TECHNOLIFE: a Transdisciplinary approach to the Emerging CHallenges of NOvel technologies: Lifeworld and Imaginaries in Foresight and Ethics

Science in Society

Work Package Two

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This report, called Deliverable 2.0, includes and replaces the theoretical introduction of each of the deliverables D2.1, D2.2 and D2.3.

WP2: Scoping paper

Purpose

The present scoping paper is an exploration of the two core working concepts in Technolife: imagined community and social imaginary. The objective is to facilitate the theoretical and methodological background against which an elaborate set of community qualifiers and identifiers are developed. A subsequent important practical step will be the suggestive identification of affected communities. *However, we see this last task as a cooperation exercise among the concerned work packages in Technolife, both the one prior to WP2 and those in succession.*

The delimitating structure of the paper

We present a clarification of the conceptual framework of Technolife implying a qualification of the concepts of imagined community and the social imaginary as they are used in central theories of social science and the humanities.

We recognize that the imaginary remains a highly complex (and contested) concept, today widely and diffusely used in recent social scientific and humanistic disciplines (e.g. psychoanalysis, literary studies, philosophy, sociology, feminist studies etcetera) (see appendix 1). This highlights that the concept traverses many disciplines and academic passageways yet many of which are, of variable relevance to the purpose of Technolife. We have subsequently made selective use of writings of with an underpinning interest in eliciting its implications for Technolife.

General Introduction and synopsis

This scoping paper is the D.2.0 Theoretical framework of WP2. The clarification of the working concepts of social imaginary and imagined community has been an explorative process across a wide range of disciplines each and everyone containing their own eminent writings on the subject. In this respect we have dealt in depth with a limited number of writings on the concepts while seeking to hint and delineate the contours of others The fruitful exchange with our partners in the research process means that it is at the very end we see more clearly the prolific potential of settling the focus on technological problems pertaining lifeworld and everyday practices of occupational experiences with technology. On this account the present introduction aim to allow for a more utilized reading of the working concepts explored in this scoping paper.

Clarification: Imagined Community

The concepts of imagined community and social imaginary contain a long history full of multiple contestations and complex political processes not easily dissected by any overarching criteria of theoretical focus. For instance *imagined community* is today utilized across a variety of disciplines that qualify the latter with their own ways reasoning and dominant ways of re-presentation. It is also the case for the social imaginary. While imagined communities of Benedict Anderson (1983) referred to the historical and political powers and reasons of constructing the (imagined) nation state territory and modern society, then other contemporary social theories posit imagined communities to be proliferating around the construction of new images and products consumed in a global cultural and technological economy.

This is not least explored in the chapter on Zygmunt Bauman, who basically embraces a project of critical sociology of the alienating conditions of social life. For Bauman alienation is not least conditioned by a technological occupation of the lifeworld of the familiar and well-known territories we inhabit with their ordinary trajectories of 'little doings' in everyday life. Thus according to Bauman, experiencing and living radical technological change have become ordinary business of contemporary social life. Under such conditions 'imagined community' is rather the problem than solution, when we seek to explain why, how and on what grounds people associate

around technology. The question, here, is if the theorized proliferation of imagined communities also inescapably makes the term redundant to the hard social realities of a cultural economy driven by lust of quick pleasures? Bauman seem to ask if cultural economy demand us to follow the flows of transmutable fashions, a wild aestheticism, rather than seeking out joint effort to take an ethical stand on problematic issues in current technological societies. With Bauman we sense that creativity, poesies, has been eclipsed from theory and praxis and without their joint effort no ethos of social life is possible.

Such disheartening imaginary is not given much counterweight when we turn toward poststructuralist writings of e.g. M. Foucault, thus, philosophically exploring the small techniques and tactics behind the making of subjectivities through imprisoning reason and imagination. In this regard freedom and subjectivity always seem to imply plays of hidden or tacit powers guiding any passionate reason in search of the imaginable good life. Nikolas Rose continues this outlook in a more sociological manner by arguing that 'imagined community' is being used in new forms of governing and policing social life towards a profitable future: *'Thrift is recast as investment in a future lifestyle of freedom'* (Rose 2008: 100). Rose sees economy recast in the generalized character of the 'consumer' associated around quests for lifestyles fulfilled in forms 'enforced' community life. Thus practical life is modelled around *problems of pertaining* identity, choice, consumption and lifestyle (the new relations of social life); and solutions are to be found in one's sense of having a community. The four social 'elements' of community are, however, enmeshed in new technologies of governance that make a duty of continuous individual self-enhancement in order to keep up with a social reality caught in the fleeting logics of competitive markets with their imperatives of continuous self-enhancement. Rose argues that ethics of self-enhancement (similar to the neo-Puritan ethos that M. Weber made the motor of capitalism) is especially present in the territories of the marginalized as well as those subjected to the developments in the life sciences: '*the subject of expertise is now understood, at least for the purpose at hand, as an individual who lacks the cognitive, emotional, practical and ethical skills to take personal responsibility for rational self-management'* (Rose 2008: 106). For Rose community formation is the enforced sociality of a new governmentality that makes 'the enhancement of individuality' the norm and reason of sociality. *It is today a duty to keep oneself enhanced*, a 'logic of contradictions' (which demands

that one keep up with others and do not in order to be enhanced, that is, appear different), and this duty transgress otherwise distinct categories of social life like that of the patient and the businessman both subjected to the responsibilities of self-management: enhancement to keep up with. The result is the accumulating sense of an increased risk of getting behind others. On the part of governance this result in the proliferation of new experts that offer guidance in uncertain situations:

> Experts…are increasingly required to undertake not so much an identification of a condition as a calculation of the riskiness of an individual or an event, with the obligation to take (legal, moral, professional, financial) responsibility for the calculations they make, the advice they give and the success of the strategies that they put onto place to monitor (Rose 2008: 107).

While Rose argues that changed conditions of expert governance utilizing and utilized through the norm of 'enhanced individuality' also opens up the potentiality of new ethical communities (e.g. when technological and medical change in life science makes new social and heterogeneous movements possible), the overall implication is that imagined communities are made ever more fluid and difficult to locate on territorial maps of social life: community proliferate. According to Rose this difficulty has resulted in new armies of experts of community enlisted from the social sciences to use an 'array of little devices and techniques…invented to make communities real' (Rose 1999: 189). This is not least the case with today's increasing forms of social audits that have become a dominant mechanism of community control. The implication of these expert communities is, however, the opposite of the intended. New images and visions of identity and lifestyle are produced faster and faster without time to be contemplated and become practically part of social life. The act of making community real, 'merely' a follow up on the logic of continuous self-enhancement has implication for trust. This was brought out by Nowotny et al. (2001):

> 'Imagined communities' are becoming ever more prevalent, but their boundaries and identities are also becoming ever more flexible and volatile. The disadvantaged no

longer compare themselves with their socially near peers serving as a reference groups of significant others, but indiscriminately with those who have been constructed as media reference groups – which include potentially all who are famous, rich or successful….These sociological accounts of how uncertainty, trust or a sense of deprivation vary with social distance is deeply significant…..The increase of social distance, in contrast to the reduction of geographical distance, tends to dissolve fixed hierarchies of status, wealth or class. And their dissolution is compensated for by media-induced 'intimacy' that is both imaginary and temporary (Nowotny et al. 2001: 43)

This might translate into a question of 'which others' that participant in Technolife compare themselves with and on what grounds? Is it right that uncertainty and lack of trust are proliferating or do everyday uses of technology allow for better community life? Around which images, visions, stories, symbols and objects is communion made possible through everyday uses of technology? These questions follow up on the chapter on risk society that we deal with in the first section of the scoping paper. The hypothesis presented here is that anxiety and/or total apathy (indifference) are becoming the overarching re-actions to technologically uncertainties of our age (Beck 1992). As the scoping paper makes clear this is, however, precisely to be contested by looking into everyday and occupational uses of technology and the imaginary of better community life they might carry.

Recommendation 1
On this short account of imagined community we suggest in our scoping paper that the social (imagined) community as 'those networks of allegiance with which one identifies existentially, traditionally, emotionally or spontaneously, seemingly beyond and above any calculated assessment of self-interest'[1] (Rose 2008: 91) are different from politically imagined community. This is not to make the lifeworld or the inhabited social community of everyday life superfluous to Technolife. On the contrary we suggest to investigate further how issues spark a public into being; that is what kind of political community is associated around a 'complexifying' issue that might

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[1] On the concept of imagined community see Anderson 1983 also included at length in this scoping paper.

bring into presence: *a certain kind of imaginary that relates with everyday/'occupational' uses of technology*. This is for instance what we suggest by making use of STS-scholar N. Marres writing about the notion of phantom public. We also suggest that we make use of the concept of *lifeworld to question* the broader background and depth of everyday reason, passions, desires, believes etcetera in the *uses of technology*.

In light of this we have decided to use more space on the concept of social imaginary as this might capture the lifeworld as a space of belonging and a place of envisioning the future uses of technology.

Clarification: The social imaginary

The social imaginary has also been utilized in a variety of ways; it does not least carry a heavy package from psychoanalysis that we have, however, not dealt with presently. The investigation of the concept has lead us to suggest that we understand the concept of imaginary always to involve a certain kind of map, that is, a re-presentation. In addition we suggest that we can perhaps fruitfully speak of a social imaginary as a constellation of landscapes of everyday practices or different kinds of lifeworld being enacted through people's concern with political and technological issues. This idea is not least derived from a critical reading of e.g. Anderson, Appardurai, Gaonkar and Charles Taylor in which the notions of 'map' and/or landscape(s) of (practical) everyday life are used efficiently to sketch out the (social) imaginary as a field of associated imagination in between theory and practice. The social imaginary is, to be sure, more than consolation of theory. It offers substitution not least in account of life histories and the everyday lifeworld, in oral traditions, memories, biographical narratives and the 'little everyday doings' that characterize the *terra incognita*, <u>where</u> people ordinarily make use of technology. In this regard Maffesoli says: '*Artist or person in the street, in either case it is the imaginary of a certain time and a certain place which will determine activity or creation, whether it be the grand creation of Bernini, or the small-scale creation of everyday life….The imaginary has a certain efficacy, that of creating a collective body, or fashioning an ethos*. (Maffesoli 1993b: 10). Maffesoli's postmodernist contemplations amplify creationism that turns the social imaginary into a question of having empathy (a sensibility) towards a kind of being with the other which is also dependent on the right atmosphere and timely wandering through 'the Stimmung of a landscape'

(Maffesoli 1993b: 8). This, however, leaves it a very open sociologically problem to contemplate precisely how an ethos is to be 'fashioned', that is to say: through what sensibility? Notwithstanding this problem of uncertain sensibility the recognition of everyday life ('uses' technology) can surely make an interesting case for fashioning a collective ethos. Through our investigation we have thus found good reason to understand the social imaginary to be operationalized on the grounds of practical and material uses. That is to say: people in different occupations, coming with different experience of working and using technology in everyday life, are given the possibility in Technolife to reflect creatively upon their practically situated uses of technology. Such reflections might subsequently be entertained as involving specific kinds of figurations or characters that make up a social map of communion.

In short, our exploration suggests that everyday working with technology is an interesting background of deliberation and a most crucial component of the social imaginary. This is not least the case because the social imaginary in all its theoretical guises is rarely explicitly dealing with the problems of this subject; the importance of the political potential of everyday life and thus implicitly of occupational experiences (all human beings are embedded in different occupational functions) are nonetheless often recognized part of the imaginary in theory.

Pertaining to the above this scoping paper especially underscores *the creative potential of everyday practices using technology* to be significantly part of the social and technological imaginary. In this respect we have chosen to underscore the experimental and thus creative conditions in present political engagement with technology. This is dealt with through issues of public engagement with dominant expert reasons whenever technology is to be institutionalized part of social life. On this subject we use STS in section three, where we also aim to situate and cover some grounds of Technolife.

In section three we, furthermore, present the concept of the sociotechnical imaginary developed by Sheila Jasanoff and Kim Sang-Hyun. This concept, with its symmetrical focus on technology and sociality, is a good reminder of the interdependencies of the technological and the social in bringing order to life. In this regard 'technologies of humility' <u>might</u> be a qualifying framework that can be used in the subsequent analysis of imaginaries to be dealt with in the following work

packages of Technolife. This constructive framework makes a good contrast to the widespread understanding of technological risk, here, presented through sociologist Ulrik Beck (section one). Whereas technologies of risk seem to posit a need to govern increasing anxiety of people facing technologies largely out of control – that is an imaginary of anxiety – technologies of humility takes on the critical questioning of what other technological imaginaries might be part of social life. We hereby posit that anxiety is not and cannot be the grounds of present technological usability in society something that we leave an open empirical question to explore.

The map and the landscapes of Everyday practices

In-between section one and section three we explore the relations between the map and landscape of everyday practices. We seek to keep hold of the social imaginary as implying a creative practice. This is somewhat in line with C. Castoriadis positing the radical against (the affirmative) actual imaginary (Castoriadis 1987: 127) that seems to be somewhat close to some Marxist notions of ideology. For Castoriadis the radical imaginary is practical creation of a life imagined *ex nihilo*; that is a burst of action instituting (what is to be) a subsequently socially instituted life; like a curios revolution that does not work on antecedent grounds: *'For what is given in and through history is not the determined sequence of the determined but the emergence of radical otherness, immanent creation, non-trivial novelty'* (Castoriadis 1987: 184). Sociologically speaking this philosophical and ontological take on social life is rather enigmatic and his subsequent sociological work seems largely to deal with the potential of democracy (instituting) against a social life made dependent on (instituted through) capitalist economy. While we cannot claim to have dealt in depth with the immensity and potentialities of what Castoriadis has produced on this problematic subject, we have rather made inspirational use, here, in order to underscore: *that the creativity of practice 'carrying' social imaginaries always come from somewhere: i.e. with an occupational experience of being in certain setting (and entering Technolife).* This opens up a question like: what kind of *creative* everyday practices are involved in the occupational doings of technology? And towards which collective ends might such practices turn?

Recommendation 2

On this account we also suggest that the 'map' is a very useful operationalization of the social imaginary. We posit the social imaginary to be related with practical everyday life that draws on largely unrecognized lifeworld(s) or 'little everyday doings' in making technology work. On this account we entertain the question of how maps are made to be very important. Making a good map that can offer guidance in the use of technology translate into Technolife: the challenge of getting 'people' self-critically, creatively and practically involved in technological uses for the better (community).

Making the map differently: what kind of political figurations

By posing the question of everyday life and/ or occupational workings with technology, we follow and break with the aforementioned theorists. We think the character of 'everydayman' is politically implicated in technology although largely he/she is unnoticed and even taken for granted in highly differentiated modern societies. Thus in highly differentiated societies the trajectories of the generally recognized and valued experiences with technology seem often to follow formally certified Expert Reason rather than the questions pertaining to the 'ordinary citizens'. On this account *we have pointed toward the necessity to think in differentiated grammars of occupational engagement with technology. This is meant to secure diversity of those* **invited** *into deliberation in the environment or field of each technological line* (see. e.g. Boltanski and Thevenot). It remains an experiment to see in which ways and towards which (imagined) ends that people will negate, transgress, affirm or transform the 'occupational position' they enter into Technolife with.

A final consideration worth contemplating before ending this introduction is a question of the 'political' position of the aforementioned theories of the social imaginary. By political position we mean their value-orientation in taking account of the landscapes of everyday practices. Here both Taylor and Goankar say (here in the words Goankar): *'Social imaginaries that are third-person objectifications can suddenly acquire agency; that is the case with at least some of the new social*

movements. And those movements, once agentialized, can under other conditions gravitate back to modes of passive belonging or vicarious agency' (Goankar 2002: 5). While this is most certainly a common experience, then the question is how much theory is actually without imagination? (See e.g. Verran here)

We propose that the social imaginary, implying a representative map, is never free of value and never purely objective in the sense of being 'just' theory. However, this *does not at all mean* that theory is redundant or superfluous to creative use of technology. On the contrary, we hope, not least through our STS-section three, that it should be possible to contemplate the ways *grounded* theory is part of technological uses and also part of Technolife.

Our attempt has been to follow a grounded and explorative way of clarifying the social imaginary. This implies that the present scoping paper at time move into territories and landscapes only loosely related with the social imaginary in order to question the context of Technolife. In this sense the scoping paper can be read as methodological contribution to the working concept of social or sociotechnical imaginary of Technolife.

Before ending this introduction we would like to turn towards Maffesoli that with his curious postmodernist style offer us an atmosphere of the social imaginary:

> *'the imaginary is no just what is objective that is taken into account, but equally the sort of subjectivity which is latent in individual and collective memories…There are moments when social life no longer has the regularity and rationality of a political programme. At these times dream and reality become one and the same; fantasy becomes creation of the collective spirit, creating in turn the materialized spirit that is a people'* (M. Maffesoli 1993b: 14).

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With warm wishes

Kim og Margareta, Københavns Universitet d. 27-11-2009

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Section I: Some Notes on the imaginary

In this section we briefly review dominant sociological and anthropological approaches to the imaginary and imagined community. We turn towards more specific studies of political and ethical engagement with technology as they are present within sociology of science and technology in order to contextualize Technolife in a wider setting.

Technological Risk

It is a standing theme in social science and the humanities that we live in a time of radical technological change which deeply affects the social order of life. While this change has been contemplated in numerous ways within specific disciplines an overarching attention has been given to a certain disruptive sense of fragility now sensed to be part of modernity and social life. Such fragility has been written in numerous and contradictory ways by paying attention to how modern life is now under siege by the negative implications of how science, technology and late capitalism combine into novel social life forms (e.g. Bauman 2002, Hardt 2001, Beck 1992, Giddens 1990). Thus a common implication identified is how the grand modern promissory of progressive enlightenment and accumulative reason - that would secure the institutional conditions of the good life feasting on the fruits of science, industry and technology - has collapsed under its own weight. On this account sociologist Ulrich Beck famously argued that the uncontrollable and unpredictable proliferation of technological risk has become a hallmark of modernity that has subsequently lost its good reasons to imagine a durable and sustainable society:…..*risk society begins where industrial society's principles of calculation are submerged and annulled in the continuity of automatic and tempestuously successful modernization. Risk society negates the principles of its rationality* (Beck 1996: 40). The long successful march of a rational development of industrial societies - not last through extension and institutionalization of scientific rationality and manifest technology - has paradoxically become redundant in the present state of problems it encounters. As contemporary social theorists have argued, an inherent rupture in modern institutionalized life has occurred; reasonable human innovation, design and use of technologies to build and sustain social institutions have backfired. Thus modernization is accompanied with a

range of unanticipated negative implications not only with severe even lethal *'consequences for life, animals and people, but social, economical and political side effects of these effects: market collapses, devaluation of capital, creeping expropriation, new responsibilities, market shifts, political pressures…'*(Beck 1992: 77).

In accord with the growing consciousness of the hybridism of problems inherent in technological risks of contemporary societies, there is an acceleration of needs and demands to govern them, however, provokingly accompanied by *lacking capacities to do so.* These conditions of uncertainty would be furthered by the rise of novel forms of expertise and interests drawn towards capitalizing on the needs to define risk. These 'novel forms of expertise' (TEchnolife = is a case in point) are subsequently turned into commodity of big business, not the least on the European continent. As Beck noted *'Modernity is becoming reflexive; it is becoming its own theme. Questions of its development and employment of technologies (in the realms of nature society and the personality is being eclipsed by questions of the political and economic management of actually or potentially utilized technologies – discovering, administering, acknowledging, avoiding or concealing such hazards with respect to specially defined horizons of relevance* (Beck 1992: 20)[2] In such a state of affairs Beck argued that expert knowledge's would proliferate and at the same time be turned towards the immediate presence of risks and treats: the spectacular. The latter would in effect mark the entrance into a speculative age, where the capacity to get to the deeper laying heterogeneous causes of risk technologies would be sacrificed in the proliferation of specialized knowledge's concerned with fixing the symptoms of the 'patient' they envision.

In the long run risk society stipulated the proliferation of risks as the only 'certain' cause left for people to understand themselves, their existence, and pertain a safe reason to relate and associate. In this sense Beck presented us with the uncertainty that technological impacts have on the social imaginary defined by C. Taylor: *'as the ways in which people imagine their social existence, how they fit together with others, how things go on between them and their fellows, the*

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[2] It is paramount to note that reflexive modernizing is not to act in (self-) recognition of the conditions or grounds on which one stand. Rather reflexivity, here, is to act in reflex like the body-reflex of a touch.

expectations that are normally met, and the deeper normative notions and images that underlie these expectations' (Taylor 2004: 23).[3]

Benedict Anderson

In his much acclaimed book *Imagined Communities* (1983), Benedict Anderson theorized how the modern nation state emerged through specific material practices (print capitalism, the construction and diffusion of maps etcetera) that mobilized and diffused a collective image of national communion as *"a deep, horizontal comradeship regardless of actual existing inequalities"* (Anderson p, 16). In critique of Ernst Gellner's theory of nationalism that conceived of the latter as engaged with the false fabrication of 'nations', Anderson argued instead that:

> All communities larger than primordial villages of face-to-face contact (and perhaps even these) are imagined. Communities are to be distinguished, not by their falsity/genuineness, but by the *style* in which they are imagined (Anderson 1983: 15)

Rather than positing notions of real against imagined (community), Anderson saw the two as intimately integrated and enacted through specific situated practices and their specific form of organization. In this regard the notion of imagined community was used to explain how the modern nation state was the result of collective imagination being materially associated through creative inventions. As the cause and medium of national association and communion, Anderson not only positioned technology, i.e. print capitalism and its multiple inventive products, but also complicated geopolitical events of world history like e.g. colonialism. Thus the nationally imagined community was not least a consequence of the occupation of vast colonial territories lived through the image of a brotherhood that was carefully delineated from projected outsider enemies in which to mirror one's residence. The nation or the image of fraternity itself demanded a long process of building elaborate institutional infrastructures (school system, bureaucracies, war machines, systems of reading, writing and speaking as well as secularizing minds etc.) and creating unifying symbols or icons of common understanding (Anderson points to the example of

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[3] For further clarifications of Taylor's conception of the social imaginary embedded in a theory of modernity, see chapter 2, Taylor 2004

the tomb of the unknown solider). It was thus by actively moulding the nation state through the invention of such material and practical means that people over time would internalize and come to inhabit <u>a specific sense of national place and belonging</u> in everyday life with familiar others: *'Uniform textbooks, standardized diplomas and teaching certificates, a tightly regulated gradation of age-groups, classes and instructional materials, in themselves created a self-contained, coherent universe of experience. But no less important was the hierarchy's geography…Thus the twentieth century colonial school-system brought into being pilgrimages which paralleled longer-established functionary journeys'* (Anderson 1983, p. 111). The material and political passageways of common experience that Anderson exemplifies in the quote were the sources of building a collective imagination of one's place of belonging and one's future. As Anderson brilliantly contemplates to answer why revolutions never turn out the way 'people' imagined:*…successful revolutionary also inherit the wiring of the old state: sometimes functionaries and informers, but always files, dossiers, archives, laws, financial records, censuses, maps, treaties, correspondence, memoranda, and so on. Like the complex electrical-system in any large mansion when the owner has fled, the state awaits the new owner's hand at the switch to be very much its old brilliant self again* (Anderson 1983, p. 145). Thus while Anderson argued against Ernest Gellner's theory of nationalism being false fabrication, the merit of Anderson conception of the nation as imagined community lies elsewhere. It is to be understood in the detailed ways in which collective imagination is shown possible. As said this was not least through the specific use of technology capable of changing the material and symbolic orders of society to be experienced anew. Thus national consciousness, or collective imagination, implied the *"explosive, interaction between a system of production and productive relations (capitalism), a technology of communication (print) and the fatality of human linguistic diversity"* (Anderson p. 46). Especially the novel and newspaper were among the key ingredients of national imagination that emerged as a challenge to the old powers like the clergy and their 'cosmically ordained' subordination of the masses. Subverting the hierarchy of life the novel and newspaper ,made an identical space in 'empty time' possible: *"the newspaper implies the refraction of even world events into a specified imagined world of vernacular readers; and also how important to that imagined community is an idea of steady, solid simultaneity through time"* (Anderson 1983: 63). This homogeneity of language created through a technology of communication, implying that *"varied idiolects were capable of*

being assembled, within definite limits, into print-languages" (Anderson p. 46), effectively played a role in creating "monoglot mass reading publics" (ibid) that would subsequently oppose the religious and dynastic powers. Thus far from being freely given, common national imagination of fraternity was firmly rooted in the material practices of people strenuously building a home. By the same token the nation would be something affirmative and positive, containing the images of fraternity that is lived: *'nationness is assimilated to skin-colour, gender, parentage, and birth-era – all those things one can not help. And in these 'natural ties' one senses what one might call the beauty of gemeinshaft. To put it another way, precisely because such ties are not chosen, they have about them a halo of disinterestedness* (Anderson p. 131).

> What the eye is to the lover – that particular eye he or she is born with – language – whatever language history has made his or her mother-tongue – is to the patriot (Anderson 1983: 140)

In view of Anderson conception of the nation-state as the imagined community *per excellence* one need of course to ask to what extent there are other communities? What kind of collective imagination makes them possible? What are their defining traits and identity-markers?

Zygmunt Bauman

Posing such questions the Polish-British sociologist Z. Bauman has argued that technology and globalizing economy has transgressed modernity with its institutionalized categories of modern community life.

Bauman argues that social ontology of early modernity was constituted in the binary spectrum (friend/ foe) through which a (deontological) duty to act responsible towards the other could make itself a meaningful albeit very problematic foundation of social life. *'Without the possibility of breaking the bond of responsibility, no responsibility would impress itself as a duty* (Bauman 1990: 144).....*Difference produces what it forbids. Making possible the very thing that it forbids'* (Derrida in Bauman 1990 pp. 145). Inside the fragile bonds of modern responsibility 'the stranger' could be identified and subjected to the perception and understanding of those living in close community of familiar insiders; the enemy of modernity emerged as the faceless other and the incomprehensible alien that could be clearly sensed and demarcated from 'us who are inside the

affectionate circle'. Bauman conceptualizes the construction of this inner circle, 'the face of communion', in line with Foucault's disciplinary society, where the human being *is made* subject of and subjected to certain powerful exercises of knowledge making (Foucault 2002). Thus modernity is a process of making insiders distinct from outsiders in turn subverting ethics to matter on certain political terms: you show obligation to the friend recognized as the familiar (insider) other. This logic of difference takes place on many levels of social life through a political technology that is ultimately tied to the project of making nation states (Bauman 2004). In this sense the modern nation is modelled in the image of the foucauldian Panopticon; that is a political technology of ever more refined techniques of governance utilized to foster good citizens of the state and obedient inhabitants of a territorially policed society. Citizens are subjected to social engineering that promotes and nurture the prescriptive images of the morally good and ethically responsible life, however, mirrored in and made to dependent on the social configurations of outside enmity., Bauman provocatively locates this political technology of modernity in the ideal image of the 'garden':

> The garden design can never be relied upon to reproduce itself…The tweeds, the uninvited, unplanned, self-controlled plants – are there to underline the fragility of imposed order; they alert the gardener to the never-ending demand for supervision and surveillance….The emergence of modernity was such a process of transformation of wild cultures into garden cultures (Bauman 1987: 51).

Whereas enemies, served to collectivise imagination of citizens living in the garden of early modernity - 'society' was made possible through the political configuration of friend/ foe, insider/ outsider (Bauman 2003 pg. 7-30; Bauman 2002) - Bauman argues that we have now entered a second and fluid modernity: that is modernity without solid conditions of social existence. Hereby Bauman amplifies that present conditions of social life are speeded up and transformed by the economic and cultural globalization made possible through communication and information technology. The latter increasingly makes production of new images, meanings, habits, fashions and styles a condition of sociality. This means that technology is the vehicle through which productivity is constantly speeded up as well as allowing the final products to travel across

national borders to blend with indigenous life forms transformed into pastiche. Products are customized, imbued with easy identifiable flavours that secure consumers with a taste of finding safe heaven among a multitude of radical social changes and indefinite possibilities of realizing who they really are. In Bauman's terminology products are like a multitude of masks to wear; each and every mask, however, offer their own sensational and fashionable horizon of social existence only for the short time in which consumption can be maintained *against the proliferation of apparently* better alternatives.

In Bauman's diagnosis of modernity imagined communities transform into neo-tribal communities of aestheticism; community is essentially conditioned by its mode of consumption and taste. In such a state imagination is thus lured by the seductive promise of enjoyment without long-term obligations; in reality imagination is subjected to the laws of market and fashion, that is, eternal self-creation and optimization is the imperative necessary to fulfil in order to have a 'social life', however, always in fierce competition with others.

While aesthetic tribalism is, therefore, a frequent experience in consequence of excessive ex-territorialisation taking place through the products of technology and capitalism - overflowing personal and social grounds of existence - far from all people have money, resources or willingness to partake in fashionable and high-speed masquerades. The severe human consequences of accelerating modernity shows up in permanent fragmentation of life-worlds, i.e. places of intuitive common sense, values and identity through which people are at home in the world. Thus fluid modernity is the permanent dissolution of solid conditions of social life. While the solid conditions associated with a life belonging to a certain e.g. class, ethnicity and gender of early modernity, where problematic (e.g. use of discipline, enmity, violence and panoptic techniques), then the present acceleration of modernity seems merely to add to the unsolved problems of social life.

On the conceptual level the negative human consequences of the dissolution of the solid is seen in the proliferation of the alien that cannot be classified in the modern schemata of friend/ foe. On the macro level, economic globalization is the story of new under-classes, wars, poverties etcetera. Globalization, here, comprises disruptive flows of alienated immigrants and faceless nomads that in their rootless circulation disrupt the horizon of understanding and governing a modern social order. Such 'homeless' – figuratively and literal - people are the residuals or wasted

life of a society increasingly carried out through competition rather than enterprises of solidarity. On the micro level, Bauman argues that the life-world, that is the inborn world we understand intuitively, is occupied by the phenomena of the unclassifiable. Bauman says of the stranger or alien other: *They are the premonition of that third element which should not be. These are the hybrids, the monsters – not just unclassified, but unclassifiable...[...]...they question oppositions as such* (Bauman 1990: 148).

In view of such devastating human consequences, Bauman argues a need to incorporate ethic as the foundation of a sociological imagination capable of envisioning a society working well. Thus arguing for ethical community, following philosopher Emmanuel Levinas and his humanist ethics of the Other, Bauman argues that ontology offer no consolation of being and only ethical submissiveness to the irreducible rights of every human, the respect of the Other (life), can offer ground of collective life and existential consolation.

Charles Taylor

Taylor proposed the concept of social imaginary in order to theorize modernity as a process of secularization that breaks with notions of the pre-ordained life and the authoritarian figures behind. Modern secularization made the constitution of individual freedom the uttermost concern of organizing political society: *"Modernity has involved, among other things, a revolution in our social imaginaries, the relegation of these [personalized and hierarchical] forms of mediacy to the margins and the diffusion of images of direct access"* (Taylor 2004: 159 [my insertion]).

The quest to secure civilized individual freedom was carried through a progressive differentiation and construction process of different meta-topological spaces of direct access: *'the public in which people conceive themselves as participating directly in a nationwide (sometimes even international) discussion; market economies, in which all economic agents are seen as entering into contractual relations with others on an equal footing; and of course, the modern citizenship state'* (Taylor 2004 pp. 160). In accord with the construction of such institutionalized spaces, Taylor argued that it was characteristic of modern society that it required a double understanding; people can imagine themselves both as belonging to various kinds of 'collective agencies grounded in common action in secular time' and 'grasp society objectified, a set of processes, detached from any agential perspective' (Taylor 2004 pp. 164). The two understandings between actively lived

(subjective) and objective categories of life are constituent of and constituted through the modern imaginary: 'Our modern imaginary thus includes not only categories that enable common action, but also categories of processes and classification that happen and have their effects behind the back of agents' (Taylor 2004: 165). Modern imaginary society is differentiated into extra-political imagined spaces of the economy, public and in a notion of belonging to a people respectively. Each of these categorical meta-topical spaces contain different rules of acting, thus, setting standards for imagining what kind of action is required to engage in with others. The idea that the domain of economic life is different from that of public discussion, thus, rest on different ways of objectifying and hereby imagining 'society' most presently visible in different scientific disciplines like economics and sociology:

> Grasping society as an economy is precisely not grasping it as collective action, but only because I understand the system in this way will I engage in market transactions the way I do. The system provides the environment my action needs to have desired result (Taylor 2004: 165)

It is in-between the tension between an active-subjective and objective side of understanding society that the modern imaginaries of the public, economy and sovereign people are at work. These are enacted structures 'in which people grasp themselves and great numbers of others existing and acting simultaneously' (Taylor 2004, 167).

In addition to these grounding imaginaries at work in society, the technological development of late-modernity has seen a rise of ambiguous and strange spaces that do not necessarily contain common action but are sites of mutual display like that characteristic of fashion. Here people perform before others with different understandings and nevertheless with a sense of acting out in common space of different messages shared in regard to a certain kind of outside display. Such spaces are like events on television in which people co-determine the display differently but share the experience of the event nonetheless. They might, however, become site of common agency like in a football match in which a passive crowd of mutual spectators suddenly turns into active participants not only of common action but also of common emotion. Importantly such meta-topical spaces infiltrate and interact and become active background against which new spaces

might develop. This is not least the case with novel technology - the internet is perhaps the most referred to example.

What defines the public sphere is its extra-political reality, 'it is a space that is self-consciously seen as outside power. It is supposed to be listened to by power, but it is not itself an exercise of power' (Taylor 2004 pp. 90). Thus the supervision of power by (public) reason implied a mutual exchange of recognition, where legislative deliberation would inform public opinion on a rational basis in turn being subjected to the democratic legitimate outcome of that opinion: 'Those who intervene are like speakers before an assembly. But unlike their models in real ancient assemblies, they strive for a certain impartiality…they strive to negate their partiality and thus rise above any "private and partial view"' (Taylor pp. 90). Thus while the legislative order would secure public life with institutional rights; the formal rules do not empty the meaning and practices of a novel social life meeting discuss what ought to be the conditions of its own existence: 'all members of political society…should also be seen as forming a society outside the state. Indeed, this society was wider than any one state' (Ibid. 92)

Helen Verran: A turn towards the imaginary of everyday practice

STS scholar, Helen Verran, writes in *Re-imagining Landownership in Australia* (1998) that the imaginary is 'an element inherent in knowing which currently is almost ignored by modern practices and accounts of knowledge' (Verran 1998: 237). In her account, the move by Actor-Network Theory (ANT) and other interdisciplinary empirically situated and disconcerted knowledge traditions, concerned with the practical modes of doing science, have reworked the modern ontology/epistemology divide of scientific inquiry from an empirically qualified and informed point of view: 'Emphasizing the locatedness of all knowing and knowledge making, focuses up the 'heterogeneous material-symbolic assemblages' constituting strategies, techniques and entities which enable the working of all knowledge systems' (Verran 1998: 238). In this sense Verran argues of a necessity to rework the imaginaries proper to conceptualizing the practices of knowledge. Applying this insight through comparison of aboriginal and western knowledge systems in Australia Verran shows that coherent knowledge: '…is evident as messy, complex material-symbolic assemblages in part held together as working entities by an imaginary: a vision of the categories through which land is inherently meaningful (ontic commitment) and an account

of the origins of the meaningfulness (epistemic commitment)' (Verran 1998: 251).[4] She argues: 'The challenge is now to go beyond the quite common descriptions of heterogeneity. I suggest that part of this will be recognizing that these heterogeneous material-symbolic assemblages cloth in a politics waged over ontic /epistemic commitments' (Verran 1998: 239). In the following, I will look closer at the politics of landownership

The imaginary: community negotiated

STS scholar Helen Verran accounts for the difference between Aborigines and western knowledge systems by paying attention to their situated practices; exemplified in the analysis of the negotiations between Aborigines and Pastoralist following Australian High Court legislative acts in 1993. The act recognized indigenous people as owners of Australian land before British occupation in 1770; and it subsequently land - not owned by the crown - subject to claims of ownership made by indigenous communities. This in turn provoked fierce negotiations about land ownership between indigenous people and pastoralists (using, but not owning, vast areas of land belonging to indigenous communities). The negotiations, however, became impossible. Although both parties were willing to engage, their respective conceptions of land and ownership were radically different and no consensus about rightful ownership could be settled. According to Verran the radical difference in the conceptions of land can, however, be bridged by recognizing the situated practices though which land is differently imagined. If it is recognized, that knowledge tradition contains different imaginaries that emerge from and are enacted in embodied practice and situated being, then it can be imagined that difference in embodied being is difference in knowing. On the other hand this conception allows for envisioning, how difference in knowing, might not follow difference in practical being.

In any case her focus allowed for seeing the community negotiations as a matter of living in and knowing the land one inhabits differently. The relations inherent to knowing one's place of belonging are conditioned by imagination practically at work. By establishing this symmetry between Aborigines and Pastoralist knowledge systems landownership translate into: 'politics

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[4] Verran utilizes the concept of the imaginary in accord with philosopher Michele Le Dæuff. Le Dæuff positions the concept of the imaginary as a constitutive denial in modern philosophy; her argument is based on a reading of Kant's negation of imagination in critique of pure reason, thus, using the 'metaphor' of the imagined island. See Le Dæuff (XXX)

being waged over ontic and epistemic commitments: a politics over what there is and who/what can know it' (Verran 1998: 238). Against a largely quantifying and legally objectified conception of land, the narrative of Aborigines ownership conceive land as being distributed assemblages of meanings. Land is mediated through ceremonial-ritual evocations of the eternal activities of being, however, materialized in ordinary practices of living: 'hunting, eating, defecating, urinating, having coitus, menstruating, crying and having babies' (Verran 1998: 247). The clans (communities) of meaningful territories are made 'factual' through such ritual evocation of eternal beings. This narrative and ritual conception, is formally set apart from secular time of being a specific mortal clan belonging to a specific land. The fusing of different beings occurs through the metaphoric and ritual-interactive conceptions of, how eternal time relates to the meaning of a present clan and the evoked territory. These ritual acts of evocations are by Verran seen as vehicles of kinships-relation making up an always negotiable logical system of landownership. Crucially the secular boundaries of land ownership are never fixed for certain, but remain open for negotiations with other clans and their ritual claims:

> The knowledge of sites and their connections is contained in a large corpus of stories and the songs, dances and graphic designs which go along with the ceremonial elaboration of these stories….These are performed in ceremonies where both the complex logic of guttutu (the recursion of kin relations) and particular land sites are re-presented. The words of songs which celebrate this imaginary are not memorized. It is the general picture of the network and places and their interconnections that is memorized. This is a spatial image, cognitive map….It is knowing 'the map', which one can understand as a matrix of vectors with each place defined through relations of varying intensity and direction, and coming up with metaphoric insights to express the map….There is a correct 'map' which everyone knows in greater or lesser detail, and the 'map' may be expressed in more or less elegant ways' (Verran 1998: 247).

The reality of the sacred ritual-metaphorical sites is thus depending on practices of belonging of a clan (an active trajectory of knowing). The extensions of significant land through relations of varying 'intensity and direction' has as focus that some activities went into constituting the sacred

sites: 'the ancestral beings constituted a set of particular places as primary in engaging in particular acts: having sex, giving birth, menstruating, hunting, eating, shitting and piddling etc. as they made their way across the land' (Verran 1998: 247).

(SITUATED PRACTICES: The map, landscapes)

Section II: Conceptual-methodological frame of the imaginary, map and everyday practice [5]

> To be able to appreciate the force of the social imaginary, one must be attentive to the 'signs of the times' and know how to interpret all those particular, rather uneven emotionally highly charged events which make up everyday life (Mafesolli 1993: 1)

Exploring the concepts of the imaginary and imagined community in a range of writings across different disciplines has not surprisingly revealed it to be used in very different contexts and for many purposes. Nonetheless a common figure of thought that has occupied theorists and practitioners is the re-presentational 'map' of related landscape(s) of everyday practices and lifeworlds. In the following we would like to suggest that the map and its landscapes of practices is an interesting conception of how the social imaginary works. In the following we contemplate this

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[5] Mapping the social imaginary it does not take a long time to realize that it is a lived landscape of many interests and visions distinct disciplines that, however, also at time overlap.
The social imaginary like imagined community is heavily invested in the cultural economy of different scientific disciplines and with their respective visions and purposes the concept is used for different ends and purposes that do not leave the meaning of the concept unchanged. The excessive use of the concept for different ends induces it at once with diffusion and the uncertainty of 'pop'. Researching its frequent use, you get that the sense that everything is social imaginary in these days. Thus we find the concept invested in sociology of both functionalist (Durkheim) and postmodernist tradition; in existential philosophy of the act of constituting consciousness of the world (Sartre) and in the philosophy of the Other. Serving different ends it occupies some activities of feminist theory, science studies, gender studies etcetera. This of course serves only to highlight the reflexive turn needed to bring out the inherent multiplicity of the concept. It is a concept of multiple boundary crossings and as we propose to see it a boundary object that allow for new constellations and collaborations: *an object which lives in multiple social worlds and which has different identities in them'* (Star 1989: 409).

image for the purpose of utilizing a certain kind of imaginary especially suited for the purposes of Technolife.

Contemplating the difference between envisioning the big city from above and using and seeing it for practical purposes from below, Michel de Certeau argued that both perspectives are categorically blind towards one another. Whereas the viewpoint from above is occupied by the panoptic figure of the 'city planner', mapping and organizing the space of the city into structurally differentiated regions or categories of life, then social life of users 'below' the skyline intersects and re-assembles in a spatial makeup and makeover of the city from within: *'Escaping the imaginary totalizations produced by the eye, the everyday has a certain strangeness that does not surface, or whose surface is only its upper limit, outlining itself against the visible* (De Certeau 1989: 93). While the categorical design of avenues and streets imposes a disciplinary power that aligns and assembles social life by making it travel fixed grids (orders of roads and passageways)

that powerful elites and experts have made then practical everyday uses of the city and its technologies are multiple, vague, experimental and elusive. Thus de Certeau argues that actual and practical everyday life is often embedded in tacit experimentations, resistances, deviances if measured against the formal re-presentations of the city. On this account it remains an opportunity to elicit *'the blind' practices of everyday life* in order to make the environment, atmosphere and social life relate on novel terms. What is needed is:

> A continuing investigation of the ways in which users – commonly assumed to be passive and guided by established rules – operate….This goal will be achieved if everyday practices, "ways of operating" or doing things, no longer appear as merely the obscure background of social activities...(de Certeau, 1989, xi)

One of the critical points that de Certeau's investigation of the political aspect of everyday life addressed was, thus, the *ways in which the representative maps of social life offer good reflection and guidance for users (of technology) or not*. On the one hand official representations of the social life might be useful tools to offer guidance. The map offers consolation in a complex world, and used with rigour, a map, re-presentation, can be used to generate reproducible and predictable actions in so far people can behave in accord with the environment sketched out before them. On the other hand complying with a representation might also involve internalization of the latter; internalizing the map means that the lifeworld is moulded in the dominant images and problems - the spaces, grids and vectors of certain kind of map - that might externalize and preclude other ways of seeing and being in the world. This was one of the main reason why de Certeau made a political subject of everyday: *'It is true that the Expert is growing more common in this society, to the point of becoming its generalized figure, distended between exigency of growing specialization and that of a communication that has become all the more necessary* (de Certeau 1984:7)

In this sense the Expert map is also a powerful political instrument that can conceal and hide alternative worlds. The lacking politization of the everyday lifeworld, that is, the lack of possibility for 'Everydayman' to turn political is for de Certeau a sign of a hegemonic reason deciding what

politics is (to be) about. In this respect he recommends a return to the question of what is political about everyday life (that is the social).

> The imaginary landscape of an inquiry is not without value, even if it is without rigor. It restores what was earlier called "popular culture", but it does so in order to transform what was represented as matrix-force of history into a mobile infinity of tactics. It thus keeps before our eyes the structure of a social imagination in which the problem constantly takes different forms and begins anew. It also wards off the effects of an analysis which necessarily grasps these practices only on the margins of a technical apparatus, at the point where they alter or defeat its instruments. It is the study itself which is marginal with respect to the phenomena studied. ....The landscape that represents these phenomena in an imaginary mode thus has an overall corrective a therapeutic value in resisting their reduction by a lateral examination. It at least assures the presence of the ghosts.... This return to another scene thus reminds us of the relation between the experience of these practices and what remains of them in an analysis. It is evidence, evidence which can only be fantastic and not scientific, of the disproportion between everyday tactics and a strategic elucidation. Of all the things everyone does, how much gets written down? Between the two, the image, the phantom of the expert but mute body, preserves the difference (de Certeau 1988: 42)

Adopting this way of thinking we might understand Technolife to be engaged in eliciting the social trajectories of technological uses that might turn political through deliberating of the conditions of technological uses and their human end?

What is so interesting about the 'map'?
In Technolife the map is both a picture to look at, a site of multiple interfering places and a doorway leading into experiencing other lived spaces and lifeworlds. It is an objectification and categorization of places where people live, it is a representative indication of how others live and in what cultural worlds they belong. This was for instance exemplified in the GIS line thus

sketching the technological map of places and spaces of visions, stories, resistances pertaining to the birth and subsequently usability's of GIS. In that sense the map, a re-presentation, is also a cultural construction and a tool for making some practices and their worlds more visible, possible, and plausible to imagine, and act towards than other ways. If Latour's is right, that *'an instrument is always a re-representation of data. No instrument can provide direct access to everything. They add new mediations'* (Latour 1992: 94), then we might be inclined to ask how good maps might be made by including people using technology into the actual creation of maps.

On this account Charles Taylor contemplated the social imaginary in following the sense: *'The understanding implicit in practice stand to social theory in the same relation that my ability to get around a familiar environment stands to a (literal) map of this area. I am very well able to orient myself without the theoretical overview'* (Taylor 2004: 26). Thus for Taylor the social imaginary was likened to the inner map of a lived landscape and an environment. It is the site of collective agency and the imagination of the world they live and act in with others: *'ways in which people imagine their social existence, how they fit together with others, how things go on between them and their fellows, the expectations that are normally met, and the deeper normative notions and images that underlie these expectations'* (Taylor 2004: 23). A social imaginary is thus a collective agency mobilized and mobilizing shared understandings that pertain to a *certain moral order and the collective aspirations for a future life it makes possible (and impossible) to foresee.* That is to say the social imaginary informs the world as a practical and meaningful place to live in beyond doubt. The social imaginary thus contains *valuable understandings* of the past that propel us into the materially informed world of the present with a capacity to imagine ourselves in a familiar place of a self-evident and intuitive order of things with a firm view of future expectations.

In addition, an imaginary is always shared by large groups and even whole societies; imaginaries are historical transmitter in terms of the stories, legends, images – i.e. meaningful understandings both material and immaterial - that are made to travel with past life forms into the presence. Hence at any point in time the imaginary is the often unrecognized spectacles or frameworks with which the environment, oneself as well others appear knowable and prefigured meaningful before more elaborate cognition takes place. Thus in speaking of the social imaginary: *'we can speak of the repertory of collective action at the disposal if a given group of society. These are common*

actions that they know how to undertake, all the way from the general election, involving the whole society, to knowing how to strike up a polite conversation with a causal group in the reception hall. The discriminations we have to make to carry these off, knowing whom to speak to and when and how, carry an implicit map of social space, of what kind of people we can associate with in what ways and in what circumstances' (Taylor 2004: 26). The imaginary thus gather a collective sense-making that prefigure our present capacity to understand ourselves and others in ways the compel us to act 'in accord'. We have a vivid sensibility (i.e. unproblematic) of travelling into the home of the family, out on the labour market with merely remotely known others and even back to the time of being with our grand parents when we look at a dusty picture in our pocket. Hence the imaginary can be a peaceful arbiter of the naturalized order of things we dwell in (it is the order of the self-evident and naturalized like the signifier 'I need to wear certain clothes in public'); but they are basically contingent and highly normative constructed orders that allow for discrimination between significant others.

This opens up the questions of how maps are made; and towards what end?

The map may be used in indefinite number of ways and serve multiple ends (a walk, bicycling, visiting strange and unfamiliar territories, be *the* identification: 'Here I am!'), just as it may be a picture of indefinite number of territories. The map is, however, for those very same reasons ambiguous and always contestable. The map not only speaks of the relations between categorical abstraction and measurements of specific and different areas and territories existing in tension with the surrounding world that you move in. It also explicitly and implicitly says something about you. That is the map tells you explicitly, where you are positioned because it also tacitly speaks to and activates your embodied cognition: your inner map. (Like Bourdieu's reworked concept of habitus (1990)[6], a self-labouring product of internalized institutional forms of capital, projecting collective meanings on things and the world).

The map, a specific kind of materialized representation (e.g. the architecture of a city), bears witness to how certain perceptions occupy the world. That is, that 'map' might also contain certain legal, cultural and political decisions and processes that allow for certain kinds of representation

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[6] Bourdieu, P. (1990): The logic of practice, Stanford: Stanford University Press.

and recognition while othering others. Thus in so far that the map is taken as an unproblematic or natural reflection of the geographical makeup of the world it also tell something of your history; is it not the map that recognizes positions and reproduces you among others? This performative aspect of the map refers to the fact that it identifies you among many others within often tacit social frames, when 'you use it': where does the map come from? And who can use it? And why are you able to use it?

Thus as Benedict Anderson writes, the construction, distribution and use of the map in the classrooms in the age of Imperialism contained a tacit mode of political engagement between insiders/outsiders: '*the maps of the colony which they [outsider/colonial students] studied (always coloured differently from British Malaya or the American Philippines) a territorial-specific imagined reality which every day confirmed the accent and physiognomies of their classmates* (Anderson 1983, p. 111 [our insertion])[7]

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[7] The comradeship, thus, empowered through the educational settings of growing modern states, *emerged trough the political and epistemological logic of mirroring the other, the Outsider.*

Section III: On technologies of humility and the phantom public

STS contains a vast amount of experience in researching and theorizing the various ways in which society and nature are co-founded through specific complicated technological innovations (Jasanoff 2004). What is of special interest is the significant knowledge of how specific technological innovations often imply specific orders of unchallenged understandings that are inscribed in the design-purpose of technological artifacts. Subsequently attention has been given to the ways in which dominant understandings reproduce or disrupt tacit moral orders (or lifeworlds) that easily privilege certain self-entrenched cultural assumptions in making technology matter in society. On this account the challenge is to establish better ways in which people might engage in technological developments and to facilitate a better and livelier dialogical understanding of what political life with technologies imply for people in the 21st century European technological knowledge society.

Opening the black box of science and technology

In the following we would like to contemplate some of the ways in which Science and Technology Studies (STS) have worked critically to elicit the inherent social and political implications of what might appear to be purely scientific and technological enterprises. These constitutive social and political implications inherent in the very design and development of science and technology invite for necessary reflection on what kind of collective agencies partake in making science and technology work and what collectivities are perhaps in effect excluded. This is what S. Jasanoff has called technology of humility:

> Framing, vulnerability, distribution and learning. Together, they provide a framework for questions we should ask of almost every human enterprise that intends to alter society: what are the purposes; who will be hurt; who benefits; and how do we know? On all these points we have good reason to believe that wider public engagement would improve our capacity for analysis and reflection (Jasanoff 2003: 240).

A technology of humility is, however, not alone a call for wider public participation but also a more qualified understanding of who the publics actually are as the notion of 'civic epistemology' has called attention to. Thus:

> The origin of a problem may appear one way to those in power, and quite another way to the marginal or excluded. Rather than seeking monoclausal explanations it would be fruitful to design avenues through which societies can collectively reflect on the ambiguity of their experiences, and to assess the strengths and weaknesses of alternative explanations (Jasanoff 2003: 242).

One of the main problems that Science and Technology Studies (STS) call attention to is the complex set of interests, values and reasons are build into and interwoven with the scientific and technological outlook of specific historical situated projects. STS thus show how the use of abstract categories - ordinarily part of specific technological projects in order to justify the need for a specific kind of intervention on behalf of a better 'society', 'public' or 'democracy' – might actively be used to hide the specific set of different contradictory interests inherent in most design of technology. As Allan Irwin has argued in a different context, however, in line with the present argument, this might open up a critical political project of investigation:

> The question of how certain interests come to dominate over others seem highly complex but also typically under-explored….Certainly, neither institutions nor indeed individuals necessarily adopt a 'rationale actor' calculation of interests. This in turn raises further questions of the short- or long-term time scale against which interests are adjudged and also the balance between different forms of interests – economic, political, personal, ethical, organizational (Irwin 1995: 49)

The dominance of some interests is by the same token also the dominance of a specific understanding why technology matters for others. Thus the critical point is not what kind of interests can become dominant to constitute the imaginary of scientific and technological projects. As defined the imaginary is always only partially and unequally shared and hence we

must ask what repercussions dominant imaginaries entail for the ways in which different groups of people are affected. This question relay on tracing out the actual ways in which a specific group of interests combine themselves into an imaginary on behalf of others. This is not least the case when groups are being interpreted and framed within an interest of some dominant group that ipso facto turns into the representative spokesperson of what might actually be a collective set of quite differently interested voices. The questions to entertain, here, are the extent to which, and on what perhaps unrecognized grounds, those who are silenced are actively involved in making specific imaginaries matter or not? And subsequently to what extent and in what particular ways affected people are actually left out or not?

The question of how different kinds of representation are build into the imaginary in complex ways that are unrecognized is therefore important to maintain. It is a problem that lies at the heart of much political theory of liberal democracy and for which countless answers have been provided. But the question of how to 'design avenues through which societies can collectively reflect on the ambiguity of their experiences, and to assess the strengths and weaknesses of alternative explanations' (Jasanoff 2003: 242), also at the heart of Technolife, is non-reducible to questions and answers entertained in political *theory*. The very problem of the technological imaginary that Technolife entertains has to be rather differently sought not by theory but by actively *collectivizing the imaginary*. This does precisely not mean that everything imaginable should be turned into public matters. In the contrary way, the presumption is that people are actively concerned with different issues of the world they live with others, thus, by defining what the issues are without taking those concern into account the danger is that both people and the world are misrecognized. This is an important insight from the public understanding of science. As for instance sociologists and STS scholars Brian Wynne and Allan Irwin has argued on empirical grounds, when science and policy institutions decide what the problematic issues of science and technology are, they tacitly frame the public in the presumption that they know who the public is (Wynne 2006; Irwin 2006). Thus to define the problematic issue that publics are to be involved in, is also to impose preconceptions of who can be involved and indeed what a public is. Bracketing the issues of concern from public understandings of political matters of science and technology, thus, carry the risk of politics draining the public of the passionate reasons that are actually sought

in politics and in everyday life as such. As Brian Wynne has argued: 'the epistemic culture of instrumentalism and control has been allowed to pervade and latterly to define public science-policy institutional culture' (Wynne 2006: 220).

On that account we might entertain the challenge of Technolife is to design avenues through which communities and concerned publics might engage in the technological makeup of political life. The challenge is to construct the pen of collective and collectivising imaginaries that can draw the map of concerns and interests with ethical issue that has been identified in WP1.

In the last chapter it was argued that the problem of technological innovation is to construct better maps of the collective landscape, where inhabitant can actually gain recognition of each other through the active construction of the technological imaginary that they live by. This can also be conceived as a problem of constructing ethical and political collective agencies that are not first categorically designed, both intentionally and unintentionally, on the drawing boards of scientists to be handed down to political institutions that must in turn find ways of making categorical people respond to issues that are prefigured. Instead the uncertain and experimental condition of Technolife is to make collaboration between very different *imagined worlds* (Appadurai pg. 7) possible. Can avenues be designed to allow people to become responsible architects or entrepreneurs that design their own collective maps of a partially shared world? This is the uncertain condition of Technolife, thus, to embrace the problematic issue if technologies can be collectively made and accountably faced through the uncertain work of collectivizing imagination.

This of course makes it necessary to answer the question of who affected communities and publics are and what kind of issues and related interests will be at stake in the deliberation process that might turn out to make collective imagination possible?

In the next section we turn towards this question. The problematic of collectivizing imagination is argued to be in need of a reflexive turn that seeks to elicit the experimental condition of Technolife. This makes it necessary to engage in some methodological implications before turning towards the problem of collectivizing the imaginary.

Methodological consideration

Let us ask why the intuitive answer to the following question is a yes: Will the identification of affected communities and publics limit the collectivizing imagination in terms of mapping of the technological imaginary?

Part of the reason is that this question sets out to answer what it already knows, which is precisely what Technolife avoids by reflexive embrace of its own conditions. The yes-answer implies two realist presuppositions to be resolved by a more constructive take. The first presupposition is that there are publics independently out-there; that they live by different imaginaries, and therefore our problem is how to get to them without distorting their independent understandings of technological issues. The second presupposition, and related, is that the construction of criteria for selecting publics and communities based on a selecting of the ethical and political concerns/issues properly identified will greatly limit the outcome of the deliberative process.

Let us first deal with the second presupposition. The ethical concerns identified in WP1 are not settled issues. They are entrance-points into a network of issues that are themselves the subject of deliberation and contestation. Hence, if the imaginary of securitization in WP1 ICT raises a number of issues, then each selected issue is also the subject of deliberation that can go in many directions by implication drawing *in* many different contexts that are to be taken into account. Thus what specific kind of ethical and political issues 'the imaginary of securitization' imply is what the deliberative process of Technolife is to elicit. Hence security might turn into another issue as the active deliberation begins. One clear example of this constructive uncertainty - of what issues might develop into - can be entertained through the concept of the imagined border. Although the imagined border will take place through digitalization of *airport control* the very nature of this control is uncertain. Hence, what kind of performances will actually be applied in the complex praxis of carrying out control will greatly affect what control is about. This means that the border is not alone situated in airport and that the very issue of control is subject of contestation.

In similar vain the technology of biometric border is already inserting itself into the social landscape through the ways in which different collective agencies are determining its problematic ethical and political issues. That is determining what the border is about. Hence the *imagined* border *is really* being enacted and the imaginary of securitization serves to highlight *some collective agencies* are already involved differently depending on privacy organization, academics, newspapers etcetera.

These examples serve to underscore that issues involved in Technolife are uncertain entry-points. Being subject of deliberation issues can be expected to mutate and transform and turn into new emerging issues that will relate to new collective agencies and their imaginaries. This understanding has consequences for the first presuppositions.

Rather than limiting affected community and public to certain groups of people, the issue is precisely to elicit in what ways people get differently implicated in the relevant technology. Methodologically we can, therefore, ask in what ways people are affected by issues that are entertained through the recourse of collective imaginaries? Such mapping will point towards 'those others' that people align with and through what passionate reason, thus, eliciting the *politics of collectivising the imaginary*. This constructive take thus presupposes that the important identification and invitation of affected communities and publics to deliberate will be constructive of new collectivizing understandings that better recognise the technological uncertainties of community and public engagement with new technology.

The distinction between social and political community

In a somewhat related way this was also what pragmatist John Dewey entertained by the brilliant notion of the phantom public: '*The essence of the consequences which call a public into being is the fact that they expand beyond those directly engaged in producing them'* (Dewey in Marres 2005: 212). In this regard STS scholar Nortje Marres has done interesting work on the implication of the political community that is worth lingering on. Thus Marres (2005) excavation of John Dewey's pragmatist philosophy and journalist Walter Lippmann's understanding of the public

interestingly suggests that it is the unfamiliarity of an issue embedded in technology that *'actually enable public involvement in politics'* (Marres 2005: 209).

What is of special interest to Technolife, here, is that the public is regarded as something very different from a social community. Whereas the latter per definition exists through a set of circumscribed interests capable of granting inhabitants necessary understanding to handle ordinary problems met in a technological society, then public involvement in politics is founded on the uncertainty and lack of such capability: 'The emergence of a strange, unfamiliar, complex issue, they posited, is *an enabling condition* for democratic politics '(Marres 2005:211). Thus a public is called into being by the distributed range of consequences an issue might have for differently affected social communities. Such distribution are arguably makes it impossible for any one community to deal with the issue sufficiently, thus, the issue transcends and goes beyond anyone scope of qualifying understanding and capability to take care of the matter. In this sense, it is the *absence* of social community able to deal with a daily state of affairs within society, that constitutes the reasonable call for a political community to gather: *'what the members of a public share is that they are all affected by a particular affair, but they do not already belong to the same community: This is why they must form a political community, if the issue that affect them is to be dealt with'* (Marres 2005: 214). This imply that political communities or phantom publics can be entertained to be unnoticed and perhaps very marginalized within dominant understandings of political life. Indeed, if it is the complex and unfamiliarity of an issue that makes it necessary for people to actively construct new avenues of collective agency, to share their different capacities and resources to handle it, then political life is perhaps also often at work other places than in official politics. Like Anderson caught hold of it seems difficult to think of such political gathering sparking against the status quo or to fill the void of communal life without some kind of imagination and passion is at play. However, we cannot expect such political communities to be simply sparked into being whenever there is a void or lack of ordinary communal reason to handle a complex problem on familiar terms.

Instead the SSK frame has made apparent that we might need to look behind or underneath the most apparent and dominant reason that makes technology work in order to excavate the being of a phantom public. This is perhaps also the potential significance of the phantom public, the

imagined political community: It exists on the fringes of the ordinary, in the cracks of the normal, in the marginality of reason? In other words, we have interesting reason to trace public understandings of technology within the cracks of modern democratic policy-institutions, in the extraordinary narrow passages of how affected people imagine and live within a technological knowledge society.

Summing up

One way of realizing Technolife has been to argue for tracing expert knowledge and technology as they are applied to work in society for some specific reason that might hide affected communities by externalizing them into otherness.

Implicitly the issue here has been to take seriously that if an ethos of *knowing best* (or *for the better*) is apparently at stake in science materialized into technology, then it important to ask on what terms and for whom 'is knowing' valued for the better?

In this regard the concept of the phantom public might carry various ways to think about how marginality of some communities might be embedded in technologies. The SSK framework presented here provide one such way, thus, scientific understandings often navigate deeply sociological conditions of communal life that might not be adequately accounted for. Conclusively it is important to remember that the phantom public might means something different today than it did for Dewey and Lippmann's conception of the somewhat enigmatic political community. Indeed if we live in a technological age of uncertainty, where everything is complex, disputable and open to change, then we might say that the phantom public has populated the world. Through uncertain technological incorporation of social life, we find indefinite problems that seem to imply that everything is now turned into an issue of concern. On such terms the technological affected social community, being a kind of dwelling in the lifeworld of the familiar, becomes interestingly the marginality we need to consider. That is the non-ordinary of the ordinary life.

At the same time that this allows for a distinction between the social and political community it does, however, necessitate the important questions about what grounds, through what *passionate reasons* and with what context of justification do collective mobilizations take place?

That is in line with the clarification of the social imaginary in the first section. Thus issues spark a public into being, that is, a political communion. And if the issue is precisely what must stand to the imaginaries of different public reason to engage with, in order to decide upon its meaning and relevance, then this makes publics enigmatic per definition. Publics can necessarily not be predicted by theoretical pre-figuration on the scientific paper because they are imaginary real (Taylor 2004, Wynne 2006, 2007). In line with the clarification of the social imaginary an altogether different understanding of what might constitute collective agency of the public is perhaps needed. One such understanding has been interestingly suggested by the Expert Group of Science and Governance (2007), thus, exploring the political avenues of better 'civic engagement' with scientific and technological enterprises:

> … […]…what is at stake is not the direct involvement of "the public" (or worse of "the society"), but the selective engagement of concerned groups. "Collective" means that many independent disconnected and variable collaborative investigations between "established" professionals and concerned people could take place simultaneously, and may make spontaneous interconnections as they develop. They become collective issues only under certain political conditions. (Expert Group 2007: 27)

The 'collective' thus suffice to highlight that an issue might relate differently to different groups of people depending on the world they inhabit in the social landscape. Hence, one group acting on an issue might by implication change it in ways that affect another social community that, therefore, turn political. What we see is that the map of the technological imaginary is a landscape in motion. It changes in accord with the phantoms or imaginaries that are suddenly sparked into a political community around a changing technological issue just as political communities withdraw into the social in the sense of 'doing business as usual'. The political community is by definition actively engaged in questioning each others understandings, thus, bringing imagined worlds together in the terms of Appadurai. What is of crucial importance to add here is, however, that if investigations 'become collective issues only under certain political conditions' the construction of

those condition are also an issue of political community. Thus the power of the powerless has been a cause of as much revolution as peace in the long history of political life.

Excursion: The problem of technology and 'society'

Society, no less than the public, today tend to become terms applied to serve specific interests and understandings of all kind not least those of private corporations. Society is no longer alone the political site of collusion between different visions of powerful classes and groups; neither is it alone the imagined space invested with the unifying vision of a better future written in the name of fraternal nationhood or some big public reason (Anderson, Habermas). Following contemporary sociologists society has instead become an empty signifier applied to serve variable interests of particular groups that strive to promote their entrenched vision in the name of the common good: *"Society" has been unhooked from "polity" and now floats free through a number of different applications* (Taylor 2004: 79).

Similar to how philosopher Walter Benjamin entertained the negative longtime consequences of the technological trajectory of modern imagination that realized itself in the transparent, clean and efficient city (the Arcade), contemporary sociologists still warn us of the seductive and almost religious pull towards envisioning technology as the certain passageway to finally realizing our innermost dreams. As the Polish-British sociologist Z. Bauman writes, 'The technological answers *precede* the questions instead of following them' (Bauman 2002: 144). Bauman argues that we live in a time where technology is often projected to be the final solution to all our present social problems. Social life thus tends to be dragged behind the visionary promises of technology 'pushed from behind by assets clamoring for profitable use and protesting underemployment of resources. Technology develops *because it develops'* (Bauman 2002: 144). On that account technology is driven innovation that cannot but externalize critical questioning that would otherwise have slowed down the accelerating speed of new demands for technological fixes that always seem to be the cause of unthought-of problems. Similar to Heidegger in "The Question Concerning Technology" and much of critical sociological theory, technology is conceptualized mostly instrumental in ways that do not recognize its situated complexity within

human life. Or in the words of Jacque Ellul: 'Technique tolerates no judgement from without and accepts no limit' While such negativity in protection of humanism or some essence of (the human) being can paradoxical prevent from an active and critical understanding of technology, the latter is neither a safe passageway to realizing ourselves.

Indeed as other sociologists have argued the actual technological change always contains a host of unthought-of implications that in their application are rather devastating for social life. Sociologist John Urry has lately elicited and problematized the self-sustaining gravitational pull of auto-mobility, being a large technological system deeply embedded in late-capitalist orders of production and consumption, commanding millions of people into their cars every day despite the fact that carbon outlet is signed with a decaying nature, and by implication, society (Urry 2008).

Such examples both remind us that technology is implicated in and implicating the condition of social life, it does not exist by itself; and it serve to highlight that technology contains a specific logic that make some forms of active life possible and reasonable only on the basis of exteriorizing other possibilities into shadows of the incomprehensible.

In this regard we argue against imaginaries of technological innovation that mobilize an image of 'society' or the 'public' towards narrow ends and esoteric interests that *ipso facto* immobilize actual political engagement of people and exteriorize their ethical questioning of 'in what way ought we to act towards each other in light of the present problem?'

Vocabularies of engagement[8]

There are many equally good reasons to do things…and they often shift depending on contexts…

(Hegel)

In criticizing the abstract notion of individual right (or for that matter the liberal image of a free-floating individual), Hegel taught us to respect the ethics of contexts and settings: the family and the household, the market and the work-place, and finally the state and citizenry. The household is the setting where human life is produced, reproduced and nurtured – a child is heavily dependent on the care of others. Domestic life is the setting where our inner emotional selves are being formed in interaction with our loved ones – or those who are responsible for our intimate nurture. The household and the family are settings where individuals are so wholly dependent on one another's care so that it is not really possible to break out of the collective

At the market and work place, very different conditions reign: the individual is thrown out on his or her own; ambitions and to some extent also egoism are necessary if the individual is to cope with the new environment. The completion of the individual self necessitates an externalization in terms of the formation of self-interests. The market and the work place form the settings of the 'abstract self' with the individual in confrontation with other free-floating individuals equally armed with their own interests and ambitions. This is the place for detailed contracts specifying the rights and duties of partners: the employment contract is its ethical illustration

The state, finally, is by Hegel seen as the ideal place for the harmonizing and leveling of individual selves into a new elevated political sphere where citizens reciprocally dependent upon one another reign. The making of the citizen require that the self has experienced both the domestic sphere (formation of the emotional self capable of trusting others) as well as the market place (formation of self-interest, individuation) – the completion of reason, both as an individual and a collective entity, demands a differentiated experience.

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[8] Alluding to C. W. Mill's classic article on 'The Vocabularies of Motives' when criticizing the deployment of various survey techniques…

(Weber)

Writing almost a century after Hegel, when rule-governed domination had become normal practices both in government and in big private cooperation, Weber employs a slightly modified vocabulary, but he shares the ambition to 'situate' human practices in wider settings and ethical frames of action: traditional norm-oriented rationality, charismatic rationality, and legal rationality. There is yet another type - that of affective rationality - but its status as a form of social rationality is more uncertain than the three other types: it does not allow for prediction from case to case, and is conceived of as more psychological in nature than the three 'pure' types.

Traditional norm-oriented action shares the features of Weber's household/family: it is based upon reproducing time-honored modes of collective being; its 'imaginary' is settled, and need no revision. As a Swedish citizen I (MB!) tend to buy a Sony-Ericsson gadget rather than Apple or Samsung for no other good reason than those of showing loyalty to a loosing Swedish technological empire. For the same (unproven) reason, I am loyal to SAS, particularly in these difficult times of the present air-transportation. We all perform loyal actions for no other good reasons than this is what we always have been doing, and will continue doing so unless some extra-ordinary happenings occur, and we are forced to reconsider our reasons for doing things.

 Charismatic rationality can at first be seen as a contradiction in terms, but prevails as collective action (and is hence understandable) when a figure or entity occurs, and produces a rupture in the way we traditionally have lived our lives. We tend to think of charismatic rationality as invested in a leader (Obama for instance), but it could certainly also be propelled by a technological gadget of one kind or another: young people are ready to enter a long wake in order to be first to purchase a shiny gadget like a splinter new I-phone of one kind or the other. Charismatic action is inherently unstable; the centre of charisma tends to weaken after some time; either the auratic person dies, or the new technical gadget has been superseded by yet another fancy gadget, and has lost its appealing qualities. Fashion is governed by these short-lived currents, and is inherently destructive in order always to look for what is new.

Legal-rational action carries the distinct character that it is 'unpersonal' – 'sine ira et studio' (without wrath or passion.): we are governed by the strict application of rules; a jurisdiction is established with the implication that we know beforehand who can speak the language of power and under what circumstances, and with what consequences. This is the language of rational state-action, as it also – according to Weber – will become the dominant language of private capitalist cooperations. Modern bureaucracies are necessitated because of the fact that wide state territories assemble persons/citizens who no longer are in personal contacts: rule-oriented actions enable strangers to interact in extended time-spaces: if certain conditions prevail, and cases can be located within a rule-set, then outcomes can be more or less predicted. This is, in the view of Max Weber, what modern governance is all about.

Although necessitated by modern mass-democracies, state bureaucracies (as big private cooperation) can easily generate frictions and antagonisms in relation to 'public opinion': State bureaucracies tend to generate a rather closed, often juristic, vocabulary, the technical grammar of which can be perceived of as 'expert language', removed from the ordinary understandings of lay people. Weber locates an inherent tension in modern governance with respect to popular opinion and expert-governed bureaucracies: Popular opinion is often swayed by highly personal issues and engagement, it is 'case' – rather than rule-oriented; expert-run bureaucracies are strictly rule-oriented, and hostile to allow sudden cases influence the due process of law (or administration).

Weber's views on the inherent hostility between entrenched bureaucratic expert language (he himself often features the jurists, but his language can be applied to any professional experts in state/private bureaucracies), and popular democracy is useful also with regard to the prospects of Technolife. We are searching for engaged 'publics' to deliberate on issues of various concerns – but we do not know how such public concerns relate to political decision-making in the long run. Modern societies operate under the sway of a multiplicity of concerns some of which are short-lived, others are more permanent. Bureaucratic concerns are oriented towards 'procedures' of justice and fairness in the long run, while popular concerns often relate to cases in the here and now.

Boltanski – Thévenot on 'justification regimes'

A much more recent attempt to penetrate into the multitude of 'good reasons' in speaking and acting is the one presented by the French philosophers/sociologists Luc Boltanski and Laurént Thévenot (2006). They distinguish between 6 'justification regimes' (while having added yet another ecological regime more lately):

1. The inspired world

2. The domestic world

3. The world of fame

4. The civic world

5. The market world

6. The industrial world

Common to these justification grammars (regimes, cites) is the existence of a cognitive schemata – an imaginary – that allows us to locate a particular case as a member of a class of universals. Once having predicated the relation between a particular event and its location in a wider scheme of universals, discourse members can proceed with conversation of agreements versus disagreements. The merit with the justification regime is its power to 'valorize' events as more or less, as better or worse, as inherently valuable or useless, and so on. Different members of the same social order – sitting around a table for instance, or a focus interview, or a chat room on the web – may valorize things (gadgets, events, persons) in justification grammars belonging to different scales, while still agreeing upon what is 'understandable' from a different point of view. Boltanski and Thévenot speak in the suggestive language of 'praising' and 'giving worth' – which we do all the time, although from many different points of view. When 2 or more justification regimes, i.e. the inspired world and that of the civic world, come into conflict, it is possible to resume to yet a third regime, and there perhaps reach a common ground - or else we will have to live in agreement that we cannot consensus as to locating the balancing worth between a singular event and a class of universals is not possible at present. Time will perhaps adjudicate sharp polemics, but it is possible for us as humans to live with a multitude of 'many good reasons' prevailing in human affairs. So what is ultimately suggested is the principle of tolerance as a basis

for common life in a plural society – we live in a world where many different values and 'imaginaries' prevail, and it is important that we learn to respect the worth of tolerance. Such a principle of tolerance does not entail that there are situations in which we cannot understand the link between an event and a class of universals: locating 'Muslim emigrants' as the enemies of the West and therefore inviting a 'right to kill' is incomprehensible, and so is the Islamist strategy to contemplate terrorist attacks on civil targets all around the world, and more recently in Copenhagen, because of a non-explicated hate. The principle of tolerance has limits – and when eroded, only violence remains.

1. The inspired world

This is the world that is closest to Weber's charisma – in the human universe there are ruptures of 'out-of-sights' happening, whether as persons or as events. Such ruptures cannot be too frequent for the reason that they then risk loosing their magic qualities – it lies in the 'order of things' that they are unusual, and that they can not be foreseen in advance:
"Indeed, only in universes detached from reality – from 'demoralizing reality' or what purports to be such in other words, and especially in the industrial world – can true worth's be manifested: thus it is necessary to 'explode what is called reality'. The way to escape from reality is to let '*imagination* runs *wild'*, 'turn individuals into explorers of the *imaginary* so they can succeed in 'descending into the *unconscious*,' for 'all *creation draws upon the unconscious*" (p. 162)

As far as Technolife is concerned, one could suggest that the 'inspired' world has some links to the bodyline – when the ambition is to break out of the ordinary in contemplation of 'other words'.

2. The domestic world

The domestic world does not only pervade within the family, particularly in today's restricted family, but are found everywhere where 'personal relations' and 'intimate friendships' rule out the application of procedural rational reason. To maintain social relations as they are, rather than reshaping these into other 'regimes', are the governing principles in operation. Typically, such domestic world generates various hierarchies of worth depending upon distances and familiarity.

With regard to Technolife, the domestic world would have been more relevant if for instance the ICT line had selected web communication devices such as You Tube, Facebook, and Twitter. What such communication devices can achieve is 'personalization' among foreigners – that we know one another either from long time ago – or else that we decide upon a meeting. Here, various partners contribute with spelling out their own worth both to them selves and to all those out there..

3. The world of fame

In starch contrast to the domestic world, the world of fame has no memory- it prevails as a monumental present: it is here and now. The fashion of yesterday can be revived in the present as retro, otherwise it is completely forgotten. Celebrities like Britney Spears or Paris Hilton live a public life because of the fame that they generate in linking themselves to 'public opinion' – the voices, the publics.

"It is *opinion* that establishes equivalence, and the worth of each being depends on the *opinion* of others: to a large extent, the reactions 'of *public opinion* determine *success*es. Persons are relevant inasmuch as they form a *public* who's '*opinion* prevails,' a *public* 'that creates *public opinion*' and thereby constitutes the only 'true' *reality*: 'Isn't an *opinion* also a *reality*?'" (p.179).

In our view, one can easily exchange a *person* with a *gadget* –many technical gadgets have qualities of immediate fame arousing immediate publics. In fact, the market world (see below) often profits on the 'world of fame' – purchase this GPS- navigator, this I-phone...

The world of fame also applies to the bodyline – isn't it so that many body painters (tattoo-bearers) partake in fashion bandwagons….and risk to loose out, when fashion changes.

4. The civic world

This is the public world of citizens with balancing principles of justice and fairness. This is the universe (imaginaries) where we can speak of 'all Danes', 'the collective will, legislation, officials, representation, delegation, political participation, mobilizing, office, secretary..

This is then the modern version of Weber's 'bureaucracy' where legal rationality prevails as an ideal. In its more modern version of Boltanksi/Thevenot, the civic world also implies mobilization of the laymen, renunciation of the particular, solidarity, struggle (for justice, recognition) etc.

Indeed, we think that the 'civic world' as here represented is amply prevailing in Technolife – and perhaps for good reasons as the idea is to 'deliberate', to include voices not yet heard. We just want to call attention to that in the world 'out there', there are many other equivalence principles competing with the politics – it could even be that common people are fed up with the language of politics, and tune into other channels

Participation takes time from other urgent events – and also Technolife has to reflect upon the grounds that make Technolife worthy of taking time from people….

5. The market world

"The market world must not be confused with a sphere of economic relations" (p. 193). Economic relations assume both the market world of money-making and that of 'the industrious world' where the logic of production rules. The market world is governed by such catchwords as 'competition', rivalries, salable, millionaire, winner…interest, love of things, desire, selfishness, business, possession, benefit, market, pay, compete.., money, money. Benefit, result...
The extent to which the 'market world' penetrates into all the various lines in Technolife has been discussed in more detail than what is possible here. Techno-devices are produced to sell and to make money for their respective producers, and perhaps also for their users…GPS navigators can certainly help taxi-drivers to find places they otherwise would have difficulties in spotting, such navigators can help fishermen locate where to cast the net and harvest a bigger share to sell on the market..
The market world operates together with the world of fame in selling and advertising gadgets …and makes people alert that to be 'someone' requires the purchase of this and that…

6. The industrial world

"The *industrial* world is the one in which technological objects and scientific methods have their place…" (p.203). The catchwords in operation here is 'efficiency, performance, future, functional, reliable, operational, (inefficient = state of unworthiness, not optimal inactive, unsuited,

unreliable…) work, energy, professional, experts, specialist, person in charge, operator, means, tools, resource, task, space…calendar, plan, quantity, variable, average……..achievement..

The six worlds here reviewed can of course – and do – interact; principles of worth can move from one world to the other – but often with the implication that the conversing partners shift locus……The industrial world is a dominant principle in modern cost-benefit societies – but it can be set out of operation by 'the inspired world'…..

Our suggestion here is that the six dominant worlds of worth easily can be exchanged with that of –social imaginaries' – as different imaginaries emerge and coalesce depending on which of the various worlds of worth are in operation……..

Situating Technolife

The present governmental turn towards taking public engagement with science and technology seriously has made rather innovative and experimental policy-exercises a manifest part of the 21st century. Such exercises have embraced a range of experimental settings made for experts and policy makers in order to figure out, what publics think about science and technology in society. Placed along a continuum these settings might include e.g. the individual expert interview, the qualitative tool of assembled individuals in focus groups as well as 'citizen juries' and 'consensus conferences' where specific experts and stakeholders meet citizens in an attempt to construct grounds of some common understanding S & T.[9] ……………………..

In the following we look closer at significant sociological studies of science and technology that have critically explored the powerful use of imaginaries in exercises meant to consult the public on the use of technology in society. By recognizing this hinterland Technolife situates itself within a vast political landscape of exercises engaging public knowledge of technological impact on social life. The purpose, here, is to exhibit and confront ways in which some recent exercises have sought engagement with public knowledge of technologies by embracing specific imaginaries that frame the purpose and use of technology in pursuit of social order. Thus exercises shape and are shaped by sociotechnical imaginaries defined by S. Jasanoff and Sang-Hyun to be ''collectively imagined forms of social life and social order reflected in the design and fulfilment of nation-specific scientific and/or technological projects.'[10] As we will see, however, exercises mobilize different imaginaries that are not alone oriented towards securing national ends but utilize other reasons and values imagined salient for public engagement with technology.

In the following we very briefly sketch some interesting points from recent policy rapports and reflect these against the background of sociology of science and technology in order to draw out some methodological considerations for Technolife.

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[9] Irwin, Allan: The politics of Talk…2006

[10] Jasanoff 2009, pg. 120, using the concept of sociotechnical imaginaries Jasanoff and Sang-Hyun critically elicited how the building of nuclear power towards different ends in US and South Korea was intimately tied up with constituting two distinctively imagined nations. Jasanoff and Sang-Hyun showed the ways in which collective imagination was constructed and subjected to governance by making the future survival and well-being of the nation depend upon embracing, ordering and governing nuclear power towards ends imagined to be of collective interest to 'the people'.

Governance of science and technology

The landscape of political governance of science and technology is changing. In recent decades scientific expert knowledge and technologies have been placed on the agenda of national and international governmental institutions recognizing growing public scepticism based on distrust towards specific scientific expert knowledge and technologies. Subsequent needs for policy-making able to restore trust and still sceptical criticisms have been made an important subject of politics. For example the European Commission White Paper on Governance (EC, 2001) recognized that scientific expert knowledge has entered a state of crisis in the public, thus, growing distrustful or simply loosing interest in policy-making. Explanations were given that expert knowledge remains technical opaque, remote from people's live and experience and this might constitute part of the reason of an apparent inability to control and prevent today's technological risks (EC 2001: 1, 7, 12, 19). Solutions focused on how consulting public opinions and understandings of expert knowledge were *needed* to generate a 'reinforced culture of consultation and dialogue…adopted by all European Institutions' (EC 2001: 16). This use of dialogue to restore public confidence in science, technologies and politics was amply elaborated by the British House of Lords Select Committee. In their rapport *Science and Society* (2000) the committee reasoned that if public distrust appears, then it might be a matter of the unquestioned status of expert knowledge in a superior position to authoritatively define the technological issues of public concern. In this regard it was stated that: '*one of the major factors engendering mistrust is the failure of institutional science at the frontiers of knowledge to admit publicly its own uncertainties and to provide accordingly*'[11] 'Public distrust' is then partially a consequence of public cultural knowledge and interests being made secondary and perhaps even instrumental to the visions and values of specialized expert knowledge and interests. In this regard the rapport recognized that a culture of dialogue about technology in society is faced with the difficulties of grounding *up-stream* ways of including public values, experience and knowledge's in the making and orientation of specific technological innovation and use in society.[12]

This concern of engaging other ways of knowing in order to institutionalize science and technology into society in a collective and robust manner was also among the key subjects entertained by the

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[11] House of Lords, Select comity, Science and Society chapter 2 section 2.56
[12] House of Lords, Select comity, Science and Society, see e.g. chapter 5

Expert Groups of Science and Governance (afterwards: EGSG) in their extensive 2007 rapport.[13] Among its many issues the rapport analyzed the standing tension of EC-policy concerned with securing *both* the conditions of European knowledge society in which technological innovation is often driven by 'private interests' of market competition; *and* the concern with establishing a reflexive culture of democratic dialogue able to accommodate divergence in the meaning and reasonable purpose that technological affected groups of people have.

This tension was interestingly conceptualized by distinguishing between the *Regime of Technoscientific Promises* and the *Regime of Collective Experimentation,* respectively, thus connoting two deeper-laying cultures that sustain and challenge present governance of new technologies. Thus the regime of technoscientific promises embrace a culture of market driven innovation, where '*promise is associated with a diagnosis that we are in a world competition and that Europe will not be able to afford its social model if it is not in the race. Given the cumulative effects of technological development, there is a strong sense of urgency: those who are late won't have any place; there is only place for winners*' (EGSG 2007: 24). This promissory push towards the unquestionable need to embrace the 'new' in order to reproduce economic foundations of modern democratic capitalist societies, however, easily conceal the fact the promises are inherently contingent (Ibid.: 24) just like the talk of the 'new' of course. Thus promises are in need of being realized by different groups or specific end-users that very often have different reasons to take on board and live differently with technology. This inherent contingency of making technology matter is thus one democratic reason to recognize the experimental conditions of institutionalizing technology: 'If society is now the laboratory, then everyone is an experimental guinea-pig, but also a potential experimental designer and practitioner' (EGSG, pg. 27). Another reason is the inherent tendency of market driven technology to imply securitization of concerns and interests that evoke big promises but do not necessarily foster actual collective environments where the needs or visions of those who are or potentially will be affected is present. In so far that such concerns are included they also serve the specific interests of an enterprise thus able to brand itself with 'public credibility' to further consumption of its product and promise in order

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[13] *Taking European Knowledge Society Seriously – Report of the Expert Groups of Science and Governance to the Science, Economy and Society Directorate, Directorate-General for Research, European Commission* © European Communities, 2007 Reproduction is authorised provided the source is acknowledged.

secure survival. So, while the push towards technological innovation might be desirable in order to secure economic foundation of modern society and to produce solutions to social problems, the regime tend to bracket off the possibility of making critical inquiries into long-term implications of a specific technological development: *'the latter regime appears to become hegemonic – which would undermine what is actually valuable in the regime. This happens because technoscientific promises start to function as a political order, with a tyranny of urgency and naturalisation of technological progress. Civil society is then taken into account only as the final and undifferentiated passive recipient of innovation, and when resisting, labelled the enemy of innovation'* (EGSG, 2007: 26).

The Regime of Collective Experimentation on the other hand recognised the uncertainty of altering society through technological innovations: *experimentation does not derive from promoting a particular technological promise, but from goals constructed around matters of concerns and that may be achieved at the collective level. Such goals will often be further articulated in the course of the experimentation'* (EGSG, 27). The EGSG thus argued the importance of recognizing the experimental conditions of technological innovations. In this line of reasoning the challenge it to develop specific experiment that can make collaborative technology in society possible. The EGSG, here, mentioned user-induced experiences and community based development (see e.g. WHO on community based rehabilitation being one of the very advanced examples[14]) where people who are directly and/ or indirectly affected by a technological issue actively partake in *shaping its collective relevance*. While in practice such experimental avenues of politics can be ambiguously positioned in-between the regimes, like patient-movements, they are also settings where multiple interests and ends meet and work together in order to constitute common ground of understanding (e.g. like the collection of public bicycle parks in big cities accommodate various reasons, interests and needs of civil society). The rapport addressed the question of what kind of social narratives were dominant in orienting the use and value of technology in society. Thus '*All societies make use of characteristic, shared narratives that express wider imaginations about the world, how it functions, what is to be valued in it, and the place and agency of themselves and others in that world'* (ibid. pg. 73). Thus the possibility of engaging

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[14] See e.g. WHO 2003, *International Consultation to Review Community-Based Rehabilitation* (CBR), or access http://www.who.int/disabilities/publications/cbr/en/index.html

experimental conditions of politics relayed on what kinds of societal narratives are *'founded in collective imaginations and associated material objects and institutional practices, together constituting what social scientists sometimes refer to as imaginaries'* (EGSG, 2007:73) and under what conditions such imaginaries are acted out. In this respect it remains a crucial question what kind of dominant imaginaries constitute the possibility of public and communal engagement and how might alternative imaginaries be collectivized?

We posit these rapports as signs of a deeper governmental concern with making salient political avenues of open and timely dialogues between expertise and variously affected publics about technological innovations and their implications on social life.[15] In the following we turn towards sociology of science and technology in order to emphasize the experimental conditions of constructing avenues or situated settings of public engagement with technology. At the one hand we aim to identify and discuss the ways in which sociotechnical imaginaries are mobilized to exercise public knowledge of technology; on the other hand to exhibit the ways in which imaginaries are contested through the unanticipated events that happens when communities of affected people into deliberation.

The act of making politics matter by embracing the action of engaging others, i.e. 'invited' publics and communities, is always uncertain in respect to how certain formal objective of purpose and outcome will actually be affected and stand to different reason and passion of those invited. It is this respect that sociology of science and technology has critically explored how political engagement is designed by some imaginary expert reason rather than engaging the ways people actively socializes with passion and reason. As we will discuss this is not alone a question of what kind of methodology can be used to design experimental political exercises where spokespersons of affected communities are 'invited in'. This is also about recognizing that there is potentially a rather radical difference between the deliberations about the use of technology carried out in closed exercises designed in view of some specific end compared with the ways in which people make use of technology in everyday life thus often acting towards very different permeable and ends.

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[15] House of Lords 2000 especially chapter 5 mentions different options of consulting public knowledge. In this paper we look closer at some recent studies within sociology of science and technology that underscore the experimental conditions of specific exercises in respect of mobilizing imaginaries.

In the following we qualify this by delineating the limitations of turning toward the public in regulatory and ordering manners of exercises.

Sociology of science and technology

Sociology of science and technology has explored the different ways in which public engagement exercises are not alone regulatory but also experimental settings that ordinarily limit how a technological problem can be addressed, by whom, with what reason and towards which collective end (e.g. Collins 1988). While exercises are important settings where public reason, meaning and imagination for institutionalizing technology into society is required and enacted, they have traditionally relayed on simplistic modernistic imaginaries that relegate public forms of knowledge to an inferior role in face expert reason (Wynne 2006, 2007). In this light an important question is the extend to which unqualified affirmations of disciplinary expert reason make public knowledge into a mere effect of circumscribed cultural assumptions, or conversely, how the inferiority of public knowledge is pulled into and serve to reflect 'superior categories of knowledge'. As sociologist Brian Wynne argues: *'the 'objective' representations of the issues which scientific institutions perform also embody normatively weighted public projections – performances – of 'the public' itself'* (Wynne 2006: 212).

Following other studies of the sociology of science and technology, this quote points to a standing irony of institutionalized modernity in which claims to objective representations of technological issues by 'science' are all the more deeply embedded in the work of institutions with specific cultural values and visions. Thus exercises of public knowledge are often enacted in ways that both intentional and unintentional place a naturalizing or neutral value on 'scientific reason' and the activities related with this enterprise. This was for instance elaborated by STS-scholar Allan Irwin in view of frequent talk of politics about how to govern technological risks sweeping across the political landscape of Europe. Through an extensive review of how present governance has turned away from valuing expert reason (e.g. as has been critically explored in the use of 'risk assessments', Wynne, Jasanoff), Irwin found that present governance often embrace a discourse of 'dialogue and engagement' and 'grater public consultation over scientific and technological developments' between expertise and publics.[16] The problem is, however, that it often 'blends

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[16] Allan Irwin: The politics of Talk…2006 pg. 300

modernistic assumptions of sound science, institutional control and administrative rationality with a language of two-way dialogue and taking citizen concerns seriously'.[17] Thus while the proliferation of public engagement exercises are examples of the turn away from long-standing modern tradition of instrumental risk assessments (containing a presumed deficit in public understandings) Irwin argues that new governance more or less *categorical* make it *imperative* to restore a 'deficit in *public trust'* (Irwin 2006: 303). 'Public distrust' is overall problem of all kind of public critique of science and technology, wherefore, governance has embraced the assumption that 'grater public consultation over scientific and technological developments can eliminate' (Irwin 2006: 300) public opposition. Consultation, however, often rests on valuing expert reasons against public knowledge, as the reason is needed to restore 'factual knowledge' before public engagement.[18] On this account present governance might embrace a talk of more open public engagement, while actually reinventing a long-standing tradition of imagining a deficit on the side of the public.[19]

By the imaginary of securing scientific and/or expert knowledge from critical questioning, scientific practitioners and their institutions paradoxically embrace the historical narrative of being non-historical enterprises. On this account the endemic problem of modernity is the institutionalization of science and technology through powerful visions, where science is simply seen (objectively) to speak truth to power. Hence '*institutional denial of its [science] own lack of predictive control and of the limits and contingencies of scientific knowledge which are endemic of scientific knowledge'* (Wynne 2006: 217 [our insertion]), is what generates '*quite specifically focused and selective forms of public alienation from science which do exist'* (Wynne 2006: 212). In this regard the imaginary that evokes public mistrust and even a sense of alienation is particular to situations in which the curious denial of imagination is at work in more or less institutionalized cultures that argue in

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[17] Ibid: 304

[18] See also *Taking European Knowledge Society Seriously – Report of the Expert Groups of Science and Governance to the Science, Economy and Society Directorate, Directorate-General for Research, European Commission* © European Communities, 2007 Reproduction is authorised provided the source is acknowledged.

[19] See also Wynne 2001: Creating public alienation: Experts cultures on Risk and Ethics on GMO; Wynne 2006: Public engagement as a Means of Restoring Public Trust in Science- Hitting the Notes but Missing the Music? in

favor of 'evident' reason alone.[20] On this account a critical endeavor is to challenge dominant imaginaries:

> Delineating the historical contingencies and processes of enculturation that have led to a given world and its knowledge being defined as "natural", thus inscribing the practical boundaries of our thinking capabilities and agency......This exposes the otherwise unseen role of imaginaries that normatively shape our commitments end expectations, thus materially shaping society.[21]

In following we turn to some important examples of the ways imaginaries partake in making specific exercises matter. The examples are chosen from their methodological significance for the experimental project of Technolife as well as qualifications of the above argument. They are examples of the aforementioned political passageways of the technological imaginary.

Underneath the categorical image of 'the absent public'

One of the telling examples of how sociotechnical imaginaries are mobilized in public engagement exercises is provided by Lauzun and Soneryd comparing the British 'GM Nation?' public debate on food biotechnology 2002-2004 and the Swedish 'Transparency Forum for Mobile Phone Communication' (TF) on radiation 2004-2005. Both exercises mobilized an imaginary of the 'ordinary public' that provided the consultants and organizers with different categories for the construction and realization of the exercises. It was basically assumed that the ordinary public is uninformed and that its presence in political engagement with complicated technologies, like the exercises, is characterized by absence. Through the assumption about the ordinary public as being absent, the GM Public Debate deliberately *screened* for the ordinary citizen assumed to know little about GM crops and biotechnology, thus assumed able to engage freely in deliberation and be moved through active learning. The TF exercise on the other hand comprised only interested 'stakeholders' and was subsequently framed by consultants in terms lacking in public status and representative relevance. This resulted in *'the prioritization of the "silent majority" of unengaged citizens over active "stakeholders" ...a curious form of politics: one in which the individuals seen to*

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[20] Wynne 2007, Dazzled by the Mirage of Influence?: STS- SSK in Multivalent Registers of Relevance, especially pg. 493-95

[21] Wynne 2007, Dazzled by the Mirage of Influence?: STS- SSK in Multivalent Registers of Relevance, pg. 95

abstain from participation in political life, what the Greeks would have known from the
'idiot'.....become the most highly valued constituency in what is allegedly an attempt to broaden
political participation' (Lauzun 2007: 280).

In accord with assumptions the consultation exercises imposed a model of the 'ignorant citizen' to discriminate between *those who know* against *those who don't know.* This was made an unproblematic identity-marker used to mobilize collective action and indeed the imagined (absent) public itself. This implied that knowable people naturally appeared extra-ordinary and thus non-representative of the public. They were seen as having culturally entrenched views, an unacceptable bias to the meaning with the exercise made to facilitate learning and uptake of new knowledge that could inform policy makers on the public understanding. The consultation experts leading the exercises, therefore, arranged customized and closed exercises for a select group of uninformed citizen to discuss and learn. They found that people within these exercises were much more open to change their position on the subject than those well informed thus deliberating in open forums like at regional and local meetings as well as on the official website. Thus informed people were seen as more static in their views as well as generally exhibiting negative concerns with the problems of GM crops and technology and being critical about the adequacy of knowledge of the implications of biotechnology. Those assembled in the special focus group were from the onset more ambivalent, posing questions and being doubtful about their position (Lauzun 2007, e.g. 287, 292). However, the distinction of exercising public understanding allowed the consultants to observe the gradually issue-driven character of the public. Thus people were gradually moved towards clear and critical concerns, thus, changing their position through perpetual self-reflexive learning '*in stark contrast with the immobility and rigidity of the positions expressed in public meetings' (*Lauzun 2007: 286). This successful construction by consultation models generating mobility in participatory view points was, however paradoxically, compromised in the governmental use that relayed *'on these discussions to produce a static image of "public concerns" as a set of fixed and clearly identifiable attitudes'* (Lauzun 2007, 292).

In the TF exercise the consultants sought to regulate debate between experts, commercial representatives and citizens affected by radiation of the mobile phone. The consultants leading this exercise relayed on a consensus-driven model meant to construct grounds of better

understanding between hostile parties through continuous dialogue and strengthened trust through personal contact and informality (Lauzun 2007, 291). The consultants leading the exercise did not see it fit for policy recommendations because of the deeply differing and hostile interests and views of different 'stakeholders' that reflected the absence of public engagement. Despite that the nature of the exercise made questions of its public representativeness obsolete to organizers and government, it became highly eventful and experimental. On the one hand participants who did not agree acted with small signs of emotional compassion and understanding towards each other, like e.g. removing mobile phones from the presence of those claiming to suffer from radiation outlet, and some gradually changed their mind in recognition of possible radiation. On the other hand, consultants relayed on modeling the exercise with the aim of finding better means of moderating between antagonistic views. This implied the attempt to secure the conditions of <u>explicit and outspoken</u> good dialogue by actively regulating interactions in an attempt to reserve a neutral basis for discussing difference at stake.

Summing up both exercises Lauzun and Soneryd write: "*Confronted with a contradiction between ideal models of communication and the realities of deliberation "in the wild", organizers do have a choice: to adjust their model to the actual process of discussion, or to adapt the public to the model*" (294)

Methodological point for Technolife: imagination and experimental knowledge making

The study by Lauzun and Soneryd serves to make critical reflection on Technolife possible. In both exercises it was tacitly assumed that learning equaled an overt change of position on the subject of deliberation. Deliberation was thus induced by the imperative of making new understandings and issues emerge as consequence of the change and movement of participatory knowledge. This, however, required the mobilization of imaginaries that categorically inserted the well-informed 'stakeholder' as a categorical screen against actively discussing issues of public representativeness. In addition the extents to which the exercises constituted a kind of experimental public engagement with technology, was bracketed from questioning and deliberation. By mobilizing a normative image of, who the public citizen is (not), the exercises exhibited a value to privilege, following Allan Irwin, the image of the 'open minded' against the well informed 'activists'.[22] That

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[22] Allan Irwin: The politics of Talk…2006 pg. 315

such categorical images are used to regulate exercises in unquestioned and even unrecognized ways underscores the experimental political conditions of such exercises.

Some of the interesting methodological points to draw from this converge in a question of how to understand experimental learning and knowledge making of such exercises?

Do participants actively need to change their knowledge-position in order to learn?
- Or might participants learn more tacitly like not being concerned with restating issues as much as given the issue meaning in their hinterland of experience and knowledge?
- That is, participant might not overtly change position on issue but rather more tacitly restate its meaning in a different context like? They might engage in other imaginaries than those experts categorically recognize as relevant for them to exercise?

The exercises also show that the public is not a static but mobile entity. The 'stakeholder' scenario of the TF exercise categorically implied that it negated its relevance as public exercise in recognition of the entrenched and static reasons of participation. However, the exercise temporarily managed to make people reflect and change their position in understanding of new and emergent issues. This shows that 'the public' was perhaps temporarily present in terms of the unpredictable deliberative turns the issues of the exercise provoked and the common footing such turns might subsequently allow for. Thus the 'public' participated through different temporary modes of political engagement that was overall issue-driven in the sense of philosopher John Dewey. The same can be said for the GM food exercise. In addition the highly regulatory setting that was imposed in order to make the selection and subsequent deliberation of ordinary citizens possible, reflect that ambiguous ways in which the public is brought to life under contextual experimental conditions. Such conditions imply specific categories or lenses of imagining the public that might paradoxically serve to blind consultants and experts from the active contestations and negotiation of them that takes place through citizen discontents. For other considerations on the subject of experimental democracy in relation to the status of expert-public knowledge and imagination of the public and the citizen see. E.g. studies of Marres 2008, Blok 2007, Jensen 2005, Elam and Bertilsson 2003.

Appendix 1: Desk Research

The identification of background sources for clarification of the social imaginary and imagined community has involved an extensive desk research using different web-based tools like Web of science, Google Scholar and more old-fashioned bibliographical cross-reference searches.

Using the ISI Web of knowledge including the Web of Science database provides access to the world's leading scholarly literature in the sciences, social sciences, arts, and humanities. Here we have searched for the use of the imaginary and imagined community in English written articles providing us with an extensive literature within a plenitude of disciplines. The search on 'imaginary' hits 2.648 articles in 'social sciences' and 2.481 within 'Arts and Humanities'. It has been used to qualify and contest a range of empirical phenomena like .e.g. conflict in nationalisms, Islam, stress, the 'Postmodern Political Imaginary' (Zavarzadeh, 1992), the use of food in science fiction films (Retzinger, 2008), Online role player, and Hackers as a form of public (Kelty 2005) just to mention a few diffusing examples.

The use of term in articles within selected disciplines deemed of most relevance was studied in detail. In sociology the term imaginary is used in 67 English articles, however, overlapping 21 other disciplinary 'subject areas':

View Records / Exclude Records	Field: Subject Area	Record Count	% of 67
☐	SOCIOLOGY	67	100.0000 %
☐	ANTHROPOLOGY	7	10.4478 %
☐	COMMUNICATION	5	7.4627 %
☐	ECONOMICS	4	5.9701 %
☐	HUMANITIES, MULTIDISCIPLINARY	4	5.9701 %
☐	EDUCATION & EDUCATIONAL RESEARCH	3	4.4776 %
☐	ETHNIC STUDIES	3	4.4776 %
☐	HOSPITALITY, LEISURE, SPORT & TOURISM	3	4.4776 %
☐	PSYCHOLOGY, MULTIDISCIPLINARY	3	4.4776 %
☐	ETHICS	2	2.9851 %

	Field: Subject Area	Record	% of
View Records Exclude Records		Count	67
(12 Subject Area value(s) outside display options.)			

In Anthropology 71 articles referred to the social imaginary.

	Field: Subject Area	Record Count	% of 75
View Records Exclude Records			
☐	ANTHROPOLOGY	75	100.0000 %
☐	SOCIAL SCIENCES, INTERDISCIPLINARY	15	20.0000 %
☐	HUMANITIES, MULTIDISCIPLINARY	12	16.0000 %
☐	SOCIOLOGY	7	9.3333 %
☐	COMMUNICATION	5	6.6667 %
☐	SOCIAL SCIENCES, BIOMEDICAL	5	6.6667 %
☐	ASIAN STUDIES	4	5.3333 %
☐	HISTORY	4	5.3333 %
☐	PSYCHIATRY	4	5.3333 %
☐	ETHNIC STUDIES	2	2.6667 %
View Records Exclude Records	Field: Subject Area	Record Count	% of 75
(11 Subject Area value(s) outside display options.)			

Political science 33 articles/12 subject areas
Philosophy 122 articles/ 11 subject areas

Despite this diversity and outspoken popularity of the term the use of references points toward

key authors in the social sciences also identified with Google scholar and other popular search

engines. These authors are also targeted in recent reviews in various acclaimed journals, e.g. the

'special issue on new Imaginaries' in *Public Culture* (2002) and the more anthropological journal

Ethnos 74:1 (2009) introducing their own subject 'Technologies of the imagination' in an attempt

to make a distinctive use of the imaginary. In this light some of the authors figuring most

prominently within sociology and anthropology are C. Castoriadis (1987), C. Taylor (2002, 2004), V.

Crapazano (2004), Arjun Appadurai (1990, 1996), Dilip P. Gaonkar (2002). In addition to Calhoun C.

(2004) an interesting collection of articles on the imaginary has appeared in *Current Sociology*

(1993 41, vol. 2) by authors like Michel Maffesoli dealing with E. Durkheim's use of the imaginary and the sacred (see end page).

Authors within or related with Science and Technology Studies (STS) that have dealt more *systematically* with the concept are for instance Sherry Turkle (The second self) and Lucy Suchman (2007) both referring to Michal Taussig's concept of mimesis, Helena Verran (2001), Brian Wynne (2007), Sheila Jasanoff and Huyn-Sayn distinctive concept of sociotechnical imaginaries (2009). Nortje Marres has dealt explicitly with the concept of the phantom public to conceive of the public as both issue-driven and imagined (2005). She draws primarily on the philosophy of John Dewey. John Law (2004) makes use of the term in relation with his concept of method assemblage. Bruno Latour (2005) deals with Dingspolitik.

The concept of imagined community and related searches was performed. 'Imagined community' provided 195 articles. In sociology 'Imagined community' gave 32 articles in sociology spanning 17 subject areas.

View Records / Exclude Records	Field: Subject Area	Record Count	% of 32
☐	SOCIOLOGY	32	100.0000 %
☐	PSYCHOLOGY	24	75.0000 %
☐	BEHAVIORAL SCIENCES	21	65.6250 %
☐	SOCIAL SCIENCES - OTHER TOPICS	10	31.2500 %
☐	ANTHROPOLOGY	4	12.5000 %
☐	BUSINESS & ECONOMICS	2	6.2500 %
☐	ETHNIC STUDIES	2	6.2500 %
☐	GEOGRAPHY	2	6.2500 %
☐	GOVERNMENT & LAW	2	6.2500 %
View Records / Exclude Records	Field: Subject Area	Record Count	% of 32
(7 Subject Area value(s) outside display options.)			

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