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Citizen Projects and Consensus Building at the Danish Board of Technology: On Experiments in Democracy

Casper Bruun Jensen, Aarhus University

1.Introduction

The Danish (and Scandinavian) tradition of encouraging citizen deliberation on large
technoscientific projects is regularly remarked upon positively by commentators, as a
counter-point to the highly techno- and bureaucratic procedures used in a number of other
countries (Bijker n.d.; Einsiedel, Jelsøe and Breck 2001; Haraway 1997; Rip, Misa and
Schott (eds.) 1996; Sclove 1995). Cultural historian of science Donna Haraway, for
instance uses consensus conferences as an example of how to construct situated
knowledge about technoscience:

> [T]he Danes have pioneered a practice of establishing panels of ordinary citizens,
> selected from a pool of people who indicate an interest, but not professional
> expertise or a commercial or other organized stake, in an area of technology…The
> particular conclusions would not please everyone, and the process is not perfect.
> [But]…the process embodied in the consensus conference is part of what I mean
> by fostering situated knowledge. (Haraway, 1997: 95-6).

Among other things, situated knowledge is characterized by not disowning the
circumstances of its production, but viewing them as generative of its strengths.
Evaluating the extent to which actual citizen projects succeed in thus situating their own
knowledge production is hard, however, since there have been no sustained empirical
investigations of the concrete workings of such participatory projects, at least as carried
out by the Danish Board of Technology.[1]

In the fall of 2002 the Board carried out a project on the development of electronic
patient records (EPRs). As is customary this resulted in the writing of what is called the
consensus document, which was made public at a press conference on October 7th, 2002,
and subsequently handed over to the Danish Parliament as a policy recommendation.
This paper is the result of my involvement with the EPR-project from its inception in the
beginning of 2002 and until the final report was produced and presented to the public in
October that year.

I view the project as a *democratic experiment* with a potential capability to generate
relevant, situated knowledge through the interactions of citizens and experts.[2]
Characterizing it thus does not render its actual development unproblematic. Specifically
it does not prevent the formulation of a number of challenges to the practical organization
of such projects in their current guises.

The Board of Technology views democracy as exercised by citizens as they get together
and make an amount of esoteric knowledge their own; this is presumed to enable the
construction of a specific citizen's viewpoint (e.g. Grundahl 1995, Klüwer 1995). Thus,
the many different kinds of interactions that took place during the EPR-project were
framed with a specific conception of *democracy*. The board's choice of how to engage
citizens also involves a specific conception of what it means *to learn*. For it is the
citizens' *interiorization* of expert knowledge that is viewed as enabling the formulation of
their singular perspective on the case. Concepts of democracy, learning, and expertise are

thus put in play to practically determine the sorts of engagements that are proper between experts and laypeople when one's goal is the production of a consensus.

In a phrase of Annemarie Mol, the uncovering of the relationship between abstract ideas and empirical modes of execution can be termed *empirical philosophy*. This term points to the constant practical entanglement of seemingly abstract concepts, and it works to show how such entanglement produces specific effects that may be quite different from what would be expected from merely conceptual analysis. As she suggests:

> Most everyday practices make use of, or try to create, scales to measure or contrast 'goods' and 'bads'. This opens a space for an empirical philosophy. An ethnographic interest in practice can be combined with a philosophical concern with 'the good' to explore which 'good/bad' scale is being enacted, and how this is being done (Law and Mol, http://www.comp.lancs.ac.uk/sociology/soc090jl.html).

I give a general introduction to the work of the Danish Board of Technology. I then describe how my contact with the board was established and how I became actively involved with the EPR-project. In the following sections I discuss the background of this particular project, how it was carried out, and which conclusions were reached. These discussions are framed in the context of the above-mentioned questions of *democracy* and *learning*.

2. Citizen Projects as Democratic Experiments

The following text is intended not only as a quasi-ethnography of a specific project carried out by the Danish Board of Technology, but also as a discussion of the possibilities and limits of such projects as instances of *democratic experiments*. What does this term imply?

A minimal definition of democratic situations, according to Isabelle Stengers, is that they are situations in which are "confer[red] on individuals the capacity to take a stand".[3] As is well-documented and criticized this criterion is rarely met in technoscientific practices (e.g. Wynne 1992, 1996) but the projects of the Board of Technology can be viewed exactly as experiments in how to give voice to citizens in such situations. Viewing these projects as experiments, however, is in opposition with the self-understanding of the Board, which considers projects as validated by their consensus-creating method. In contrast, the notion of experimentation implies an exploration of the unknown, which cannot be methodically guaranteed.

This view of experimental democracy does not enable the researcher to eventually evaluate the suitability or success of the concrete suggestions made by the participants in such projects, because what counts as a suitable result is defined just by the experiment. But it does allow one to look closely at the interactions and events of the project and analyze which factors worked to increase the open-endedness of the interactions between members of the board, citizens, and experts, and which factors on the contrary worked to delimit the flexibility, and thereby the capacity to respond to the situations at hand.

3. The Danish Board of Technology

The Board of Technology was established as an independent institution in 1986. In 1995 the Board was organizationally re-arranged.[4] The original board of 15 persons was abolished and a structure with a governing body of 11 people and a council of 50 was put in its place. Daily operations are run from an office in central Copenhagen, where 22 employees are situated, among them ten project managers, a number of secretaries and several student helpers. The Board has a number of functions and methods, which I will touch upon below, but in general the aim is to:

> disseminate knowledge of technology, its possibilities and consequences, for humans, society, and environment. The Board of Technology therefore promotes debate about technology, assesses technology, and advises the parliament and the government in technological matters.
> (http://www.tekno.dk/subpage.php3?page=statisk/dk_om_os.htm&toppic=om_os, my translation)

The Ministry of Research supervises the board, and contact to Parliament is established through their research commission.

Citizen involvement and the promotion of democratic procedures in policy deliberations having to do with technological issues, broadly defined, are key concerns of the board. A range of methods, some developed by the board and others adapted from other countries, are used to draw on and articulate citizens' perspectives. These include "future panels", "hearings of citizen's groups", "perspective workshops", "future search conferences", "questions and answers", "policy exercise – role play", "interdisciplinary work groups", and "consensus conferences".[5]

Every year the board makes a call for project-proposals. Proposals may be submitted by MPs, authorities, organizations, corporations or citizens. The complete list of proposals is discussed and sorted by the directorate.[6] A few of these are selected as "full-scale" citizen projects. Other projects are chosen for thematization in the publication "Technology and Debate" or in a newsletter for the parliament, called "From Board to Parliament".

In 2002, six projects were chosen for citizen involvement. These were: "GMO's and the third world", "How are we going to assign value to the environment?", "Hydrogen in an unremitting energy system", "IPR/Copyright", "The Cities – a fine place to live", and "The Electronic Patient Record".

4. The Electronic Patient Record

How has the development of electronic patient records come to be defined as broadly relevant to the Danish public? Without claiming definite causation, one can point to a range of political, technical and administrative issues, which in combination have helped to make probable such a definition. In 1995, the then Social Democratic Danish government published the first national IT-strategy called *Info-Society 2000*.[7] This report emphasized the necessity of radically upgrading research and investment in the

development of a Danish information infrastructure in many different sectors. Increasingly, hopes have been placed in such systems to improve on the health sector, which is seen as economically ailing, and putatively in poor health as regards administrative efficiency and clinical quality. Thus, EPRs are presently a hotly debated political issue. Many observers claim that, at best, an EPR would become a resource for the health sector on several levels (e.g. Dick and Steen 1991). It could prevent double-entry of data in the medical record, Kardex, and other records. It could offer decision-support to the clinician, and minimize the possibilities of medication errors. It could support co-operation across professions, because a single electronic record would replace the many paper-based ones. It could also be connected with existing administrative systems and supply structured data for research databases. Finally, the EPR could ensure a smooth flow of data between the primary and secondary health sectors, and across regional borders.

State agencies, prominently the National Board of Health, have criticized current projects for their lack of integrative ambition. In their view, the biggest advantage of the EPR lays in the demand it places on clinicians to standardize and structure data. So if the EPR is to make administration more effective as well as improve research possibilities, a conceptual standardization of clinical communication is necessary.

As can be ascertained from the long list of problems to be solved by the EPR, high hopes are placed in these technologies. It is clear, then, that the EPR is often viewed as a technical solution to a number of complicated, and interwoven, political and organizational problems. In this sense, visions of EPRs often frame such technologies, in the words of Sheila Jasanoff, as *technologies of hubris*, which show "a kind of peripheral blindness toward uncertainty and ambiguity" (Jasanoff 2003: 238).[8]

A number of important questions regarding the kinds of health services "we" want in Denmark are raised in these public and political debates. But it is worth noticing that the "we" invoked, is a specific (and peculiar) one. For, to a very large extent, the horizon of the discussion is defined by a distinct set of actors; clinicians, technicians, and administrators.[9] However, it could be argued that there is also another group to whom the question of how to make health care work is exceedingly relevant: the citizens. These are, of course, the actual or virtual clients of the health sector. This was in fact the argument brought forth by the Danish Board of Technology, who remarked upon lack of citizen involvement in these debates and consequently reviewed a proposed project about the EPR positively.

The EPR qualified as a citizen-project by meeting a number of the criteria of relevance for such activities in an exemplary manner. These criteria included: that the theme was of current relevance from a social point of view; that the theme was technical, controversial, and complex; and that there was a need for defining attitudes and goals in relation to the topic.

5. Consensus-Conferences and Development Spaces

The method to be used for the EPR-project, called development spaces, was determined by the project manager. Development spaces are based on the so-called consensus-conference model, which has been used at the board of technology since 1987, and has been exported to a number of countries.[10] In a sketch, consensus-conferences work in the following way. A number of experts in various aspects of the given problem area write up introductory material, which is then sent out to a citizen panel that discusses it carefully during two weekends. The result is a document in which citizens formulate a number of important questions they need to have answered in order to reach consensus and make recommendations. New experts, with different perspectives on the topic, are called upon to answer citizens' queries at a consensus-conference held during the final weekend of the process. After the conference, the citizens' panel write up a final document with their findings. This consensus-document is subsequently presented to the parliament as a policy recommendation.

Development spaces are modelled rather closely after consensus-conferences. Here, a background group is also formed by a set of experts, with the purpose of writing introductory material for the panel. Likewise, the final goal of the panel is the construction of a consensus-document. Finally, the citizens also meet for two weekends before the final consensus-seminar. The difference lies in the organization of the interactions between citizens and experts. In contrast with the consensus-conferences, citizens' deliberations during their weekends are not based primarily on the introductory material initially produced by the background group. Instead, citizens' are confronted with a set of live presentations from relevant experts during each weekend. As a consequence of these interactions, the panel is encouraged to re-construct the preliminary set of relevant questions proposed by the background group and return it to this group. The job of the background group is then to interpret the re-articulated statement, and respond by choosing experts able to relevantly answer the questions posed by the panel, during the coming weekend. The difference between consensus conferences and development spaces therefore lies in the temporal distribution of the engagement between experts and lay people. Whereas consensus conferences maximize engagement at the end of the process, development spaces spread out the interactions throughout the process. This method is used in projects that are supposed to be technically rather than ethically complex.[11] In such situations regular expert participation is viewed as necessary because their absence might hinder the ability of citizens to understand important aspects of the thematics.

6. Selecting the Experts, Planning the Project

I visited the Board of Technology in late February 2002 to interview the project manager about the upcoming EPR-project. Shortly after I received an e-mail asking whether I would be interested in actively participating in carrying it out. I thus, rather accidentally, came to figure as an expert in EPR-matters. How was this possible?

For methodical reasons, the board is committed to putting together background groups with participants that are as diverse as possible. This selection poses a problem since the project manager cannot by definition be a specialist in the area of investigation; for this would be to bias the project from the beginning. Experts are instead chosen after the project manager, along with assistants, carry out an informal search to uncover which networks are involved in the discussions relating to the given area of problems.

In the original proposal, the background group for the EPR project would consist of a patient representative, a member of the Danish Council of Ethics, an IT-representative from the EPR-Observatory and V-CHI[12], and an IT-humanist and specialist in knowledge management. This composition was changed for a number of reasons. First, the idea of having a patient representative participate was abandoned because citizens in themselves are potential patients and, accordingly, should not be represented in the group of experts. Second, the Council of Ethics did not want to participate, as they viewed the content of the project as primarily technical.[13] Finally, the so-called IT-humanist eventually participated in only one meeting. As replacements were chosen a surgeon turned IT-Consultant, a representative for the IT-political committee of the Danish Medical Association and myself, who would be the token representative of the humanities and social sciences. My role was rather special in other ways. First, because I identified myself at the introductory meeting as knowledgeable about certain aspects ("social ", "humanistic" rather than "clinical", "technical") of relevance for a broad thematization of the EPR, but simultaneously as carrying out participant observation. Second, because I was a Ph.D. student among a group of professionals and tenured professors. These "overheads" interacted in the micro-processes of the meetings and certainly influenced my felt ability to engage equally with other members in this setting.

 The work of the board was introduced to us by the project manager and the director. They stressed the role of the board as a transparent mediator between citizens and experts**.** According to the board, public credibility could be maintained precisely to the extent that the experts in the background group verifiably and visibly represented heterogeneous perspectives on the technical, social and ethical implications on the EPR. The Board of Technology thus presented itself as the democratic anchor, enabling unprejudiced communication and transmission of knowledge between experts and lay people. In this aspect as in the goal to achieve consensus, the methods of the board is are influenced by a problematic Habermasian conception of democracy and the public sphere.[14] However, as I will discuss at length below, the actual, rather than abstracted, events of the EPR project opens a space for a reconstruction of the democratic potentials of such projects.

The purpose of the background group was to discuss how to pertinently present the complexities, problems, and possibilities of EPRs to a citizen panel. Our initial job was to construct a problem catalogue, with a number of loosely defined themes. Relevant themes were those about which substantial disagreement or ambiguity existed, either in the background group or more broadly. We also had to write up a question catalogue, posing questions relevant to the formulated problems. This catalogue would function as the dynamical mediator between the background group and the citizen panel, since citizens

would have to re-formulate its content in response to the expert input they received during their first weekend meeting. The catalogue would thus be the main material facilitator of the iterative process that experts and citizens were to engage in.

Finally, we were told about the selection criteria for the citizen panel, as the background group would have to approve of its composition. This description pointed out that while it is obviously impossible to involve all citizens in a project, it is statistically almost as difficult to make a strictly representative selection of citizens.[15] The board therefore aimed to create a many-sided forum for debate, exchange of opinions, and consensus, rather than to claim "scientific" representativeness.

 One thousand citizens, randomly chosen from the national register of citizens, received an invitation to participate in the project. To be eligible they had to write an application explaining why they would be suitable citizen representatives. Applications would then be filtered according to a number of criteria. Obviously interested parties, such as software developers from companies involved in the development of EPR-equipment, would be removed. So too, would so-called "hidden experts", such as GPs, who could not avoid knowing about some of the relevant problem areas, even though they were not strictly involved in them. Finally, clearly mad people, a number of which are said to always apply, would be removed. The remaining contenders would be filtered to ensure a broad composition of the panel, as regards gender, age, education and geographical representation.

7. Introductory Material

We met again early in June. In the meantime, the background group had been further expanded with a nurse from Svendborg Hospital. In between meetings, a reporter had used the input from our discussions to write down a draft of the introductory material. The purpose of the meeting was to qualify this material, and come up with suggestions for other themes and questions. The response of the background group had its own dynamics, which related to the composition of the group and the interests of its members.

During the first meeting it had been quickly agreed upon that the question of whether an EPR was needed at all was futile. It was hard not to reach this conclusion with four out of the five participants actively engaged in its development or promotion. Thus, questions came to revolve around *what* sorts of benefits an EPR might be able to provide, and *how* this might happen, rather than around the arguably equally important discussion of why EPRs are viewed as evidently necessary. Experts offered different opinions on these questions. What could be called an IT/clinical-perspective was fore-grounded on the second meeting. This perspective stressed the prominent concern of questions of standardization. The point of view expressed by members of the group with a clinical background generally agreed that standardization was an important topic. Their main concern, however, was to ensure that the EPR should function *primarily* as a tool for the clinician, which would enable a better flow of information between various departments, wards, and sectors. According to the representative of the medical association this flow

would mainly be inhibited by the unstructured data from Kardex, and a main standardization task would therefore fall on nurses. As our discussion had to do with the formulation of themes for a question catalogue, it was suggested by the representative of V-Chi that the EPR might be presented to citizens as a vehicle for empowerment, as patients' access to and control over their own records could be improved by use of the new technologies. The clinical representative countered that accessing data would be of interest mainly to healthy people. In contrast, he claimed, sick people primarily *wish to become healthy*, and would therefore support the organization of the EPR according to the needs of clinical work flow as decided by medical practitioners, *rather than* organized around the question of patients' access of their own information. It seemed a highly curious co-incidence that these objectives were viewed as incompatible just at the point where IT, otherwise viewed as the supremely flexible tool, might be used to displace current doctor-patient relationships.

The representative of the EPR-Observatory and V-Chi had proposed that a 1992 advertisement for Hewlett-Packard, called *Imagine*, was shown as the citizens' introduction to the EPR-theme. This movie showed a futuristic series of mini-narratives, in which potentially lethal injuries and diseases were prevented by the use of an integrated EPR, which gave simultaneous access to medication modules, booking, laboratory modules, tele-medicine, and administrative units. The representative stressed the importance of enabling the formulation of citizens' visions, and proposed the video as something of a "visionary kick-start".

The problem catalogue ended up presenting a number of themes and calling attention to problem areas such as standardization, security and patient information, and future visions as possible pivots for the discussions in the citizen panel. Reading later through the catalogue I was struck by the monotony of some of its parts which, rather than presenting the EPR in its heterogeneity, described some rather clearly defined problems and proposed paths of solutions to them. It stated, for example that "With the EPR, the paper-based record is a relic of the past. But the introduction of the EPR offers more possibilities than merely storing patient data electronically. EPR offers a series of advantages compared with the current records" (Intro-material, p.1). This mode of writing presented the EPR as a logical improvement of the paper-based record. The EPR was described as a homogeneous phenomenon, with the consequence that the problems one could pose merely related to the question of "how" to reap its benefits.

Coming from a background in STS-studies, this tendency to naturalize the trajectory of the technology seemed to me blatant. It also gave rise to controversy regarding who might count as relevant experts during the weekends. There could be no doubt that EPR developers and involved clinical personnel were to present their views. Legal aspects were also high on the agenda. Critical socio-technical perspectives, however, were viewed by other members of the background group as rather more peripheral to the enterprise. When discussing the relevance of micro-studies of actually occurring events (e.g. Svenningsen 2003), I was often faced with the tendency of other participants to render them anecdotal. Paradoxically, the fact that these studies were *current and actual*,

made them less rather than more relevant, since the citizen project was viewed as a matter of constructing *visions* for the future. But with the intervention of the project leader, who was committed by the working methods and guidelines of the board to ensuring as broad an array of perspectives as possible, I eventually managed to secure two spots during the weekends, for STS-friendly presentations.[16]

8. Citizen Panel and Development Spaces

In the meantime, a proposal for the citizen panel had been put together, which eventually seemed fairly heterogeneous; a mixture of men and women of ages 25 to 60, covering much of Denmark geographically, and with job titles such as: undertaker, traffic inspector, student, librarian, associate professor, telephone operator, and plumber.

The citizens met for an introduction to the EPR project on Friday evening in August on Funen. The project was introduced and citizens gave short presentations of themselves and their reasons for participating.[17] These ranked from highly positive expectations to the EPR-mediated future to markedly negative ones. Positive images revolved around economical efficiency and the quality of care, whereas negative ones were ethically motivated, and related, for example, to questions of information access and data security. On Saturday morning the citizens received a more thorough introduction to the idea of reaching consensus and the panel then gathered to listen to the first expert presentation: "What is the EPR?". After this and following presentations, citizens were re-shuffled into groups to discuss what they had learned about the EPR.

On Sunday of the first weekend two more experts presented on "GPs and Electronic Patient Records" and "Records and Privacy", and the iterative attempts to define questions and reach agreement continued. At the end of the weekend the panel prioritized themes and questions and sorted them in a document, which was returned to the background group. Citizens meanwhile continued their discussions by e-mailing to a closed discussion list made accessible by the Board of Technology.

During the next weekend a similar procedure took place, focusing on the slow composition of a common point of view, from the multiplicity of expert and citizen perspectives. The presentation "EPR Implemented" was presented by the latest member of the background group, the nurse Lone Tynan, and accompanied by a visit to Svendborg Hospital, where an interdisciplinary EPR had been used at the medical wards for a few years. At the end of this weekend a final set of themes was returned to the background group.

9. Final Weekend

For the final weekend, seven themes were selected: "Decentralized vs. Centralized Systems", "Patient Information and Privacy", "Visions for the EPR", "How do we involve the staff?, "Surveying One's Own Course of Health "From Cradle to Grave", "Research and Quality Assurance", and "Legislation". Each aspect was shortly discussed by an expert, and the citizen panel formulated a final series of questions. These

were directed at specific persons, but contrary to earlier weekends, all experts were now gathered together with the explicit aim of generating discussion. However few opposing views were manifested in open conflict. Thus, the citizen mediation of expert discussion, in this instance, clearly seemed to have a consensual effect. The question remained, of course, whether this consensus was substantial, or merely an expression of "good sense", a cover over differences in the name of an abstract generality.[18]

Citizens expressed various kinds of criticisms of expert perspectives. First, they wondered how expert visions related to the practical realities of the health sector. As an exasperated citizen said after repeated failures to get an expert to make an estimation of the costs of various development models of the EPR: "But you cannot answer the question of costs with a pure guess". While it is indeed very hard to make good estimates of the cost of large socio-technical projects, this situation also opens an opportunity for experts to choose to forget costs, and concentrate *instead* on visions, which are (initially) not so materially bogged down. And, as we recall, visions were indeed what the citizen panel was asked by experts to consider in the problem catalogue. But at the end of the project an important divergence had occurred. For it turned out that citizens and experts were not in agreement on the visionary aspects of the EPR.[19]

Medical visions in particular stressed the necessity of ensuring the "flow" of information among sectors and that data was sufficiently standardized for research purposes. In contrast the citizen panel persistently focused on the capability of the EPR to *protect* patient data and *increase* patient rights.

I now discuss the content of the consensus document, which was presented in its headlines by a citizen representative, and made available in print at the press conference. But before analyzing the results in more detail, I point to some of the reactions, which the presentation of this document occasioned among experts and others present at the press conference.

For those who had not been involved in the project, the process of reaching consensus seemed almost as interesting as the results. The panel was asked, for instance, about the quality of the answers, which experts had provided, and which of these answers had been most surprising. These were reflexive questions with consequences for the evaluation of the results of the project. The panel expressed general satisfaction with the response from experts. They mentioned, however, their surprise at some of the answers they received. These had to do in particular with the questions of data security:

Citizen1: "We heard several times that the law was not observed because it is important for research, for humanity, and what have you".
Citizen2: "[I was surprised] when a doctor told us how he worked in practice and the lawyer said that he was not allowed to do that."

The panel was also asked how they felt about their role as *generalized* citizens. Since the method of development spaces was presented as new, and the panel had continually pointed to time as a factor which limited in-depth probing of some of the complicated

issues, a journalist queried "how confident you feel with your own work?". This question clearly touched upon the legitimacy of citizen projects in general and the project manager responded promptly by pointing out that while the specific method was new, laymen's evaluation was practiced in many countries, "with remarkably similar results". She also suggested that: "Consensus reflects something generally human".[20]

The citizen representative also responded. In her response, she noted how the panel had worked closely together with the project manager and the process consultant to ensure the sobriety of the result. Along with other members of the panel, she also made clear their keen awareness of the limits of their representation:
C1: We represent all of Denmark, but there are groups of people without the energy to participate in such things.

In contrast to these reflexive questions, many expert queries related prominently to practical issues of their own concern. In this regard, one of the most illuminating questions came from a representative from the EPR-Observatory, who asked the panel to clarify: "Why do we need an EPR? How do we get the money?" This question, in my view, illustrates some of the most problematic aspects of the project when conceived in terms of knowledge transmission from experts to laypeople. As I have shown the EPR-project was defined from the beginning as a way of thinking about the kinds of benefits the EPR might offer and how to reach them, rather than of critically reviewing the notion of it.[21] Throughout this process citizens were encouraged to think in visions without taking into account pragmatic issues. It is thus clear that the visionary frame was set up by the background group and not seriously re-framed by the panel. Consequently it seems obvious that this process cannot legitimately be used by members of the background group as a visionary feedback mechanism, to generate political arguments in support of their own agendas.[22] But while the democratic potential of citizen projects do not lie in this direction, zooming in on the details of the consensus document will allow me to mobilize a different conception of the project as a *democratic experiment*.

10. Consensus Results

What conclusions were reached in the final document? It describes the attitude of the citizen panel to six problem areas, which are summarized in an introductory vision "that the primary purpose of the EPR – from the point of view of the patient – is an improved and efficient treatment. The EPR should also be a valuable tool for the health care sector." This is a broad formulation, with which many would agree. But the abilities of the panel to generate a novel point of view can be ascertained in the argument supporting the vision. The argumentation indicates that improved treatment is intimately connected with the delegation of influence and responsibility to the patient. And the visionary recommendations distinctly circle about the implementation of an EPR, which can support a higher degree of influence on the patient's own course of illness. This plea has two components. The first relates to the possibility of citizens' becoming *actively engaged* in the construction of their own records. It suggests that patients get the

opportunity of having free access to their own record, and that they should be allowed to add data to the record in a specific field of entry.[23]

The second recommendation had to do with the right of patients to *delimit access* to their own data. Here, among other things, it was proposed that "To access data from the record, patients' permissions are needed in all but acute instances". This is to ensure that citizens' health data is solely used for research which they are willing to approve of. Likewise "it is only personnel directly involved in the treatment of patients, who have access to the record".[24] Optionally, it is suggested that such security could be achieved by "use of a citizen/health card, where information can only be passed on with patient consent." The citizen panel reached consensus on a number of other topics, such as the need for improving medical quality assurance by use of decision-support systems. But the democratic relevance of the EPR-project is made particularly visible in the panel's recommendations in relation to their status as potential patients.[25] For in these recommendations the distance between the input from the invited experts and the consensus of the panel is largest.[26] I find it promising that such singularity in perspective could be achieved in spite of the sometimes homogenizing dynamic of the expert-citizen interaction.

11. Learning in the Process

> "For scientists, of course, are not the only legitimate representatives of things. They represent things only to the degree that we have succeeded in inventing questions for their subject, which permit them to put to the test the fictions that concern them. But today, most technological-social innovations affect things in much more varied modes than those anticipated by our questions, and thus create a gap between "things", as they are implicated in it, and their scientific representation" (Stengers, 2000:158).

As I have touched upon earlier, learning is an important notion for the board of technology, because the democratic success of citizen projects is dependent on an adequate learning process resulting from interactions between experts and laypeople.

In this section I argue that learning is, indeed, a crucial notion, but a notion with some rather different implications from those suggested by the board. According to Isabelle Stengers, learning is an important part of the "adventure of reason", because societies can respond accountably and imaginatively to new situations only by learning to collectively formulate new questions adequate to them. This is a task that requires the mutual engagement of experts and laypeople.

From the point of view of empirical philosophy, the abstract theory of learning embraced by the board of technology tells only a partial story, a story of "good sense". To complete this story one must look at learning-in-action as it took place during the citizen project. What, then, was learned in the process of the EPR citizen project? How was learning concretized in practice?

Three points are worth emphasizing. First, the learning process was *iterative* or *recursive*. Experts formulated a catalogue of themes for citizens to consider, which was transformed as a consequence of other expert presentations, and citizen deliberations. The background group then had to learn from this document which perspectives the citizens found missing or under-developed, and respond by attempting to find relevant experts for the next meeting. Thus, the sort of learning embodied in the project was in principle bilateral, but clearly *asymmetrically* so. The process could work to the extent that *both* experts and citizens were *willing* to learn. Citizens needed to learn about the multiple technical and social aspects intertwining in a large socio-technical complex such as the EPR, and how to collectively sort relevant from irrelevant information. Experts, however, needed to learn, and constantly recall, the partiality of their own perspectives. They needed to do so to be able to suitably respond to citizen queries, which may have seemed to them strange, irrelevant, or plain stupid. Nevertheless, citizens were obviously more dependent on experts than *vice versa*, in that experts unable or unwilling to represent the diversity of the phenomena at hand, could more or less covertly frame the debate in specific ways.

The sort of learning facilitated by the project was uneasily situated between a cognitive and a bodily understanding of the learning process. The board distinguished between education as *enlightening* and as *training*, and was clearly interested in placing their projects within the latter idiom, with its connotations of practice, and its emphasis on the lived experience of the participants. And, indeed, as Isabelle Stengers describes it, other citizen interventions have shown how:

> Noncompetent citizens, when they do not have to "learn" science "as at school", but are put in a situation where they can demand that scientists respond to their questions, make the effort to render the "information" they possess pertinent and usable – in short, to address themselves to them as if to interlocutors on whom their work depends – have…been capable of taking a position on a very difficult technical problem…" (Stengers, 2000:161)

The distinction between "learning in school" and "learning for real", or "enlightening" and "training" seems at first to match studies, such as those of Jean Lave, which points to a need for relating learning to experienced real-life situations, rather than cognitive puzzle-solving (Lave, 1988; Lave and Wenger 1991). But in spite of citizens' drawing on their own experiences, it is hard to claim for the project a phenomenological embodied status. As noted, the panel in fact visited a ward with an implemented EPR-module at Svendborg Sygehus. But even this visit can only in part be characterized as "hands-on" relevant to the understanding of the EPR. For to many experts, the EPR of the future is imagined as radically different from anything in existence. In effect, this makes questionable if the EPR can be characterized as being presently anywhere available in an embodied version. Thus, the system at Svendborg Sygehus, was viewed as old-fashioned and severely limited, as indicated in the comment from a clinician that: "Notwithstanding the excellence of Svendborg, we are now several generations further ahead." This comment responded to the suggestion that the problems encountered at this hospital could be more broadly symptomatic of the possibilities and limits of using EPRs.

To take this pervasive and sceptical perspective seriously, is to conclude that, at present, there are *no experiences to be had*, and *no models ready for imitation* in relation to the EPR. The fact that learning arguably took place, this paradoxical situation notwithstanding, poses a problem for representation- and imitation-based models of learning (Schön1987), but also for those based on a prioritized notion of lived experience.

It is precisely because no models are available for imitation that *visions* came to play so prominent a role in the EPR-project, from the presentation of the *Imagine* commercial, to the final consensus document. But the world of visions is dangerous because it has the capability to completely separate itself from the world of experience and accountability, and render the actual anecdotal.

In contrast to visionary approaches, Gilles Deleuze presents the problem of learning in the following way:

>"The movement of the swimmer does not resemble that of the wave, in particular, the movements of the swimming instructor which we reproduce on the sand bear no relation to the movements of the wave, which we learn to deal with only by grasping the former in practice as signs. That is why it is so difficult to say how someone learns: there is an innate or acquired practical familiarity with signs, which means that there is something amorous – but also something fatal – about all education. We learn nothing from those who say "Do as I do". Our only teachers are those who tell us "do with me", and are able to emit signs to be developed in heterogeneity rather than propose gestures for us to reproduce" (Deleuze, 1994:23).

The excerpt indicates an understanding of learning as an ongoing and dynamical process, through which participants together become able to produce, not a consensus (imitating others or finding a common denominator) but a *movement* towards a state, which is not given, and which necessarily remains unstable. And to the extent that the EPR-project was a learning experience, the interaction between citizens and experts can, indeed, be described in terms similar to those of Deleuze. In certain instances, incongruent perspectives on the EPR made visible its heterogeneity and complexity rather than its homogeneity and simplicity. As we have seen this happened primarily in relation to the question of the protection of the privacy of patient data. In the citizen panels' discussion of this set of signs "emitted by experts", they re-formulated its relevance in their own multiple idioms, shaped by their "practical familiarities". And in this situation the movement between these different points of view enabled the expression of an aspect of the EPR in a novel and relevant mode.[27] This outcome, however, was not, and could not have been guaranteed with reference to the method of development spaces, which offers merely an abstract form for the concrete interactions of the project. That success is thus *uncertain* but can nevertheless be *achieved* makes viable a characterization of citizen projects as *experiments in democracy*.

12. Democratic Experiments and the Powers of the False

> "A new status of narration follows from this: narration ceases to be truthful, that is, to claim to be true, and becomes fundamentally falsifying. This is not at all a case of "each has its own truth", a variability of content. It is a power of the false which replaces and supersedes the form of the true, because it poses the problem of incompossible presents, or the co-existence of not-necessarily true pasts" (Deleuze, 1989:131).

As noted above, citizen projects can be described as experiments *because* no method can guarantee their successful, democratic, outcome. The democratic invention, which ideally takes place in such encounters, can be called, with a phrase from Gilles Deleuze, *the power of the false*. The falsity here mentioned is not opposed to truth, as in the classical opposition; for to Deleuze the notion of truth (as universal, de-contextual etc.) is exceedingly dubious. His playful invocation of falsity therefore first of all suggests that if the standard of evaluation is classical truth, then we are *all falsifiers*.

Narrative renderings are therefore not about objective description of a state of affairs, but about expressing points of view. In Deleuze's formulation, however, this necessary partiality takes nothing anything away from a perspective, it does not signal a subjectivistic lack to be remedied by a more objective account. Rather, the partiality of a viewpoint necessitates its complementation by different ones, in relationships that are nevertheless not consensual, because the various insights do not necessarily "agree" in any simple sense, and possibly cannot "live together". This potential incommensurability of viewpoints is implied in the Leibnizian notion "incompossible presents" and points in a direction almost opposite that of the ideal of consensus.[28]

But in situations where no one can claim immediate access to a true or rational solution to a problem of what to do, what is demanded is precisely *a* collective exploration of possibilities, in which differences rather than easy agreements should consequently be highlighted. Thus, the powers of the false designate the inventive possibilities of situations, in which it is unknown, unclear, or contested what would be the true, real, or rational course of action to embark upon, and it points at the generative capabilities of such complicated situations.

Such powers are therefore quite different from the powers of envisioning as instantiated at various points in the project, insofar as these worked by effacing the heterogeneous possibilities of different situations and often masked an attempt to impose a specific direction on the future in the name of a generality; "for the better for everyone". In my view, citizen projects as democratic experiments can become vectors of change precisely to the extent to which they tap into the imaginative, rather than visionary, powers of the false.

In the EPR project clinical perspectives consistently focused on the necessity of viewing the EPR as a tool, which predominantly should be used to support clinical practice. Clinical perspectives therefore found problematic the idea of having to ensure consent to

the use of individual pieces of patient information. In contrast, the citizen recommendations demonstrate that the *privacy of the patient* is a notion, which the health care sector must become better at taking into consideration. As such, the citizen recommendations formulate no *solution* to this problem, and a solution must under all circumstances be collectively constructed by the involved parties. But we can talk of an *articulation* of an important problem relating to the EPR, which hitherto has not been made clear. And as such we can talk of a successful experiment in democracy.

The limits of the conceptual frame, which regularly separates *experts* from *laypeople*, become manifest in the surprise often generated by the fact that the active involvement of citizens in important public debates, can contribute with new and relevant insights (see e.g. Wynne 1992). But it is precisely the realization that such activation carries possibilities, which is the basis for what can be termed the democratic experiments of the board of technology. To make such experiments, and try to ensure a degree of democratic validity is not a simple task. First of all it places demands on the ability of the board of technology to put together background groups, whose members have perspectives that are hard to join. It is, so to speak, the basic dissensus among the experts, which forms the background of the possible consensus of the citizens. One can go so far as to affirm that if the process, which leads to relative agreement, has not been sufficiently heterogeneous in its modes of presentation then the problem has not been formulated in a sufficiently relevant way. Accordingly, the process demands of the board of technology, that it is careful to ensure that broadest possible array of articulations on the problem. But the process equally places demands on citizens and experts. A demand on citizens' vigilance in understanding the complicated problem, they are asked to come to a decision about. But also a demand to identify groups of experts who seem too much in agreement. Inversely, a demand on the experts, to always identify the singular aspect, which they represent in their presentations; that is, not to be carried away by the opportunity to use their specific mandate to promote a general perspective, whose premises remain implicit. Democratic experiments, therefore, are not simple. But neither are they unreachable ideals. As I have tried to indicate, the EPR project exemplifies some of the possibilities, which the formulation of alternative visions for the health care sector, by active citizen participation, offers.

13. Challenges of Framing and Execution

Nevertheless the project was far from *faultless* and I have pointed to a number of its peculiarities throughout this text. In "Technologies of Humility: Citizen Participation in Governing Science", Sheila Jasanoff points to a number of "focal points around which to develop the new technologies of humility" (Jasanoff 2003: 240). Two of these seem particularly pertinent for the evaluation of the EPR-project. First, there is the question of *framing*. As Jasanoff states: "It has become an article of faith in the policy literature that the quality of solutions to perceived social problems depends on the adequacy of their original framing. If a problem is framed too narrowly, too broadly, or simply wrongly, then the solution will suffer from the same defects" (Jasanoff 2003: 240). Development

spaces *in principle* responds well to this problem, because the in-built iterative learning process, involves the circulation of a processual document through which citizens can re-shape the original framing. Indeed, as we have seen, they did so, with their insistence on patient empowerment. But aside from this specific point the themes and problems defined in the problem catalogue remained remarkably stable throughout the process. It could be argued that this exhibits the thoroughness of the background group in writing up the catalogue. However, even as I had been an active participant in its formulation, I keenly experienced the insufficient representation of the broadly social, organizational, and pragmatic dimensions of the catalogue. In particular I noticed an excessive focus on EPR as a technical solution to a multitude of complex problems, which would consequently not have to be taken seriously into account. Thus, the invocation of *complexity* became a convenient way for some experts to evade questions of practical accountability, while *visions* were simultaneously used to generate support for the cause of developing EPR's. Since these themes were in fact never seriously considered, it seems clear that the shared and implicit assumptions of a large group of the invited experts effectively diminished citizens' possibilities of radically redefining the original framing. This case allows me to define an important first challenge for the citizen projects of the future; a *challenge of framing*. The democratic potential of citizen projects is crucially bound up with preventing the homogenization of expert panels by members with superficial disagreements based on deeper underlying agreements. The citizen mediation of expert views during the final weekend was seen by the project manager as *generating* a consensual effect. In contrast with this view I suggest that this consensus merely consisted in the coming to light of the common assumptions the experts had brought to bear on the project all along. This, of course, does not indicate a success but a problem: it shows that the divergences out of which consensus seemed to emerge were merely cosmetic. The challenge of framing consists in finding ways to prevent invited experts, particularly in the background groups, from only regarding specific aspects of a case, while agreeing on the general assumptions of the discussion.

Jasanoff calls the second issue *vulnerability*. This relates to the consequences of the differential positions from which citizens encounter and experience technological systems. Consensus-conferences and development spaces, again, are *in principle* representative, according to the in-house theory of democracy. In practice, however, there are clear limits to representation. As mentioned, this question of representation was posed at the press conference at the end of the project. And the citizens, indeed, answered in a way that showed their awareness of their peculiar position. They knew well that they were "strong" citizens, and had to take careful account of those, not there in person, who were "weak". It seems clear to me that the challenge of executing democratic experiments involves a careful consideration of which citizen categories are taken into account, and of their criteria for inclusion and exclusion.

I have pointed to a number of instances where the ideal situation of experts training citizens in a space transparently mediated by the board of technology, is highly problematic. For instance, it seems clear that great care must be taken to prevent

situations in which specific experts can use the panel as a more or less covert mechanism for self-legitimisation. Obviously, unbiased, unprejudiced communication did not take place in the project, and accordingly the ideal of consensus was compromised. Citizen projects must thus come to terms with how to ensure the accountability of their procedures if heterogeneity and incompatibility rather than common sense and good sense is the relevant background for their executions.

These comments are critical but this is not my main point. I definitely agree with the Board of Technology that citizen projects can achieve beneficial democratic effects. But success has to do with supporting the exploration of how to construct a singular viewpoint out of a multiplicity of "incompossible presents", rather than with achieving unprejudiced communication and consensus.

14. Humility and Insistence: The Challenge of Consequences

Jasanoff suggests the designation *technologies of humility*, for technologies that "make apparent the possibility of unforeseen consequences; make explicit the normative that lurks within the technical; and acknowledge[s] from the start the need for plural viewpoints and collective learning" (Jasanoff 2003: 240).

Perhaps citizen projects are experiments in learning to hold back, or inventing technologies of humility. In that case, I think that humility must refer to the process rather than the real outcome or imagined effect of such projects. It is necessary to be humble with respect to the fragility of democratic projects. They are fragile because their democratic potential consists in the composition of a singular perspective out of a multiplicity of viewpoints, Deleuze's *incompossible presents*. Accordingly, they can easily break down if the framing is off-balance and experts come to homogenize discussion rather than continually opening it. Above, I have therefore related the theme of humility to two challenges, which I think citizen projects need to confront - a challenge of framing and a challenge of execution.

But precisely because the democratic success of such projects is so challenging, one can speak of a *democratic event* when a singular point of view emerges from citizens' collaborations. In this situation, indeed, it would become possible to talk about visions in a novel sense; visions as an art of consequences. Such visions would capture the relationships between the multiply diverging positions of and between citizens and experts, while understanding that these positions cannot easily be brought into co-existence, and that their incompatibilities and contradictions must therefore continually be taken into account.

Were this to happen, humility, momentarily, could be exchanged with an insistence: an insistence on the relevance of the powers of the false, as generative of viewpoints that *ought to* be taken seriously into account in political decision-making.[29] This challenge of consequences would be out of the hands of the Danish Board of Technology. But one could wager that *insofar* as the board successfully met the democratic challenges posed above, their recommendations would, indeed, be harder to ignore and would seem more

urgent to react to. It would, nevertheless, remain a challenge of the political institutions to learn from such projects important and relevant lessons about citizens, and their wishes and rights. Were they able to do so, citizen projects, I think, would really instance situated knowledge.

Notes

[1] Haraway's reference to Danish consensus conferences is Richard E. Sclove's work on *Democracy and Technology*. Sclove's analysis of the Danish initiatives is built on articles discussing various methods of techology assessment rather than investigations into how these are practically accomplished. Likewise is *Public Participation in Science: The Role of Consensus Conferences in Europe* (Joss and Durant 1995). In the present paper I carry out such a quasi-ethnographic investigation.

[2] A number of articles in Rip, Misa, and Schott (eds.) 1995, notably by Herbold and by Remmen discuss technological development and implementation in terms of *social* experimentation. Herbold's use of this term remains fairly scientist and technocratic in its exemplifying how "technological inventions are increasingly tested via experimentation in a social context" (186). Remmen's discussion is more multi-faceted and his emphasis that "to democratize technological change, research methods must be generated that are capable of establishing a basis for exchange of knowledge between technicians, users, researchers and other relevant groups" (202) is clearly related to the ambition of this paper. Remmen recommends methods such as dialogue and future work-shops as ways of ensuring increased democratization of technological decision processes. My contribution in this paper is to discuss in detail a number of the limits, problems, and potentials with the related methods of consensus conferences and development spaces. John Durant's (1995) discussion of an English consensus conference as "An experiment in Democracy" shares little with the ideas here presented.

[3] From"What knowledge should be taught in schools", presented at the *Responsibilities: From Principles to Practice* seminar organised jointly by the Council of Europe and the European Cultural Centre at Delphi, Delphi (Greece), 15-17 October 1999. Available at http://www.coe.int/T/e/Cultural_Co-operation/Education/E.D.C/Documents_and_publications/By_Subject/Responsibilities/responsibility.asp.

[4] In Danish this was also signalled by a change of name from Teknologinævnet to Teknologirådet. Both of these names are translated into the Danish Board of Technology.

[5] Discussion of these different methods can be found at http://www.tekno.dk/subpage.php3?survey=16&language=uk

[6] The complete list of 84 proposals for 2003 i currently available from http://www.tekno.dk/subpage.php3?article=543&language=dk&category=7&toppic=kategori7

[7] This publication was part of the intense European and American focus on the possibilities of IT throughout the nineties. It is available from Available from http://www.fsk.dk/fsk/publ/it95-uk/

[8] Inspired by work such as Charles Perrow's *Normal Accidents,* Jasanoff develops the argument that socio-technical systems have become so complex and unpredictable that "governments should reconsider the relations among decision-makers, experts, and citizens in the management of technology." In contrast she suggests that they "need a set of "technologies of humility" for systematically assessing the unknown and the uncertain." (Jasanoff 2003: 223)

[9] See also (Bentsen et al, 1999)

[10] See Joss and Durant 1995. For an overview see also www.loka.org, homepage of the Loka Institute, which works for "Making Research, Science & Technology Responsive to Democratically Decided Social & Environmental Concerns."

[11] Roughly, the assumption is that some projects will pose clearly ethical questions, which citizens consequently will have natural opinions about. Examples could be questions of genetic manipulation and new reproductive technologies. The EPR is presumed to be of interest because it will re-shape the relationships between clinical, personal, administrative, research dimensions of health care. This is understood as a more technical and organizational problem but one, which involves less clear-cut ethical choices. This logic made development spaces an obvious method for the EPR project. In contrast to this dichotomization of the technical and the ethical I would argue that the complexity of these issues are intertwined and inseparable.

[12] "Virtual Centre for Health Informatics is a Danish organisation where the partners perform: research, development, education, and consultancy within the field of information technology in the health care sector." (http://www.v-chi.dk/english/index.htm). The EPR-observatory is a project under V-Chi carried out for the Ministry of Health with the purposes of: promoting the development of a national conceptual model for the EPR, mapping and analyzing the Danish EPR development, establishing networks, knowledge exchange and dialogue between various EPR development projects and health care decision-

makers, ensure transmission of strategical EPR experiences from the Nordic countries to Denmark, and presenting results to all interested parties in the Danish health care sectors. (http://www.epj-observatoriet.dk/)

[13] Thus, they reproduced the doubtful idea, discussed in note 13, according to which ethical and technical questions are in principle clearly separable.

[14] I indicate a number of the problems of a Habermasian consensus model in the remainder of the text. Luigi Pellizzoni relevantly identifies on problem as its reliance on a split between facts and values, such that "the abilities attributed to citizens are carefully circumscribed. They have a say in matters of value, they have an ethical competence, they can discuss what is to be inferred by looking at facts from their own principled viewpoint, but they do not have a say on the facts themselves – how they are constructed, selected and presented" (Pellizzoni 2003: 335-6).

[15] Aside from this statistical view, STS-studies offer social and political arguments, which could be used to problematize the notion that representativity can be achieved in principle (Bowker and Star, 1999).

[16] One by STS-philosopher Finn Olesen who, along with Randi Markussen, has carried out empirical studies of the use of a medication module at the University Hospital of Odense (see Markussen & Olesen 2001, Olesen & Markussen 2003), the other by sociologist Signe Svenningsen, who has recently completed her Ph.D.-thesis *Electronic Patient Records and Medical Practice: Re-organization of Roles, Responsibilities, and Risks* on the use of an EPR at the medical wards of Svendborg Sygehus.

[17] I was not able to participate in the internal meetings of the citizen panel, because the project manager felt that the presence of an expert would draw too much attention and complicate the consensus-creating activities. Jacob Skjødt Nielsen, a student employee who writes his master's thesis on the methods of the board of technology kindly provided me with needed information about the process.

[18] "Good sense" are among the four primary philosophical vices attacked by Gilles Deleuze in *Difference and Repetition*, and refers to the assumption that differences can be submerged by common judgments as to the proper way of hierarchizing values. As Isabelle Stengers glosses it: "Gilles Deleuze reminds us, in *Difference and Repetition* that, according to Hegel, good sense is a partial truth associated with the feeling of the absolute" (Stengers, 1997: 70). Below I return to the problematic affiliation between consensus formation and "good sense".

[19] Signe Svenningsen has pointed out that there is a sliding in my treatment of experts, citizens, and their relationships; whereas each group is initially identified as heterogeneous, this is underplayed in statements such as the current, where experts and citizens are presented as uniformly opposed. This was, of course, not the case. Experts remained in important disagreements among each other (in particular Signe Svenningsen and I were in general disagreement with the visions constructed by other experts) as did citizens. These internal differences, in my opinion, are not only irreducible, they are also generative (that is, positive rather than problematic) of the productive democratic outcomes of such projects. Indeed, a main point of the present paper is that they differences should never be *toned down* in the name of consensus or "good sense". But differences can also be categorised otherwise, and here I tried to point to the heterogeneity exposed between the IT/clinical perspective espoused by most experts and the interest in other issues demonstrated by a good deal of the citizen panel.

[20] Which, of course, is but a single example of the problems of transforming concrete situations into "ideal speech situations".

[21] A similar qualification to that found in note 22 is due. Of course, *some* experts attempted, with some regularity, in meetings and in presentations, to critically review IT/clinical views of the benefits of the EPR. Again, however, a prominent group of experts agreed that the EPR would be beneficial in the many above-mentioned ways, and disagreed only on how to reach those goals. As I go on to discuss below, this is not to suggest that these disagreements were not practically consequential in important ways, but to signal that problematization, in the main, related not to the question of "what we want to achieve" but to "how we are going to achieve it".

[22] Markussen (1996) offers a detailed discussion of the use of IT-designers for the category "user", and the way designer's own interests and preferences are made invisible or legitimized by reference to the more or less idealized "wishes" of these. See also Cooper and Bowers (1995).

[23] For instance on their use of alternative treatments.

[24] These visions are actually implemented in current legislation, although they are regularly bypassed for practical reasons as mentioned above. Currently, an organization paradoxically called Danish Society for

Patient Protection work to change the legislation, so active dissent rather than consent would be needed to prevent non-primary care-givers and researchers to access one's own data.

[25] I view the project as democratically relevant to the extent that its interactions conferred on participants the ability to take a novel stand as regards the problematic issue. Democratic experiments are thus experiments in learning how a collective of heterogeneous people can make democratically relevant decisions or get democratically relevant ideas. This points to a redundancy in the term; for in order to be relevant, I imply that decisions *must* be democratic in the ways I specify. However, I retain the connection because the terms are rarely so co-implied.

[26] The qualifications from notes 22 and 24 obtain here as well. Pointing to the large difference between experts and citizens is not an attempt to homogenize either group, but to point to some of the important differences (rather than oppositions) that were produced in their interactions. Highlighting these, rather than toning them down, as I argue, is an important democratizing function of citizen projects.

[27] That this is the case can be seen plainly from the fact that many other themes were not re-framed in the least in the citizen's consensus document.

[28] It is impossible here to properly elaborate the Deleuzian understanding and transformation of the Leibnizian concept of incompossibility, not to mention of Leibnizian philosophy in general. For an English translation of one of Deleuze's lectures on the topic see http://www.webdeleuze.com/html/TXT/ENG/150480.html. For a detailed exposition see Deleuze 1993.

[29] As, indeed, I think should be the case with the citizen panel's plea for using EPRs to increase rather than decrease the protection of patient data.

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