation, as it is pri-

marily representative proxies who dispose over a disparately high amount of power to act politically on behalf of a multiplicity of citizens. The average citizen is not actively involved in the power struggles that take place in the organizational-political decision-making processes.

Explicitly, participatory design does not play a role in Carpentier's article. And yet, design is arguably also at the heart of Carpentier's argument: He specifies the concept's ambiguity so as to question its widespread but seldom reflected uses in the design of (more or less democratic) media and communication practices – and in our reading also of teaching participatory design. In this light, participation as mere access or interaction neglects the possibility that stakeholders as 'participants' could be more actively involved in not only engaging in, but also in co-framing political decision-making processes and thereby actively taking part in democratic responsibility. Carpentier thereby implicitly questions the notion of the 'user' itself, for instance of the citizen as a 'user' of a political and societal system as well as its media outlets (and inlets).

Participation in democracy, be it in political or academic decision-making processes, presupposes that the fundamental framing of these processes is in principal questionable, negotiable and thus transformable through its stakeholders. This does not imply that all framings need to be constantly questioned, negotiated and transformed: the process of maintaining certain framings is part of a democratic negotiation and struggle for reaching some form of consensus across manifold perspectives and power-mediated positionings. As political theorist Chantal Mouffe puts it: 'We have to accept that every consensus exists as a temporary result of a provisional hegemony, as a stabilization of power, and that it always entails some form of exclusion' (Mouffe, 2000, p. 104).

The power struggle engrained in and emerging from ongoing renegotiations of agency, meanwhile, needs to be stabilized in order to become sustainable. An ethically sustainable renegotiation, then, requires reflective spaces that invite an exchange of perspectives, in which the diversity of functionings are regarded as productive means for challenging one's own presuppositions or epistemic framings. So how can teaching in participatory design be framed in such a way that it allows for renegotiations of the design's framing as well as all participants' epistemic framings? The basic vision of our workshop, after all, is to learn and design not only for one's own 'professional identity' or subjectivity, i.e. merely for oneself, but for one another as participants having more common stakes in a specific phenomenon than previously imagined.

Case: A university's workshop on designing for stakeholder diversity

As part of a 2-week intense workshop process developed at Roskilde University in Denmark, the authors have repeatedly offered a workshop series on social design. Each of the semester workshops features a different stakeholder organization as collaboration partner, ranging from a variety of NGOs to municipalities. In the following, we are primarily referring to a workshop taught in the Fall semester of 2014.

Our partner: Social Development Centre (SUS)

The Copenhagen-based NGO Social Development Centre (SUS) is a Danish based non-profit organization funded mainly through private funding and the so-called Satspulje funds. The Social Development Centre develops social innovation and inventions. The particular project we participated around was called 'Inkluderende Partnerskaber' (Inclusive Partnerships), a project that had already been running for nearly a year in collaboration with two municipalities in the West-

ern region of Zealand as well as the Danish Association for Mental Health (SIND). The goal of the project is to design and anchor new approaches to partnership between citizens with mental health vulnerabilities, user-organizations and the municipality in order to strengthen the everyday life of citizens with mental health vulnerabilities. Its ambition is to broaden possibilities for people with mental health vulnerabilities to participate in equal and mutual relations with other people; both in communities and everyday activities, and through using resources such as voluntary work.

Framing the workshop as an ethical space of reflection

The 2-week intense design workshop that we iteratively designed for First semester students on a humanistic-design Bachelor Studies programme put a special emphasis on sustainably intertwining collaborative networks across a diverse multiplicity of stakeholders. We (the teachers) brought the students together with people who are considered psychologically vulnerable (diagnosed with schizophrenia, social anxiety disorders, depression, bipolar disorders etc., elsewhere also categorized as target groups with cognitive and sensory impairments; cf. Slegers, Duysburgh, & Hendricks, 2015), as well as professional people helping to establish sustainable social networks for psychologically vulnerable people. Our students were initially given the task to design concepts and prototypes that in sustainable ways would support and extend the social networks of the psychologically vulnerable stakeholders.

In the following, we illustrate that in order to teach ethically sustainable participatory design, we, as teachers, gradually defocused the workshop aim from merely designing for the sake of extending the networks of the so-called psychologically vulnerable. Instead, the focus was shifted to how the various stakeholders involved in the workshop (including students and us as teachers) were invited to iteratively and collectively renegotiate and co-design the design process aims, so as to extend not only one target stakeholder group's networks, but mutually one another's.

The analysis of the case will additionally point to the productivity of understanding and appropriating such principles through renegotiation and co-design, i.e. through conceiving of ethics as necessarily situated or rather situating. The students, The Social Development Centre, the psychologically vulnerable participants and the teachers mutually appropriated one another's ethical principles in the process of designing tools for enabling purposeful future voluntary work practices. This process emphasizes how ongoing reflexive-collective renegotiations of diverse, and at times, contradictory ethical principles offer the opportunity to develop a more sustainable participatory design process.

Staging the workshop

According to communication and design researcher Klaus Krippendorff (2006), design projects are only partially involved in the life cycle of devices. For new objects of design to become part of people's lives, they have to become part of their already existing lives. "Hence, strategies and tactics of design for use must also be open for appropriation or appreciation in use" (Krippendorff, 2006; as cited in Binder et al., 2011, p. 161). In line with this thinking we portray our situated and situating, ethical participatory design approach as a performative staging of ways that participants and design materials can meet and prototypically co-construct the design process on the basis of the participants' everyday experiences, thereby contributing to envisioning how

different perspectives and roles of the involved participants in the project can be joined in a collective understanding of future aims and goals of the design.

Such a situating approach to ethical participatory design also implies that we take into account the staging process of the workshop. At an initial meeting with The Social Development Centre, we teachers negotiated and made explicit the aims and stages in the workshop. These negotiations also imply the ongoing redefinition of participation in the design processes. With our core ambition of democratizing relations by providing a platform for co-designing new collaborations and collective practices between the participants, we discussed the question of how we should “align the participants around a shared but potentially controversial object of concern” (Binder et al., 2011, p. 159, as inspired by Pedersen, 2007). But besides promoting this aim, we as university teachers and facilitators also had to temporally and administratively prepare, frame and coordinate the design process according to requirements of active participation and final prototype production. The question arose, however, of whether the student participants as well as all other stakeholders would want to share or develop new ideas of sustainable collaborations within the given framing? Already in the preparatory phase of the project we thought that the situated ethics of the participation needed to be negotiated and renegotiated throughout the co-design process with each participant, as the interest, knowledge and context would change along the way. Thus, in order to address the participatory dynamics of the design process, we argue that in order to create new (sustainable) collectives, the participants need to be affected by the perspectives and ethics of the other participants, herewith co-designing an ethical space of reflection.

Preparation: Design students get to know their ‘target group’

In order to understand the perspectives and everyday lives of the psychologically vulnerable participants, the students as preparation for the workshop were asked to orient themselves on the web, at the library, in public campaigns, at NGOs etc. on what it means to be psychologically vulnerable. Together with the Social Development Centre, we had conceived of participation both in terms of letting the target stakeholder group iteratively co-design the design process, as well as letting the designers (the students) ‘participate’ and get acquainted with the lives of the psychologically vulnerable. Thus, the preparation was intended to let the students start orienting themselves, both towards what kind of design problems they had to be attuned to work with, and the kind of stakeholders they would design for. While becoming acquainted with the design problems, it soon emerged that developing a sense of shared perspectives, functionings and capabilities had importance for how the design process proceeded.

Mutually exploring vulnerabilities and design matters

The design process began to take shape as soon as the students, who only partly knew each other prior to the workshop, started to present to one another and the workshop teachers their perspectives on psychological vulnerability, as based on their media search. We started off with a relatively minimalist notion of how the students might participate: They were to gather knowledge about others on behalf of their own positioning as students. Out of ethical concern, we had not explicitly invited them to invest their own personal stories into the group, as most of them knew little of one another, and because psychological vulnerability can be subject to taboo, shame and discrimination.

Via their scrutiny the group developed a more general-theoretical understanding of the challenges of being vulnerable: for example, fear of participating in social events, suffering from depression, being extremely self-aware of one's own appearance or lacking empathy. The group tried to explore how each of these challenges would hinder or change the conditions and possibilities for a vulnerable stakeholder in participating in communities or social events. Previously uploaded small video slots, NGO-campaign material, dictionary definitions of diverse psychiatric diagnoses, etc. were included in their presentations.

While the student presentations took place, a shift in the design process emerged: the shared stories of the target group 'others' paved the way for the students to get affected by the videos, the statements and the definitions, and ultimately to tell their own life stories, without prompting from the workshop teachers. This initiated a new learning process that was closely connected to confronting and changing preconceptions of normality, of functionings and capabilities of the vulnerably ill, and subsequently this process affected the design process as they reflected on how their ideas of design had to concretely fit with their expectations and ideas of the functionings of their target group. We found that the students, through their initial research and subsequent dialogues with their target group, underwent a shift from a somewhat stereotypical approach to the 'other' to learning to know what they don't know about the other (e.g. Andersen, 1991) Such an approach approximates a hands-on understanding of the theoretical concept of functional diversity, about themselves as well as each other's functionings in relation to circumstances, and its design implications:

Being outside the supposed parameters of normality, even if only temporarily, means becoming different in terms of the functionings that have been affected by the circumstances in each case. Thus, a knee injury will mean that the injured person gets around more slowly, possibly with the aid of crutches, and experiences difficulty with what used to be everyday functionings such as simply going up and down stairs. A pregnant woman faces similar difficulties, as well as a person whose functional ability is gradually deteriorating with age. In all these cases, the individuals will suffer no loss of well-being or quality of life if the social environment available to them is supportive and respectful of functional diversity, whether temporary or permanent (Toboso, 2011, p. 116).

The new knowledge shared in the group facilitated the emergence of some of the students' own stories of psychological vulnerability in their personal lives. The group dynamic suddenly made it possible to transgress the students' own role as designers to also become participating stakeholders themselves. On the basis of the presentations and how they affected all parties involved, the way was paved to consider how our own stereotypical understanding of participation in social events could be challenged and redefined, thereby questioning the original rather minimalist notion of participation in a participatory design process.

Thus, already at this stage interaction and participation had been renegotiated. We argue that the students' understanding of themselves and our own understanding of ourselves in terms of perspectives, functionings and capabilities, became distributed and intermeshed with the stories found online and recounted at the workshop. In the process of understanding the perspectives and everyday life of the target group through listening to the stories and searching information on what it means to live with schizophrenia, social anxiety, depression etc., challenged the young designers' prior understanding of the target stakeholder group. It was for example new to them

that social anxiety would prevent peers from participating in social gatherings despite the fact that they very much would like to. It was also new to them that extreme obsession with one's own physical appearance could result in spending many hours in front of the mirror prior to a social event and even yield the result that someone would decide not to go out at all. It was also new to them that people with depressive periods would not necessarily be able to formulate their need for social contact. These kinds of distributed problems that emerged as a result from co-exploring functionings and capabilities set the scene for the students' potential design ideas. The group then began to draw mind-maps, write post-its, create storyboards (see image 1) etc., illustrating their initial thoughts on how they themselves and people close to them could also be understood as holding a stake in the phenomenon of psychological vulnerability.



Image 1: Example of one of the design project's storyboards describing the design process involving meeting with different stakeholders and renegotiating the aim and purpose of the design idea. The storyboard is a designer's working tool to visualize the different phases of the design process. In this case it illustrates a recruitment campaign for volunteers and psychologically vulnerable people asking for social support.

Participation of target stakeholder group and NGO-partner

On the second day of the workshop, two representatives of our external partner (the Social Development Centre) together with two social work representatives from the municipality came to visit us at the campus. People with psychological vulnerabilities (schizophrenia, bi-polar disorders, social anxiety disorders) that participate in the Social Development Centre's project were

also invited to join the group and contribute with their personal stories. This created the opportunity for the students to present and discuss their initial design ideas together with them. The intention was to support a sustainable co-design process among all stakeholders (students, NGO, nominally vulnerable, teachers, municipality, contact persons) from early on.

A project worker from the Social Development Centre made a presentation on the overall project. Her focus was on the inclusion of target group stakeholders and the collaborative process that had been conducted prior to the workshop. For example, several ideas had already been discussed on how new communities could facilitate meetings between volunteers and psychologically vulnerable people on more equal terms. The Social development representative began by introducing a long list of ideas that they hoped would inspire the students in their design process.

The students were free to draw on the Social Development Centre's ideas for the design they were to develop within the upcoming two weeks, or they could continue working on ideas developed the previous day. Thus, participation in this process was not confined to strictly following the Social Development Centre project ideas, but generally to designing new social collectives for a specific group of stakeholders. This combination of a tight design framework and freedom to bring new ideas to the fore made it possible for both the group and for our partners at the Social Development Centre to think of participation as a circular and emerging way of committing to the design process. This approach also meant that the focus was on iterative adjustment and renegotiation of an idea or design product according to the stakeholders' perspectives, functionings and capabilities.

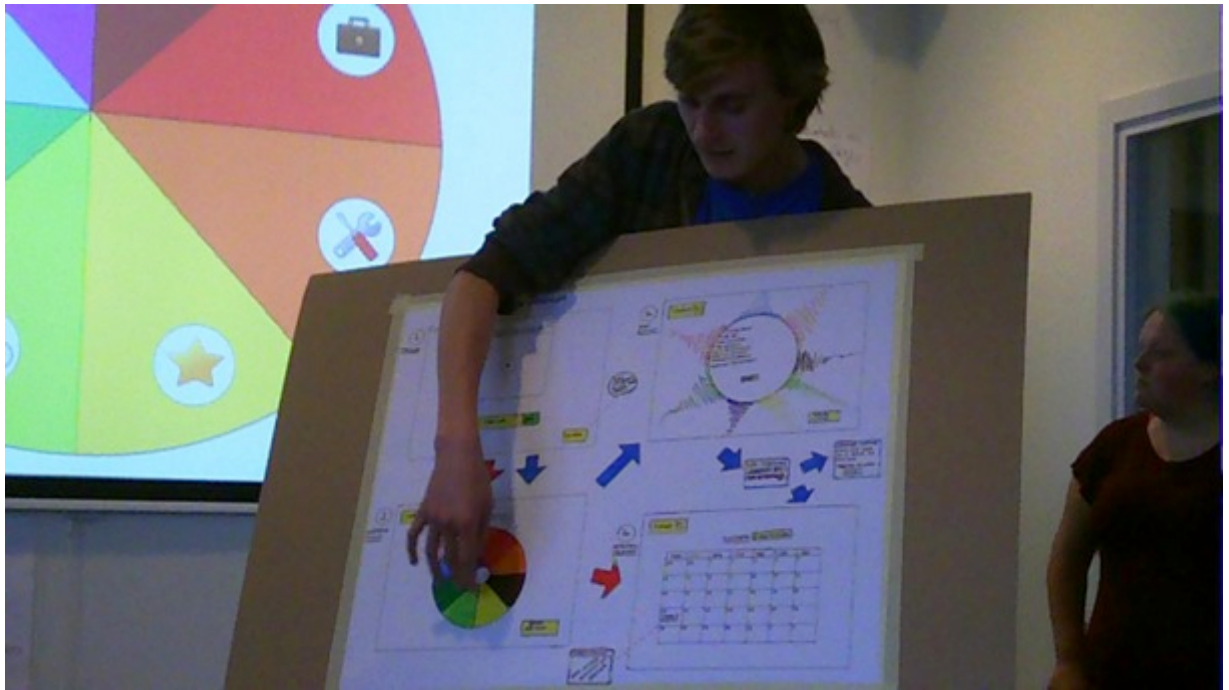
The focus thus remained put on a roughly posed problem that could be solved or worked with in diverse ways. The young designers and the other collaborators were invited to interact, while we facilitated an exchange of reflections through which they could get mutually affected by questions, stories and design ideas (see also the upcoming section). The student group was free to pick up on any of the ideas, as long as they focused on the design being of relevance to the psychologically vulnerable. Thereby it was possible to negotiate how the alignment of the participants around a shared but potentially controversial object of concern should be dealt with (cf. Binder et al., 2011). After the visit of the external partner we facilitated an exchange of new knowledge and ideas in the group in order for them to decide what design idea to pursue. The group divided into three sub-groups that each decided on a preliminary idea, to explore in further detail.



Image 2: Volunteer recruitment campaign logo prototyped by the students.

The three projects were:

1. A recruitment campaign to raise awareness among volunteers of the importance of engaging with psychologically vulnerable people (see image 2).
2. An activity calendar where both volunteers and psychologically vulnerable people could announce joint social activities and sign up for an activity they wished to attend (see image 3).
3. Matching website where volunteers and psychologically vulnerable people could create profiles about themselves in order to get in contact with others with similar interests and preferences (see below).



Images 3 and 4: students present their prototypes, in this case a visualization of an activity calendar via which volunteers and psychologically vulnerable people can meet around social activities.

Reaching out to test and situate the ideas through collective reflection

Our approach to participatory design is very much inspired by an invitational ‘mode of inquiry’ that values curiosity, rather than aimed at posing diagnostic-evaluative questions that refer to a particular professional competency or domain of expertise (Binder et al., 2011, p. 1). Questioning circular processes are therefore a central element in the way we have worked with the young designers, in which ethical dilemmas (e.g., Robertson & Wagner, 2013, p. 73) are discussed in

order to iteratively clarify what the limitations of the design ideas are when considering yet another subjectivity, its perspective, functionings and capabilities.

We teachers pre-arranged feedback sessions and the student work groups arranged meetings with other NGOs and representatives of volunteer organizations in order to test the initial design ideas and first prototypes. Groups were asked to collectively reflect on the (partly contradictory) feedback they got in relation to their idea, and renegotiate how the feedback would require them to adjust their design idea. Their design objects thus turned into socio-material public entities that were exposed to functional diversity and thereby invited controversies and renegotiations throughout the entire process. This process was also supported by the target stakeholders' explicit feedback and input.



Image 5: students present their first prototypes to the various stakeholders in the project. They get feedback through collective reflection for the next iteration.

A concrete adjustment that one feedback initiated concerned the matching website. The student group's initial idea was that psychologically vulnerable people should categorize themselves differently than the volunteers, i.e. specify the nature of their vulnerability at the website's membership registration. This aspect of the design was questioned and fiercely discussed. NGO project stakeholders, social workers, psychologically vulnerable participants and the workshop teachers pointed out the potential marginalization and stigmatization of the psychologically vulnerable stakeholder versus the volunteer needing this information in order to know what kind of responsibility s/he will need to assume. The ethical dilemma was reflected on collectively. The collective reflection explicitly addressed the different responsibilities of the volunteers, i.e. why may it be relevant to know beforehand who the volunteer and who the psychologically vulnerable are when meeting up so as to engage in a joint activity? This paved the way for a discussion about how volunteer responsibilities may affect expectations and ambitions when designing for functional diversity.

These evaluation sessions were pivotal for assessing the quality and relevance of the design's original problem definition. As experienced in a similar learning structure, the Atelier design learning environment, where students exhibit their work at international conferences, the evaluation sessions held twice within the workshop turned out to be "the primary alignment mechanism for the concurrent and interdisciplinary design work in the project. It brought one design iteration to an end opening up a new cycle of design work" (Binder et al., 2011, p. 160).

The learning process that took place from preparatory stage to the first design-testing iteration can be summarized as follows: 1. realizing that oneself as design student may hold a stake in psychological vulnerability as a societally ubiquitous phenomenon; 2. attempting to gather a multiplicity of diverse stakeholders (the target stakeholder group, the external partner, as well as other NGOs, potential volunteers, etc.) in order to exchange reflections on the first design prototypes.

Developing the design rationale

We suggested initially that situating ethics is a prerequisite for teaching sustainable design. As already described, the ethical concerns not only addressed the young designers' target stakeholder group, but also the designers themselves as stakeholders. This is of crucial importance, as we develop a definition of sustainable participatory design which ensures that the designers themselves are affected in ways that make them challenge their own understanding of themselves, of their position as designers and participants in the design process, in order to create a collective reflective space where a mutual co-designing process is possible. Hence, the feminist proposition of situating ethics (e.g., Piper & Simons, 2011) is carried out as a continuous and emerging collective practice. The ethical concerns change according to the who, where, when and how of the participation process (cf. Bossen, Dindler, & Iversen, 2010). Whereas initially, we as the workshop teachers were concerned about preventing the students from feeling overwhelmed and intimidated when forced to expose their private stories, eventually it turned out that the students' consent and willingness meant we could re-focus our ethical concern on ensuring a welcoming and open atmosphere for mutual learning from one another. It became increasingly relevant to ensure that, first, the design ideas would neither marginalize the target stakeholder group nor lead to excluding other stakeholders, and second, to more generally work with students and other stakeholders toward maximalizing participation through design for as many stakeholders as possible, ideally for all.

Evaluation

At the end of the 2-week workshop, the external collaborators made a last visit to the campus so as to explore the students' final prototypes at the Bachelor study programme's closing showcase event. While preparing for the showcase, we teachers held an evaluation session both with students and external collaborators, throughout which the focus was on the personal experiences of being involved in a project that challenges one's perspective of functionally diverse people and how this could help all participants to develop by negotiating and co-designing matters of shared concern. Our partners from the Social Development Centre found collaboration with the students to have been meaningful and inspiring in a way that also challenged their own inquiry processes with the other partners in the project. The only drawback expressed by these partners from the Social Development Centre was that their participation was rather time-consuming. The

formative evaluation dialogue with students made clear that they had become aware that the learning process involved in understanding the contradictoriness and vulnerability of people with real-life problems is key for social design. The students noted, however, that this learning process can provoke insecurities that are hard to sustainably attend to within a strongly limited time frame. Also, they found that the project design's product focus partly sidetracked the complexity of real-life problems.

A number of so-called psychologically vulnerable participants, the initial target group holding the stake, attended the showcase and expressed their enthusiasm. One of these participants even gave permission to the students, upon their initiative, to transform poems she had written and presented to them earlier in the workshop into laser-cut cardboard elements (see image 6), which set the frame for the workshop's showcase by granting the visitors insight into artistically transformed experiences of being considered a psychologically vulnerable stakeholder.



Image 6: Laser-cut cardboard elements displaying one of the stakeholder's poems – an idea initiated by the students as background to the study programme's showcase.

Conclusions

Participatory design 'attempts to examine the tacit, invisible aspects of human activity; assumes that these aspects can be productively and ethically examined through design partnerships with participants, partnerships in which researcher-designers and participants cooperatively design artifacts, workflow, and work environments; and argues that this partnership must be conducted iteratively so that researcher-designers and

participants can develop and refine their understanding of the activity (Spinuzzi, 2005, p. 164).

Following Spinuzzi, we suggest that academia can be understood as a particular kind of work arrangement and environment which designs and promotes the creation of reflective spaces for inviting each other into ethically sustainable, ongoing design processes and explorations.

On the basis of how our design workshop was staged, pre-framed and mutually further developed across participant perspectives, we argue that a sustainable participatory design can be equaled with teaching ethical co-design. It enables participation as an ongoing process where the different stakeholders learn about functional diversity, about one another's always diverse perspectives, functionings and capabilities, and come to acknowledge that many stakes are of concern to a multiplicity of target groups. Creating a platform of analytical-pedagogical interchange, a hybrid space between the individual and the collective, is a core prerequisite of teaching ethical co-design. It aims at interrelating various stakeholders' perspectives for the sake of further democratizing the co-design process across a diversity of functionings, capabilities, and perspectives.

In our case, the design students became stakeholders themselves, while the target stakeholders became co-designers. The collective renegotiation of co-design aims and purposes, as well as of the implied ethics, are at the heart of ethically sustainable design. In conclusion, sustainable ethical co-design understands the design product primarily as a means for enabling and extending the collective design for yet another future design process that yet another functional diversity of stakeholders can further develop and renegotiate. In this way participation is maximized to the greatest possible extent through the ongoing process of situating participatory-democratic co-design across a multiplicity of concerned collectives.

For further research, we welcome studies on teaching social design, and on the application of different theoretical frameworks and methodologies in order to address ethics, equality and participation in analytical-pedagogical design processes.

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vidensparadigmer, og inviterer til at synliggøre de gensidige læringspotentialer, der er mellem universitet og omverden. Fx er hun stifter af www.xplatform.dk

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