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PARTICIPATORY ACADEMIC COMMUNITIES

A TRANSDISCIPLINARY PERSPECTIVE ON PARTICIPATION IN EDUCATION BEYOND THE INSTITUTION

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Participation, community, education, transdisciplinarity, student voice, design thinking, empathic design, educational values, participatory academic communities, participatory research

ABSTRACT

This article explores community-driven participation in education beyond the institution. By reflecting on two MA courses at Aarhus University and including educatees' reflections in the article, the concept of Participatory Academic Community is developed. The article discusses how an evolved understanding of participation in education can move educatees' learning beyond institutions through focusing on educatees as researchers, participating in society, building a research community and obtaining academic citizenship. Further, the article discusses how a value-based, vision-driven approach to education and the use of ICT might nurture participation and construction of community within education. The article is genuinely transdisciplinary in its approach, applying different theoretical lenses to obtain a more holistic view on participation in education. The article creates a prismatic lens, illuminating participation in education from different viewpoints and positions. In conclusion, the article also reflects on some of the shadowy traits of participation in education when creating participatory academic communities.v

AUTHOR BIOGRAPHIES

Janus Holst Aaen is a PhD fellow at the Centre for Teaching Development and Digital Media, Aarhus University, Denmark. His research is concerned with the dark side of the student experience in higher education as well as with (co-)developing the notion of value-based vision-driven educational design. In this respect he especially focuses on investigating the role of new media at the future university. He has a strong interest in methodological innovation, drawing on remix theory, anthropology, narrative inquiry and fabrication as a mode of inquiry. He is a member of the methodological think tank The Skagen Institute led by Professor Annette Markham under the new research initiative at Aarhus University futuremaking.space. Publications include Student Facebook groups as a third space: Between social life and schoolwork with C. Dalsgaard (in press) and Expanding the context for learning: How does the ubiquitous internet change the conditions for education? C. Dalsgaard (under review).

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“Pla(y)cemaking – when children and robots meet” with H. Toft (in press), “Academic Citizenship Beyond the Campus – a call for the placeful university” with S.S. Bengtsen (in press), “Educational Design Thinking: on overcoming present tensions between educators and designers in design processes with new technologies within educational settings” (2015), “Gandalf on the Death Star: levels of seriality between bricks, bits, and blockbusters” (2014) with C. Toft-Nielsen, “Crafting code at the demo-scene” (2014) with N.B. Hansen & K. Halskov and Gameplay Corporeality – the corporeal-locomotive dimension in gameplay activity and experience” (2013, PhD Thesis).

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INTRODUCTION

CASE DESCRIPTION 1: INTRODUCING THE CASE

In the approach to the spring semester of 2015, two courses were in need of rethinking: *Digital Media*, taught by Aæn, and *Design: Theory, Method and Practice*, taught by Nørgård. Both courses are part of the master's programme *ICT-based educational design* at ARTS, Aarhus University, and are predominantly online. We, the educators, saw potential in a tight interweaving of the two courses, based on core values for academic participation and practice (see below), with the aim of creating academic citizenship through integrating academic and societal spheres in the educatees' work. We also saw the potentials of digital media, design thinking and online education as an opportunity to emphasize the dimensions of enterprising participation and community in education.

One course, *Design, Theory, Method and Practice*, was concerned with theories, methods and practices in relation to constructing and reflecting on educational designs, while the other course, *Digital Media*, focused on characteristics, potentials and how to utilize digital media in education. We decided that both courses would revolve around a common guiding principle, #MAICED – Movement against Containment in Education. The educatees were responsible for deciding what this should mean as well as enacting it in their own academic practice and projects. The guiding principle materialized in two major milestones during the semester: 1) The international festival *CounterPlay '15*, where educatees were given the opportunity to showcase their design projects alongside other researchers and leading persons in the fields of playful culture, playful business and playful learning. The educatees then reflected on the received feedback while refining their research projects through practice and conceptualization before presenting their finished research and design concepts at 2) the festival *Internet Week Denmark*, under the banner of #MAICED, which they themselves were to define, plan and execute. As such, final exams and grades were framed as a kind of reflexive by-product or evaluation of the research projects.

Rather than extending our knowledge to the educatees through teaching, we sought communication, dialogue and supervision. Consequently, we largely abandoned lecturing and the idea of transmitting knowledge in the classroom. Instead of assigning a set curriculum and presenting educatees with a fixed course plan, we followed the notion of a 'learner-driven connected curriculum' and aimed for engagement, enterprise and self-efficacy. We wanted to be holistic persons connecting with educatees and society, rather than being distinguished professionals, teaching at a distance. As a result, we were '(almost) always on' in their Facebook

group and ‘always (fully) there’ as persons, communicating with them and the world about our common project, #MAICED, as we would in any other collaborative research project. Consequently, at the outset, we approached and considered educatees as hard-working academics, practicing researchers and thoughtful agents of change. And all this we envisioned taking place over the semester, through an emerging, strong participatory culture of empathy, dialogue, autonomy, commitment and inquiry.

When the first day of the semester finally arrived, we were extremely excited but also nervous: How would the educatees react to these aims and intentions? Could we actually realize some of the potentials for *community-driven participation in education* we had aimed for? And could we together move participation and education *beyond the institution* and make academic citizenship emerge? The following is our account so far.



Figure 1: First seminar. Pictures by Nørgård

LENSES: INTRODUCING THE DOUBLE TRANSDISCIPLINARY APPROACH

The authors of this article embody different disciplines, apply different frameworks and have different fields of interest when it comes to *participatory academic communities*. This article thus represents a transdisciplinary conversation between authors and fields in an effort to develop a holistic understanding of community-driven participation in education.

Through these discussions we established a double transdisciplinary approach. Aaen connects media studies and phenomenology in an approach that aims to grasp student voice and experience in higher education while Nørgård connects Design Thinking, criti-

cal pedagogy and constructionism in an effort to renew educational practice through establishing a field for educational design thinking within higher education.

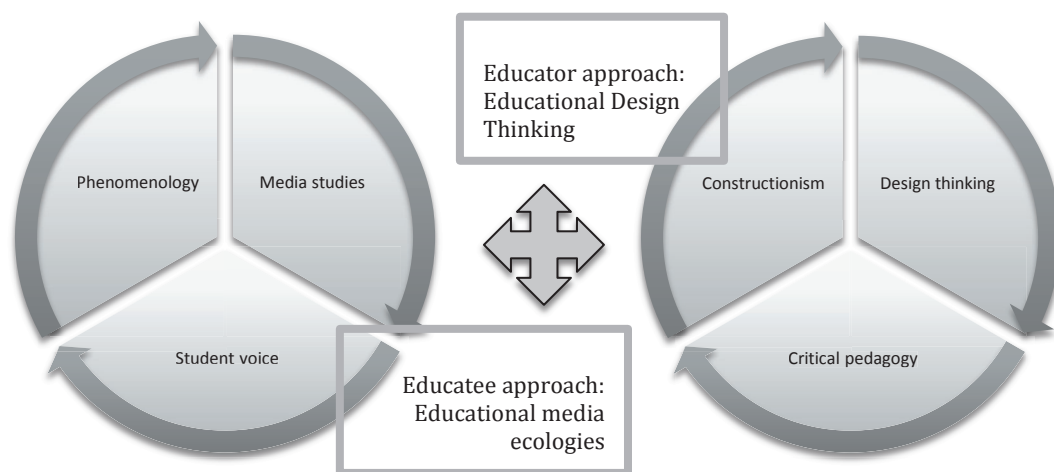


Figure 2: The double transdisciplinary approach of Aaen and Nørgård

The authors have thus focused their research on the exploration of how institutions and educators can design for engagement, empowerment and enterprise in education through transformatory and transgressive interactions and the experiences of ‘educators’ and ‘educatees’ (terms from Freire, 1974). Here we combine the educator approach of Nørgård and the educatee approach of Aaen to explore participation in education and participatory academic communities. This is done from the perspectives of phenomenology and constructionism, and through the application of design thinking, media ecologies and critical pedagogy, in order to reflect on how we can design and construct our educational spaces, formats and activities in ways that invite, support and promote thoughtful and proactive agency, participation and citizenship inside and outside institutions. As such, we are practicing educational development and developing educational theory in these areas (Bengtson & Nørgård, 2014; Nørgård, 2015; Nørgård & Bengtson, in press), in the ways in which they intersect and connect with interactions and experiences with technology, media and design (Nørgård, 2013; 2014; forthcoming; Nørgård & Toft-Nielsen, 2015; Hansen, Nørgård & Halskov, 2014; Toft & Nørgård, forthcoming), as well as forming connections to media and mobile learning (Dalsgaard, Pedersen & Aaen, 2013), secondary education (Aaen, Mathiasen & Dalsgaard, 2013; Mathiasen et al., 2014, Aaen & Dalsgaard, in press) and higher education in particular (Klysner, Pedersen & Aaen, 2012; Aaen, 2015).

In this way, we combine our individual transdisciplinary work into a converging lens of double transdisciplinarity for thinking and talking about participation in education in general and participatory academic communities in particular. Together we focus on how

our understanding of community-driven participation in education beyond the institution can evolve through applying and utilizing a kaleidoscopic lens such as the following:

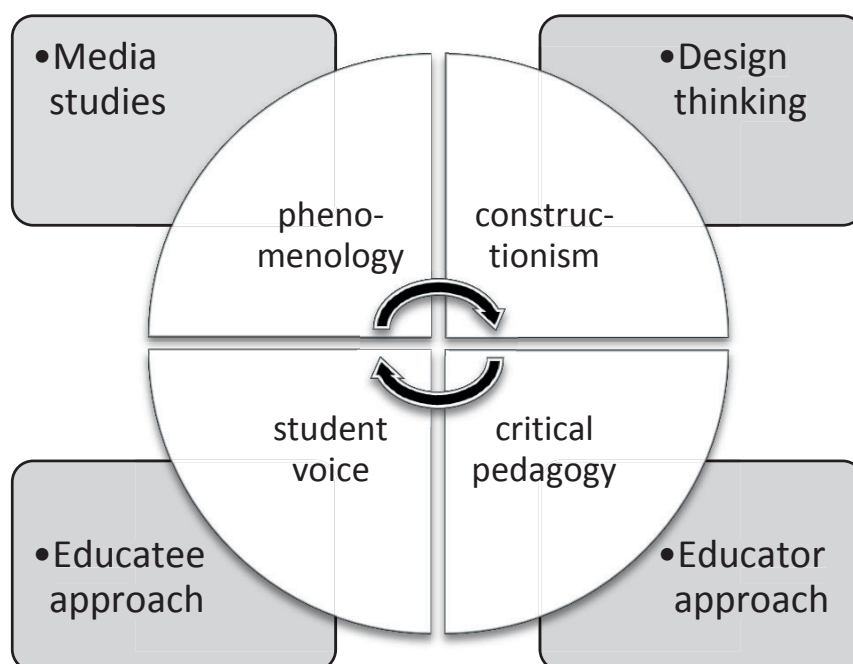


Figure 3: The converging lens of double transdisciplinarity for thinking and talking about participation in education

Through our transdisciplinary analysis and discussion of the concept of *Participatory Academic Community*, its potentials and implications, we wish to explore a take on participation in education through our own educational development and research. The article is thus a transdisciplinary journey in which we try to move participation in education across and beyond disciplines and institutions in ways where education becomes embedded and practiced in society and where society becomes embedded in and connected to education. Consequently, participation in education emerges as the ‘exercising of academic citizenship’ (Nørgård & Bengtsen, in press) and ‘educational participation in society’, while ‘building a research community’ in education manifests itself as a participatory academic community.

PARTICIPATION IN EDUCATION BEYOND THE INSTITUTION

In this article, as well as in Nørgård & Bengtsen (in press), we argue that the concept of participation in education contains a potential nexus of personal, educational and societal value. The concept of participatory academic communities entails an effort to connect society, people and institutions and to invest in each other. Consequently, participation

in education moves beyond the secluded institution under the guiding principles of participatory academic communities. In the context of this article, ‘institution’ connotes the layman comprehension of institutions such as universities, public schools or high schools. An institution denotes a building, campus or other space where formal education is conducted; traditionally embodied by the concrete campus and conceptual comprehension of education as a demarcated educational place where *you go to take an education* (Nørgård & Bengtsen, in press). ‘Beyond the campus’ thus signifies moving education beyond this secluded concrete and conceptual institutional space. It does not, however, imply a de-institutionalization of education, as we regard educational institutions as indispensable, and of great value and relevance to people and society. As a result, moving education ‘beyond the institution’ is not an argument for ‘escaping’ or ‘abolishing’ institutions, but for making education connected, relevant and valuable in the lives of people, society and institutions. The societal and academic potential of participatory academic communities has, been overlooked, to a great extent, due to a tendency to separate academic and societal spheres in education, as well as separating the individual from the surrounding world (Nørgård & Bengtsen, in press). As such, participatory academic communities provide an opportunity to rethink the potentials of community-driven participation in education beyond the institution. As in Nørgård & Bengtsen (in press), we argue for educational development and research to become more holistic and virtuous; and to also critically integrate the private and social spheres of persons and society. Participatory academic communities aim at merging the projects of people, society and institutions through value-based, vision-driven interactions of educators and educatees in the form of open, dialogical and democratic engagements between people, society and educational institutions. In order to accomplish this we first need to ground education in core values for academic practice (Freire, 1974; Nixon, 2008; Dall’Alba, 2012) and explicate these to openly discuss and reflect on the potential, meaning and impact of community-driven education beyond the institution.

VALUES FOR PARTICIPATION IN EDUCATION

As the underlying foundation for education as participatory academic community lies a set of values which has guided us in the process of designing, practicing and researching the spring semester 2015 at ICT-Based Educational Design. The five core educational values in Fig.3 have been extrapolated from various central theoretical frameworks for education such as discipline and practice. The aim is partly to provide the reader with a conceptual anchor for thinking about participatory academic communities throughout the article, and partly to reflect on and discuss how certain values and visions create certain interactions and experiences in education.

FIVE CORE VALUES FOR PARTICIPATORY ACADEMIC COMMUNITIES

Empathy:

Key concepts: Sincerity (Nixon, 2008), compassion (Barnett, 2011), care (Dall’Alba, 2012), human-centred approach (Bannon, 2011), equity (Freire, 1974), attentiveness (Nixon, 2008), empathic design (Gagnon & Côté, 2014).

Structure: The acknowledgement of empathy as a guiding principle for the agency of individuals and the acceptance of a holistic view on human beings in education.

Dialogue:

Key concepts: Communication (Freire, 1974), openness (Dalsgaard & Thestrup, 2015), honesty (Nixon, 2008), tolerance (Freire, 2014), counselling (Schön, 1987), dialogic spaces (Savin-Baden, 2008), learning through collaboration (Laurillard, 2012), learning through discussion (Laurillard, 2012).

Structure: The emergence of genuine, respectful and balanced dialogue between institution, educator, educatee and society where everybody participates without one becoming consumed and assimilated by the other.

Autonomy:

Key concepts: Courage (Nixon, 2008), self-determination (Blaschke, 2012), capability (Hase & Kenyon, 2001), creative confidence (Kelley & Kelley, 2013), agency (Hewson, 2010), experience (Dewey, 1916).

Structure: The capability of the individual to exercise his/her autonomy freely, to feel empowered, to have a free will, and to create and shape the world in the way he/she needs it to be created and shaped.

Commitment:

Key concepts: Community (McMillan & Chavis, 1986), trust (Gambetta, 1988), honesty (Nixon, 2008), solidarity (Freire, 2014), authenticity (Papert, 2000), support (Baym, 2010).

Structure: The will of the individual to surrender into dependence of the community, and the readiness of the individual to support and scaffold community members in their time of need.

Inquiry:

Key concepts: Critical consciousness (Freire, 1974), judgment (Nelson & Stolterman, 2012), argumentation (Toulmin, 2003), reflective inquiry (Edelson, 2002), playfulness (Sicart, 2014), learning as inquiry (Laurillard, 2012), knowledge (Maxwell, 2012), reflection in action (Schön, 1987), thinking as craft (Sennett, 2008), learning through practice (Laurillard, 2012), creative thinking (Resnick, 2007), reflective spaces (Savin-Baden, 2008), wicked problems (Zimmerman, Forlizzi, Evenson, 2007).

Structure: The ability to curiously explore the world in a reflexive way, to experiment and wonder, and to dare to question preconceptions. To build an argument for their conceptions and projects that are grounded equally in data and theory, and equally positioned inside and outside the institution.

Figure 4: Five core values for participatory academic communities

Based on these values, the following is an example of what it might necessitate from institutions, educators, educatees and society before participation in education takes place and is experienced as authentic. You do not experience yourself as a participant in education merely by entering the campus, raising your hand or handing in your exam. As the above-mentioned works underline, authentic participation in education requires something more to be present in an academic institution and practice in order for participation to emerge. It is this 'more' which we will explore in the following.

In line with the values above, we invited the educatees to have their own voice and (sometimes opposing) perspectives present in the article. We simply asked them to comment on the authenticity and validity of our claims in the article, as well as to nuance and deepen them. In this way, we made a wholehearted effort to include their voices and experiences in our analysis of them.

EDUCATIONAL PARTICIPATION IN SOCIETY

CASE DESCRIPTION 2: PRACTICING ACADEMIC PARTICIPATION IN SOCIETY

The 33 educatees from ICT-Based Educational Design are present at the international *CounterPlay '15 Festival* as academic participants, presenting and carrying out research. They have in the past two and a half months transformed from educatees following courses to struggling researchers participating in group-based

research processes. Now they find themselves participating in an international conference with their own academic posters and prototypes that communicate their research methods, design and findings to frontrunners within the three tracks of playful culture, playful business and playful learning. They are attending the festival in order to engage the other conference participants in their research processes; to have them participate, contribute, discuss, criticize and reflect with them. The educatees are practicing becoming enterprising researchers, informing their research projects through the construction of a variety of products such as videos, portfolios, fieldwork, blogposts, academic posters, prototypes, workshops, empirical analyses, theoretical frameworks, and ethnographic narratives. And then engaging the research community in order to reflect and discuss their feasibility, appropriateness and relevance.

They have moved from being on the receiving end of education to becoming proactive participants in the construction of educational products, practice and research. They no longer find themselves to be participants in a classroom receiving education through, for example, raising their hand, taking notes, partaking in teacher-led discussions or handing in assignments. Rather, they have become participants in an academic sense of the word, where they act as researchers carrying out research: seeking out literature to support their claims; conducting fieldwork to explore context and participants; organizing workshops with participants to develop appropriate prototypes and refine their understanding; analyzing collected data to develop a comprehension of particular potentials and problems at stake in



Figure 5: The educatees' expo at CounterPlay '15. Picture by Per Falkeborg

their research process; and working iteratively to ensure a refined understanding of their researched context and developed prototype. They are not only proactive participants *practicing research*, but also participants taking an active part in and intervening in society *through research*. They are participating beyond the institution through engaging local and research communities.

Importantly, as researchers they have on the one hand constructed relevant tailored curricula for developing a conceptual understanding of their projects, and on the other hand ventured beyond the institution to investigate the field they are researching in action. They are slowly beginning to display academic citizenship through proactive and reflective engagement with society. Their academic citizenship is developed through entering into dialogue with their research subjects as well as national and international academic peers. And if society does not enter into participatory dialogue with their projects or their peers do not participate in genuine ways, they get frustrated and disappointed.

PARTICIPATION IN EDUCATION AS DESIGN PRACTICE

One way of articulating these shifts in the educatees' mindset and approach to participation in education is through the lens of design thinking and professional artistry (Stolterman, 2008; Brandt & Binder, 2007; Zimmerman, Forlizzi & Evenson, 2007; Nørgård, 2013; Sennett, 2008; Schön, 1987). By approaching academic practice as a design practice and education as a 'design science' (Laurillard, 2012), we are able to pinpoint central features that promote a participatory attitude and approach to education springing from the application of the above core values. Through academic practice the educatees were asked to create valuable and reflective change in a current educational setting. As such, both course design and semester process resembled in many ways that of a 'design practice':

Dealing with a design task in an unknown or only partially known situation, with demanding and stressed clients [or educators] and users, with insufficient information, with new technology and new materials, with limited time and resources, with limited knowledge and skill, and with inappropriate tools, is a common situation for any interaction designer. Dealing with messy and "wicked" situations constitutes normal and everyday context of any *design practice*. (Stolterman, 2008, unpagged)

The above is also applicable to most educational situations within formal education as Laurillard has pointed out in *Teaching as Design Science* (2012).

Throughout the semester, it proved helpful for both educators and educatees to view the development of the participatory academic community, course, research projects, educational designs as well as individual learning trajectories through the lens of design

thinking as a ‘design practice’. In this way, practice and research shifted from the paradigms of deductive and inductive thinking about the implementation of educational designs towards abductive thinking about the educational designs as ‘envisioning possible futures’ (Brandt & Binder, 2007) inside and outside institutions. The course abandoned the educators’ transmission of knowledge (traditional teaching) and the educatees’ production of knowledge (traditional exam papers), and developed a course and projects along the lines of ‘designerly exploration’ that had ‘a strong undercurrent of continuous experimentation in which theoretical excurses and conceptual framings became, in the words of one of the participants, “cherries to pick” in order to fuel her “designerly exploration”’ (Brandt & Binder, 2007, unpagged). Consequently, knowledge was accessed, analyzed and used in the pursuit of what design thinking calls ‘intentional change in an unpredictable world’ (Nelson & Stolterman, 2012), and that was the case for both educators and educatees. Educatees were to create a feasible, appropriate and relevant design argument for their proposed educational and societal change beyond their own academic institution. The argument should be addressed to their home institution (the university), the educators (us), the other educatees (groups) as well as the users (non-academics in the design context).

In other words, they needed to slowly emerge as academics thinking ‘designerly’ in relation to education in a ‘wicked situation’ beyond the institution. They were also asked to move beyond the safety of the institution themselves, being encouraged to engage the local context and the global research community of their design proposal through the use of online-offline communication. Here ‘design complexity’ became central as educatees tried to make sense of the different local and global contexts and communities through theory, online-offline fieldwork and societal and educational enterprise. Their engagement was a particular mixture of on the one hand frustration, bewilderment and anxiety, and on the other hand exhilaration, commitment and ownership, or what Stolterman (2008) calls ‘the experience of design complexity’. The educatees’ dialogue around the course shifted between a craving for simplicity and a celebration of richness, with both converging in the experience of being challenged: “There is apparently something intriguing about complexity. It constitutes a *challenge*, something we can explore and experience, something we can attempt to learn, to master, something that can send us off into new and unpredicted directions – almost like an adventure” (Stolterman, 2008, unpagged). However, as inexperienced adventurers, the educatees were not left to their own devices. The educators tried their best to acknowledge the newness of their experience of being academics, researchers and designers beyond the safety of the secluded institution. The educators worked hard to ensure that the educatees did not experience what Stolterman (2008) calls ‘design paralysis’. This was partially achieved by taking up an empathic attitude to their struggle with educational participation in society. As Laurillard states:

the way teachers conceptualize their teaching affects how learners respond to a course, in particular the extent to which teachers appear to care about their learners. Teachers can

play a nurturing role for the whole learner group, creating a sense of belonging to a shared endeavor that can change learner perception of the nature of academic work. (Laurillard, 2012, p. 33)

Through carrying out fieldwork, constructing probes and mock-ups, making surveys, workshops and interviews, and through presenting and receiving feedback on academic posters and prototypes they began to radiate what every authentically participating craftsman, according to Sennett, radiates: “‘I made this, I am here, in this work,’ which is to say, ‘I exist.’” (Sennett, 2008, p. 130). They experienced themselves as participants in education. But the emerging educational participation in society required the development of academic citizenship; the ability to partake academically in society through engaging society in designerly and academic ways. This required genuine participation in education on the educatees’ behalf through utilizing data and theory as a way of acting conceptually and constructively in the wicked situation at hand. *At least, that was what we as academic researchers experienced and observed, but how would you describe it?*

I did - to some extent - feel like that. But I also felt hampered by some degree of uncertainty, because I was supposed to deliver or perform as a full-blown academic researcher without any “certification” that sort of “vouched” for me (my group) and my (our) product. The product in itself had to be of such a quality that it alone would “carry” us as researchers on the same terms as the rest of the participants.

Tom Gislev Kjærsgaard, ICT-Based Educational Design student

Like Tom, I did also - to some extent - feel engaged and empowered about the fact that we managed to get there and that we were able to at least partly recognize our-selves as legit academic participants. People actually took an interest in the work we had made, which was more than we (my study group and I) had hoped for. But these feelings of ‘I made this!’ were still accompanied by a lot of feelings of insecurity and frustration about not feeling ready and not delivering the best we could do. Why? Maybe because it was a first experience for us? I think next time will be different since we will have much more experience in and reflections on being academic participants.

Petrine Møller, ICT-Based Educational Design student

I feel we, for good or bad, were forced into a design process. And perhaps CounterPlay '15 was (for some) perceived more as an obstacle than a springboard for that process. I love the fact that we were forced to search for a "genuine problem" and to create something of actual worth for someone. I have only become thirstier to try out such processes "in reality". The entire time our group felt persuaded to rethink and improve our design based on observations, fieldwork and idea-generation. It has been a valuable process with around 10–20 hours online collaboration each week using Google Hangout. I fear our design will not be a success, but product and problem feels genuine and therefore worth working hard with.

Jakob Laursen, ICT-Based Educational Design student

Figure 6: Comments on "At least, that was what we as academic researchers experienced and observed, but how would you describe it?"

GENRES OF PARTICIPATION

The nature of the educatees' participation has not been static and uniform, but rather fluctuating and diverse. They have navigated in and through various genres of participation (Ito et al., 2010) denoting various ways in which people participate in social relations, each with its own salience and nomenclature.

One genre mostly consisted of the educatees *hanging out* (ibid.) and socializing with each other. Communication was predominantly phatic (Jakobson, 1960), revolving around establishing and maintaining interpersonal relationships. This trait established the genre as an infrastructure for both community building (Blanchard & Markus, 2004) and other more content-driven genres of participation. Fig.7 is an example from the joint Facebook group, where a thread developed from revolving around a study related topic, to a playful exchange of internet memes. From the beginning of the semester we were very conscious of allowing for the genre of hanging out to unfold in (also our own) communication with the educatees. In this way, we sought to engage in and promote a more casual, lateral and empathic culture of communication among us all.

As they moved into a more experimenting and playful mode, the educatees took on the genre of *messing around* (Ito et al., 2010). Within this genre, individuals and groups played with and explored subjects, tools and designs in a non-goal-oriented mode, allowing for an innovative and creative state of mind (Ito et al., 2010; Resnick, 2007). While many of the educatees felt a great deal of pressure in the weeks leading up to their presentations at *CounterPlay '15*, the values of playfulness and experimentation were often articulated among both educators and educatees. However, realizing these values proved to



Figure 7: Screenshot from the common Facebook Group

be problematic for some. When faced with demands for scholarly participation (in *Counter-Play* '15) and production of valid academic knowledge, it is often difficult to remain in the uncertainty of fortuitous exploration and a tumbling, playful state of mind (Nørgård, forthcoming; Nørgård & Bengtson, 2014).

Finally, the educatees began submerging themselves in the more rigorous and uncompromising interest-driven participation genre, in which they *geeked out* (Ito et al., 2010) within their chosen subject matter, tools and designs. In this genre, the educatees treated educational theory and their academic-designerly process with the same enthusiasm as members of classic geek communities such as those surrounding Star Trek or Tolkien. Judged by their effort, as of now, many of the educatees might well be defined as geeks within the field of ICT and education. But whether the educatees actually experienced the strong gravitational pull of overwhelming interest is hard to determine. Our goal has been to unbridle the educatees, let them be responsible for their own processes, set their own goals (Dewey, 1916), build their own learner-driven curriculum (Hughes, 2014) and live out their craft. *So were you guys unbridled?*

To my great surprise the online communication and interactions very quickly became natural. I have formed ties especially with my study group - but also with the rest of the class, despite the fact that we have only physically seen each other a few times. The great freedom afforded in many ways also great frustration. We were thrown into the deep end without being able to swim - and it has had some costs.

It makes good sense that we have to learn to find our own way in the chaos, so it makes sense to us. But I think we sometimes could have used being led a little more through the chaos.

Stine Langhøj, ICT-Based Educational Design student

Well, I don't know if we were 'unbridled,' but your methods did make us [CoExed] flourish as a group (I think). I was really surprised by the social bonds that were created through this process. I would compare the social bonds of my study group with the longstanding bonds created through playing computer games. As a gamer, there are people I have been introduced to through games that I later have ended up meeting in the offline world: to soccer practice; going to the cinema; having a beer in town. Those friendships are in time as strong as any I have had. In this way, I feel I know the people in my group even though we have actually only met offline five times (but lived together through Google Hangout).

Jakob Laursen, ICT-Based Educational Design student

Figure 8: Comments on "So were you guys unbridled?"

EMPATHIC EDUCATIONAL DESIGN

To engage education on the grounds of the core values for participatory academic communities is to engage education as something flexible, connected, dialogical, exacting and empathic. As argued by Laurillard (2012) and Nixon (2008), empathy, nurture, care and compassion become indispensable when looking at education as a design science aiming to invite and promote commitment, belonging, zest for learning and adventurous attitude. Following on from Laurillard and Nixon, both institutions and educators have

to be empathic and ethical designers of potentials for genuine participation in education. The core values of the university should emanate from the ways we act as institutions (Barnett, 2011; Nixon, 2008), educators (Freire, 1974; Laurillard, 2012), and educatees (Schön, 1987; Nelson & Stolterman, 2012). In this way, participation in education is a joint responsibility between institutions, educators and educatees in society; and, as such, education needs to be inherently democratic, dialogical and empathic.

Consequently, if we as society, institution and educator aim for participation in education within or beyond institutions, we need to take that aim seriously and embed values, designs and practices that will enable this to happen. As institutions and educators within a society we invite, support and promote certain ways of being, doing and knowing in education. Participation can be enacted as obedient reception of knowledge whereby you raise your hand when asked and hand in assignments on time, or as the more transgressive constructing of one's own curriculum, projects and trajectories, sometimes even in opposition to the intended aims of the institution and educator (Freire, 1974). Inviting participation in education (as a design practice) requires empathy as

To achieve such a goal, we have to understand each other. We have to listen and see the points of view of people who are committing themselves to their everyday life [...] empathy in design implies to learn to be empathic towards the users [as institution, educators, educatees], to empathically communicate insights from users to the design team and to develop empathic teamwork within multidisciplinary contexts" (Gagnon & Côté, 2014, p. 1-3)

As such, an empathic approach – from society, institutions and educators – is a primordial requirement for the construction of academic knowledge, practice and citizenship (Freire, 1974; Nixon, 2008; Nørgård & Bengtsen, in press). If we want to foster empathy, dialogue, autonomy, commitment and inquiry in our educators and educatees we cannot extend these values to them; we need to practice what we preach, both on a professional and institutional level. To enable the emergence of engaging and authentic participatory academic communities that go beyond institutions, we need to actively invite, support and promote key concepts within virtuous academic practice, as enumerated above. That is, we need to foster and promote 'design empathy' in and beyond the educational system:

Design empathy is an approach that draws upon people's real-world experiences to address modern challenges. When companies [or institutions] allow deep emotional understanding of people's needs to inspire them – and transform their work, their teams, and even their organization at large – they unlock the creative capacity for innovation. (Battarbee, Suri & Howard, 2014)

So, the big question left unanswered is, did we succeed in this? Did the educatees experience us as empathic and that they were asked - by us as institution, researchers and teachers – empathically to participate in education?

Well, this is difficult. When we expressed frustration (which we did a lot), we were met with understanding and recognition. But also with the advice of keep working, keep pushing towards our goals, stick to the plan etc. All of which is rather rational advice. On the other hand, the teachers always were forthcoming when asked for a respite. Also, it seemed to be impossible to change the fundamentals of the two “milestones” (Counter-Play ‘15 and #MAICED). It might or might not have been better to qualify the two events earlier in the process and be prepared and willing - maybe even encouraging - to let the learners mould this into something they felt more able to “be in”.

Tom Gislev Kjærsgaard, ICT-Based Educational Design student

Like Tom has said, the predefinition of #MAICED as a guiding “core value” is problematic in my mind. If you want “true” participation - or more “honest” participation - you might want to let the learners define their own values - this could also provide a better foundation for a deeper empathic participation by all rather than being perceived as the “educator’s project”. That said, I experienced great empathy from both of you and a very forthcoming approach to all learners. My study group has seen many conflicts and was indeed split in 2 parts recently - throughout it all you were extremely supportive and helpful - much more than can and should be expected from any educator or supervisor.

Morten Holmstrup Gerdson, ICT-Based Educational Design student

Both. Whenever we expressed frustration about the (at times overwhelming) process (especially the weeks leading up to Counterplay ‘15), the educators would respond with promises that we would learn a lot, that we would do great and that we shouldn’t worry, because they had done it before and they knew what they did - which might be right, but in the situation didn’t help a lot, since it didn’t really feel useful. In the long run maybe it was, but not here and now.

On the other hand the educators have been very, very engaged, passionate and well meaning - that has felt really sincere and has had a motivating effect on my work.

Petrine Møller, ICT-Based Educational Design student.

Figure 9: Comments on “Did the educatees experience us as empathic...?”

POTENTIALS OF DESIGN AND MEDIA FOR PARTICIPATION IN EDUCATION

The contemporary Internet is no longer a place we enter into, but rather something that we are saturated in at all times (Gordon & de Souza e Silva, 2011; Aaen & Dalsgaard, under review). The radical use of online resources such as Google Hangout, Facebook groups and Twitter meant that educatees were able to participate in educational activities anywhere and at any time. They were not limited to a certain timespan or a certain location to be able to access, produce, read and interact with knowledge or with educators. However, alongside this autonomy we observed that the limitlessness and ubiquity of relations and knowledge lead to an experience of increased stress and the blurring of private and educational spheres. This required new perspectives on how education, like work, is something we need to integrate as a part of our lifeworld. And this is valid for both educators and educatees. It has made the barriers between the institution, educators, educatees and society intertwined, permeable and translucent. Consequently, both educators and educatees became engaged and entangled in activities and projects which not only benefitted their own educational processes and trajectories, but also attempted to create change in and value for society through both dialogue and design – for example, working together to change negative discourse about exercise among women or attempting to help educatees in nursing to build structures of community, compassion and permeability amongst themselves. Through the entanglement of media, design and education in the course, dialogue and reflection emerged between educators and educatees around what it requires and signifies to be your own decision-maker and educational designer of a curriculum, learning trajectory and research project; for example, through critically debating the purpose of education with the educators, organizing your own symposia and lectures when there is a demand for it or presenting personal views in research articles such as this one on what it means to participate in education.

By establishing a participatory academic community through authentic participation the educatees have, however, also become unteachable and ungovernable. They have turned into empowered and inquiring explorers with a zest for intentionally changing what they find unreasonable or problematic. As such, their attitude and approach resembles the one found amongst researchers and practitioners of design: non-reproducible outcomes, reproducible iterative processes and methods, and data- and theory-based interventions (Zimmerman, Forlizzi and Evenson, 2007). All in all, this turns participation in education into academic virtuous practice aiming for informed engagements with society and its wicked situations through the creation of theory, methods and practice.

BUILDING A RESEARCH COMMUNITY

CASE DESCRIPTION 3: BECOMING A CERTAIN KIND OF COMMUNITY

When we met the educatees from ICT-based Educational Design in Spring 2015, at the intro seminar for the courses Digital Media, and Design: theory, method and practice, they had only met each other in person a few times – but extensively online. However, interaction between educatees was mostly oriented around their study groups and any community patterns we could observe were largely anchored within those groups.

In an effort to create a community that transcended the confines of the study groups, we decided to establish a series of committees across the study groups. This meant that besides being active and engaged in his/her study group, every educatee was to participate in at least two committees. The committees were targeted at the coordination of a number of specific tasks in relation to *CounterPlay* '15, in order to make the educatees' presence at the festival a common venture rather than a series of detached projects.

In the beginning, the unusual course set-up (as well as the fact that there were a number of technical and communicative issues) caused a lot of frustration, stress and even a propensity for anger among the educatees. They had a hard time accepting the absence of predefined structure, ordinary lectures, unequivocal communication, a set curriculum and the fact that we, as educators, refused to tell them what they ought to do. Amongst other things, this resulted in the creation of an educatee forum called 'homeroom', which was a place for the educatees to share their concerns and discuss these matters without our interference. After each biweekly meeting in the 'homeroom' we were presented with whatever concerns the educatees considered we needed to be aware of.

After *CounterPlay* '15, we gathered together for a two-day online seminar, centered on the live video service Google Hangouts. At this point in time – about halfway through the semester – it was clear that certain members had assumed different organizing, supportive and operating roles in the group. Some took it upon themselves to ensure the social well-being of the group members, some were taking care of practical tasks, and so on. And interestingly enough, it also seemed that our roles as educators had shifted. Rather than being positioned one step removed from the educatees, we were becoming an integrated part of this emerging community. We were no longer teachers transmitting knowledge to the educatee cohort, but positioned on the inside of the community as equal members with the particular role of educators.

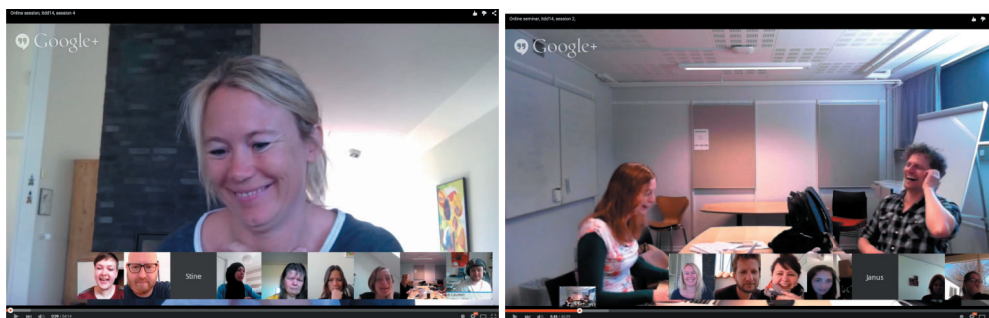


Figure 10: Online seminar. Pictures by Aæn.

A RESEARCHING COMMUNITY

To understand the educatees' and our own journey towards becoming a participatory academic community, it is important to clarify what defines a community. According to McMillan & Chavis (1986), a community is not something that is 'out there'. It's not a physical space or a concrete website. It's not a social network site or a country village. Rather, a community only exists through community members experiencing a sense of belonging, trust, commitment and togetherness (Sonn et al., 1999; Blanchard & Markus, 2004; McMillan & Chavis, 1986). Furthermore, recent research has emphasized the fact that communities circumvent the divide between online and offline (Baym, 2010; Markham, 2013). A sense of community exists in the hearts of human beings and the community, and is built through the shared communication and interactions of these individuals with each other (Baym, 2010; McMillan & Chavis, 1886), regardless of whether this is mediated through websites, social media, telephone lines or sound waves. In this way, it became crucial that there was a sense of communicative presence in the groups, between the groups, and between educators and educatees, if we wanted to scaffold participation and community in the course. We needed to be there; to communicate and interact *with* them.

It was important to connect 'the mediatized hearts and minds of individuals' with 'the tangible hands and body of the group', in order to balance the affective with the expressive and the communicative with the designerly. In this sense, the researching community emerged equally out of online communication *with* and tangible interventions *in* society. Consequently, when combining design thinking with the approach of media ecologies to promote participation in education, we came to a realization of how our participatory academic community resembles an online-offline research collective: it transgresses both the borders of the 'campus community,' the 'online education community,' the 'study group community' as well as the 'classroom community' - it is participation in education taking place everywhere with everyone at all times. *So following this, to what extent did you feel part of a community?*

I actually felt like part of a community - though my study group has been my strong ties in this context, of course. I'm particularly happy that our hangout café-group on Facebook has served as a meeting place where we could make fun and laugh, express our frustrations, exchange ideas and so on. It's been a good community for me.

Stine Langhøj, ICT-Based Educational Design student

I feel very much part of a community. There's a strong sense of unity among the learners and also the educators both because of our shared academic interests but also very much because of concepts such as the Google Hangout format "homeroom", the Facebook "café-group", the different committees, the online Google+ seminars and the Google Hangout supervisions - all of the above concepts were good formats for dealing with problems and frustrations (academic and non-academic) and discussing and finding solutions. Different contexts allowed for different ways of communication and participation to take place.

Petrine Møller, ICT-Based Educational Design student

Figure 11: Comments on "So following this, to what extent did you feel part of a community?"

Our community came to be structured by and constructed from the participation of masters and apprentices: "The skills of a master can earn him or her the right to command, and learning from and absorbing those skills can dignify the apprentice or journeyman's obedience" (Sennett, 2008, p. 54). Sometimes it was the educators that were the masters, sometimes they were the apprentices and sometimes - in glimpses - the entire community turned into a band of fellow craftsmen participating together as a living organism in the forge. As such, claim to authority within the participatory academic community, which emerged amongst fellow members, came to be deemed valid on the basis of a member's ability to put 'theoretical or opinionated claims' to the test through constructing empirical data, prototypes, academic products or design arguments. *So, did the members of the guild manage? Did they feel and act as a forged collective organism, a community beyond institutions, having a place to hang out, dwell and live in the online-offline world of the guild?*

I've felt so unbridled that I became bridled – for example, by the amount of literature available for you to design your own curriculum. It is a quite amazing idea, but rather unmanageable to navigate and take decisions about without adequate insight into all the different theories. And such insight takes time, which I feel we have been short of in this process.

Having said that, I feel mostly unbridled - this process has allowed me to pursue my own ideas and interests in a way that I have not experienced in other educational contexts (even though there also exists limitations within this format as there does with all formal education).

Petrine Møller, ICT-Based Educational Design student

Exactly! That was precisely what I experienced

Jakob
Laursen,
ICT-Based
Educational
Design student

Figure 12: Comments on “Did the members manage...?”

A COMPLEX MEDIA ECOLOGY – INFRASTRUCTURE FOR A DISTRIBUTED COMMUNITY

As both a product of and an infrastructure for the complex community emerging from the ‘research collective’, an equally complex media ecology (Ito et al., 2010) arose. This media ecology procured a diversification of participation across different media like Facebook groups, Facebook Chat, Google Docs, Google Hangouts, YouTube, Twitter, Instagram, Reddit, TodaysMeet, Snapchat, email (to name a few) – and also face-to-face communication.

The existence of this particular media ecology reflected and supported a number of the core values central to the participatory academic community. The educatees’ media use was largely self-governed; it emphasized dialogue over transmission, co-design of multifarious media communication over fixed unilateral ‘learning management systems’ and it was to a great extent characterized by openness and collaboration.

While studies on online communities have had a tendency to regard communities as belonging to a single website (Gotved, 1997; Song, 2000), more recent research has shown that many online groupings are actually distributed across a wide selection of sites, platforms and tools (Baym, 2007). The contemporary internet has become ubiquitous and something that we are saturated in at all times (Gordon & de Souza e Silva, 2011; Aaen & Dalsgaard, under review). This means that the distinction between ‘the virtual’

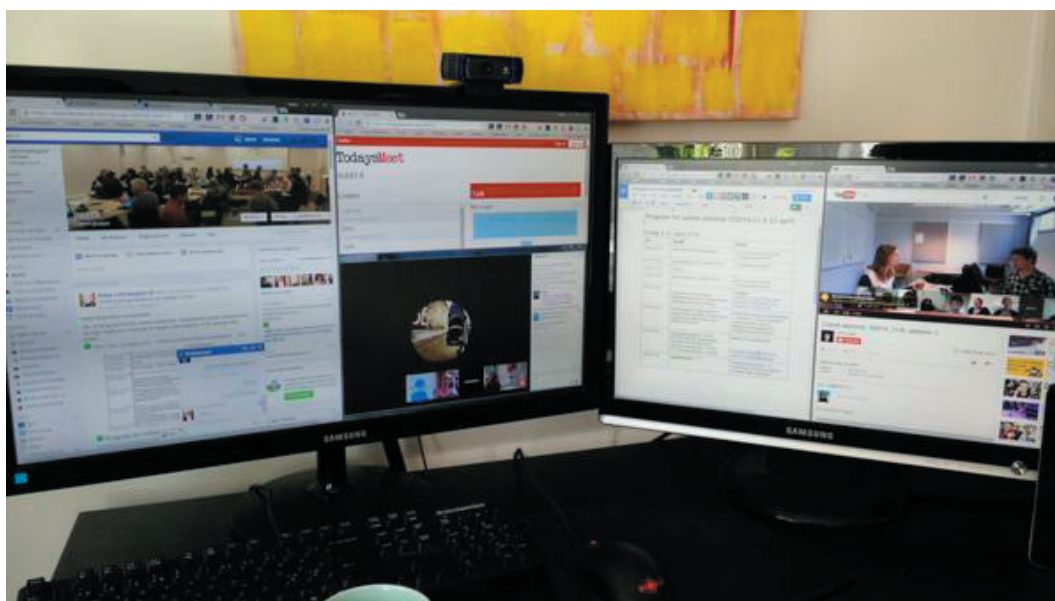


Figure 13: Set-up for the two-day online seminar by Jakob Laursen, ICT-Based Educational Design student. Picture by Jakob Laursen

and ‘the real’ has become troublesome and that we need to focus on people instead of platforms and sites if we want to understand what it means to live with digital media (Markham, 2013; Beneito-Montagut, 2011). The community in which educatees participate is not grounded in a particular space or service, but is rather an emergent, transcendent phenomenon underlying the individual educatees’ experiences of being – manifested through communication and co-constructions distributed across a wide variety of sites, platforms and services.

Describing the impact of cellular phones in the late nineties, Katz & Aakhus (2002) highlight the term *perpetual contact*, indicating a state where the individual, regardless of time and space, is perpetually connected to the entirety of his/her social network. The functionality of mobile devices has developed significantly since then, radicalizing the implications of the concept of perpetual contact and underlining its significance in relation to education (Aaen & Dalsgaard, under review). The educatees were thus able to draw on their peers and additional social networks at any time or place, while simultaneously being constantly reachable. This has effectively blurred the lines between the educatees’ private and institutional spheres, causing a dual embeddedness. Firstly, it has caused the realm of education to bleed into personal space and vice versa, making education and individuality interconnected. Secondly, it has caused the realm of society to bleed into educational space and vice versa, causing education and society to merge.

Overall, the perpetual contact between the community members led to a significant openness in communication, which breached the social seclusion of the physically sepa-

rated educatees and educators (Dalsgaard, Pedersen & Aæn, 2013). The infrastructure enabled the educatees to coordinate and carry out complex projects, such as #MAICED, in a joint and equitable fashion as well as to establish a trustful and mutually respectful community in spite of their physical distance. Moreover, the easy access to social relations allowed the community members, in Granovetter's (1974) terminology, to more extensively exploit both strong ties (study groups member, close classmates, friends) and weak ties (peripheral contacts in the class and beyond the classroom). As such, the media ecology did not only support the existence of the participatory academic community, but also help construct it through reflective utilization of its potentials and virtues.

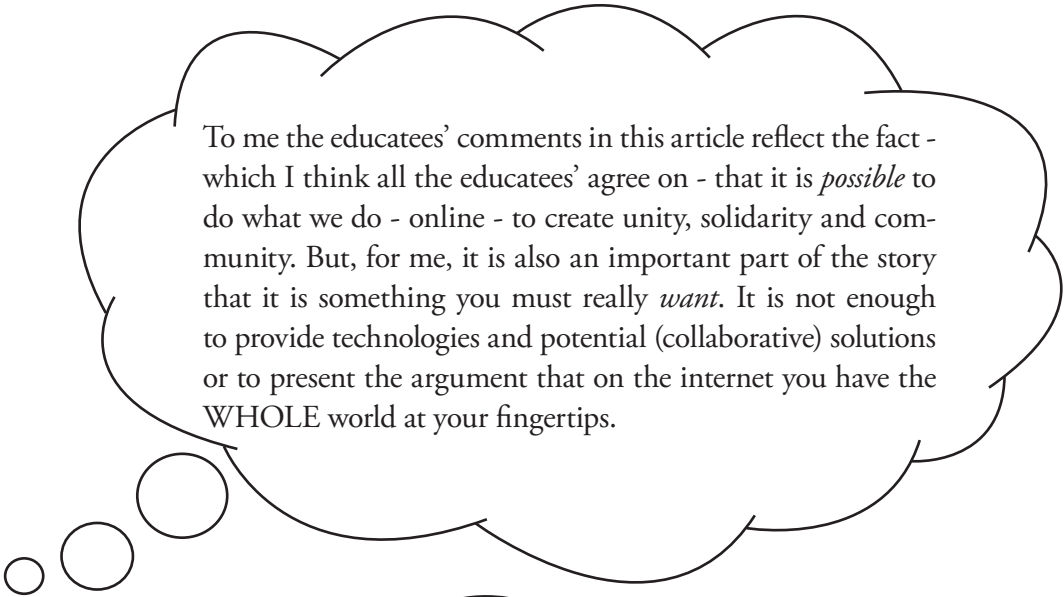
CONCLUSION: THE DIALECTICS OF PRACTICING ACADEMIC CITIZENSHIP



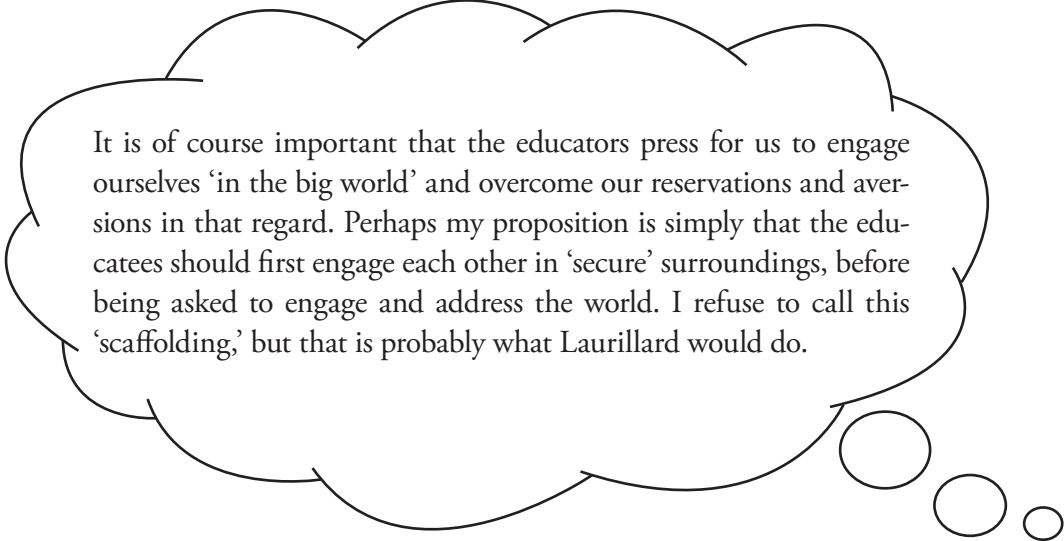
Figure 14: Within the 'homeroom' format the educatees openly expressed and broadcast their frustrations, concerns and ambiguities regarding the educational process.

Through this article's transdisciplinary exploration and dialogical discussions concerning our educator experience in this participatory academic community, we have come to realize that we cannot design the positive features of the core values for participatory academic communities alone. As the educatees' comments throughout the article have made clear, educational designers must also pay heed to and embrace the shadowy siblings emerging from the application of these core values. For every idealistic, positive and "cheerful" virtue of academic knowing and practice (Nixon, 2008), a number of entan-

gled, distorted and “shadowy” sensations, experiences and values mirror it. Through this article’s analysis of participatory academic community as it arises through *educational participation in society*, *building a research community* and *academic citizenship beyond the institution*, a dialectical relationship between core values and shadowy siblings for participatory academic communities has gradually appeared through the voices of the educatees. Importantly, the way in which this article has embraced the experience of the “shadowy side” of education (Bengtson & Barnett, 2015, forthcoming; Bengtson & Nørgård, 2014) as an ever-present and powerful counterpart to the guiding values of participatory academic communities has made a nuanced comprehension emerge. Only through lending our ears to the voices of the educatees in this analysis have we become aware of the existence of the shadowy side of our educational idealism. *Per Falkeborg, you were an educatee and an appointed cardinal figure in the creation of the community in the spring of 2015. What are your reflections now, three months after the end of the courses?*



To me the educatees’ comments in this article reflect the fact - which I think all the educatees’ agree on - that it is *possible* to do what we do - online - to create unity, solidarity and community. But, for me, it is also an important part of the story that it is something you must really *want*. It is not enough to provide technologies and potential (collaborative) solutions or to present the argument that on the internet you have the WHOLE world at your fingertips.



It is of course important that the educators press for us to engage ourselves ‘in the big world’ and overcome our reservations and aversions in that regard. Perhaps my proposition is simply that the educatees should first engage each other in ‘secure’ surroundings, before being asked to engage and address the world. I refuse to call this ‘scaffolding,’ but that is probably what Laurillard would do.

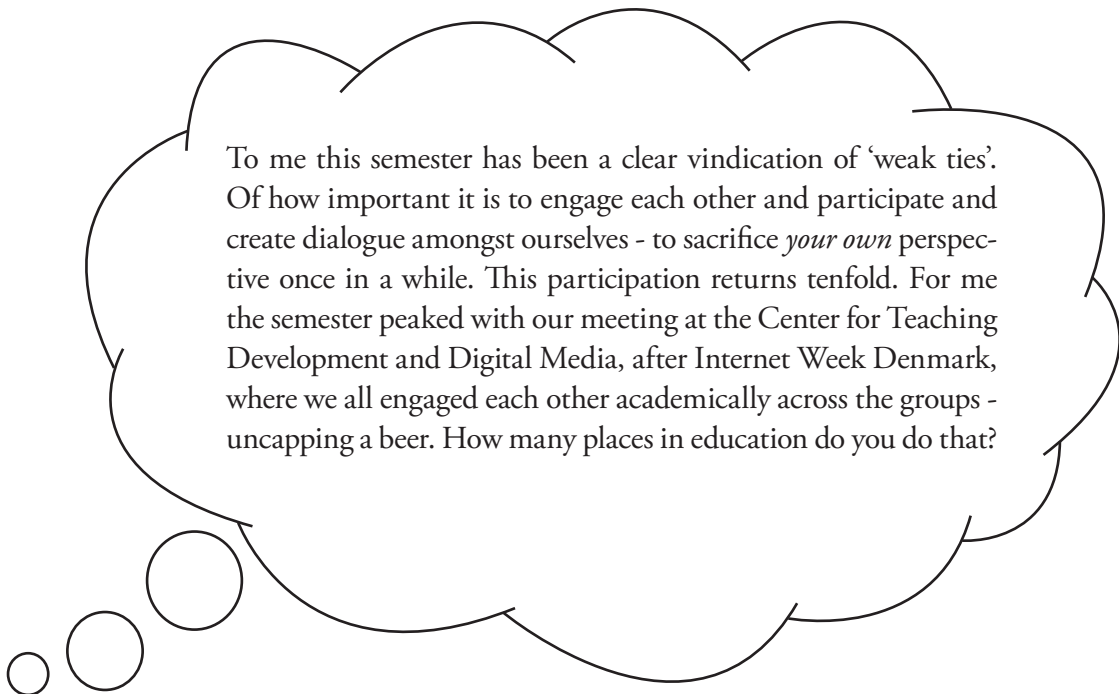


Figure 15: Per Falkeborg's thoughts on "what are your reflections now, three months after the end of the courses?"

Through the courses we have only been able to catch fleeting glimpses of what lingers in the shadows, and we contend that if we are to follow this path of educational design, we and other educators must pay heed to and conduct serious research into the shadowy siblings of designing for participation in education. Reflecting on the educatees' trajectories through, and articulations of, education within this participatory academic community, it has become increasingly manifest that being mindful of these counterparts, discomforts, educational pains and backlashes is of the utmost importance when engaged in educational design, research and practice. Research and design for future community-driven participation in education beyond the institution and participatory academic communities should thus take into account, and further develop an understanding of, at least, the following shadowy siblings:

Thus when aiming for *community-driven participation in education beyond institutions* we must design for, embrace and care for not only the cheerful values, academic virtues and ideal visions for education; we must also acknowledge and allow for the shadowy features, disobedient rebellions and dystopian forecasts. Embracing these emerging shadowy siblings is the next designerly step in the practice of Educational Design Thinking and educational media ecologies for authentic participation in education beyond the institution. All things hit by light also cast shadows, and if we wish to advance genuine participation in education, we need to embrace this as part of practicing educational design.






Value		Shadowy siblings
Empathy		Disregard of individuality Self-sacrifice Overprotectiveness
Dialogue		Inefficiency Irresolution Indecisiveness
Autonomy		Incapability Uncertainty Perplexity
Commitment		Ignorance Subjective Prejudice Dependency
Inquiry		Ambiguity Equivocality Coincidence Feeling of unsophistication

Figure 16: Core values and shadowy siblings for participatory academic communities

REFERENCES

- Aaen, J.H., Mathiasen, H., & Dalsgaard, C. (2013). *Anvendelse af digitale undervisningsmaterialer i AVU, HF og gymnasiet: en forskningsrapport om Projekt e-læring*. Aarhus: Aarhus Universitet. Retrieved from http://pure.au.dk/portal/files/55847843/Anvendelse_af_digitale_undervisningsmaterialer.pdf
- Aaen, J. (2015, Feb. 6). Student experience: Exploring the dark side of higher education (blog post). Retrieved from <https://pages-tdm.au.dk/phdramblings/student-experience-exploring-the-dark-side-of-higher-education/>
- Aaen, J. & Dalsgaard, C. (under review). Expanding the context for learning: How does the ubiquitous internet change the conditions for education? *First Monday*
- Aaen, J. & Dalsgaard, C. (in press). Student Facebook groups as a third space: Between social life and schoolwork. *Learning Media & Technology*
- Aakhus, M.A., & Katz, J.E. (2002). *Perpetual Contact*. Port Chester, NY, USA: Cambridge University Press.
- Bannon, L. (2011). Reimagining HCI – toward a more human-centered perspective, *interactions July + August 2011*, 50-57. doi: 10.1145/1978822.1978833.
- Barnett, R. (2011). *Being a University*. London: Routledge.
- Battarbee, K., Suri, J.F. and Howard, S.G. (2014). Empathy on the Edge – scaling and sustaining a human-centered approach in the evolving practice of design. *IDEO*.
- Baym, N.K. (2010). *Personal connections in the digital age*. Cambridge, UK; Malden, MA: Polity.
- Baym, N.K. (2007). The new shape of online community: The example of Swedish independent music fandom. *First Monday*, 12(1-1). doi:10.5210/fm.v12i8.1978.
- Bengtson, S. & Barnett, R. (forthcoming). Confronting the Dark Side of Higher Education. In *Journal of Philosophy of Education*, Fall issue, 2015.

- Bengtsen, S.S. & Nørgård, R.T. (2014). Becoming jelly: a call for gelatinous pedagogy within higher education. In: S. Bayne, C. Jones, M. de Laat, T. Ryberg, & C. Sinclair (Eds.), *Proceedings of the 9th International Conference on Networked Learning 2014*, Edited by: Bayne S, Jones C, de Laat M, Ryberg T & Sinclair C, 17-24.
- Beneito-Montagut, R. (2011). Ethnography goes online: towards a user-centred methodology to research interpersonal communication on the internet. *Qualitative Research*, 11(6), 716-735. doi: 10.1177/1468794111413368
- Blanchard, A.L., & Markus, M.L. (2004). The experienced “sense” of a virtual community: characteristics and processes. *SIGMIS Database*, 35, 64-79. doi: 10.1145/968464.968470
- Blaschke, L.M. (2012). Heutagogy and lifelong learning: A review of heutagogical practice and self-determined learning. *The International Review of Research in Open and Distributed Learning*, 13(1), 56-71. Retrieved from <http://www.irrodl.org/index.php/irrodl/article/view/1076/2087>
- Boehner, K., Gaver, W., & Boucher, A. (2012). Probes. In Lury, C. & Wakeford, N, *Inventive Methods: The happening of the social*. New York: Routledge.
- Brandt, E., & Binder, T. (2007). Experimental design research: genealogy, intervention, argument. Paper presented at *International Association of Societies of Design Research 2007*, Hong Kong.
- Bødker, S. & Buur, J. (2002). The design collaboratorium: a place for usability design. *Transactions in Computer-Human Interaction*, 9(2), 152-169. doi: 10.1145/513665.513670
- Casey, E.S. (1997). *The Fate of Place – a philosophical journey*. Berkeley: The University of California Press.
- Dall’Alba, G. (2012). Re-imagining the University – developing a capacity to care. In Barnett, R. (ed.), *The Future University – ideas and possibilities* (112-123). London; Routledge.
- Dalsgaard, C., Pedersen, N.F., & Aæn, J.H. (2013). *Learning potentials of the ubiquitous internet: Using mobile technologies to support the individual, social and physical context of the learner*. Paper presented at *IADIS International Conference on Mobile Learning 2013*, Lisbon, Portugal. Retrieved from <http://www.iadisportal.org/digital-library/learning-potentials-of-the-ubiquitous-internet-using-mobile-devices-to-support-the-individual-social-and-physical-context-of-the-learner>
- Dewey, J. (1916). *Democracy and education : an introduction to the philosophy of education*. New York: The Free Press.
- Edelson, D.C. (2002). Design Research – what we learn when we engage in design. *The Journal of the Learning Sciences*, 11 (1), 105-121. Retrieved from <http://www.jstor.org/stable/1466722>
- Freire, P. (2014) *Pedagogy of Commitment*. London: Paradigm Publishers.
- Freire, P. (1974). *Education for Critical Consciousness*. London: Bloomsbury Academic.
- Gagnon, C. and Côté, V. (2014). Learning from Others – a five-year experience on teaching empathic design. In Lim, Y. et al. (eds.), *Proceedings of DRS2014: Design’s Big Debates, Design Research Society Biennial International Conference 16-19 June 2014, Umeå Sweden*, 113-127.
- Gambetta, D. (1988). *Trust: Making and Breaking Cooperative Relations*, 52. Blackwell.
- Gordon, E., & Silva, A. de S. e. (2011). *Net locality : why location matters in a networked world*. Chichester, West Sussex, UK: Wiley-Blackwell.
- Gotved, S. (1997). Det virtuelle fællesskab – om en nyhedsgruppe på Internet. *MedieKultur: Journal of media and communication research*, 13(27), 53-61. Retrieved from <http://ojs.statsbiblioteket.dk/index.php/mediekultur/article/view/1101>
- Granovetter, M.S. (1973). The Strength of Weak Ties. *American Journal of Sociology*, 78, 1360-1380.
- Hansen, N.B., Nørgård, R.T. & Halskov, K. (2014). Crafting at the demo-scene. In R. Wakkary & S. Harrison (eds.), *Proceedings of the Conference on Designing Interactive Systems: Processes, Practices, Methods, and Techniques, DIS. Association for Computing Machinery*, 35-38. doi: 10.1145/2598510.2598526.
- Hase, S., & Kenyon, C. (2001). Moving from andragogy to heutagogy: implications for VET. *Proceedings of Research to Reality: Putting VET Research to Work: Australian Vocational Education and Training Research Association (AVETRA)*.
- Hewson, M. (2010). Agency. In A. Mills, G. Durepos, & E. Wiebe, *Encyclopedia of Case Study Research*. United States: SAGE Publications, Inc.

- Ito, M. et al. (2010). *Hanging Out, Messing Around, and Geeking Out: Kids Living and Learning with New Media*. Cambridge, MA: MIT Press.
- Jakobson, R. (1960). Closing statement: Linguistics and poetics. *Style in Language*, 350-377.
- Kelley, T., & Kelley, D. (2013). *Creative Confidence: Unleashing the Creative Potential Within Us All*. New York: Crown Business.
- Klysner, H., Pedersen, N.F., Aæn, J. (2012). *Åbne it-miljøer i universitetsundervisningen. Abstract for Dansk Universitetspædagogisk Netværk conference (DUNK)*.
- Laurillard, D. (2012). *Teaching as a Design Science – building pedagogical patterns for learning and technology*. London: Routledge.
- Markham, A. (2013). Fieldwork in social media: What would Malinowski do? *Qualitative Communication Research*, 2(4). doi: 10.1525/qcr.2013.2.4.434
- Mathiasen, Helle, Dalsgaard, C., Degn, H.P., Aæn, J., & Brink Thompsen, M. (2014). *Hovedrapport 2014. Undervisningsorganisering, -former og -medier – på langs og tværs affag og gymnasiale uddannelser*. Aarhus Universitet.
- Maxwell, N. (2012). How Universities Can Help Humanity Learn How to Resolve the Crises of Our Times - From Knowledge to Wisdom: The University College London Experience. In G. Heam, T. Katelle, & D. Rooney (eds.), *Handbook on the Knowledge Economy*, 2. Edward Elgar Publishing Ltd.
- McMillan, D.W., & Chavis, D.M. (1986). Sense of community: A definition and theory. *Journal of Community Psychology*, 14(1), 6-23. doi: 10.1002/1520-6629(198601)14:1<6::AID-JCOP2290140103>3.0.CO;2-I
- Meyrowitz, J. (1985). *No Sense of Place – the impact of social media on social behavior*. Oxford: Oxford University Press.
- Nixon, J. (2008). *Towards the Virtuous University – the moral bases of academic practice*. London: Routledge.
- Nelson, H.G., & Stolterman, E. (2012). *The design way – intentional change in an unpredictable world*. Cambridge: The MIT Press.
- Nørgård, R.T. (forthcoming). Expressive and affective gameplay in highly interactive games. In: B. Perron & F. Schröter (eds.) *Games, Cognition, and Emotion – essays in cognitive video game studies*. McFarland & Company, Inc.
- Nørgård, R.T. & Bengtsen, S.S. (in press). Academic citizenship beyond the campus – a call for the placeful university. To appear in: R. Barnacle (ed.) *Higher Education Research and Development 2016 Special Issue on New frontiers: Exploring the space/s of Higher Education*
- Nørgård, R.T. & Toft-Nielsen, C. (2014). Gandalf on the Death Star: Levels of Seriality between Bricks, Bits, and Blockbusters. In: *Eludamos*, 8(1), 171-198.
- Nørgård, R.T. (2013). *Gameplay Corporeality: the corporeal-locomotive dimension in gameplay activity and experience*. PhD Thesis. Retrieved from: [http://nordicom.statsbiblioteket.dk/ncom/en/publications/gameplay-corporeality\(2cad8814-4a29-4386-91da-0b64b436d11d\).html](http://nordicom.statsbiblioteket.dk/ncom/en/publications/gameplay-corporeality(2cad8814-4a29-4386-91da-0b64b436d11d).html)
- Papert, S. (2000). What's the Big Idea? – toward a pedagogy of idea power. *IBM Systems Journal*, 39 (3,4), 720-729. doi: 10.1147/sj.393.0720
- Resnick, M. (2007). All I Really Need to Know (About Creative Thinking) I Learned (By Studying How Children Learn) in Kindergarten. *C&C'07, ACM Creativity & Cognition conference*, Washington DC, June 2007, 1-6.
- Savin-Baden, M. (2008). *Learning Spaces – creating opportunities for knowledge creation in academic life*. Berkshire: Open University Press
- Schön, D.A. (1987). *Educating the Reflective Practitioner*. San Francisco: Jossey-Bass.
- Sennett, R. (2008). *The Craftsman*. London: Penguin.
- Sicart, M. (2014). *Play Matters*. Cambridge: The MIT Press.
- Song, F.W. (2009). *Virtual communities : bowling alone, online together*. New York: Peter Lang.

- Sonn, C.C., Bishop, B.J., & Drew, N.M. (1999). Sense of community: Issues and considerations from a cross-cultural perspective: Controversy and contentions. *Community, Work & Family*, 2(2), 205-218. doi: 10.1080/13668809908413941
- Stolterman, E. (2008). The Nature of Design Practice and Implications for Interaction Design Research. *International Journal of Design*, 2(1), 55-65. Retrieved from <http://www.ijdesign.org/ojs/index.php/IJDesign/article/view/240>
- Dalsgaard, C., & Thestrup, K. (2015). Dimensions of Openness: Beyond the Course as an Open Format in Online Education. *The International Review of Research in Open and Distributed Learning*. doi: <http://dx.doi.org/10.19173/irrodl.v16i6.2146>
- Toft, H. & Nørgård, R.T. (forthcoming). Pla(y)ceskabelse. Når børn og robotteknologi mødes. In Lillian Buus et al (Eds.). *Læring og Medier*. Special issue on Robots.
- Toulmin, S. E. (2003). *The Uses of Argument*. Cambridge University Press.
- Tuan, Y. (1977). *Space and Place – the perspective of experience*. Minneapolis: University of Minnesota Press.
- Zimmerman, J., Forlizzi, J., & Evenson, S. (2007). Research Through Design as a Method for Interaction Design Research in HCI. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '07)*, 493-502. New York: ACM