On design as liberal art: The art of advancements
Maris-de Bresser, I.

Citation for published version (APA):

General rights
It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations
If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: http://uba.uva.nl/en/contact, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.
Third Controversy: Beyond Design Process – Practicing Designing

In the previous chapter, I have made the argument that if we are to account for the collective performance of designing without a product, we need to move our focus away from the individual designers and their design thinking abilities. We need to pay more attention to how designers are part and parcel of a sociomaterial practice (Knorr Cetina 2001, Orlikowski 2007, Kimbell 2009) in which designing is performed as a collective activity, sustained, refined and advanced by means of taste making (Gherardi 2009).

In this chapter, I continue to explore the collective performance of designing without a product by examining another strand in the literature, one that has already made the move away from the individual designer. Particularly, I address here those works that foreground process and method as lying at the heart of designing. The field of design studies has developed a strong process orientation towards design, so much so that the notions of ‘design process’ and ‘design methods’ have become almost synonymous with designing. The common perception of design as process is that it consists of a series of distinct steps which are undertaken in a “predictable and identifiable logical order” (Lawson 2006: 33) to achieve desired outcomes. Various accounts of the stages of the design process have been put forward, ranging from the well-known Markus (1969) and Maver (1970) maps of analysis-synthesis-appraisal-decision, to Lawson’s (2006) analysis-synthesis-evaluation scheme, to the more complex one developed by Verein Deutscher Ingenieure (see Kroes 2002).

Design methods are the techniques, procedures or “process strategies that designers employ” (Cross 2007: 99) during the design process, such as brainstorming, user scenarios or drawing. The birthplace of a systematic inquiry into design methods is seen as the ‘design methods movement’ of the 1960’s, particularly the Conference on Design Methods, organized by John Chris Jones and Peter Slann in 1962 (Jones and Thornley 1963). Following the modernist tradition of the 1960’s, calls have been made at this conference for a theoretical and
professional move forward from the individual craftsman, his local knowledge and trial and error methods, to a systematic design process, in which knowledge is abstracted and design methods are standardized across products to be designed (Lawson 2006, Cross 2008). The value of this standardization of design work processes and procedures was seen as laying in the designers’ abilities to answer effectively and efficiently to the rapid societal and technological changes of the post-World War II period, which a craftsman and his evolutionary methods could not cope with (Alexander 1964). The scientific methods and their values of objectivity and rationality became a model to follow in creating the new design methods, particularly of computational methods, decision making methods or testing methods (Cross 2001). The development of ‘design science’, as an “explicitly organized, rational, and wholly systematic approach to design” (Cross 2001: 53) culminated this symbiosis between design and science.

The call for standardization and rationalization of the design process has led to the development of designing as a profession (Lawson 2006). Designing was seen as what professional designers do, after being educated in the use of design methods and techniques. The development of designing as a profession has led to a separation between designing and making. The activities of conceptualizing, planning and drawing a product are now the task of draftsmen, while making the actual product is left to the manufacturing sector. Also, it has led to a separation between designers, clients and the users of the products or services to be designed (Cross 2007). Clients and the future potential users of the product are many times involved in the design process only as informants, usually in the starting phases of the project. And, it has led to a theoretical separation between designers and their work processes. More and more theories focus on explaining the rational process of designing, leaving the designers’ intuition and sensible knowledge only marginally addressed.

Following these separations, we came to see design as ‘design from nowhere’ (Suchman 2002, Gherardi 2012). In this context, the notion of ‘design from nowhere’ indicates that the products of designing result from a well-organized design process and well-developed design methods that designers employ in their work; in other words that methods produce the results.

Recent studies conducted at designers’ workplaces challenge this mechanistic view. In Bucciarelli (1994), Bratteteig and Stolterman (1997), Suchman (2002), Yoo et al. (2006), Alexiou and Zamenopoulos (2007), Yaneva (2009), and Kimbell (2009) we read about
Third Controversy: Beyond Design Process – Practicing Designing

‘design from everywhere’, where designs are developed through continuous collaborations between designers and other internal or external human and non-human actors. One could argue that when design is ‘design from everywhere’, it is no longer methods alone that produce results. Rather, the products of designing – the designed – emerge in practice out of interactions between designers with their methods-in-practice, the designers’ objects of work and their various external collaborators, such as clients, users, and so on (Maris et al. 2012). Similar criticisms have been voiced already in the 1970’s, when the pioneers of the design methods movement themselves recognized that the rational, scientific approach to designing leaves everything lively about designing to the background. Jones (1977, cited in Cross 2001: 50) wrote: “In the 1970’s, I reacted against design methods. I disliked the machine language, the behaviourism, the continual attempt to fix the whole of life into a logical framework”.

The aim of this chapter is to examine another uncertainty about designing without a product: is designing without a product a matter of process in which methods produce results or is it a matter of practice, in which designers engaged in practice perform (towards) results? Designing is about changing the world. No matter how we look at it, we cannot deny the fact that designing is always consequential, that the results of designing will have an impact, either negative or positive, on how we do things or how we relate to each other. Therefore, this controversy is particularly interesting as it raises issues about who or what carries the responsibility for the quality and morality of the designed. We obtain different views on this responsibility when we argue that methods produce results than when we argue that designers engaged in practice perform the results. I will explore here these different views and their implications for both theory and practice. In my empirical research, this uncertainty and its accompanying moral dilemma of responsibility was most visible in the collaboration between the Amsterdam Museum and Mediamatic, the web designers’ office that developed the museum’s online communities. I focus on this collaboration in this chapter.

In section 2, I examine the traces left behind as researchers and the designers in this study tried to make sense of the nature of design methods. I illustrate how in designing for online interaction, the web designers and their collaborators worked more like intuitive craftsmen in exploring new arrangements of people and technologies than like rational technicians in researching and testing existing arrangements. In section 3, I follow the traces left behind as researchers and the designers in this study tried to get a grip on the nature of the design process. I illustrate how the museum employees and the web designers engaged in negotiating
On Design As Liberal Art: The Art of Advancements

a new way of working together that grew from the ideal of equality of the design project itself. In section 4, I address the issue of responsibility in designing without a product. I end this chapter with the conclusions drawn from exploring this uncertainty.

On scientific design methods and methods-in-practice

The systematic process and methods for designing (online) technologies

From architecture, to engineering, to information systems development and web design, there has been a strong interest in emulating the scientific ethos in the design process and in developing and employing design methods. This interest is still visible to this day.

Cross (2008) related the present day interest in the standardization and in the rigor of the design process and methods to the increased complexity of contemporary design. Many of the materials designers work with today are new, so rigorous testing methods are vital for the success of the products designed. Many design firms work with different professionals, with different trainings and experiences. Well-developed methods for team collaboration and group decision making are necessary for the success of the team work (Levina 2005). And, many of the products and services designed today have a larger societal reach, such as smart phones, computers or social media. One mistake in the design process may cause the product to be rejected, or be unprofitable. Rigorous user-centered design methods, such as developing personas, scenarios, use cases or usability tests and market research are seen as indispensable from a contemporary designer’s toolkit (Carroll 2000, Massanari 2010).

Such an interest in the standardization of the design process and in the rigor of the design methods is visible in the Information Systems discipline. The Information Systems discipline is concerned with exploring the challenges of developing various information systems to be employed in organizational settings, such as vigilant executive information systems (Walls et al. 1992), organizational memory information systems (Stein and Zwass 1995), decision support systems (Kasper 1996), systems to support emerging knowledge processes (Markus et al. 2002) and online communities (Peerce 2000), among others. Following the scientific tradition, information systems development methodologies are defined as “a set of recommended means to achieve the development, or part of the development, of information
systems based on a set of rationales and an underlying philosophy that supports, justifies and makes coherent such recommendations for a particular context” (Avison and Fitzgerald 2006: 568).

Different authors classified information systems development methodologies according to problem situations (Avison and Taylor 1997), philosophical approaches (Ivari et al. 1998) or key features of each methodology (Yaghini et al. 2009). Based on the nature of the design problem, a distinction is made between hard methodologies and soft methodologies. Among the hard methodologies are development life cycle methodologies, data and process modeling, prototyping and object-oriented methodologies, which are seen as useful in dealing with well-structured problem situations. Among the soft methodologies are ETHICS, MultiView, soft systems and socio-technical approaches. They are recommended to developers dealing with undetermined, complex problem situations with unclear objectives and uncertain user requirements.

In information systems development, defining the role of the user in the development process has been challenging to this date (Ivari 2006). Many authors theorized about a positive relationship between user participation in the design process and ‘system success’ (Bødker 1996, Markus and Mao 2004, Millerand and Baker 2010, Ivari and Ivari 2011, ISO 9241-210, 2010). However, Pekkola et al. (2006) argued that despite the increased interest in developing user-centered development methods, such as participatory design, user centric design, co-operative design or JAD, issues of how, when and whom of the intended users should be involved in the design process remain unresolved. An important challenge is to define who the intended users of information systems are, as more and more of the systems developed are no longer intended only for employees of an organization but also for those working outside of it (Ivari 2010).

Markus and Mao (2004) proposed a multidimensional view of the user as actors, stakeholders and change agents and reconsider the notion of user participation to accommodate both the psychological experience of involvement and the different participation activities and behaviors. Pekkola et al. (2004) supported Markus and Mao’s (2004) approach and underline a number of lessons learned from their study: on the importance of commitment of all participants (intended users, managers, developers) to the development approach, of the openness of communication and information distribution in creating a trustful environment.
between all stakeholders and of managing unrealistic expectations in reducing the challenges of acceptance of the system (cf. ISO 9241-210, 2010).

Similar insights have been put forward by Preece (2000). In the by now classical book “Online communities: Designing usability, supporting sociality”, Preece (2000: xvi) asked the fundamental question: “why do some online communities entertain, inform, and provide support while others wither and disappear?” Preece (2000) looked for an answer to her question by exploring both social and technical issues of online communities development. Preece (2000) argued that both usability - concerned with how easily people can learn to use and interact with the system, and sociability – concerned with developing software, policies and practices to support social interaction, are needed to achieve success in online communities development. To sustain both usability and sociability, Preece (2000) too argued for use of community centred development techniques to actively involve the community in the development process. Preece (2000) theorized that community involvement stimulates a sense of ownership, which is important for the community’s success.

Despite the recent attempts to examine the nature of the potential users and their online behavior, as well as their roles in the information systems development, the theoretical attention has remained focused on the process of developing the technology itself. Hevner et al. (2004: 82) summarized this focus when they argued that “knowledge and understanding of a design problem and its solution are acquired in the building and application of an artefact”. Designing information systems is ‘designing in steps’ - to use one museum employee’s phrase. Design methods are producing the desired results: market research tells designers what type of technology the potential users would like and need; scenario making and personas help them explore different possibilities of use; building methods guide technicians in developing the technology and usability studies tell them what they need to change and improve to make their technology user-friendly. This credo in the power of scientific design methods to bring about the desired results was challenged and deemed unrealistic when designing for emergent open-ended practices.
The emerging practice and methods-in-practice in designing for online interaction

The collaboration between the Amsterdam Museum and Mediamatic started many years ago, when Mediamatic built the Memories from the East, and later the Neighborhood Shops communities. For the new, overarching community The Heart, the members of the e-culture department wanted to have a platform that is standard, simple and easy to use for all its members. A standard, simple community platform contains only the basic functionalities. It is approachable and understandable for every type of member. As the museum’s wish is to have an open, user-friendly community, a simple, standard, “nothing new and fancy” platform was seen as a good choice. As such, the online community platform was launched as a standard community website after one round of sketching and building (see Appendix 2a for print screens of the first live version of the platform). It allowed the potential members to register, post stories, send comments, search on the community and create events. These were the functions that were most used in Memories from the East and in Neighborhood Shops, which indicated a certain familiarity with this structure. The idea behind launching a basic community website is that it would allow the designers to add new functionalities over time based on what the community members need or would like to have to make their online experience richer.

What lay behind the simple, ‘nothing new’ community platform was a design vision for a very new museum-public relationship. The members of the e-culture department wanted to have an online environment that would help redefine the traditional museum-public relationship - characterized as authoritarian, hierarchical and one-directional – in a way more than the Memories from the East or the Neighborhood Shops managed to achieve. They wished for an online environment where both museum employees and the interested public would meet, collaborate and learn from each other in an open, honest, equalitarian, two-directional way. With The Heart community, the members of the e-culture department did not want to develop yet another online platform for the museum, hence their limited interest in the technical infrastructure itself. Rather, their focus was on developing a new type of online museum-public interaction that is not (yet) performed in the onsite museum.

Visible in practice therefore was the move from designing a product, namely designing the technical infrastructure of the online community, to designing without a product, designing
for online interaction. The object of designing is no longer a static product, which can be built, tested, evaluated and adjusted. Rather, it is an emerging social process that grows organically as people begin participating on the site, posting content, commenting or sharing (boyd and Ellison 2008).

Compared to designing static websites and other online infrastructures, which has been practiced for at least 30 years, designing for online interaction, storytelling and collaboration is still in its infant stage. It is an emerging practice, in which web designers learn by doing, by following the example of Facebook and other established social networks, by observing online the community members and by talking with their clients and other stakeholders. The newness of this practice was explained by many web designers. One concept developer explained that the work they are doing now is more at the level of inventing, exploring and discovering the basic requirements of designing for online interaction, than of testing and evaluating. In his words:

“We are still in such a primitive stage of our development. If you compare the work that we are doing to designing a chair, then you see that you are in something that has like a 10 year history of design and then you can compare it to something that has thousands of years of design, right? In the stage we are now, we are actually inventing the chair. […] So in the mid previous century computers were introduced and we are still at this phase in which we have to invent the basic requirements, we have to find out what is the easiest, most affordable way to do basic things. […] So all these little patterns are temporary and we are in this process of discovering totally new technologies and finding out what we can do with them to help afford us a more interesting, richer, comfortable and happy life.”

The web designers at Mediamatic argued that in designing for new processes and new ways of interacting online, some of the current web design methods which focus on testing and evaluating, are not always useful. Several web designers were skeptical of such methods as use cases, user research and usability tests, arguing that they are useful in designing but only to a certain extent. They argued that most of the time, and particularly when you are dealing with future members who are not used to online communities, like somewhat older museum public, people do not know what is possible online and as such they cannot express what they want. One web designer asked me what would have been my answer 10 years ago if someone
asked me whether I would buy shoes online. Many people would have said no. “I am not sure these methods help me design better systems” he argued and continued:

“...doing usability studies, observe users in general situations, do pre-design surveys of users’ needs or worries...yeah... are of very limited value to predict the future of human behavior, I would say, but still quite interesting. [...] So that’s very hard. I don't have a method for making that kind of discovery possible. The only method for that is just observing the users online, being there and responding to their needs. I think that in the end, the design has to come out of a quite intuitive understanding of what you are trying to make. You just have to love it. And then you can do it.”

Future online behavior cannot be predicted beforehand. The design situation is further complicated as online communities, in contrast to static websites, are constantly evolving and changing as members begin participating. Certain functionalities that were believed to work fail to be appreciated by members. Or, members themselves begin organizing the online community in ways the designers had not imagined. This was visible on Neighborhood Shops community, where a group of members created their own spaces for personal communications, separate from the museum related topics. In the Memories from the East community, the members began categorizing the stories themselves following a librarian system. Web designers at Mediamatic explained that they are always behind the members of the community platforms they develop. As such, they cannot use standardized methods, to be applied following an a priori established protocol. Rather, their work methods resemble more what Law coined (Law 2004) ‘methods-in-practice’.

Law (2004) put forward the notion of method-in-practice as he reconsidered the role and purpose of scientific method in science. Law (2004: 45, italics in original) wrote: “The argument is no longer that methods discover and depict realities. Instead, it is that they participate in the enactment of these realities.” Extending this argument to design, I argue following the insights from Mediamatic and the Amsterdam Museum, that design methods-in-practice are not so much about synthesizing a solution or an outcome, as about performing (towards) an outcome; designing is not about synthesis but about performativity. In other words, designers do not use methods-in-practice to stabilize reality, and react to it later. Rather, they employ their methods-in-practice in making and remaking, producing and reproducing the world together with all the other actors engaged in design or living with the
design. Designers work like choreographers, creating ever new dances together with their human and non-human collaborators.

The manager of the e-culture department lamented some web designers’ exclusive focus on functionalities at the detriment of what she called “the higher goal”: of inspiring and motivating museum employees and the public to be open towards each other online. In her view, their task goes beyond offering the members the possibility (the functionality) to share stories, towards thinking of incentives for both museum employees and the public to share their stories in the first place. Similarly, their task goes beyond offering a platform where the museum employees and the interested public can meet, towards creating an environment that is inviting and that is able to sustain a collective feeling of belonging to a community of shared interest. In her own words:

“I do believe that designing for social groups has a lot to do with behavior, with welcoming people, those kinds of things. Not so much with just functionalities but how you use those functionalities. I think that you can make a perfect product but if you don’t handle the group in an intelligent way, it would not work. And these are the things that the discussion is centered on. My design activities go towards how to get a group working. That is my interest also. It might turn out that you can also make it possible by means of pen and paper, so to say. It is about how to get a group environment so that you connect people and facilitate that they work well together. It is not about tooling but about how people get connected to each other and how that mechanism works.”

The web designers at Mediamatic and the museum employees design for online interaction by ‘staying close to the community’, ‘participating yourself in the community’, ‘observing the members’, ‘reacting to their needs’. These are their methods-in-practice with which they advance the community further. The emerging design is an outcome of a trail of performances, of actions and reactions performed collectively by the members of the community, web designers, museum employees, public stories and the technical infrastructure. And these performances are continuous. It is through these collective performances across the entire assemblage that the assemblage is kept alive and advancements are facilitated. It is a matter of ‘designing over time’ (Jones 1980), in which
the entire assemblage is traveling. The manager of the e-culture department explained this argument:

“And that’s what is really different if you design for sociality, the real difference is that it is designing over time. You cannot sit at your desktop, make a design and implement it and then maybe test it and improve it, no, you have to be involved and you have to design…well, it is more like travelling than it’s designing in steps.”

For the e-culture department manager, designing for online interaction, as designing without a product, is not about achieving an end goal once and for all, like arriving at a destination. It is about the journey she makes together with her colleagues, web designers, members of the public and others to find out about the possibilities for collective practice online. Designing for online interaction is a matter of collectively exploring what actions are possible or desirable online, how to facilitate them, and how to sustain the organic growth of the community. With every new discovery, the web designers, the museum employees and the members of the online community are pushing the online frontier further, finding out new challenges and possibilities. The designed is an emergent one, an outcome of these collective explorations, negotiations, actions and reactions, more so than a static outcome of standardized design methods.

The same shift in the design focus as presented by the manager of the e-culture department has been anticipated by Jones (1980) and Buchanan (n.d.). In a recent interview given at the Kolding School of Design International Advisory Board, Buchanan explained the expansion of the notion of design in the contemporary world, to refer to a shift from products and communication to actions, activities and processes. Jones (1980) argued that in practice, the scale of designing is moving from that of objects and finite products to processes “but we’ve yet to admit that designing could become not goal-seeking but shared imaginative living, end-in-itself” (Jones 1980: xxxiv). It is designing as a shared imaginative living that the manager of the e-culture described: it is not about the destination, the manager argued, but about the journey you take with your collaborators. To support designing as a shared imaginative living, Jones proposed a series of design methods that encourage not explanation but exploration, not prediction but imagination and not testing but negotiating. When practiced as ‘a way of living in itself’, “design is not so much about adjusting the status quo, as of realizing new possibilities and discovering our reactions to them” (Jones 1980: xxiii). One designer at
Mediamatic explained this argument too when he compared their work with singing in bar. In his words:

“I think that a lot of our work is like singing in a bar. It’s craft, with a bit of art. But most of it is the craft of looking what you need, how can you organize it, it’s a lot of experience, it’s understanding any of your materials. […] And there is always singing together with your clients and discovering new ways. We are reacting to the difficulties the users have, the ideas they have and then making steps, slowly making it better.”

**Controlling the process, arranging the practice**

**The design process as control process, a process of control, a social process**

The view of designing as travelling, as shared imaginative living, as a collective activity that takes place over time, with no clear end in sight does not find its place in the textbook accounts and models of designing products. In the literature focusing on designing products, designing is conceptualized in a stepwise, albeit iterative manner, with each distinctive step being taken in a “predictable and identifiable logical order” (Lawson 2006: 33). The account of the design process is instrumental, with each step offering input for the next. The process has a clear beginning – the identification of a design problem and a clear end – offering a solution to that problem. Such textbook models of the design process suggest that designers begin their work by analyzing the design problem, then continue with developing possible solutions to that problem and end with testing, evaluating and adjusting the solution (see the classical models of Markus 1969 and Maver 1970). Viewed from this perspective, the design process is a control process, in which each stage is well thought of, well organized and the tasks to be performed to achieve the end results are well defined. Also, the design process is more of a decision making process, in which designers, following the results of their testing methods, decide which alternative solution to the problem is the more ‘satisficing’ one (Simon 1969).

Such maps of the design process have been heavily criticized for being de-contextualized, disembodied, a-historical and mechanistic. Cross and Dorst (1998) criticized the separation of
‘problem analysis’ and ‘solution generation’, arguing that the design problem and solution are explored simultaneously in what they call the ‘co-evolution’ of problem and solution. Lawson (2006) also acknowledged the co-evolution of design problems and solutions when he proposed his model of design process as analysis-synthesis-evaluation. Cross (2001) further criticized these models for misinterpreting the nature of design as prediction, explanation and decision making. A similar argument was put forward by Bratteteig and Stolterman (1997) who argued that such control-oriented models do not allow any space for collective improvisation and creativity. Bucciarelli (1994) and Kimbell (2009) lamented the failure of these models to account for the social aspects of designing as a collective, collaborative practice.

It is by now generally recognized that designers work in more ‘opportunistic’ (Guindon 1990), free ways than the stepwise design process models indicate. The focus on the lone designer has been shifting too towards team work between designers with different expertise and other people such as clients or potential future users of the product to be designed. The move from ‘design from nowhere’ to ‘design from everywhere’ becomes more and more evident. Drawing on Schön’s (1983) work, Lawson (2006) and Cross (2011) argued for a view of the team design process as a communication process, in which team members discuss and negotiate the problems and solutions, build upon each others’ contributions in the conversation and resolve conflicts of requirements or approaches. Alexiou and Zamenopoulos (2008) conceptualized designing as a social process in which the coordination of expertise, resources, goals and requirements takes central stage. Adopting a complex systems perspective, Alexiou and Zamenopoulos (2008) argued that coordination of design work involves synthesizing through learning the knowledge required for collective action; it implies a distributed control process in which decisions are derived from individual goals and requirements; and it highlights the collective undertaking in defining the problem and solution spaces (cf. Cross 2011).

Participatory approaches to designing (Bødker 1996, Steen 2011) have foregrounded not only the cooperation between expert designers, but also between designers and the future users of the product to be designed. Proponents of participatory designing argue for the importance in the design process of combining the designers’ expert knowledge with the users’ personal knowledge in developing successful products (cf. Suchman 2002). Concerns in these participatory approaches have been related to how to involve the users and in which stages of
the process, how to manage and facilitate the process of participation, how to deal with conflicts and power, how to organize the communication between participants in order to facilitate shared understandings or to manage expectations (see Ehn 1993, Gulliksen et al. 1999, Beck 2002, Steen 2011). Bratteteig and Stolterman (1997) called for a conceptualization of the design process in terms of group improvisations. Drawing on the metaphor of jazz, Bratteteig and Stolterman (1997: 300) argued that collective creativity is achieved through “the art of orchestrating group design”, as “the art of balancing and managing a variety of concerns in a way appropriate to the situational conditions.”

These latter conceptualizations of the design process are more in line with how designers experience the daily practice of designing. However, the discussion in the literature on the nature of the collective performance of designing does not stop here. Bucciarelli (1994) criticized the kind of studies reviewed above by arguing that they focus too much on how the process can be managed and controlled to sustain collaboration between the different actors involved (see Bødker 1996, Ehn 1993, Gulliksen et al. 1999, Beck 2002, Steen 2011). They focus too much on managing differences in goals and expertise to achieve consensus and shared understandings, seen as required for achieving design results (see Bratteteig and Stolterman 1997). Bucciarelli (1994) criticized such studies too for failing to account for the object of design, which in his view, influences the organization of the design process itself and the relationships among design participants.

In his ethnographic study of engineers, Bucciarelli (1988, 1984, 1994) conceptualized designing as a social process. Yet, he offered a deeper meaning to the term. For Bucciarelli (1988, 1994), all activities that are performed at a project, from sketching, dreaming, drafting schedules for new design tasks to sitting in a design meeting are potential design acts that may influence the ways in which the design process proceeds. All employees of the engineering firm as well as people from outside the firm with whom they work, such as suppliers, customers, financial bodies and so on, are contributors to the design process and may influence it. They all come to the design process with different expectations, interests and expertise, based on the ‘object-world’ they operate in, in other words based on the assemblages of physical and epistemic objects, techniques, methods, theories and principles with which a designer works. These different interests and expectations are reflected and negotiated in the process of designing. Yet, for Bucciarelli (1988, 1994), these negotiations do
not necessarily need to lead to consensus or a shared understanding for the design process to proceed.

Bucciarelli (1988, 1994) argued that what keeps the design process together, despite the different interests design participants hold, are the values of the firm, which are more than the sum of individual interpretations. These values are what Yoo et al. (2006), in their study of Gehry Partners’ work called ‘the gestalt of the firm’. They are also what I called in the previous chapter ‘the taste’ of designing, that museum employees and their collaborators develop together in the practice of transforming their museum into an online and offline meeting place.

**Not controlling the process, but arranging the practice**

When I observed the design work performed by museum employees and web designers in the Amsterdam Museum design project, I did not see a design process that followed logically ordered, rational steps. What I did see was ‘design from everywhere’ riddled with discussions, contradictions, negotiations and uncertainties. I saw frustrations as when the manager of the e-culture department lamented some web designers’ strong focus on functionalities at the detriment of the ‘higher goal’ of welcoming people online. I saw judgments of expertise as when one web designer explained to a museum employee that she ‘doesn’t get it’ that online community sites have a different structure than sites for personal blogging. I saw disappointment on the faces of both museum employees and web designers when new community members found the site ‘difficult to navigate’ and ‘not that interesting’. I saw negotiations of roles and power relations as when the museum employees discussed with the web designers the possibilities for a closer collaboration between the two parties, with museum employees participating as equal partners in designing.

Central to all these discussions and negotiations was not so much the controlling of a process of designing, in which all actors are expected to perform their given tasks according to a predefined order. On the contrary, at the heart of these discussions was the arrangement of a practice of designing, in which all actors collectively redefined their tasks and roles according to an unclear yet emerging order (Maris et al. 2012). The nature of the object of designing, as an open ended object, served as a catalyst in these negotiations. Let me illustrate.
On Design As Liberal Art: The Art of Advancements

For many years, it was common practice for web design offices to close service level agreements with their clients. In these contracts, clients and web designers would agree on the specifications of the online community platform to be designed, the costs of developing the platform and the time for delivering the final product, among others. Their layouts would follow the phases of a design process for a stable product, a technical infrastructure. The work relationship between the two parties would be defined as one between “the client” who requires a service, provides information about the desired product to be developed and pays for it when delivered, and “the contractor” who builds and delivers the product on time and within budget. The responsibility for the performance of the product, its quality and sustainability would be established then too, usually resting with the contractor, the web designers. Agreements would be made for ‘feedback meetings’ in which the designers present the clients with preliminary sketches of the product to be developed. Similarly, financial agreements would be made about possible required maintenance work once the site has been launched and functioning.

Yet, the collaboration between Mediamatic and the Amsterdam Museum was not so much focused on developing the technical infrastructure, as much as on designing an online environment that facilitates and sustains interaction. The site for the online community The Heart was launched as a basic site, with minimum functionalities. Most attention went to caring for the community and answering to the members’ needs and wishes online. Among such actions were offering members the possibilities to plan their own events on the community, invite selected members to participate, send private messages, or form sub-groups of interest, like members interested in textiles, and have their own private space on the community, similar to group pages on Facebook. Likewise, most attention went to imagining and implementing incentives for people to join and participate in a sustainable manner. One example was the Johan and I project, in which museum employees made a call to members of the community to share their stories and pictures of their encounter with Johan Cruijff. The call was successful in attracting hundreds of stories and pictures and in creating a vibrant atmosphere on the community. The most interesting stories and pictures were presented in the physical exhibition in the Amsterdam Museum.

It soon became obvious that service level agreements were not productive and sustainable in designing emerging, open ended environments, where constant attention and involvement of designers is necessary. The elusive, unfolding nature of online communities makes it difficult
if not impossible for both the museum employees and designers to establish its specifications beforehand. As members begin participating online, the community can develop in ways that are unexpected to both designers and museum employees. What the end result would be, how much time it would take to design it and how much it would cost is not so easily settled any more. To accommodate the emerging character of the object of design, the ways of working between web designers and their clients needed to change. The manager of the e-culture department explains this challenge and the need ‘to change the practice’ in designing for online interaction. In her words:

“It’s difficult when you work with other parties, like web designers, because they are not used to think that way. That’s for instance if I work with Mediamatic I have to pay every time we redo the website and they have to plan it. And I think we should rethink this - and we are going to talk about that because we should do it differently so we can adapt more easily. [...] I make arrangements with them that we can work with products that are not...well there is no end to them, they are always changing, they are always evolving. The whole practice of designing itself has to change if you are designing for social groups, I think.”

How do you go about rearranging the practice of designing to accommodate an emerging object of design? And not less important, how can you achieve this in a way that is financially sustainable for the museum, which until now had to pay for every small or big intervention designers made in the community?

One museum employee argued that: “The first thing is changing the contract, changing the formal rules of working together.” What was desired was a collaboration based not so much on contractual agreements but on trust. Central to this new contract was a reorganization of the financial arrangements for the project. One museum employee argued that they can no longer ask the web designers to develop something for a fixed price, because they do not know what they want until the community starts growing. The rigid ‘pay-per-hour’ was renegotiated into a more flexible agreement, to be negotiated based on the nature of the task required to be performed and the contribution of the task to Mediamatic’s library of ideas. One employee explained the nature of the new financial arrangements based on trust in the following way:
“So we are working in a much more open way...In IT there are a lot of projects which are very expensive and also a lot of projects which never make it to the finish because there are really rigid ways of financial ways of working together. So that’s a real big change that I trust them, because it is all about trust, I trust them that they will not make too many hours and that they will be honest in declaring their hours.”

The second thing seen necessary in rearranging the practice was a redefinition of roles from ‘clients’ and ‘suppliers’ to ‘partners’ in designing. Another museum employee argued that they want their role in designing to be more pronounced than before: “we want to be involved, make our own mistakes and learn how we can make it better ourselves too’. In practice it meant that museum employees were encouraged to participate in all activities of designing and learn by doing ‘the tricks of the trade’. Some e-culture department employees developed skills in web design, at times making themselves changes on the community platform or developing new pages following the Mediamatic style. For the designers, it meant that they would engage too in discussions about the ways in which the museum can incorporate the online community in its practice.

And third, in rearranging the practice, it was seen as fundamental that mutual learning takes central stage. It was argued that both museum employees and web designers can continue to stay involved in designing an emerging, open ended community only if they learn from each other and can draw on each other’s expertise. The Amsterdam Museum employees are experts in the field of organizing attractive offline events like exhibitions, but are amateur web designers, with everything they know about designing for online interaction being learned in practice. The web designers are experts in the ‘techniques of the artificial’ (Cross 2001), but novice in how the entanglement between technology and museums (or any other organizations) works out in practice.

Through mutual learning the design partners familiarize themselves with their different ‘object-worlds’ (Bucciarelli 1994): web designers learn about what works for museum public, what they like and want in online communities; museum employees learn ‘the tricks of the trade’ of web design, such as how to build intuitive pages, how to write an interesting story online or how to cut pictures in ways that attract an online visitor’s attention. Such mutual learning was beneficial for both parties. For the Amsterdam Museum particularly, it was
argued that as museum employees would also be able to take care of the community and its platform, they would save money on a project that is threatening to go beyond budget.

The negotiation of a new arrangement of the practice is a design exercise in itself (cf. Bucciarelli 1994, Yoo et al. 2006), one through which the current ways of working together between clients and designers are problematized, their appropriateness to the current design situation are appreciated and the premises of a new way of working are outlined. The new contact, itself still open ended, is a fantastic mediator in Latour’s (2005) terms: it translates a ‘design in steps’ into a ‘design as travelling’, a ‘design as process’ into a ‘design as a collective practice’. The idea that a new design practice is in the making in these negotiations was clear to the e-culture department manager, who argued:

“That’s really different; we change the formal aspects of the collaboration. And we try, because it’s new so there is not really a practice already, together we travel and make the rules, new rules, we do that on the go, while we are working. And what’s important in doing it this way is that you have to be fair and honest, I think, otherwise it would not work.”

Responsibility as accountability, responsibility as caring

We cannot deny that design is consequential, that doing designing has an impact on our lives in either a positive or negative way. However, the predominant focus on designing products has narrowed considerations of designers’ responsibilities for the designed. As in the service level agreements mentioned above, considerations of designers’ responsibilities are limited to a responsibility as accountability for the performance of the product designed. The shared view is that what happens when people start engaging with the product and how that product develops following this engagement, is no longer the designers’ responsibility. This argument was made clear to me by a number of technicians working at Mediamatic. One technician argued that his responsibility is to make a properly working site. How people want to engage together online, is their own business. He compared his job to that of a taxi driver, whose responsibility is to offer you the possibility to go where you want, in a safe way. What you do at your destination, whom you meet and for how long is no longer his responsibility. Others shared this view, but in a more cautious way:
On Design As Liberal Art: The Art of Advancements

“Maybe that’s not the task of the designer, maybe his task is to design it, to implement it, to create the whole plan like also what to do after the implementation. Maybe after the implementation the task of the designer is done, it’s up to other people to analyze the results and react to that.”

We need a deeper conceptualization of responsibility in designing without a product, at the scale of life, than the present view of responsibility as accountability for the performance of the product. The need to rethink responsibility in designing without a product has to do with a number of elements. The object of designing is no longer a fixed product, but an emerging, open-ended practice. We have seen above that designing for online interaction is no longer performed by one or two designers, with clearly set out goals, well-defined tasks to perform and requirements to meet. Designing is a collective practice – a design from everywhere - performed by a multitude of actors, each with different expertise and inputs. Web designers can no longer guarantee the well-functioning of the designed as they are no longer in control of the process. A museum employee acknowledged this when she argued that “they [the web designers] cannot guarantee to do the work in a certain way anymore because we are part of the process and they cannot manage us”. Likewise, designing for online interaction is a matter of designing over time. The designers’ tasks and responsibilities do not end when the community website is launched and members start participating. Rather, they continue until “the community can stand on its own and our involvement is no longer necessary”, as one designer explained.

There are only sporadic discussions in the literature on responsibility in design we can draw on. The questions of responsibility and ethics in design have not been systematically addressed, expect for a few individual efforts (see Mitcham 1995, Fry 1995, Manzini 1995). The dominance of the scientific ethos in design, which praises rationality and objectivity, has pushed questions of ethics to the background. Bucciarelli (1994) and Manzini (1995) lamented the conviction shared by post-World War II designers that by means of scientific design methods, generalizable objectives can be clearly formulated and design problems can be rationally addressed. The systematic design process would bring about products and services that are optimal for the clients. The modernist ideal was that the products of designing would bring about unquestionable progress, the advancement of humanity.
We obtain a different view on responsibility in design from the literature that prioritizes rational design process and objective methods. This literature illustrates a ‘design from nowhere’ (Suchman 2002, Gherardi 2012) as a value-free design. The difficulty with this perspective is that it does not allow us to question or theorize the designers’ responsibility, not even as accountability for the performance of the product. The current view is that if the product is not functioning well, or the users do not like it, the fault does not lie with the designer, but with the methods. In that case, it is the methods which need to be evaluated, adjusted or replaced. Once the methods are adjusted and the process re-ordered, good quality design would follow (see Bucciarelli 1988 for a similar criticism).

However, design methods, like scientific methods are not value-free (Law 2004). In light of the larger societal transformations that designing is bringing about, not just in the types of technologies we use, but more substantially in the ways in which we relate to technologies and to each other (Orlikowski 2000, Knorr Cetina 2001) designers can no longer hide behind the scientific ethos of objectivity. They can also no longer limit their responsibility as accountability for the performance of the product only. Many designers and researchers alike begin tracing a new concept of ethics for designing. Manzini (1995: 234) proposed such a new view of ethics in design, one that...

“...does not predicate universal and unquestionable values but refers to a system of values exhibiting the consciousness of relativity, in the context of a general attitude built on the principles of responsibility and solidarity.”

Writing from the perspective of cultural and environmental sustainability, Manzini (1995: 234) equated responsibility in design with solidarity towards the present and future generations, “the responsibility of leaving them an inhabitable world endowed with a range of alternative possibilities analogous to what we have today”.

I find Manzini’s (1995) ideas insightful in conceptualizing responsibility in designing without a product. Manzini pointed out to a new way of thinking about it: not a responsibility as accountability for the performance of the designed, but a responsibility as caring for the well-being of those affected by the design. This view on responsibility as caring was clear in the Amsterdam Museum project. Both museum employees and web designers talked about the need to stay involved in the community, to welcome the members like a host, to listen to or
watch the members, to care for them, all in all make sure that they have a comfortable, enjoyable experience and that they return to the site, and even bring their friends too. One designer explained this notion of responsibility as caring, in the following way:

“We always say that we don’t control a community, we manage the parameters. We make sure that they are safe. It is like a family. You want to make sure that nothing is keeping... nothing is hurting them. You don’t want to tell them what to do. You just want to make sure that nothing is keeping them from being happy. It is just making a comfortable place... And that is just in the general sense like how to not piss off your community.”

Looking further at the Amsterdam Museum project, we see that the meaning of responsibility as caring is even richer than being involved and making sure that the community is not lacking anything to be happy. This would focus the designers’ work too much on the here and now, when in fact their hearts always roam towards the future. For the web designers at Mediamatic and the museum employees, caring for the community also means that they create the space for ‘alternative possibilities’, to use Manzini’s (1995: 234) terms. This responsibility as caring by designing for alternative possibilities implies that designers develop environments that are open-ended, that members can participate in as they see fit for their purpose, or that can develop and grow following the members’ interactions. For instance, community members could connect to a story in different ways, by commenting, by posting pictures that are related to the story, by sharing it, or by posting a similar story but from a different neighborhood. Similarly, sub-groups of interest could create their own group pages, which were accessible only by means of online invitations.

Jones (1980), in his discussion of design methods made reference to a similar conceptualization. For Jones (1980: 73), designing is a conversation about future possibilities. In his words:

“Methodology should not be a fixed track to a fixed destination, but a conversation about everything that could be made to happen. The language of the conversation must bridge the logical gap between past and future, but in doing so it should not limit the variety of possible futures that are discussed nor should it force the choice of a future that is unfree.”
The view on responsibility as caring by designing for alternative possibilities was shared by other web designers, working at different companies and for different online communities. George Oates, former concept developer at Flickr, explained in a blog post her view on designing for online interaction in a similar way. For her too, the designer’s responsibility is to offer the members ‘a space for play’ where they can try things out without being told what to do, where they can join in actively or by simply watching, where they can explore the site by following links they think are interesting. In her words:

“People don’t like being told what to do. We like to explore, change things around, and make a place our own. Hefty design challenges await the makers of websites where people feel free to engage; both with the system itself and with each other. Embrace the idea that people will warp and stretch your site in ways you can’t predict—they’ll surprise you with their creativity and make something wonderful with what you provide.”

Conclusions

In this chapter, I illustrated how the design as process paradigm, with its focus on designing in steps and the employment of objective design methods, does not account for the complexity of designing without a product. It puts forward a ‘design from nowhere’, where methods produce desired results.

I argued that designing without a product is a design from everywhere with the designed emerging out of interactions between actors with different interests and expertise. It is a ‘shared imaginative living’ (Jones 1980), a designing like travelling where the journey is more interesting than the arriving at a given destination. I illustrated how in designing for online interaction, web designers and museum employees found the current methods of usability tests and user research limited in exploring new possibilities for actions online. Designing for online interaction is a matter of imagining new arrangements of people and technology but also of empathy, of staying close to the community and reacting to its needs. It is a matter of caring, of nurturing for an emerging, open-ended practice until the community can stand on its own, and the designers’ involvement is no longer necessary.
I addressed also the issue of responsibility in design. I argued that both the view of the scientific design process as a value-free designing and the current understanding of responsibility as accountability for the performance of the designed are not what the designers working at ‘the scale of life’ (Jones 1980) experience. I proposed a rethinking of responsibility in designing without a product. I argued for a view of responsibility as caring for those affected by the design. The designers in this study performed their responsibility as caring in two ways: by nurturing the community and by designing for alternative possibilities. How web designers and museum employees actually engage in designing for alternative possibilities in advancing collectives is the subject of the next chapter. I argue that central to their practice is not a design by drawing, but a design by drawing things together.