Interuniversity Attraction Poles V/16

**The loyalties of knowledge.
The positions and responsibilities of the sciences and of
scientists in a democratic constitutional state**

Progress report 2004

1. DESCRIPTION OF THE WORKPACKAGES

Workpackage 1: Prototype Researches taking the Web as the Main Territory to Explore.

In 2004, two series of seminars were organized for 4th year students in bioengineering. One in spring, organized by Sébastien Denys and Nathalie Trussart, the other in autumn, organized by Sébastien Denys.

The spring students were organized into seven groups and chose the following research subjects: "problème de l'atrazine"; "bananes génétiquement modifiées", "Biopharming", "les éoliennes en Belgique", "chasse à la baleine", "pesticides déclassés utilisés dans les pays pauvres", "problèmes de gestion de la forêt de Soignes". The autumn students were organized into four groups and chose as their research subjects: "conséquences de la réforme sucrière", "accords commerciaux communautaires pour l'alimentation animale", "le Gaucho et la mortalité des abeilles", "l'épuisement du réservoir halieutique et les poissons d'élevage". In both cases, the students had the choice in a longer list of topics. They reported their work in progress and their terminal conclusions on the part of the PAI Weblog imbroglio.be specially dedicated to this (http://www.imbroglio.be/controverses/) Generally, we may confirm that the direct discovery by the students of a contemporary controversy on the Web is quite a new experience for them, efficiently displacing their confidence that a problem can be analyzed into a "scientific", or "rational" point of view, and into a remainder which can be classified as a matter of politics, ethics or value.

Those new series were also an opportunity for learning and experimenting new procedures and organizational possibilities.

A first innovation was to interest the bioengineering department in the proposition of possible research subjects for the students. During one session, the students are now meeting "resource-persons" (from the department but also from the associative, administrative or political world) and are confronting their first conclusions and hypotheses with them.

Another innovation concerns the last step of the seminar, i.e. the public presentation of the work. The whole department is now invited, as well as the resource-persons. It became clear that it was very important for the students to be acknowledged as having achieved a research, to be presented and discussed as such. They did not hesitate accepting the supplementary work needed for such a presentation (PowerPoint). In December a supplementary possibility was explored, associated to the idea that the controversy research is of general interest and may be part of the communication with a more general public. Again students accepted the challenge, and the supplementary work. One group presented its work on Radio Campus (émission «Histoire de Savoirs» of Alexandre Wajnberg), together with S. Denys and I. Stengers, to explain the general project. The recording of the Radio Campus event is available on http://www.ulb.ac.be/sciences/lubies/Fichiers/track1.zip One presentation (an other is forthcoming has been presented on the ULB website "Actusciences", together with the general WP1 project (http://www.ulb.ac.be/sciences/lubies/Fichiers/track1.zip) .

This opening is important both for the students and for the meaning they give to this seminar and for the future of the seminar as it should eventually be officially not only inscribed in the Bioengineering curriculum, which is the case presently, but also financially provided for. In order to activate interest and discussions, Sébastien Denys also presented the Séminaire d'exploration des controverses at the LUBIES (Lutte biologique et Ecologie spatiale) research group directed by Jean-Claude Grégoire.

The Network meeting of June 4 2004, at the Ecole des Mines à Paris, on *Public Controversies* confronted the Brussels experiment with that of Bruno Latour with his students at Ecole des Mines, and with that of François Mélard with University of Liège students, as well as with the techniques for analyzing socio-technical controversies on the web by Noortje Marres. (cf. annexes 3 and 4)
Several communications were presented that day:
Sébastien Denys, «Presentation of the seminar»,
Nathalie Trussart, «Séminaires d'exploration de controverses: New habits of thought for bioengineering students at ULB, taking the web as a field of experimentation."
François Mélard, "Study of controversies inside a training in environmental sciences."
Noortje Marrès, "Issue crawler: theory and practice."
Bruno Latour, "The space of politics".

Within the framework of both WP1 & WP5, François Mélard presented a pedagogical experience on mapping controversies on local issues to the Network Meeting on "Public Controversies" of the IAP (Paris). A 5 years experiment has been carried on by a team of researchers and professors in a setting that gathers both actors of a controversy and students enrolled in a one year Environmental Sciences degree. The main characteristics of what are called the "Integrated Exercises" (IE) are twofold: a) in contrast with the two other learning processes presented at the IAP Meeting (the one from the ULB and the ENSMP), the IE are deliberately focused on local cases. This enables the direct exchange of points of view between actors of the controversy and the students; b) the IE try, as much as possible, to focus the attention on scale issues: as the seminar is split in two parts, local stakes are contrasted with the inevitable links they have with more national or international constrains or resources (regulatory processes, political definition of the

situation, economical interdependences, technical or scientific transfer, etc.). As a matter of illustration we enumerate the last four issues tackled by the IE : the controversies around the management of the marshes of Fouches (2001), the controversy around the implementation of windmills at St Ode (2002), the key environmental issues around the development of "micro-barrages" (2003) and the management of chemical wastes in Mellery (2004).

Staff working on workpackage 1: Isabelle Stengers and Jean-Claude Grégoire (co-ordinators), Sébastien Denys (researcher under half time IAP contract) Nathalie Trussart (PhD student, IAP doctoral grant), Dr Marius Gilbert (postdoc FNRS), Pof. Jacques van Helden (ULB). Both Sébastien Denys and Nathalie Trussart are now under full-time contracts. François Mélard (ULg-FUL) is working within this workpackage as well.

Workpackage 2: **Conceptual research into the relations between knowledge and power.**

During 2004, Nathalie Trussart has explored a perplexity, present since the beginning of the research: while the achievement of an experimental device can be articulated, according to Stengers (Stengers. 2003. p.148), in terms of the symbiotic meeting between 'we know' and 'we can', the '*dispositif de savoir/pouvoir*', coined as a philosophical tool of analysis by Michel Foucault, has been primarily used as a tool of denunciation in the field of 'science studies', as in echo of its large utilisations in all areas where a problem of management is at stake (security, bio security, agronomy, etc.). The perplexity emerged when comparing the link between knowledge and power in these respective meanings. On one hand, the experimental device celebrates its achievement as the symbiotic union between them: knowledge and power are co-produced. That implies that this power is constrained by the knowledge produced and by the conditions under which it is produced. This power is restrictively relative to those conditions of production. On the other hand, the term '*dispositif*', when used in reference to Foucault in the field of 'science studies' as much as in several social commonplaces, refers, on the contrary, to the success of management: power permits to gain, first and foremost, a supplement of control over different elements of a situation, with proper adaptation but without restriction. Two directions were followed side by side in order to clarify this perplexity.

First of all, a new research into Foucault's work, read side by side with Isabelle Stengers' work on the invention of the modern sciences (Stengers. 1993. 1996). The contrast she has introduced between modern sciences and modernist knowledge offers a very useful reading of Foucault's 'dubious sciences', for the analysis of which the '*dispositif de savoir/pouvoir*' was coined. Indeed, while studying psychiatry, medicine and other human sciences, Foucault was primarily studying 'dubious sciences', answering to Stengers' definition of 'modernist knowledge'[1]. Nathalie Trussart uses this transversal notion to make two points. The first one concerns the specificities of Foucault's 'good cases' of study and the very meaning Foucault attached to the word '*dispositif*'; and the second one concerns the possibilities of continuing to think with his notions and tools

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[1] Stengers I. 1996. Vol. 1. p.126

with other 'good cases', not coming from the human sciences, but from the experimental sciences, and in particular from experimental practices around the 'gene'.

As the American science philosopher Joseph Rouse wrote, the fact that Foucault focussed his criticisms on human sciences usually "suggests that Foucault accepted that there are important differences between the natural and the human sciences as more or less unified epistemic and political practices"[2] (Rouse. 1993). "With regard to the well established natural sciences, Foucault seems content to accept the approach of Bachelard and Canguilhem"[3] (Gutting. 1989/1995). That is to say, Foucault would agree that the only valuable approach for the natural sciences is the one limited to an epistemological and historical account of knowledge, without any potential for radical critique and revision of our knowledge enterprise. In this case, his analysis in terms of strategies of power and knowledge would be legitimate only for the human sciences, the only ones open to criticism, and of little interest for attempts to understand the modern sciences of nature.

However, we share with Rouse the conviction that Foucault's discussions of knowledge and power offer important suggestions for how to philosophically approach the natural sciences. Keeping in mind that Foucault was working primarily on 'dubious sciences', rather than on human sciences, allows to state that what is doubtful concerns first and foremost the fact that human studies succumbed too often to the temptation to adopt without hesitation the modern scientific model, embodied in the experimental device, so as to justify their claim for rationality and their practice in society. In doing so, they forget that this model created specific constraints for particular problems and objects. The success of the modern sciences, of which we are the heirs, does not concern primarily a unique mode of production of truth (that is repeated by the modernist sciences), but the acknowledgement that different objects of knowledge may produce definite problems and may demand distinct methods and specific constraints. Therefore, the present-day custom of a discipline to give way to this temptation can become a problem. This problem is situated at the crossroad between the study of knowledge and the study of power. What is doubtful concerns the political sovereignty, which those 'savoirs' attempt to benefit by their desire to make 'Science'. Foucault's 'dispositif de savoir/pouvoir' is a useful tool of analysis to diagnose whether or not a claim for knowledge is about 'dubious science'. That is to say, this tool concerns primarily a distinction between bad science and good science, rather than a new demarcation principle between science and non-science. «La vérité est de ce monde»[4], Foucault affirmed; while pointing out the scientific discourse as its major form in our societies, which are heirs of modern sciences. The task is the understanding of this fact; and of the way it is produced, as well as its effects.

When we consider Foucault's many uses of the term "dispositif", from the 'dispositif' of prison to the 'dispositif' of the self, including the 'dispositif' of sexuality, it is clear that this technical term cannot be reduced to device or apparatus. Indeed, the conceptual dimensions of this term permits to join these two perspectives, experimental and instrumental, pointing out the passage from the experimental aspect to the instrumental aspect of the 'dispositif' as the crucial moment that requires attention. The 'dubious sciences' are those which miss this critical point. A 'dispositif de

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[2] Rouse J. 1993. p.138.
[3] Gutting. 1989/1995. p.255.
[4] Foucault (1977). p.158.

savoir/pouvoir' is a specific mode of production of '*énoncé*'[5] of truth. It is a metaphysical unity linking together all the heterogeneous and contingent elements - humans and non-humans, what is said and what is not said (enunciative, architectural, technological and so on) - that were required in order to produce such a truth. For '*dispositif*' pays attention to temporal requisites rather than to causal determination; its use invites to adopt a bottom-up approach, concerned with the boundaries (of place, of practice, of discipline, etc) if and only if they are conceived as in flux, in permanent reorganization and reconstitution under the pressure of contingencies. Conceived in such a way, this concept can offer an account of scientific practice as much as of 'dubious science', depending of the successful (or not) passage from the experimental to the instrumental dimension.

The second direction followed during 2004 was research done within the working group "GMO on European ground" inside the IAP, with Daniel De Beer de Laer (WP7, VUB), Sébastien Denys (WP1, ULB), Jean-Claude Grégoire (WP1 and 4, ULB) and Isabelle Stengers (WP1, 2 and 4, ULB). We explored the GMO controversy in several of its dimensions (legal, political, industry's line of reasoning, commercial, Belgian and European levels, bio-safety institutions, groups of citizen claims, activists networking, construction of knowledge through participative and interactive technology assessment - pTa and iTa -, competition between molecular biology and environmental biology, patenting dynamic, scientific responsibilities in expertise situation, institutional agencies, and so on.). In this working group N. Trussart gave particular attention to the multiple facets of the gene as claimed in contemporary controversies over scientific knowledge[6] and focussed on the instrumental mode of existence of the gene as it appears in the social field. The role of the public was major in the controversy. It brought to light a disagreement about the nature of public action, as opposed to private affairs. That is to say a disagreement about the line of demarcation between what is left to private initiative and management and what must be regulated by the state. Indeed, around GMOs, at the occasion of the struggle which put into question their first consensual justification, the role of private interests has powerfully irrupted into public affairs.

This work produced a large amount of material as evidence that biotechnologies offer enough grips to be explored by the '*dispositif de savoir/pouvoir*' in its critical dimension. Such a gene technology presents many examples for "an intracellular representation of extra cellular projects - the 'rewriting of life'" (Rheinberger. 1995). But this material also forces N. Trussart to ask: How do living beings put the experimental model of molecular biology into crisis in such a way that what can be called an experimental achievement so easily turns into an achievement of quite another kind? This question implies two sub-problems. The first one concerns the new beginning for experimental biology, entailed by the era of genomic analysis. The second one concerns the crisis of experimental biology itself and the hypothesis whereby this crisis, internal to biology, is masked by other kinds of success gained in society in the name of biology. As already stated above, when the achievement of an experimental device can be articulated in terms of the meeting between "we know" and "we can", the kind of achievement of biotechnology can be articulated in terms of "we do what we can where we can"

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[5] Foucault (1969).

[6] N. Trussart has been interested in the controversies over scientific knowledge that have emerged from within the scientific community (e.g. Evelyn Fox Keller, Pierre Sonigo, Jacques Testart, etc.) as much as from social network (e.g. NGOs, activists, etc.).

(Stengers. 2003. p.148): technical achievement is not constrained by its symbiotic knowledge gaining counterpart.

Nathalie Trussart will try to clarify those problems in the next part of her PhD thesis. For this purpose, she would like to think the experimental devices in terms of the '*dispositif of savoir/pouvoir'*, while paying special attention to the passage from the experimental status of the device to the instrumental one, a passage through which an achievement is obtained. What is the role of the gene in such a passage from the laboratory to the society where, nevertheless, the experiments go on?

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Staff working for workpackage 2:
Prof. dr. I. Stengers (promoter), Nathalie Trussart (PhD student, scholar in philosophy for the IAP, FT)

Workpackage 3: Transformations in science policy

The Paris group worked a lot on two different lines: the first one was to develop the search for cartographic tools; the second was to invest into a simulation of a public assembly using original new medias.

The first one has been developed with Noortje Marres of Amsterdam and Martin Remondet in Paris. We can now say that the relations of credibility which at an earlier time were traceable only for scientists -in the lines of the sociology of science- can now be extended, thanks to new information technologies, to the so called "context" of science. In other words, solid facts, vague rumors, conspiracy theories, legal cases, administrative decisions, media interpretations, newly evolving theories, all of those can be followed by using the same sort of basic quali-quantitative tools. Those tools have been tested in B. Latour's engineering class -see http://controverses.ensmp.fr- and by

Noortje Marres, in a special session of the 4S-EASTT meeting of August 2005 on *Public Proofs* in Paris and in a special mapping session in Vienna new Forshung Gallery (director Albena Yaneva). Thanks to the support of this latter group it might be possible in the near future to create a think tank in Vienna where all the cartographers of controversies could gather their tools and instrumentations.

We think it's fair to say that we are now close to the design of a workplace where the scientometrics tools will merge fully with web based sites. A look at Google scholar is enough to show how powerful the help is we can get from the quick evolution of digital technologies. What is missing, but that this IAP-project will be able to gather, is the use of a generalized sociology of science as a way to navigate through the mass of newly digitalized information. In other words, what we think we can achieve is to have a layer of applied sociology of science on top of the search engines. Such is the decisive insight that we wish to render operational in this workpackage. On this front, we are moving slowly but we are clearly moving forward. The amazing reception of the event at the Gallery Forshung in Vienna -entirely suggested by us- shows that the advances are easily detectable.

The second line was less expected. It has been developed by B Latour, Noortje Marres again and Christelle Gramaglia and several others from the Paris group. This time the idea was not to use web based and information technology to bring together scientometry and public debate (the core of the workpackage) but to create a three dimension simulation of public arenas, what B. Latour now designates with the neologism in German Dingpolitik. Latour has thus directed a lot of the effort done inside the IAP toward the fabrication of a catalogue -see in bibliography- and, more unusual, of a show that is to open in March 2005 in Karlsruhe Germany under the title *Making things public. Atmospheres of democracy* (http://makingthingspublic.zkm.de/)

What we have tried to do is to assemble a mock up version of the "Parliament of Things" outlined in Latour's *Politics of Nature*. The mock up, as in all simulations, aims at detecting where the difficulties lie in assembling or gathering such a "parliament". The results of this simulation will be debriefed in 2005 once the show will have opened and been visited. We believe that such a 3-D medium is particularly well suited for testing several of the goals of this IAP. The fabrication of the show has crossed many of the other workpackages. Didier Demorcy implied in the weblog of the PAI has done a marvelous job in creating a full scale model of public debates around natural resources. Isabelle Stengers has offered a crucial paper for the catalogue around the notion of cosmopolitics - the first time her important concept is presented in English. Through an installation of Susan Silbey we have tried to give a visual equivalent of the trails of law developed by Serge Gutwirth. And so on. We think it's fair to say that the show demonstrates that new medium such as an exhibition is a powerful means to approach purely academic questions.

Noortje Marres will have completed her Phd *No Issue no politics* in May 2005.Christelle Gramaglia will have completed her PhD in Fall 2005 on the *Politics of water in France and its relation to law*. As far as publications are concerned, we have decided to include all of them in the large catalogue of *Making Things Public*. This means Latour's own introduction, Noortje Marres' two papers, Christelle Gramaglia's paper on Riverphonics

In « From Realpolitik to Dingpolitik – An Introduction to Making Things Public » Latour defends that *Realpolitik* turns out to be a very unrealistic version of politics. In effect,

most of our political passions and interests are turned toward things –the old English and German Ding- that could be translated nowadays by 'issues'. But in spite of this constant attention to things, political theory remained in a rather abstract level of opinions, positions, standing, problem solving and, in general, discursive attitudes (see further under publications).

Staff working for workpackage 3:
Prof. dr. Bruno Latour (Promotor European partner), Noortje Marres (doctorate researcher), C. Gramaglia (doctorate researcher)

Workpackage 4: Study of a scheme to evaluate biosecurity in connection with GMO's.

At the end of year 2002 we unhappily arrived to the conclusion that Jean-François Desaedeleer would not be able to adapt to the kind of work demanded by his doctoral thesis. The work of the WP4, as it was initially planified, was to associate researchers from the FUL (who could not be included in the PAI contract, and thus could not fully participate) and of the ULB, was thus doubly handicapped. However, due to the half time contract of Sébastien Denys, this WP has taken a new start, characterized by strong new connections with French INRA researchers at the occasion of the seminar *«L'innovation controversée: le débat sur les OGM comme expérimentation collective de nouveaux rapports entre sciences, marché et démocratie»* and by Sébastien Denys' work on the case of Bayer colza MS8&RF3. Also the work has progressed through a seminar devoted to the "GMO event", which resulted in three contributions at the IAP colloquium "Testing expertise" (S. Denys, N. Trussart, D. de Beer, cf. annex 7), and has inspired Isabelle Stengers' communication about "Scientific expertise and Public decision, at the 9-11th March *European Science and Society Forum* and will lead to further publication. This work is also integrated in a forthcoming book by Isabelle Stengers where this IAP contribution will be credited. Next year, as Sébastien Denys will have a full time contract, the WP4 will be able to explore the connection we have begun to discover between biosecurity, public information and the WP7 work on the legal status of information (Intellectual Property Rights) a subject of common interest with the *Fondation des sciences citoyennes*, in the Conseil d'Adminstration of which Sébastien Denys is now part.

Staff working for workpackage 4:
Prof. dr. F. Mélard (co-promotor), Prof. dr. J.-C. Grégoire (co-promotor), Prof. dr. I. Stengers (promotor), Prof. dr. E. Zaccaï (senior scientist, IGEAT), Sébastien Denys (PhD student)

Workpackage 5: Study of multidisciplinary research schemes for public action

Marc Mormont kept on following an original experience of public discussion around possible siting of a nuclear waste disposal. Contrary to the prevalent and persistent ideas according which such conflicts are concerned with values and interests, the assumption

that sustains the methodology of this experiment is that public discussion can be organised in such a way that interests and values can evolve in the process. In the observed process this has been realized by the following facts (a) the project was not designed before the public discussion and by (b) the project was open to inclusion of specific projects of local population related more or less directly to the siting process.

The second process allowed all kind of interest represented by local authorities and local NGO's to be involved in the discussions. But the first one opened a long process of inquiries about the specific context and especially about the hydrological an geological situation because the site is near ancient coal mine plants. Experts and scientific consultants developed their studies according scientific requirements but also according to specific questions from local population. In parallel engineers started to develop a technical concept of the disposal in order to fit the specific conditions. A more important process occurred through the discussion. Whereas preliminary ideas of engineers conceived long term security on the model of imperviousness (closed building with neither physical intrusion nor social intrusion), local population insisted on openness of the site in order to ensure controllability and reversibility of the site. This process led to a quite innovative concept with a lot of devices in order to satisfy these aims. So the process can be read as a socio-technical design process.

This process was accompanied by another one in which local actors started to design tools for local development and projects that should be financed by the promoters or governmental agencies in order to sustain a liveable community. Interestingly it was a process by which local actors are strengthening their mutual links and at the same time are beginning to think long-term projects, just as if the long term dimension of the nuclear site was inducing new ways of thinking the local: this process lead local actors to imagine a sort of social device to control and monitor the community in the future.

These results allow us to suggest that technology design is a supple process if the design process is open to public discussion. It must be recognized that such process can only occur if social (time, organisation) and cultural (expert openness) conditions are met. We are trying to find means to explore the same processes in nature management processes.

Staff working for workpackage 5:
Prof. dr. M. Mormont (promotor), Prof. dr. F. Mélard (co-promotor) and G. Verjans (part-time researcher)

Workpackage 6: The relationship between law and science form the perspective of law and legal theory.

During the first two years of the IAP Mireille Hildebrandt has researched the relationship between science and law (designing complex case studies for first year law students in Rotterdam, on the topics of 'testing expertise in court' and 'understanding causality in law'; preparing a study of argumentation theory in relation to legal assessment of expertise in court; see list of publications). The third year Hildebrandt has moved on to explore the findings of this research to locate good practices for the testing of expertise.

She has read extensively into literature on participatory Technology Assessment (pTA) and correlated its focus on communication between lay persons and experts with the communication between judge, jury, parties and experts in fair trial. This has lead to interesting new ideas about representation in politics and social (and marketing) research. Instead of understanding representation as a matter of aggregation of ready-made individual opinion (votes, sociological surveys) or ready-made preference (consumer choice), representation can also be understood in a less quantitative manner. To explain this, one could take the example of the legal jury, that is often said to represent common sense, in a process of carefully examining and discussing the evidence. This common sense is not an aggregate of given individual opinion, but the result of a process of forming a shared opinion. One could call this deliberative or participative fact finding (knowledge construction by lay persons, often on the basis of expert evidence). What is represented is created in this process of knowledge construction, it does not precede its representation. The fair trial seems to have found an interesting way to constrain this process of knowledge construction (representing the common sense of a community): incorporating expert advice while leaving the final word to lay persons (judge and/or jury). This has also been investigated by Gutwirth, and presented by him during the *Testing expertise* colloquium of October 20, 2004 (cf. annex 7). If the constitutive constraints of the fair trial are understood in their *virtual sense*, they could be used as good practice for pTA. Especially since pTA seems to lack the necessary backbone, making it vulnerable to exploitation by those that are only looking for means to legitimate their own blue prints. This is of course not to suggest that pTA should incorporate the *actual practice* of the fair trial. Apart from the fact that the actual practice of the fair trial is being eroded from within and without, the demands to be met by adjudication form a setting very different from the demands to be met by technology assessment. The ideas generated by this research have been presented, together with Serge Gutwirth and Wim Schreurs, at the 4S EASST World Congress on *Public Proof, Science, Technology and Democracy*, in Paris 25th –28th August 2004, and during the IAP Conference on *Testing Expertise*, in Brussels 21st October 2004. (annex 7)

To nourish the reconstruction of the virtual constraints of the fair trial Hildebrandt participated in the project of Antony Duff and others in Scotland, The Trial on Trial II. The LLM course on Glenn's *Legal Traditions of the World* and a study of Foucault's 'La vérité et les formes juridiques' further inspired comparative and historical perspectives on the fair trial, as well as the essay on *Freedom and Punishment* that Hildebrandt wrote on the work of the Dutch legal historian Immink.

In the course of 2004 work started in the EU FP6 NoE (Network of Excellence) FIDIS (Future of Identity in Information Society). Hildebrandt and Gutwirth are the coordinators of the workpackage 'Profiling: implications for privacy and security'. The topic of profiling correlates well with the topic of correlatable humans (wp 8), but the interdisciplinary nature (legal, technological, information science perspectives) make the exchange within FIDIS a fertile play ground for studying the relationship between law and science from the perspective of the relational theory of law.

As announced in the 2003 annual report, Laurent De Sutter has been continuing his exploration of the relationship between law and science from the legal theoretical point of view, with regards to two already set directions.

The first direction was purely theoretical. Continuing with the attempt at re-conceiving the legal theoretical apparatus without continuing to give credits to what had constituted its realm of concepts and vocabulary; this has been pursued this year mainly through the confrontation of these concepts and vocabulary with Isabelle Stengers' "cosmopolitics proposal". This confrontation, held with the collaboration of Frédéric Audren at the Ecole Nationale Supérieure des Mines (Paris, France), has given rise to a collective work published in a special issue of the very largely read review *Cosmopolitics* – in which Laurent De Sutter's previously held researches with Serge Gutwirth, regarding the analysis of Bruno Latour's concept of law as exposed in *La fabrique du droit* and in the reactions that have been provoked by Laurent De Sutter and Serge Gutwirth's previous instalment, have also been extended, as well as connections with other researches held in the framework of the IUAP project, namely the researches undertaken by Daniel de Beer. Laurent De Sutter's second direction of research, the issue-driven one, has also been furthered on. This direction of research concerned the concept of representation and its problematic status in the new democratic practices that have arisen as a consequence of the GMO controversy. A very close analysis of the citizen forum held by the Vlaams Instituut voor Wetenschappelijk en Technologisch Aspectenonderzoek at the Flemish Parliament in March 2003 as well as other foreign examples helped to define this problematic status, and to try to formulate a possible answer to the aporias of this status. This answer is to be developed in Laurent De Sutter's PhD thesis as it is currently being written, but can already be described as concerning to possibility of defining a constructivist conception of representation, as opposed to the conception of representation as legitimation. The presentation of Serge Gutwirth during the *Testing expertise* colloquium about the jury, was elaborated along the same lines (see Annex 7). The interest in this perspective from the actors in the field themselves has already lead to an invitation, on Tuesday 22, 2005, to present this research, together with Serge Gutwirth, at the ViWTA in the Flemish Parliament itself.

Laurent De Sutter's PhD proposal *Cosmopolitique de la représentation. Etude sur la construction juridique du public* (see annex 8) has be approved by the Council of the Faculty of Law of the Vrije Universiteit Brussel, which constituted its follow-up committee as follows: Prof. Serge Gutwirth (promoter, VUB), Prof. François Ost (Facultés Universitaires Saint Louis) and Prof. Jef Van Bellingen

Staff working on workpackage 6:
Prof. dr. S. Gutwirth (promotor, network co-ordinator), Prof. Dr. Mireille Hildebrandt (full time post-doctorate researcher) and Laurent De Sutter (full time doctorate researcher).

Workpackage 7: The legal status of knowledge and information.

At the end of 2003, Daniel de Beer has come to the following conclusions: the intellectual property rights, especially patents, are a key issue. In 2004, he worked mainly on this question. He started a doctorat: "Le brevet et le dispositif dans lequel il s'enchâsse, forteresse et machine de guerre, ou institution juridique perfectible?". We can not study the intellectual property rights, especially patents, without considering their practice. Yet looking at the legal practice is not enough to explain what is going on. It appears that this

practice involves a lot of "things": law, World Trade Organisation, TRIPS Agreement, transnational firms etc. as well as several "*mots d'ordre*" (like "patents mean progress"). It seemed important to understand in which game find ourselves. Roughly said, it seems that something like a complex "device" (*"dispositif"*) has been built to protect patents from any confrontation with other rights or concerns. A hypothesis is that the huge dispute over the question of access to essential medicines, that started in South Africa in 2001 and ended in Cancun in 2003, was a real ordeal by fire of the new system or "device" set up in Marrakech in 1994.

Daniel De Beer's PhD proposal *Le brevet et le dispositif dans lequel il s'enchâsse, forteresse et machine de guerre, ou institution juridique perfectible?* (see annex 9) has be approved by the Council of the Faculty of Law of the Vrije Universiteit Brussel, which constituted its follow-up committee as follows: Prof. Serge Gutwirth (promoter, VUB), Prof. Isabelle Stengers (ULB) and Prof. Fabienne Brison (VUB)

The work of Nicolas de Sadeleer during 2004 chiefly consisted in updating a number of articles he wrote on the legal consequences entailed by the principle of precaution, in particular in the sector of food safety. Several of his articles were translated and published abroad (Brazil, Greece, ...). In addition, the chapters on genetic diversity, intellectual rights on living things and on GMO's that he wrote in the course of 2003 were published in a book co-authored with Charles-Hubert BORN, *Droit international et communautaire de la biodiversité* (see Publications). Besides, 450 copies of the book were purchased by the Ministry of Foreign Affairs with a view to distributing them among French-speaking academics in Africa.

Nicolas de Sadeleer was also asked by Oxford University Press to correct the hardback version of his book *Environmental Principles: from Political Slogans to Legal Rules* (Oxford, Oxford University Press, 433 p) with the aim of publishing a paperback version. A paperback edition was published in January 2005

Staff working on workpackage 7:
Prof. dr. S. Gutwirth (promotor, network co-ordinator), D. de Beer (researcher), Prof. dr. N. de Sadeleer (senior scientist) and Wim Schreurs (assistent faculty of law, VUB).

Workpackage 8: Correlated man and man as seen by law.

During 2003 Mireille Hildebrandt worked on the relationship between human genetics and law, to locate the nexus of correlated humans and genetics, and to arrive at some initial understanding of the relevance of the concept of correlated humans for this project In 2004 Hildebrandt and the others that work within this workpackage have tried to arrive at some shared meaning for the term correlated humans. The input from FIDIS (EU Network of Excellence on identification technologies in information society, see above under wp 6) has engendered better understanding of the emergence of correlated humans in the process of automated profiling technologies. Mireille Hildebrandt has presented a paper on the network meeting in Rotterdam, correlating the embedded and embodied human person to the profiled data subject, mediated by the concept of the legal person as developed in the relational theory of law of Foqué and 't Hart.

Isabelle Stengers has provoked new understanding of the issues at hand by commenting texts and papers on the Imbroglio tree of questions and the Imbroglio Weblog, and during the network meeting in Rotterdam on 16th December. She has referred to the automated process of profiling that enables both humans and non-humans to assess risk and opportunities in their environment. She has thus correlated this topic with a certain understanding of what it is to be part of an environment while also co-producing it.

Some consensus seems to grow within the network as to the meaning and the relevance of the concept. The emphasis has shifted from correlated humans to correlatable humans, indicating the fact that the signs/data that are correlated often generate meaning after being correlated. Thus understood being a correlatable human is the virtual aspect of being an actual human. Being correlatable in this virtual sense implies the indeterminacy of human 'nature' (or, the non-essential essence), that is forever becoming actual – in ways that are not entirely predetermined. This point is highly relevant for the role of law in a democratic constitutional state, as it indicates the importance of the concept/construct of the legal person as a means to confirm this virtual aspect of the human person. In paper presented at the international conference on 'Is knowledge justiciable' in Essen, Germany Hildebrandt is elaborating on this point (March 2005).

The issue of the virtual identity of the human person is taken up – though using other terms – in the paper Hildebrandt presented in the workshop on *Privacy and the criminal Law* in May 2004 in Leuven. In her reply to David Archard Hildebrandt claims the link between privacy and identity to be of crucial importance, while also claiming that privacy should not be taken in a static sense but understood as the process of boundary negotiations that enable people to co-produce themselves and/in their environment. The issue of the meaning and protection of privacy and identity is naturally part of the FP6 FIDIS NoE. During 2005 Hildebrandt plans a 5 month sabbatical on *The impact of identity technologies on privacy and identity*.

Serge Gutwirth has contributed to this workpackage by extending to the 'correlatable human' the reflections he developed together with Paul De Hert on the interrelated issues of the democratic constitutional state, privacy, data-protection and individual liberty. They both linked these ideas to criminal procedure issues in the key-note paper "Privacy and Law Enforcement. A Program for Modesty and Practical Wisdom" they presented on May 14 2004 during the international Workshop *Privacy and the criminal law* (to be published in 2005). Gutwirth has been focusing particularly on the necessity to make a distinction between on the one hand *opacity tools* or legal tools that tend to guarantee the non-interference in individual matters or the opacity of the individual, and on the other hand *transparency tools* or tools that tend to guarantee the transparency and accountability of the power. He linked these ideas explicitly to the notion of the correlatable human in the paper *The correlated human revisited. A slope beyond boom and doom* he presented during the sixth IAP 5/16 meeting of December 16, 2004 in Rotterdam (posted on *imbroglio.be*). He also developed these ideas during the FIDIS Network of Excellence Workpackage 7 kick off workshop on profiling of March, 2, 2005 in Brussels. Meanwhile the Specific Support Action (SSA) *Safeguards in a world of ambient intelligence (SWAMI)* (FP 6), Priority 8.1: Policy-oriented research was started up in February 2005. Gutwirth is promoter of the LSTS-VUB participation in this network; Wim Schreurs and Michiel Verlinden are the researchers. Of course, this project is closely linked to the issue of the traceable, correlatable or detectable human as it

focuses on a prospective but highly relevant application field (namely *Ambient Intelligence*).

Wim Schreurs' contribution derives in the first place from his PhD work on *Ambient intelligence and the protection of personal information* (see annex 10). His PhD proposal has been submitted to the Council of the Faculty of Law of the Vrije Universiteit Brussel, which has constituted its follow-up committee as follows: Prof. Serge Gutwirth (promoter, VUB), Prof. Jean Claude Burgelman (IPTS-JRC, EC, Sevilla & VUB) and Prof. Paul De Hert (Leiden University and VUB).

Wim Schreurs, who is a participant in the FIDIS and SWAMI projects, is actively involved in issues relating to the correlated or 'correlatable' human. Throughout these projects and his PhD, he has been focussing on the relation between privacy, data protection and ambient intelligence. More in particular, personal data processing, data collection, data storage and distribution and the use of profiles are important aspects of ambient intelligence which are closely related to the 'correlatable' human.

In his research, humans are more approached and considered as a kind of 'digital me's', where the correlated human is in fact a digital representation of a human being. In this sense, in order to create safeguards against the possible negative aspects of correlating humans (making digital humans), he works on the necessity to develop a model of interaction between law and technology, in which human beings and their correlations (their data - their digital representation) are protected throughout a convergence - synergy - of law and technology. In this view, he started to present overviews of several existing laws on the protection of privacy and data protection, and to propose new approaches and changes to these laws (which then also should apply in ambient intelligence situations). In this sense, he analysed in particular the process of individual profiling (correlating) in his presentations in the network meeting on the correlated human in Rotterdam and during the workshop on ambient intelligence and profiling in the FIDIS project. At the moment, he starts to test his proposals for 'codes' - i.e. law-in-technology applications - in which the focus is mainly human-centred and based on the necessity for an individual to have the possibility himself to be the controller against unwanted data collection and procession (and possible correlations).

Staff working on workpackage 8
Prof. dr. S. Gutwirth (promoter, network coordinator), Prof. dr. M. Hildebrandt (post doctoral researcher), W. Schreurs (assistant, Faculty of law, VUB)

Workpackage 9: Mathematical practices, statistics, and society.

1. Themes by Jean Paul Van Bendegem

Mathematical practices
We continue our research into the actual practice of mathematicians in order to understand not merely how the mathematical process evolves but to get a grip on the problem of mathematical certainty, more specifically, what are the roots of the idea that mathematical knowledge is in some sense or other necessary.

History of mathematics
We look at the western history of mathematics and try to answer Bloor's question whether an alternative western mathematics is possible? Could mathematics have developed in a different direction than in actually did. We look into the possibility of actually spelling out such historical alternatives.

"Mathematization" of our daily world
Related to the inquiry 'Mathematics and Politics' is the topic of the "mathematization" of our daily world. Although evident to all of us in some respect – see the next topic on statistics – it is less evident to find mathematical traces in such daily things as buildings, parks, cities, homes, etc.. We claim however that one of the typical characteristics of western society is the overall presence, often hardly detectable, of a mathematical worldview, explaining for a part the prominent role it plays in western societies.

2. Topics part of the PhD-project of Karen François

Ontology of Mathematics and mathematical practices and beliefs
We are looking for an empirical support of the thesis "Platonism is the mainstream ontology in the mathematical (and scientific?) community". We presented our first results during the congress on dynamic ontology's at Trento, Italy.
In a following step of our research, we shall have to introduce further distinctions between Pure Mathematics, Applied Mathematics and Mathematics Education.

Mathematics Education
The first results of the screening of secondary school curricula of mathematics are published at the website (http://www.vub.ac.be/CLWF/) and at the "imbroglio" site. An interpretation of the data in terms of hidden values, the role of ethnomathematics and critical remarks on the didactics are presented during our international congress "Mathematics in education. Is there room for a philosophy of mathematics in school practice?", Free University Brussels (in cooperation with CLWF/VUB), 14-15 May 2004. Publication of proceedings and additional contributions is provided.

Ethnomathematics
We are looking for a renewed role of ethnomathematics in Western curricula. Ethnomathematics is no longer seen as the study of mathematical practices of 'nonliterate' or 'illiterate' peoples. We propose a broader concept of 'ethno', to include all culturally identifiable groups with their jargons, codes, symbols, myths, and even specific ways of reasoning and inferring. The use of the word 'ethnomathematics' has to be broadened now as it has to refer to heterogeneous groups, even within a 'Western classroom' which are characterized by diversity. The challenge for teachers nowadays is to deal with this diversity in order to give pupils equal chances. A publication 'Ethnomathematics in practice' shall appear in 2006 (in collaboration with University Ghent, Prof. H. Pinxten).

Mathematics and Politics
A philosophical inquiry into the politics of mathematical formalisation and objectification as a method to reach the best level of certainty in the sciences leads us to the Latourian notion of 'Science' as the politicisation of the sciences through epistemology. (WP 3) We presented (in collaboration with WP6 Laurent De Sutter) this topic at the Conference in Political Theory, Essex, UK. The proceeding shall be published in 2005 (*Philosophica*).

Statistics (transversal theme correlated human)
Looking at the history of statistics one can show the growing importance of statistics in social sciences and in society in general. We are now in a period of trying to teach statistics to all. We shall argue that we have to do this in an accessible and critical way. In order to do so we have to integrate the history of statistics, the social relevance, the hidden values and indeed the political consequences of the use of statistics. We therefore look at the historical, philosophical and political aspects of statistics before returning to the question how these elements can contribute to the critical teaching of statistics. We are invited speaker at ICOTS-7, the seventh International Conference on Teaching Statistics, Salvador, Brazil, July 2-7, 2006. (in collaboration with University Ghent, Dr. Nele Bracke, Department of Contemporary History).

3. Topics part of the PhD-project of Hans Comijn

Mathematics as a construction
The production of a body of mathematical knowledge is compared to the construction of a building. We are looking for the main actants in this process, the matters of concern, the power relations, the strength of the building. Results were presented at several occasions.

Sociology of mathematics
Following the description of mathematics as a construction, we use a metaphor comparing mathematical activity to the activity going on in Salomon's temple. If mathematics education can be compared to what is going on outside the temple complex, applied mathematics to what is going on in the courtyard, and pure mathematics to what is going on inside the holy of holiest, than a sociology of (pure) mathematics is made very difficult. We find it imperative however, to have a sociological approach to these mathematical practices.

Staff working on workpackage 9
Prof. dr. Jean Paul Van Bendegem (co-promoter), Hans Comijn (full-time PhD student since March 2002) and Karen Francois (full-time PhD student since October 2002)

<u>Workpackages 10, 11, 12 and 13</u>

During 2004, the research in these four workpackages undertaken by the involved researchers remained intertwined and is reported as such.

Both researchers analyzed their case studies (the 'Van San' case, concerning the social research on juvenile delinquency of migrants; the 'GM Food' case, concerning the

making and commercialization of genetically modified food) at a critical distance, from a more theoretical or speculative perspective. Drs. V. Smet is preparing a PhD on the problematic relationship between social science/scientists and policy. Dr. D. De Waele studies the interactions between agricultural biotechnology, public and policy.

Analysis of the relationship between social science/scientists and policy:

- On the basis of case studies, an attempt is made to confront the theoretical literature on the subject with the day-to-day practice of social research and policy in Belgium. A further study of the literature on knowledge utilization, policy-making and policy was made. Literature on the methodology for the practical part of the research was studied (in spec. ethnography) and a questionnaire for the interviews was elaborated.
- Contacts were kept with researchers working on the UNESCO MOST-project on 'social science and governance' (KULeuven; ULB); new contacts were made with researchers from IMES (Institute of Migration and Ethnic Studies, the Netherlands), with policy-makers and social scientists. Parts of these contacts will result in the publication of a thematic review on the role of social scientists in policy, in spec. migration policy, in the journal *Ethiek en Maatschappij* (publication foreseen: summer 2005). Interviews were held with policy-makers and social scientists. An analysis was made of the research financing over the years at the University of Ghent, as well as an analysis of the follow-up-study of the Van San-research.
- We attended the conference on '*Social science and governance*' at DWTC, June 8th 2004, Brussels. We held a presentation on the role of social science for policy at the conference '*Sharing Knowledge? Exploring the interfaces between science & society and the role of science communication*', organized by the Da Vinci Institute, Centre for science communication & IITO, Institute for Innovation and Transdisciplinary Research, November 1st, Amsterdam. At this conference, we also made part of the panel in the workshop 'Science and politics', organized by the Rathenau Institute, the Netherlands.
- A literature study was undertaken concerning in spec. processes of decision-making and policymaking, in order to confront this with the critical analysis (by D. De Waele, see below) of recent policy initiatives in Belgium to organize public participation in science and technology developments (participatory Technology Assessment).

Analysis of interactions between agricultural biotechnology, public and policy:

- For the joint 4S and EASST Conference on '*Public proofs – Science, Technology and Democracy*', August 2004 in Paris, we proposed a collaboration on 'public proof' with IUAP/ULB researchers N. Trussart and S. Denys for a joint paper entitled "Beyond educational purpose towards a participative production of 'public proof'. 'Public file' in the Belgian Biosafety Advisory Council as a set of new constraints for notifiers and public servants of biosafety institutions." Despite efforts, a joint paper turned out to be impracticable. However, the consulted

research material, the undertaken interviews (a.o., of members of the Working Group on Public Information, in the frame of the Belgian Biosafety Advisory Council) and informal contacts with experts, and the launched thinking process, proved to be a good preparation for putting forward our thesis that citizen forums –being the only places were a 'general' public is gathered with experts and policy makers for debating societal problems with GMOs– are (but?) ritualized forms of dealing with a democratic deficit concerning the societal use/embedding of science and technology. In collaboration with V. Smet for her literature study of processes of decision- and policymaking, we worked out this thesis for our power point presentation "Democracy put on the scene: Backstage reflections on the rationality of the Public-Science-Policy connection" at the IUAP Colloquium *'Testing expertise'*, October 21st 2004, VUB, Brussels (cf. annex 7). In March 2005, a more elaborated text of this presentation was posted in the Tree of questions of www.imbroglio.be.

- We initiated a text on our 'moral position in biotechnology matters' for publication in *Ethiek en maatschappij* (2005): "Hegel en biotechnologie: Een 'monologue intérieur' over Wetenschap, Technologie en Kapitalisme".
- Working also in the research group of Prof. G. Van de Vijver (Department of Philosophy and Moral Science, UGent, see also II.B. Cooperation outside the network), we continued our involvement in studying the contextual complexity of the genome and the implications of Systems Biology for molecular biology, philosophy of biology, sustainable agriculture and science communication. This involvement and our collegial collaboration in the Department Foundations and History of Law (UGent), helps us in the IUAP project to 'contextually complicate' our view on the positions of science and scientists in a democratic constitutional state.
- Apart from participating at several IUAP/VUB seminars, we attended *'Life, a Nobel story'*, organized by the Biotech Section of the Royal Flemish Chemical Society, April 28th 2004, Brussels EXPO, Heizel; the IUAP Network meeting *'Public Controversies'*, June 4th, Paris; and the Third University Foundation Ethical Forum, *'Free to speak out? On the rights and responsibilities of academics in the public debate'*, November 25th 2004, Universitaire Stichting/Fondation Universitaire, Brussels.

Staff working for workpackages 10-13
Prof. Dr. Koen Raes (promoter), dr. Danny De Waele (postdoctoral researcher), and drs. Valérie Smet (PhD student).

II TERMS OF CO-OPERATION

II.A. Co-operation inside the network

II.A.1 Imbroglio.be:

The co-operation inside the network is still evolving on *imbroglio.be*

Imbroglio.be has two parts:

1. The *Tree of questions* is aiming at the publication of 'stabilized' texts, opening up for discussion ("Comments") or for follow-up (new related questions). The idea of using "questions" as headers aims at waking up the interest of others for the texts and to show how some questions in one discipline might generate other question in other disciplines. There is also the possibility to post "homeless" texts without preliminary questions. In order to enter: click "Tree of questions" or "read" (under "Tree of questions"). For an overview see further in this progress *sub* III.D. Overview of publications on *imbroglio.be* in the *tree of questions.*

2. The *Weblog* is aiming at communication, information and on the spot discussions amongst the IAP-members. It organises shorter and less formal exchange of thoughts, links and agenda-items.

Both the website and the Weblog are functioning as *agora* of collective experimentation; sometimes they give rise to hectic discussions amongst researchers from different disciplines.

II.A.2 General IAP 5.16 network meetings

1. meeting of December 17, 2003 (ULB, Brussels)
2. the Working -Weblog Day of January 30, 2004 (ULB, Brussels)
3. meeting of June 4, 2004 (Ecole des Mines, CSI, Paris)
4. meeting of December 16, 2004 (Rotterdam, Netherlands)

See agenda and minutes in annexes

Let us add that all the teams of the network were also well represented during the (successful) colloquium the IAP.16 organised on October 21st, 2004 at the Vrije Universiteit Brussel.

II.A.3 VUB-seminars:

The VUB-seminars have become a well oiled and frequent moment of meeting for the researchers of the IAP and external speakers. They are normally well attended by representatives of the Belgian teams of the IAP. Their informal character has stimulated active and open discussions.

January 19th 2004: **Jean-Paul Van Bendegem** (VUB), *"Feyerabend: We still need the medicine"*. (Plus a discussion concerning the possibility of contributions to be presented at the 4S/EASST congress on "Public Proofs, Sciences, Technology and Democracy")

February 16th 2004: **Marc Van Montagu** (Plant Genetic Systems), *"The GMO Challenge"*.

March 1st 2004: **Sigrid Sterckx** (UGent), *"The Ethics of Patenting, with Particular Attention to GMO Patents"*.

March 15th 2004: **Wendel Trio** (Greenpeace Belgium), *"Engineering and Patenting of Plant Varieties: A Threat to Food Security"*.

May 3rd 2004: **Christophe Bonneuil** (INRA – Paris), *« Tensions épistémiques et rôle des 'profanes' dans la construction scientifique des risques potentiels des OGM »*.

May 4th, 2004: **Pierre-Benoît Joly** (INRA – Paris), *« Les brevets et le vivant: l'impossible compromis ? »*

May 10th, 2004: **William Moens** (Belgian Biosafety Council), *"Molecular Characterization of the Genetic Maps of Commercial Genetically Modified Plants"*.

May 17th, 2004: **Claire Marris** (INRA – Paris), *« Approches sociologiques de la perception de la science et du risque par le public »*.

June 7th, 2004: **Sébastien Denys** (ULB), *"The Belgian Assessment Process of the Bayer Canola"*.

September 28th 2004: **Nicolas de Sadeleer** (FUSL/VUB), *"Last Developments/Debates about the Precautionary Principle"*.

October 7th 2004: **Hans Comijn** (VUB) presents his researches on Bloor and Latour.

October 28th 2004: *Preparation and agenda* for the network meeting of 16 December in Rotterdam. *Discussion of abstracts.*

December 2nd 2004**: Erik de Caluwé** (Brussels Bar), *"Bone Scans in a Judicial Setting"*.

December 9th 2004: **Hilary Rose** (City University – London), *"DNA databanks: Mapping the Construction of a Technological Imperative".*

II.A.4 Other forms of cooperation within the network

Working groups

During the network meeting of December 17, 2003 it has been decided to install four working groups inside the PAI, with the expectance to stimulate cross-publication and cross-fertilization.
Only two of these working groups really did take off.

The first group, lead by Daniel de Beer (VUB), started from Daniels research on the European policy towards GMO'S. Five people worked inside this group which had 7 meetings: Isabelle Stengers (WP 1, 2 and 4), Jean-Claude Grégoire (WP 1 and 4), Nathalie Trussard (WP 1 and 2), Sébastien Denys (WP 1) and Daniel de Beer (WP 7). The cross-fertilization was very important, as regard of individual work (interdisciplinary contribution) and to a future cross-publication about several different aspects of the GMO's issue.

The second group, working on correlated (correlatable, traceable, detectable) humans is working on several papers and publications and actively involved in the EU FIDIS-Network of Excellence, where the VUB takes the lead on profiling technologies (based on data mining for correlations). This working group involves researchers from the VUB, the ULB, U.Gent and Paris; it prepared the Rotterdam network meeting in December on correlated humans.

Other cooperations inside the network (not exhaustive !)

* In cooperation with the Workpackage 1 (Sébastien Denys, Isabelle Stengers, Jean-Claude Grégoire), Nathalie Trussart actively participated in the conception, the organisation, the training, the supervision and the follow-up of the "Séminaire d'exploration de controverses" in the interfaculty of bio-engineering at ULB during the academic year 2003-2004.
* Involvement of Nathalie Trussart in the running of our website *Imbroglio*, as intermediary position between the website team (our web-site designer Didier Demorcy and our webmaster Nicolas Malevé) and the IAP team (updating, bugs reports, personal pages, calendar, and so on).
* Nathalie Trussart activey co-organized three IAP/VUB seminars devoted to GMOs:
    - Christophe Bonneuil (Researcher at INRA - Centre Koyré - CNRS. France). "Tensions épistémiques et rôle des profanes dans la construction scientifique des risques potentiels des OGMs». May 3.
    - Pierre-Benoît Joly (Director of research INRA, Science et gouvernance, TSV: Transformations socials et politiques liées au vivant). «Patents and life: impossible compromise?». May 4.

       - Claire Marris (Researcher INRA, Science et gouvernance, TSV: Transformations socials et politiques liées au vivant). «Public perception of GMOs». May 17.

* Nathalie Trussart organized a PAI/GECo (Groupe d'Etudes constructivistes) lecture on "DNA biobanks: Mapping the construction of a technological imperative", by Prof. Hilary Rose (City University, London, UK), at ULB. December 2004.

* Nathalie Trussart actively works inside the working Group «GMOs on European Ground», gathering Sébastien Denys (ULB, WP1), Daniel de Beer (VUB, WP7), Jean-Claude Grégoire (ULB, WP1, WP4) , Isabelle Stengers (ULB, WP1, WP2, WP4) and Nathalie Trussart (ULB, WP2). Weekly meetings during several months, the main results of which were posted on Imbroglio, in the Weblog part.

* Nathalie Trussart organized a session, together with the ULB Groupe d'Etudes constructivistes (GECo), with Bruno Latour in preparation of the edition of his book "A personal guide to sociology", VUB, February 2004.

* Nathalie Trussart worked on Beyond educational purpose towards a participative production of public proof. "Public dossier" in Belgian procedure for deliberative release of GMOs, as a set of new constraints for notifiers, public servants of bio safety institutions and the public." with Denys Sébastien (ULB, IAP/WP1, Belgium) and De Waele Dany (Universiteit Gent, IAP/WP10-13, Belgium). The talk of October 20 was given by Sébastien Denys (ULB, IAP/WP1, Belgium).

* S. Denys organized the IAP-VUB seminary with W. Moens "Molecular characterization of the genetic maps of commercial genetically modified plants", 10th May

* S. Denys presented «Évaluation du colza MS8&RF3 de Bayer en Belgique. Rôle du public et trajectoire des Farm Scale Evaluations» at the IAP-VUB Seminary, 7th June.

* Daniel de Beer (WP 7/VUB) was a "personal resource" for the students‗at the Controversy seminar (WP 1 ULB).

* At the UGent cooperation between V. Smet and D. De Waele is on a continuous basis. Mutual research initiatives, the research process and textual outcomes are discussed in detail and comments are taken into consideration.

* V. Smet presented research on expertise and social science at a VUB seminar, January 19th 2004.

* D. De Waele held contact with N. Trussart (IUAP/ULB) for a proposed collaboration on 'public proof' for the 4S/EASST Conference on *'Public proofs – Science, Technology and Democracy'*, August 2004 in Paris. They discussed 'the genome in context', at the occasion of the PhD of Linda Van Speybroeck (UGent), *'From Epigenesis to Epigenetics: The gene in context. A study of Philosophy of Biology'*, with a.o. Eva Jablonka (Cohn Institute for the History and Philosophy of Science and Ideas, Tel Aviv University, Israel), May 2004, UGent.

* V. Smet and D. De Waele cooperated for the presentation "Democracy put on the scene: Backstage reflections on the rationality of the Public-Science-Policy connection" at the IUAP Colloquium *'Testing expertise'*, October 21st 2004, VUB, Brussels (cf. annex 7).

II.B. Co-operations outside the network

The list hereunder is not exhaustive as many of the researchers and promoters are involved in a great many activities outside the IUAP. We also have included some presentations here.

Workpackage 1
* S. Denys and I. Stengers organized a "Logiciel libre" meeting centred about the defence and exploration of the new habits of communication and results sharing on the Web.

Workpackage 2
* Nathalie Trussart, with Sébastien Denys (WP1, ULB), attended the seminar "*L'innovation controversée: le débat sur les OGM comme expérimentation collective de nouveaux rapports entre sciences, marché et démocratie*", organised at Paris by Pierre-Benoît Joly (INRA), Claire Marris (INRA) and Christophe Bonneuil (CNRS), in partnership with the *Centre Koyré* and l'*Institut National d'Agronomie*. It offered pertinent materials allowing us to construct a Belgian case study of GMO in contrast with what has happened in France. Those materials were fully spread among the IAP members, trough the website Imbroglio and three seminars organized at the VUB, with Christophe Bonneuil, Pierre-Benoît Joly and Claire Marris.
* Co-organization of the lecture on "Reflecions on gender and genetics", by Prof. Hilary Rose (City University, London, UK), in cooperation with SOPHIA (Belgian coordination network of women's studies. Bruxelles.), at Amazone, Bruxelles. December 2004.
* Member of the 4S (Society for Social Studies of Sciences), International Society presided this year (2004) by Bruno Latour.
* Member of the editorial committee of the political philosophy review 'Multitudes', Paris. Regular editorial committee meetings and continual mail exchanges.
* Nathalie Trussart co-organized, with Gérald Assouline (Université Pierre Mendès France, Grenoble, France), a session during the 2004 4S & EASST Conference on *Public Proofs is* August, 25-28, 2004 *"When socio-technical controversies challenge the role of responsibility in democracy"*. This session gathered Assouline Gérald (Université Pierre Mendès France, Grenoble, France), Barbier Marc (INRA SAD, Thiverval-Grignon, France), Barrier Julien (INRA SAD, Thiverval-Grignon, France), Brand Ralf (University of Nuremberg, Germany), Denys Sébastien (ULB, IAP/WP1, Belgium), De Waele Danny (Universiteit Gent, IAP/WP 10-13, Belgium), Trussart Nathalie (ULB, IAP/WP2, Belgium).
* Nathalie Trussart (presentation): *"A Public to be informed or to be taken into account"*. At the colloquium "Testing Expertise" organized by the IAP (V/16) 'The Loyalties of knowledge. The positions and responsibilities of the sciences and of scientists in a democratic constitutional state (Interuniversity Attraction Poles Phase V/16), financed by the Belgian Science Policy). VUB. Bruxelles. October 2004. (cf. annex 7)
* Nathalie Trussart (presentation):   *«'Comment faire prise': Introduction et commentaires».* At the workshop organized by the GECo (Groupe d'études constructivistes) in preparation of the edition of the book 'Sorcellerie capitaliste' written by Philippe Pignarre and Isabelle Stengers. ULB. Bruxelles. October 2004.
* Nathalie Trussart (presentation):   *"Séminaire d'exploration de controverses. New habits of thought for bioingénieurs students at ULB, taking the web as field of*

experimentation". At the IAP V/16 network meeting devoted to the 'public controversies'. Ecole des Mines. Paris. June 2004.

* Nathalie Trussart (presentation): *"Information au public: de l'éducation à la participation en matière de biosécurité".* At the workshop of LUBIES (Lutte Biologique et écologie spatiale), laboratory directed by Prof. Jean-Claude Grégoire. Section of agronomy. ULB. Bruxelles. Mai 2004.

Workpackage 4 and 5

* Sébastien Denys participated in the seminar «L'innovation controversée: le débat sur les OGM comme expérimentation collective de nouveaux rapports entre sciences, marché et démocratie», organized at Paris by Pierre-Benoît Joly (INRA), Claire Marris (INRA) and Christophe Bonneuil (CNRS), in partnership with the Centre Koryé and l'Institut National d'Agronomie.

* Sébastien Denys presented the paper DENYS, S., TRUSSART, N., DE WAELE, D., " Beyond educational purpose towards a participative production of 'public proof'. 'Public dossier' in the Belgian procedure for deliberative releases of GMO's, as a set of new constraints for notifiers, public servants of bio safety institutions and the public." At the joint conference of Society for the Social Studies of Science (4S) and European Association for the Study of Science and Technology (EASST) " Public Proofs – Science, Technology and Democracy ", Paris, Ecole des Mines, 27 August 2004.

* Sébastien Denys presented a paper *"How did 'public dossier' prevent the creation of a public for the Bayer oilseed rape in Belgium?"* At the IAP Colloquium *"Testing expertise"*, Vrije Universiteit Brussel, Brussels, Thursday October 21, 2004. (cf. annex 7)

* Sébastien Denys participated at the European Social Forum in London where several meetings related to science policy, agricultural biotechnologies, rules for co-existence and establishment of "GM free zone". At this occasion a first informal meeting of NGOs concerning the European Research Policy was held the 16th November 2004 in London. A dozen organisations from six European countries participated to the setting up of a « European Science Social Forum » (ESSF)

* Sébastien Denys organized (together with Benoît Derenne (Fondation pour les Générations Futures (FGF), Jacques van Helden (ULB), Gaetan Vanloqueren (UCL)), and introduced l'Atelier de discussion n°3 « *Elargissement de l'évaluation des risques: Mobilisation et contestation de l'expertise, information et participation du public* » at the conférence *"Evolution du droit international européen et belge"* organisé par la DG Environnement du SPF Santé Publique, Sécurité de la chaîne alimentaire et Environnement. Brussels, 30 November 2004.

* Sébastien Denys presented a paper *"De la transparence à l'information"* at the conférence *"Evolution du droit international européen et belge"* organisé par la DG Environnement du SPF Santé Publique, Sécurité de la chaîne alimentaire et Environnement. Brussels, 30 November 2004.

* MORMONT M, Négociation et environnement, Contribution au séminaire d'animation du programme «Concertation et décision», Paris, ENGREF, 19 janvier 2004.

* MORMONT M, Modèles méthodologiques de la recherche, conférence dans le cadre du programme PIC, Université de Niamey, Faculté d'Agronomie, 4 février 2004.

* MORMONT M et MOUGENOT C, La participation du public dans le programme Natura 2000, Conférence "Natura 2000" organisée par la Région Wallonne, Liège, Palais des Congrès, 20 avril 2004.

* Mormont M, La négociation et l'innovation technologique: le cas d'un projet de dépôt de déchets nucléaires, Séminaire «participation citoyenne», Pole d'Attraction Interuniversitaire, Bruxelles, 21 octobre 2004.

* Mormont M, La participation du public aux décisions environnementales, Conférence dans le cadre de la coopération Wallonie-Bruxelles-Québec, Bureau des Audiences Publiques sur l'Environnement, Québec, 17 décembre 2004.

* MELARD F, «Integrated Exercices» in environmental sciences: Description of an interdisciplinary learning process at the Université de Liège , Network Meeting of the PAI on "Public Controversies", Ecole des Mines de Paris, Paris, le 4 juin 2004.

Workpackage 6, 7 & 8

* Serge Gutwirth and the *Law, Science, Technology & Society* research group (VUB) (www.vub.ac.be/LSTS) participates into the following 6th Community Framework Programme in Research and Development initiatives
- Network of Excellence *The future of identity in information society* involving more than 20 research centra all over Europe (more than 20 European partners)
- Integrated Project *Reflexive Governance in the Public Interest (REFGOV)-Subnetwork: Fundamental Rights Governance* (more than 20 European partners)
- the Specific Support Action (SSA) *Safeguards in a world of ambient intelligence (SWAMI)* (5 European partners)
* Serge Gutwirth is also co-promoter of the GOA-projects (GOA = "Geconcerteerde OnderzoeksActie", Larger scale concerted research program funded by the Flemish Government) *Contemporary punishment* and *Legitimate criminal justice in times of insecurity* involving criminologists and lawyers.

* Daniel de Beer gave a three day course on "Régime de propriété intellectuelle et sécurité alimentaire pour les pays du sud, le cas des OGM", April 2nd DEA, Faculté de droit, Aix en Provence, France.

* Daniel de Beer gave twice a lecture on "Intellectual Property Rights and access to drugs" in Antwerpen, for doctors and nurses (Institut médico-tropical).

* Daniel de Beer & Serge Gutwirth gave a lecture at St Louis University over "Droit, gouvernance et développement durable" about "Sciences et développement durable - Les O.G.M. comme occasion de déstabilisation d'un concept ambigu" (October 13).

* Laurent Se Sutter: 29th March, 2004: Conférence-débat *Adieu aux droits de l'homme. Pourquoi les juristes ont mieux à faire*, Cercle des juristes démocrates du Barreau de Liège, Cercle nautique, Liège.

* Laurent De Sutter: 21st October, 2004: "Breaking the Mirror: Some Challenges to Representation through PTA Practices and Institutions", Colloquium " Testing Expertise ", VUB, Brussels.

* Laurent De Sutter: 18th November, 2004: "Poétique du droit raconté ", Groupe de contact FNRS " Droit & littérature ", FUSL, Brussels.

 * Laurent De Sutter together with Serge Gutwirth: February 22, 2005 seminar-lecture " Representation and Legitimation: The PTA challenge", VIWTA Vlaams Instituut voor Technologisch en Wetenschappelijk Aspectenonderzoek, Vlaams Parlement (TA-body of the Flemish Parliament), Brussels.

* Serge Gutwirth: January 23, 2004: chair of the session "Milieufilosofie" during the *Met recht en reden. Mensenrechten, Milieu & Filosfie Symposium*, organised by the Faculty of Law of the Erasmus Universiteit Rotterdam, Rotterdam. Language: Dutch.

* Serge Gutwirth: May 14, 2004, together with Paul De Hert, key-note paper "Privacy and Law Enforcement. A Program for Modesty and Practical Wisdom" at the international Workshop *Privacy and the criminal law* Organized by the *Centre for Legal Philosophy and Legal Theory* at the Katholieke Universiteit Leuven, in collaboration with the *Department of Philosophy* at the University of Stirling and with the *Department of Metajuridica* and the *Department of Criminology* at the Vrije Universiteit Brussel, Leuven, 14-15 May 2004

* Serge Gutwirth: October 13, 2004: together with Daniel de Beer "Sciences et développement durable" guest class in the *Droit, gouvernance et développement durable*, Cours organisé par les Facultés Universitaires Saint-Louis, la Fondation Mayer et la Fondation pour les Générations Futures, FUSL, Bruxelles.

* Serge Gutwirth: October 21, 2004: chair of the afternoon session and paper presentation in the morning session "Expertises in different judicial settings: a focus on the jury" in *Testing expertise*, International colloquium organized the Interuniversity Attraction pole-network 5.16, The loyalties of knowledge, Vrije Universiteit Brussel

* Serge Gutwirth: March 2, 2005: presentation "Profiling, the democratic constitutional state, privacy and data protection", FIDIS (Future of Identity in Information Society) EU FP6 Network of Excellence *Workshop on profiling*, Brussels

* Mireille Hildebrandt presented an introduction, together with René Foqué, 'Between Facts and Norms, Chapter 1', presentation at the research seminar on Habermas' *Faktizität und Geltung* at KULeuven, 10th March 2004

* Mireille Hildebrandt: Citizenship, punishment and the meaning of the 'fair trial', *The Trial on Trial II Workshop 2: Judgement and Calling to Account*, University of Glasgow 26-27 March 2004

* Mireille Hildebrandt: Privacy and Identity (Reply to David Archard), symposium *Privacy and the Criminal Law*, Leuven 14-15 mei 2004

* Mireille Hildebrandt: Profiling: implications for privacy and security, presentation at the NoE Fidis kick-off meeting Darmstadt 24-25 June 2004

* Mireille Hildebrandt met S. Gutwirth en W. Schreurs: The proof of the pudding is in the eating: testing of expertise in citizens panels and courts, paper for the 4S and EASST Meeting *Public Proof, Science, Technology and Democracy*, Parijs 25-28 augustus 2004

* Mireille Hildebrandt: Citizenship, punishment and the meaning of the 'fair trial', *The Trial on Trial II Workshop 2: Judgement and Calling to Account*, University of Stirling 24-25 September 2004

* Mireille Hildebrandt: The trial of the expert: épreuve et preuve, *Testing Expertise*, Colloquium VUBrussel 21 October 2004 (cf. annex 7)

* Mireille Hildebrandt: 'Identity and the sameness of selfhood', presentation at the second NoE FIDIS workshop on 'The identity of identity' on 10th December 2004

* Wim Schreurs was invited expert for the workshop "The Virtual Residence Project: A private digital territory in the European Information Society", European Commission & JRC-IPTS, Seville (ES), 19-20 January 2004.

* Wim Schreurs, "L'Europe et la société d'information" (Europe and the information society), *Faculté des Sciences Sociales, Administratives et Politiques*, University of Lubumbashi, Lubumbashi (Kongo), 9 February 2004.

* Wim Schreurs, "Legal aspects of Ambient Intelligence", *Internationales Rechtsinformatik Symposion 26-28 Februar 2004 (IRIS)*, Universität Salzburg, Salzburg (AU), 26 February 2004
* Wim Schreurs, "Het internet als bron van juridische informatie" (The internet as source for legal information), *IDLO Nascholing*, Vrije Universiteit Brussel, Brussel (BE), 21 April 2004.
* Wim Schreurs, "Wetgeving(en) op E-Commerce" (Law(s) on E-Commerce), *Gastcollege Informaticarecht V.U.B.*, Vrije Universiteit Brussel, Brussel (BE), 22 April 2004.
* Wim Schreurs, Guestclass "Privacy", Master in informatietechnologie, Katholieke Hogeschool Kempen & Vlaamse Ingenieurskamer, Geel (BE), 11 May 2004.
* Wim Schreurs, "Ambient intelligence (AmI) and the legal protection of personal information", FIDIS Doctoral Consortium Seminar 1, Johann Wolfgang Goethe - Universität Frankfurt am Main, 21 - 24 January 2005
* Wim Schreurs, "Legal proposals towards profiling and ambient intelligence", FIDIS Workshop on Profiling: Implications for security and privacy, VU Brussels, 3 March 2005

Workpackage 9
* Karen François presented a paper 'Waar wiskunde politiek wordt' (on mathematics and politics) at the 'Lezingenreeks DOCOP, Werfgesprekken, 23 January 2004 at the VUB.
* Hans Comijn presented his project 'A discursive definition of mathematics' in the Faculty of of Economy at the University of Ghent, Belgium, 26 january 2004.
* Karen François presented a paper 'FIDIS, what about Gender?' at the Workshop, on defining a Network of Excellence under FP6, The Future of Identity in the Information Society (FIDIS), 28 January 2004, Brussels Hotel Eurovillage.
* Karen François presented ''Voorstelling doctoraalonderzoek: Filosofie van de Wiskunde: De positie en de verantwoordelijkheid van de wiskundige en van de wiskunde in een democratische rechtsstaat.' At the workshop of the Faculty of Philosophy, VUB.
* Karen François (WP9) and Laurent De Sutter (WP6) presented a paper 'Where Mathematics becomes Political. Beyond the difference between humans and non-humans. The representation of non-humans.' At The Fifth Essex, Graduate Conference in Political Theory, 7th to 8th May, 2004, University of Essex, Wivenhoe Park, Colchester, Essex, UK.
* Karen François and Jean Paul Van Bendegem organised an International Congress "Mathematics in education. Is there room for a philosophy of mathematics in school practice?", Free University Brussels (in cooperation with CLWF/VUB), 14-15 May 2004.
* Karen François presented the paper 'Implicit and explicit philosophy in secondary school curriculum of mathematics.' At the International Congress "Mathematics in education. Is there room for a philosophy of mathematics in school practice?", Free University Brussels (in cooperation with CLWF/VUB), 14-15 May 2004.
* Hans Comijn presented his project 'A Discursive Definition of Mathematics' at the Départment Biologie Santé, University of Montpellier, Montpellier, France, 6 June 2004
* Karen François and Jean Paul Van Bendegem presented the paper 'Philosophy of mathematics in the curriculum of mathematics. Questions and Problems Raised by a case study of secondary education in Flanders, Belgium' at the Discussion Group: Philosophy

of mathematics education, held at the 10th International Congress on Mathematical Education, 4th to 11th July, 2004, Copenhagen, Denmark.

* Karen François attended the summer school 'Discourse Theory: and Deconstruction. Dr Lasse Thompson, University of Essex, 26th – 30th July, 2004, University of Essex, Wivenhoe Park, Colchester, Essex, UK.

* Karen François presented a paper 'Philosophy of mathematics in the curriculum of secondary education: a case-study of Flanders.' at the SUMMER SCHOOL IN MATHEMATICS EDUCATION, organized by ERME (the European Society for Research in Mathematics Education), 23th to 29th August, 2004, Podebrady, CZ.

* Hans Comijn participated at the 4S & EASST conference at the Centre de Sociologie de l'Innovation, Ecole des mines, Paris, France, 25-28th August, 2004.

* Hans Comijn presented a paper 'Towards an ecology of proofs and arguments.' at the 4S & EASST conference at the Centre de Sociologie de l'Innovation, Ecole des mines, Paris, France, 25-28th August, 2004.

* Karen François presented a paper 'Dynamic Ontology of Mathematics. A Empirical Inquiry in Understanding the Dynamics of The Ontology of Mathematics.' At the Congress *Dynamic Ontology,* An Inquiry into Systems, Emergence, Levels of Reality, and Forms of Causality, 8th –11th September 2004, Faculty of Sociology, Trento University, Italy.

* Jean Paul Van Bendegem participated in "Evolutionary Epistemology, Language & Culture". International Congres organized by the "Centrum voor Logica en Wetenschapsfilosofie", VUB, Brussels, 26-28 May 2004.

* Jean Paul Van Bendegem participated in "The nature of mathematical proof", a congres organized by Alan Bundy, Donald MacKenzie, Michael Atiyah and Angus MacIntyre, at the The Royal Society, London, 18-19 October 2004.

Workpackage 10 – 13

* V. Smet is editing a thematic review of the role of social scientists for the journal *Ethiek en Maatschappij*. She keeps contacts with social scientists from different Belgian universities and from universities in the Netherlands (IMES-Institute of Migration and Ethnic Studies; Rathenau Institute; University of Amsterdam; University of Twente).

* D. De Waele is involved in the research group of Prof. G. Van de Vijver (Department of Philosophy and Moral Science, UGent). She cooperated with –and was member of the jury– for the PhD of colleague L. Van Speybroeck, *'From Epigenesis to Epigenetics: The gene in context. A study of Philosophy of Biology'* (UGent, May 2004). She is co-author of a publication of Van de Vijver *et al.* on Philosophy of Biology in *Acta biotheoretica* (see III.A. Publications 2004) and of a forthcoming publication of L. Van Speybroeck *et al.* on 'epi-geneticization' in *'The Influence of Genetics in Scientific and Philosophical Thinking'*, Kluwer Academic Press (see III.C. To be published). With L. Van Speybroeck, she is coordinating the research in an interdisciplinary GOA project (Gemeenschappelijke Onderzoeks Actie/Concerted Research Action 2005-2010), *'Complexity thinking in a post-genomic era: a science-philosophical study of Systems Biology and its implications for (i) molecular biology, (ii) philosophy of biology, (iii) sustainable agriculture, and (iv) image building and perception with regard to (transgenic) organisms in various media'*, with the UGent promoters Prof. G. Van de Vijver, Prof. M. Holsters (Dept. of Molecular

Genetics), Prof. D. Reheul (Dept. of Plant Production) and Prof. H. Verstraeten (Dept. of Communication Sciences).

III. LIST OF PUBLICATIONS

** = Co-publication involving authors from different teams of the IAP

III.A. Publications 2004 and January 1 - March 31, 2005

Publications Workpackage 1

** GUTWIRTH S., STENGERS I. & VAN BENDEGEM J.-P., "The quality of the controversy within", *Janus* 16/04, pp. 29-33

Publications Workpackage 2:

TRUSSART N., « Archive, jeu de règles, formation de pouvoir », *in* Verbindingen/Jonctions 7: Technologies and art and media, technologies and ethics. Archives: Lining of forgetting seminar. Publication made up of traces left during the festival which took place in November and December 2003. Constant vzw. 2004. (This version of the text is distributed under the creative common license: Attribution - NonCommercial - ShareAlike).

Publications Workpackage 3

** *Making things public. Atmospheres of democracy*, Bruno LATOUR & Peter WEIBEL (eds), Karlsruhe/Cambridge Masschussetts, ZKM-Zentrum für Kunst und Medientechnologie, Karlsruhe/The MIT Press, 2005 (ISBN 0262-12279-0) Cf. http://makingthingspublic.zkm.de/

> In this groundbreaking editorial and curatorial project, more than 100 writers, artists, and philosophers rethink what politics is about. In a time of political turmoil and anticlimax, this book redefines politics as operating in the realm of *things*. Politics is not just an arena, a profession, or a system, but a concern for things brought to the attention of the fluid and expansive constituency of the public. But how are things made public? What, we might ask, is a republic, a *res publica*, a public thing, if we do not know how to make things public? There are many other kinds of assemblies, which are not political in the usual sense, that gather a public around things scientific laboratories, supermarkets, churches, and disputes involving natural resources like rivers, landscapes, and air. The authors of *Making Things Public* and the ZKM show that the book accompanies ask what would happen if politics revolved around disputed things. Instead of looking for democracy only in the official sphere of professional politics, they examine the new atmospheric conditions--technologies, interfaces, platforms, networks, and mediations that allow things to be made public. They show us that the old definition of politics is too narrow; there are many techniques of representation--in politics, science, and art--of which Parliaments and Congresses are only a part. The authors include such prominent thinkers as Richard Rorty, Simon Schaffer, Peter Galison, Richard Powers, Lorraine Daston, Richard Aczel, and Donna Haraway; their

writings are accompanied by excerpts from John Dewey, Shakespeare, Swift, La Fontaine, and Melville. Over 500 color images document the new idea of what Bruno Latour and Peter Weibel call an "object-oriented democracy."

In this book quite some IAP-linked publications are included, such as

- the introduction of Bruno LATOUR: "From Realpolitik to Dingpolitik –How to Make Things Public ?" (cf. http://www.ensmp.fr/~latour/articles/article/96-DINGPOLITIK2.html)
- the two contributions of Noortje MARRES: "Issues Spark a Public into Being. A Key but Often Forgotten Point of the Lippmann-Dewey Debate" and "Recipe for Tracing the Fate of Issues and Their Publics on the Web" (with R. Rogers)
- Isabelle STENGERS' "The cosmopolitical proposal"

(cf. table of contents of making things public: http://www.ensmp.fr/~latour/livres/MTP-TABLE%20OF%20CONTENTS.html)

Bruno LATOUR,"Von der Realpolitik zur Dingpolitik oder Wie man Dinge öffentlich macht", Merve Verlag, Berlin IMD 280, 2005, 96 pages (ISBN 3-88396-214-7)

Other 2004 publications of Bruno Latour: see http://www.ensmp.fr/~latour/

Publications Workpackage 4:

Sébastien DENYS, « OGM: A quoi servent les fauchages? ", L'Ecologiste – Vol. 5 N°3 – oct. 2004.

Publications of Isabelle Stengers: http://dev.ulb.ac.be/geco/rubrique.php3?id_rubrique=9

Working papers workpackage 4:

Sébastien DENYS, «Un débat hybride. Compilation des réactions et échanges à propos de l'hybridité qui ont eu lieu sur la liste transgénèse de mai à juillet 2004 » Envoyé sur le «Forum transgenèse» the 22th September.
Information: http://listes.inra.fr/wws/info/transgenese

** DENYS, S., TRUSSART, N., DE WAELE, D., *"Beyond educational purpose towards a participative production of 'public proof'. 'Public dossier' in the Belgian procedure for deliberative releases of GMO's, as a set of new constraints for notifiers, public servants of biosafety institutions and the public."*

Sébastien DENYS *«Une éthique expérimentale pour une évaluation socio-économique des OGM»* dans le cadre d'un projet avec Gaetan Vanloqueren (UCL) *«Evaluation de la durabilité des OGM. Proposition d'un programme de recherche d'aide à la décision publique. Construction d'une méthode d'évaluation éthique, socio-économique et agro-environnementale des cultures transgéniques»,* 09 juin 2004.
Available on http://www.imbroglio.be/weblog_pai_archive/000375.html

Sébastien DENYS, *«Rôle du public dans l'évaluation du colza MS8&RF3 de Bayer en Belgique et trajectoire des Farm Scale Evaluation»*, mars 2004. On http://www.imbroglio.be/weblog_pai_archive/000300.html

Publications Workpackage 5

MORMONT M (2004), Handling conflicting Interests and Values: How is the Local Partnership Methodology Helping to achieve it? in Dealing with Interest, Values and Knowledge in Managing Risk, Workshop proceedings, Brussels (18-21/11/03), OCDE (AEN), 2004: 63-70.

CHRIFI H., MELARD F. et MOUGENOT C. (2005), Le territoire comme lieu commun des questions environnementales, in Rémy E. & al, Espaces, Savoirs et incertitudes, Edition Ibis Press, Paris: 121-136.

Publications Workpackage 6

** AUDREN (F.) and DE SUTTER (L.) (Ed.), *Pratiques cosmopolitiques du droit*, special issue of *Cosmopolitiques*, nr. 8, Paris, L'Aube, 2004 (with contributions of IAP-members: D. DE BEER, L. DE SUTTER, S. GUTWIRTH, B. LATOUR & I. STENGERS).

AUDREN (F.) and DE SUTTER (L.), « Le droit en action: pratiques juridiques et proposition cosmopolitique », in AUDREN (F.) and DE SUTTER (L.) (Ed.), « Pratiques cosmopolitiques du droit », special issue of *Cosmopolitiques*, nr. 8, Paris, L'Aube, 2004, p. 7-13.

DE SUTTER, L. & GUTWIRTH, S., "Droit et cosmopolitique. Notes sur la contribution de Bruno Latour à la pensée du droit", *Droit et Société 56*-57, 2004, 259-289.

DE SUTTER (L.), «Ce que font les principes», in AUDREN (F.) and DE SUTTER (L.) (Ed.), «Pratiques cosmopolitiques du droit», special issue of *Cosmopolitiques*, nr. 8, Paris, L'Aube, 2004, p. 112-123.

** DE SUTTER (L.) and STENGERS (I.), «Une pratique cosmopolitique du droit est-elle possible ? Entretien», in AUDREN (F.) and DE SUTTER (L.) (Ed.), «Pratiques cosmopolitiques du droit», special issue of *Cosmopolitiques*, nr. 8, Paris, L'Aube, 2004, p. 14-33.

Mireille HILDEBRANDT, "Wetenschap in rechte", *TREMA* 2004 april (Special Deskundigen in het rechterlijk proces), p. 187-196

Mireille HILDEBRANDT, *Causaliteit in rechte. Case-studies bij Meesterlijk recht*, Den Haag: Boom Juridische uitgevers 2004

Mireille HILDEBRANDT, 'Expert en jurist: (hoe) verstaan zij elkaar?', in: E.T. Feteris, H. Kloosterhuis, H.J. Plug, J.A. Pontier (red.), *In het licht van deze overwegingen.*

Bijdragen aan het Vierde Symposium Juridische Argumentatie Rotterdam 27 juni 2003, Nijmegen: Ars Aequi Libri 2004, p. 243-251

HILDEBRANDT Mireille, 'Restorative Justice and the Morality of the Fair Trial: A Reply to Brochu', in: Erik Claes, René Foqué en Tony Peters, *Punishment, Restorative Justice and the Morality of the Law*, Antwerp -Oxford: Intersentia 2005, p. 89-101

HILDEBRANDT Mireille & A.M.P. Gaakeer, *Wetenschap in rechte. Case studies bij Meesterlijk recht*, Den Haag: Boom Juridische Uitgevers 2005

HILDEBRANDT M., GUTWIRTH S. & SCHREURS W., "The proof of the pudding is in the eating: testing of expertise in citizen pannels and courts" in *Public proofs. Science, technology and democracy*, 4S & EASST conference, Paris, August 25-28, 2004, Centre de sociologie de l'innovation/Ecole des mines de Paris, 876-877 (Published abstract)

GUTWIRTH S., "Le cosmopolitique, le droit et les choses" in F. Audren & L. De Sutter (coörd.), *Pratiques cosmopolitiques du droit*, *Cosmopolitiques. Cahiers théoriques pour l'écologie politique*, n° 8, Paris, L'Aube, 2004, 77-88

LATOUR B., "Note brève sur l'écologie du droit saisie comme énonciation" in in F. Audren & L. De Sutter (coörd.), *Pratiques cosmopolitiques du droit*, *Cosmopolitiques. Cahiers théoriques pour l'écologie politique*, n° 8, Paris, L'Aube, 2004, 34-40

Publications Workpackage 7:

DE BEER D., *Le Sida au coeur de la mondialisation*, www.imbroglio.be/, www.dhdi.org, www.fgf.be, 2004, 16 p.

DE BEER D., "Is Open-Sourced Biotechnology Possible?", in in *How Open is the Future? Economic, Social and Cultural Scenarios inspired by Free and Open Source Software*, Jan Cornelis & Marleen Wijnants (eds), VUB Cross Talks: the Confrontation Series nr 1, 2004, in WYNANTS, M. & CORNELIS, J. (Eds.), Brussels, VUB University Press, 2004, 357 - 373.

DE BEER D., "Brevets et accès aux médicaments essentiels - L'office du droit", *'Pratiques cosmopolitiques du droit'*, *Cosmopolitiques*, Paris, N°8, 2004, pp. 53-62.

DE BEER D., "Les O.G.M., les délinquants et le juge", *R.D.P.C.*, La Charte, sept.-oct. 2004, pp.865-888

DE SADELEER N. and BORN Ch.-H., *Droit international et communautaire de la biodiversité*, Paris, Dalloz, 2004, 770 p.

DE SADELEER N., "The Effect of Uncertainty on the Treshold Levels to which the Precautionary Principle Appears to be subject", in J.S. Applegate (ed.), *Environmental Risk*, vol. II, Serie The International Library of Environmental Law and Policy, Ashgate, Londres, 2004, pp. 453-480.

DE SADELEER N., "O Estatuto do Principio da Precauçao no Direito International", in M. Varella et A. Platiau (Dir.), *Principio da precauçao. Coleçao direito ambiental em debate*, Belo Horizonte, Editora Del Rey, 2004, pp. 47-74.

DE SADELEER N., "Modernity, Post-modernity and Environmental Principles", in R. Macrory (ed.), *Environmental Principles*, Groeningen, Europa Law publishing, 2004, p. 225-236

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III.B. TO BE PUBLISHED

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Workpackage 4:

** DE BEER D., DENYS S., TRUSSART N., GREGOIRE J.-C. & STENGERS I., *L'événement OGM*,

Workpackage 6:

GUTWIRTH S. "Laypeople, legal professionals and other experts in court: a focus upon the jury" (10 p.) submitted to *Science and Public Policy*,

Workpackage 8:

DE HERT P. & S. GUTWIRTH, "Een rechtsstatelijk en wetgevingstechnisch kader voor het werk van privacyautoriteiten" (26 p.) to be published in *Liber Amicorum Paul Thomas*, 2005

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III.C. OVERVIEW OF PUBLICATIONS ON *IMBROGLIO.BE* IN THE *TREE OF QUESTIONS*

(until March 15th, 2005)

ART.n° 172: The use of scientific expertise in political decision-making.: by Isabelle Stengers: WP4: FR: 15/03/2005

ART.n° 171: GMOs and risk assessment: what is at stake at the European level?: by Daniel Debeer: WP7: EN: 10/03/2005

Topic:n° **95**: **Working on science and democracy, decison making, public information GMOs and so on, we often meet on our path the fact or the right of patent. It is more often than not as it was a dead end, "une impasse" the thought stumbles over. What is going on?**:
ART.n° 170: Law and new economy of knowledge: what is going on?: by Daniel Debeer: WP7: EN: 09/03/2005

ART.n° 169: Are profiles justiciable?: by Mireille Hildebrandt: WP8: EN: 07/03/2005

ART.n° 168: Philosophy of Mathematics in School Curricula of Mathematics Education. A Case Study of Flanders (Belgium) mathematics curriculum: by Karen François: WP9: EN: 28/02/2005

Topic:n° 94: **Do you think the law should intervene to regulate the following practices?**

ART.n° 167: Do you think these facts, these practices create dangers/problems or not?: by Wim Schreurs: WP1: EN 14/01/2005
0 comments

ART.n° 166: The correlated mathematician - a man in disguise. Or how to reach closure withouth mathematical facts?: by Hans Comijn: WP9: EN: 05/01/2005
1 comment.

ART.n° 165: Towards an ecology of proofs and arguments: by Hans Comijn: WP9: EN: 04/01/2005
0 comments.

ART.n° 164: Attachments and profiles. Correlated humans and the legal subject: by Mireille Hildebrandt: WP1: EN: 23/12/2004

ART.n° 163: The correlated human revisited. A slope beyond boom and doom: by Serge Gutwirth: WP8: EN: 21/12/2004

Topic:n° 93: **How thoroughly mathematized is our daily (western) world?**

ART.n° 162: Looking around in our daily surroundings, we claim that mathematical traces are present everywhere: by Jean-Paul Van Bendegem: WP9: EN: 20/12/2004
0 comments

Annexes

1. Minutes of the meeting of December 17, 2003
2. Minutes of the Working-Weblog Day, January 30, 2004
3. Agenda of the meeting of June 4, 2004
4. Minutes of the meeting of June 4, 2004.
5. Agenda of the meeting of December 16, 2004
6. Minutes of the meeting of December 16, 2004
7. Colloquium program of October 21, 2004.
8. Laurent De Sutter's Ph.D. proposal: "Cosmopolitique de la représentation. Etude sur la construction juridique du public."
9. Daniel De Beer's Ph.D. proposal: "Le brevet et le dispositif dans lequel il s'enchâsse, forteresse et machine de guerre, ou institution juridique perfectible?"
10. Wim Schreurs' PhD proposal: "Ambient intelligence and the protection of personal information"

ANNEX 1. <u>Minutes of the meeting of December 17, 2003.</u>

IUAP Network Meeting (@ULB) – December 17th, 2003
Campus du Solbosch/Brussels, room UC2.155
10:00-17:00
Report

A – Colophon

- Attending: Philippe Baret (UCL), Daniel de Beer (VUB), Sébastien Denys (ULB), Nicolas de Sadeleer (VUB/FUSL), Jean-François Desaedeleer (ULB), Laurent De Sutter (VUB), Dani De Waele (UG), Karen François (VUB), François Goor (ULB), Aiko Gryspert (ULB), Jean-Claude Grégoire (ULB), Serge Gutwirth (VUB), François Mélard (FUL), Valérie Smet (UG), Isabelle Stengers (ULB), Nathalie Trussard (ULB), Jean-Paul Van Bendegem (VUB), Gaëtan Vanloqueren (UCL), Edwin Zaccaï (ULB).

- Excused: Hans Comijn (VUB), Marius Gilbert (ULB), Mireille Hildebrandt (VUB), Bruno Latour (CSI-ENSM), Sylvie Lupton (CSI-ENSM), Koen Raes (UG), Jacques van Helden (ULB).

- Secretary: Laurent De Sutter & Serge Gutwirth (VUB)

B. 10h00: General introduction, by Serge Gutwirth, moderator/chair

Serge Gutwirth welcomes everyone to the 4th general network meeting of the IAP5/16 *The loyalties of knowledge*

He focuses on the importance of the *report* of the meeting as it has a double function:
- reporting of the discussions: as such the report is the basis of a common follow discussion of the meeting via imbroglio.be (weblog)
- reporting of the taken administrative decisions (date and places of next meetings, persons in charge, …)
Laurent De Sutter takes up the task of making the report in collaboration with Serge
Isabelle Stengers stresses on the importance of posting personal memories about the meeting after the posting of the meetings report on imbroglio.be and archivemail

Serge recalls that the network meeting is devoted to the **GMO's and Food Security** transversal theme of the project
All the IAP-teams are working on the subject, from their perspective
Some of us, moreover, are involved as defendants in a process in Namur after the decontamination a GMO-testfield

One of the main aspects of the IAP-project is to explore the possibilities and fertility of an interdisciplinary approach of issues of concern (such as GMO-food/food security, correlated humans). Indeed, writing this project, we did bet that mutual *interessement* and

thinking together beyond borders (disciplinary borders, borders between scientists and the public) must lead to
- stronger and more relevant science (sciences taking more risks by opening up)
- stronger democracy (participation of the public into S&T-developments

In the line of this ideas the program of the network meeting day is wholly conceived in the light of the objectives
1. to further stimulate mutual interest between the researchers and teams working on the GMO-food issue in the framework of this project
2. and more concretely, to explore, emphasize and concretise possibilities of exchanges, cross-fertilization and *common "outputs"*.

The latter is a point that is on the agenda later, but Serge evokes it already.
After the submission of our first report Serge received a letter from the OSTC mentioning the following:

> "Par la présente, nous accusons réception du rapport annuel 2002 de votre réseau, ce dont nous vous remercions. Après examen de ce document, nous avons constaté que la liste des publications a été effectuée par workpackage. Pour le rapport 2003, nous vous serions reconnaissantes de bien vouloir suivre les directives qui vous avaient été envoyées par courrier du 12 décembre 2002, à savoir une liste comprenant les publications de chaque groupe, ainsi qu'une liste comprenant les co-publications et mentionnant expressément les groupes PAI attachés à chacune de ces co-publications."

Serge Gutwirth points at the fact that notwithstanding the intense cooperation between researchers and teams, he does not see concrete common publications in process. Serge thinks this issue must become a priority.
During the preparatory meeting of the 3d October 2003, this network meeting has been conceived in such a way that it could stimulate cross-fertilization and cooperation and the launching of common publication projects. To that end, today two sessions are foreseen

First session This session aims at a presenting the work of the different teams on GMO-food and food security.
Each presentation will be divided in two parts:
- a state of affairs (15 min.)
- a session of informative questions. (15 min)
The presentations will present a state of the already undertaken researches, as well as of the work in progress therein. No discussion yet, questions must aim at clarifications and additional information.
The presentations and an English abstract are already available (send by archivemail or posted on imbroglio.be).

Second Session: from 13:30-16:00 "**Exploring the paths of further research**".
This session is the discussion and cross fertilization session.
It will start by a *Tour de table* whereby it is expected that at least one person per team would shortly express "what he/she find interesting in the work in progress of the other

teams, and where he/she thinks his/her work is interesting for the other teams?". Which are the bridges ? Which bridges should be build ?

The focus will be on the possibilities of *mutual* enrichment of the different WP of the IAP, as well as on the possibilities of *common and interdisciplinary* work around GMO'S.

After that a general brainstorm/discussion which should result in concrete collaboration projects: working groups, publications, symposia, colloquia

C. 10:20- 14:30 (including coffee breaks ant the meal). Session 1: "What has been done so far?"

FUL: two presentations

Presentation by Gaëtan Vanloqueren: "Development of a systemic and multidisciplinary method for assessment of the agronomical and socio-economical relevance of transgenic crops. An application to scab resistance in apple tree"

* *Discussion*:

- Q (J.-C. Grégoire): What about the existing labels in Wallonia that do not integrate the question of scab-resistant apples?
- A: Whereas in France such a question has been dealt with, in Belgium the structure of food auctions renders it impossible, simply because there would be too much variety to deal with commercially if one begun to think about organic scab-resistant apples (Topaz) – which are, precisely, not very interesting commercially.

- Q (D. De Waele): What is the usefulness of G. Vanloqueren studies? Is it the complementarity towards other types of studies?
- A: The usefulness of such studies concerns mainly two fields. (I) The first one falls into the scope of the EU Directive 2001/18 on the evaluation of ethical aspects of GM crops. The definition of such ethical aspects is very large, and may include broad studies like G. Vanloqueren studies in its scope. However, in Belgium for instance there is no real political will to do so. (II) It may also concern research and development policies. (P. Baret continuing the answer) The next step in the program of such studies it to try to interest both researchers and deciding persons (executives and financiers) in the development of a so-called "research marketing", or to put it better a "landscape approach".

- Q (I. Stengers): Who is going to take this "landscape approach" to other fields?

Presentation by François Mélard: Les enseignements de la conférence citoyenne sur les tests génétiques.

* *Discussion:*

- Q (I. Stengers): What was the criteria's used to weight the relevance of the experts?

- R: There were two of them: no controversies; clear statements.

- Q (S. Denys): Do we know why the "reluctant" participant left the conference?
- R: It is because he considered, from the very start, that his point of view would be considered as too challenging for the others.

- Q (D. de Beer): Why did you said, at the beginning of your presentation, that you were not "pro-consensus conference"?
- R: It is only to keep a sociological distance towards it.

- Q (I. Stengers): Was there any discussion among citizens about the organisation of the conference itself? What about the question of the "animation" ?
- R: The organisation of the conference was a constant topic of discussion for the participants. The French-speaking persons were the most critical towards it. They wanted more publicly organized debates. But even though, the general will was rather consensual from the very start.

UG

Presentation by Dani De Waele: "The GM Food debate: how tasteful is technology (and for whom)".

Discussion:

- S. Denys disagrees with Dani De Waele's presentation. For him, scientists always use political, social, etc., implications when they speak in public. They do not limit themselves to scientific arguments.

- I. Stengers disagrees with Sébastien Denys' way of presenting things. For her, the scientists' discourse is not only scientific only insofar as it allows meeting the scientific argument at the core of it. So, is the question of argumentation a real question of sciences, or is it not more a question of power?

- Ph. Baret stresses the fact that scientists mostly try to meet the public's expectations when they talk. This is why their public discourse is so ambiguous.

- N. Trussart recalls the title of our project: "The Loyalties of Knowledge". Is it not precisely the question of the power and of the responsibilities that are related to it?

VUB: two presentations

Presentation by Nicolas de Sadeleer: "Safeguard clauses and the recent jurisprudence of the ECJ on the putting in commerce of GMO food"

No text of this presentation has been posted on imbroglio.be yet, but Nicolas will be asked to do so.

Discussion:

- Q (I. Stengers): Does the notion of "substantial equivalence" in the EU texts mean equivalence "on the substance" (of the thing), or equivalence "in importance"?
- R: The answer is procedural. There is no fixed criteria for the definition of "substantial equivalence". Following the procedures, it is left to the scientists to decide if there is substantial equivalence between a GM food and a non-GM food. The ECJ does not judge on the substantial ground, but only on the fulfilment of the steps of the procedure.

- Q (G. Vanloqueren): What about the distinction between "risk assessment" and "risk management" in the EU rules?
- R: The ECJ is only concerned with the question of "risk assessment". Traditionally, in toxicological terms, there are four steps that must be fulfilled to decide if there is a risk or not. These four steps are: the definition of the intrinsic toxicology of the substance; its effects on laboratory mouse and rats (and then, trough very complex keys, on humans); its collective effect; and its chances of being spread. For what concerns GM-food, these steps are slightly different, but the spirit is the same. Now, for what concerns "risk assessment", it is up to the political institutions to decide to take this "risk assessment" into account or not. What is for sure is that they can reject it if economical reasons, for instance, may counterbalance it. On the other hand, they cannot reject of negative risk assessment (and then a new GM-food) on such considerations. Furthermore, the reasons that are allowed to serve as arguments in such discussion are limited. It is not possible to take into account every possible social argument.

- Q (N. Trussart): So, we can consider that advantages can be taken into account to reject a positive risk assessment, but not the disadvantages even to accept it?

- S. Denys denies the notion of "substantial equivalence" to have any ground.

- S. Gutwirth proposes to launch a first common team of research on this notion of "substantial equivalence".

Presentation by Daniel de Beer: "Les OGM en terres (réglementaires) européennes".

*Discussion:

- Q (S. Denys): What about the future of the environmental responsibility?
- R: It is doubtful whether or not it will never have any real content.

ULB: 30 minutes.

Jean-François Desaedeleer: "Exploration de controverses pour les étudiants bioingénieurs de l'ULB".

Discussion:

- J.-C. Gregoire mentions the fact that a new session of these seminars (two hours each) will start on 12/02/2004, up to 01/04/2004, on every Thursdays.

- F. Mélard notices differences with the seminars they organize for the sociologists in the FUL. He emphasizes the fact that they bring the actors of the controversies for the students to question them – on the basis, of course, of preliminary readings.

- I. Stengers suggests that the students of the first sessions are brought to ulterior sessions, so that they can enrich them with their own experience. J.-C. Grégoire opposes schedule conflicts.

- S. Gutwirth asks whether such an experience cannot be a mere reflection of "The World According to Google". Nathalie Trussart opposes the constant changes of algorithms in Google.

D. 14:30-16:00 session 2: "**Exploring the paths of further research**".

Discussion:

Isabelle Stengers discusses the fact that we have to translate our work both in the meaning of the telling of a story, and of the analysis of modes of enunciation. She suggests that we do so around the Daniel's text. She proposes also another theme: the "evaluation", but as a "black box".

J.-P. Van Bendegem asks "When is a scientist a scientist?", in relationship to what D. De Waele said. This question, he says, can be linked for instance to the question of the experts in citizens conferences, etc. S. Gutwirth adds that we may also ask the parallel question "When is a citizen a citizen?" is such structures.

L. De Sutter mentions his interest towards F. Mélard researches. No joint venture is nevertheless decided.

D. De Waele asks "What is the meaning of all this?" She seems a little bit desperate.

A PAI-VUB seminar is decided with J.-P. Van Bendegem. He will discuss Feyerabend. The date has not been decided yet.

As a result of the *tour de table* and the following brainstorm three working groups inside the PAI have been designed, with the expectance to stimulate cross-publication and cross-fertilization. These working groups WILL NOT comprise all the members of the IUAP.

They are expected to meet independently and produce co-signed working papers as a starting point.

The first group, around Daniel de Beer, will focus on Daniels research on the European policy towards GMO'S. **Daniel** will take the lead and organize a first meeting of this group in the weeks to come. This group will include: Nathalie, Sebastien, Isabelle, Jean Claude, Gaetan, Jean François and Serge. Other interested persons (Mireille, Dani, Sylvie, Nicolas De Sadeleer, Marc …) can of course join if they want (in that case contact the groups locomotive: Daniel)

The second group, following Jean-Paul Van Bendegem's question "When Is a Scientist a Scientist?" will engage the issue of the respective position of scientists, experts and citizens in the new procedures of democratic decision (e.g. citizens for a) appearing in relationship with GMO'S. **Jean Paul** will take the lead and organize a first meeting of this group in the weeks to come. This group will include: Dani, François, Laurent, Serge, Nathalie and Sebastien. Other interested persons (Mireille, Gaetan, Sylvie, Bruno, Karen, Hans, Marc …) can of course join if they want (in that case contact the groups locomotive: Jean Paul)

The third group concerning the question of (scientific and political) "risk evaluation" will be lead by **Sébastien**. It has also been suggested that he would elaborate the questioning it a little bit further. Sébastien will take the lead and organize a first meeting of this group in the weeks to come. This group will include: Gaetan, Isabelle, François, Dani and Sebastien. Other interested persons (Mireille, Sylvie, Bruno, Karen, Hans, Marc …) can of course join if they want (in that case contact the groups locomotive: Sébastien)

Isabelle Stengers insists on the fact that these little groups that are now forming must serve as reservoirs for those who are writing PhD thesis.

E. 16h00-16h30: *Imbroglio.be* (presentation by Nathalie Trussart on the possible improvements of the weblog and discussion on our use of Imbroglio).

Serge Gutwirth introduces by recalling that the website of the project (Imbroglio.be) is crucial aspect/tool of this network project. It is not only linked to WP1, but it also concerns the general network organisation (cf. part H of the initial project).

Imbroglio.be is not just a site to provide information, but is also a tool for working together and analysing this working together. One of the main objectives of the project and of the website is making the plus-value (both in democratic and scientific terms) of interdisciplinary and extra scientific cooperation *visible* through the website.

Everyone in this project should feel responsible to engage and to participate into the imbroglio.be related activities

Imbroglio.be has two parts:
1. the *Tree of questions* aiming at the publication of 'stabilized' texts, opening up for

discussion ("Comments") or for follow-up (new related questions). The idea of using "questions" as headers aims at waking up the interest of others for the texts and to show how some questions in one discipline might generate other question in other disciplines. There is also the possibility to post "homeless" texts without preliminary question.
2. the *Weblog* aiming at communication, information and on the spot discussions amongst the IAP-members

There are however a number of technical problems, which should be solved in order to make the website more user-friendly. Those technical problems are finding solution (e.g. a print friendly version). Meanwhile, we can help our work by picking up new habits (e.g. copy/paste). Nathalie Trussart reviewed some good tricks of use.

Discussion:

S. Gutwirth, after consultation with the webmasters Nicolas & Didier proposes two solutions for the website. On one hand, we may continue to delegate to a small group of persons the power to decide about the changes needed for the website; or, on the other hand, we may meet altogether around Nicolas, Didier and some computers, and organize a sort of "in action tutorial".

After a discussion Jean Claude proposes a compromise between the two paths. A try-out session will be organized with those IAP-members interested by the exercise. Afterwards decisions as to the structure and possibilities of imbroglio will be taken.

N. Trussart took note of those who still have bugs and problems to report. Four persons expressed impossibility to login to the weblog L. De Sutter, D. De Waele, Daniel De Beer, V.Smet.

F. 16h30-17:00: Administrative topics.

Common Publications: emphasis on common publications and collective publications. In his introduction, Serge has recalled the requirements of the OSTC for what concern "common" publications and outputs (see above). Serge also recalls the two projects of international congresses that were supposed to be set around GMO'S and "Correlated Man". Nevertheless, no particular decision is taken for what concerns the organization of these congresses.
Serge expresses hopes that the constitution of three working groups earlier the day will lead to joint publications, congresses, seminars, and so on. He recalls that everyone is welcome to participate into the regular VUB-seminar which in the first half of 2004 will be held on Mondays from 14:00 on.

The Annual Report 2003 must be submitted in March 2004.
Like last year it must consist of two parts:
- the administrative report (spreadsheet about personnel)
- the scientific progress report
      1. Description of the work in progress of the different WP's
      2. Terms of cooperation (within and outside the network)

3. Publications per team and co-publications

Serge recalls that the full scientific report is sheduled for October 2005

Serge proposes that the same team as the one who was in charge for the first IUAP report 2002 take the charge again. Mireille Hildebrandt and Nicolas de Sadeleer will send a structure to all the members of the IUAP to be fulfilled by the different researchers in the different workpackages. As this structure will be the same as last year, it will hopefully not cause any problem.

For the **Follow-up committee,** meanwhile Serge has proposed two dates to the members:
Wednesday April 28, 2004 from 15:00-17:30 (at the Vrije Universiteit Brussel)
Friday April 30th, 2004 from 10:00 -12:30 (at the Vrije Universiteit Brussel)

Next network meetings
Two network-meetings are set:
- a first one on correlated humans that will be organized by the VUB, and
- a second one on the exploration of controversies that will be organised by ULB (Nathalie Trussart) and held at CSI-ENSM in Paris.
Remaining possible dates (after consultation of Mireille Hildebrandt): May 7, 24, 25; June 1 4.

After the meeting it has been decided that the network meeting on the exploration of scientific controversies will be organised *first*. Meanwhile Nathalie Trussart has already taken the first steps in the process of fixing a date

G. – Executive Summary of to do's and decisions:

1. Everyone is asked to post comments about the meeting (personal memories) on the weblog
2. Everyone is asked to launch initiatives leading to common publications
3. The working group locomotives - Daniel, Jean Paul and Sébastien - are expected to start up the work of their respective working groups.
4. Nathalie Trussart will organise the follow-up of the imbroglio.be discussion
        - organisation of try-out session(s) for those interested
        - technical improvement
        - iniate decision making process about final structure and concept of the website
5. Annual report 2003: Mireille and Nicolas are in charge
6. Follow-up comité 2003: Serge is in charge
7. Fifth network meeting on the exploration/cartography of scientific controversies in Paris: Nathalie takes the lead. First constraint: finding a date which suits Bruno.
8. Sixth network meeting on correlated human in Brussels: VUB-team takes the lead.

9. Everyone is asked to read and check this report and to amend if necessary (in the "comments" field of the weblog)

ANNEX 2: Minutes of the Working-Weblog Day

January 30, 2004 What did happen to us?

Very quick and informal report on our Working day with/on Weblog.

First stage
Nicolas and Didier showed us again many ways to use Weblog.

Second stage
Three groups with three people, working on starting WG, - "When is a scientist a scientist?", "Correlated human", "Risk assessment" - and one person writing down a report of the preliminary meeting around Daniel Debeer's text "GMO's on European Ground".

Results: four texts posted. Different ways of doing: one person writing for the others, or one person after another, or talking together and then writing,...many possibilities in regards with each group.

Third Stage
Reading and commenting each text. Results: many comments posted.

Four stage
Didier and Nicolas are back for listening to what happens to us. Results: different proposals, and decisions are taken.
1° We are supposed to post comment that are constructive, that means, produced from a generous reading (real question avoiding "mot d'esprit" for example).
2° A text can be commented in another text, when the comment format is too small.
3° A comment or a text commenting another text can contain offers, references, proposal of concepts, proposal of case studies,...etc. Let's go generous.
4° We use Weblog to write collectively our text in view of publishing (in contrast with posted texts we write very quickly to exchange ideas).
Indeed, we can submit, to all of us, new versions of texts, taken in the process of writing with other people, as an upload file in Weblog or/and as an attached file in message sent on our mailing list "ArchiveMailImbroglio". Indeed, texts written in Word can keep traces of modifications made by each co-author.
In this case, some precautions have to be taken.
A. Each subsequent change in a text, taken in the process of writing with other people, can be shared through Weblog. That means not all changes is matter to sharing.
B. For technical reasons, upload texts that were saved in RTF format (even if they have been written in word).
C. For other technical reasons, when we upload texts where modifications were made and followed, upload them after accepting modifications.

ANNEX 3: <u>Agenda of the meeting of June 4, 2004</u>

PÔLES D'ATTRACTION INTERUNIVERSITAIRES

NTERUNIVERSITAIRE ATTRACTIE POLEN

INTERUNIVERSITY ATTRACTION POLES

PHASE V/16

'Les loyautés du savoir'

'The loyalties of knowledge'

'De verbondenheden van het weten'

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Network meeting
Public Controversies

</div>

Friday, June 4th 2004
École des Mines de Paris
Boulevard Saint-Michel, 60 - Paris 6ème

PROGRAM & ORGANIZATION

Date   :   Friday June 4th, 2004
Venue :   10h30
Place   :   Ecole des Mines de Paris - Boulevard Saint-Michel, 60 - Paris 6ème
Contact: Nathalie Trussart (Bruxelles)   Email: nathalie.trussart@ulb.ac.be

Cassiopé Guitteny (Paris)   Email: assisbl@ensmp.fr

Topic

Public controversies are interesting objects of research and learning. Taking the web as field of debate, they are filled out with new actors, new arguments, new kind of relevance and credibility. As object of research, they are an experimental place for new forms of assessment and production of knowledge. In the heart of educational project, they displace students inside a place where scientists and lay people express their argument in new manners, and where students will have to practice at the end of their training. Public controversies actually associate different questions and problems treated inside our IAP.

Program

10h30   *Session 1: "Public controversies as object of research and learning"*
                    Part I
                    Each presentation will be divided in two: a state of affairs and, if necessary, a session of informative questions. Discussion will take place during the afternoon.

                    10h30-11h00: ENSMP- Bruno Latour
                    « La cartographie de controverse comme nouvelle architecture publique »

                    11h00-11h15: Questions

                    11h15-12h15: ENSMP - Noortje Marrès
                     "Issue crawlers theory and practice"

                    12h15-12h30: Questions

12h30   *Lunch*

13h45   *Session 1: "Public controversies as object of research and learning" Part II*

                    13H45-14h15: ULB - Sébastien Denys and Nathalie Trussart.
                    "*Séminaires d'exploration de controverses* for bioingenieurs students at ULB, taking the web as field of experimentation"

                    14h15-14h30: Questions

                    14h30-15h00: ULg - François Mélard and Marianne Franckell
                    " Study of controversies inside a training in environmental sciences"

15h00-15h15: Questions

15h15   *Session 2: "Exploring the paths of further research around public controversies". Tour de table*, followed by a general brainstorm/discussion, from the question: "What did I find interesting in those presentations, and how do I think my work is interesting for them?". The focus will be on the possibilities of *mutual* enrichment of the different WP of the IAP, as well as on the possibilities of *common and interdisciplinary* work around the public controversies.

16h45   *Coffee*

17h00   *Session 3: "Administrative topics"*
- Sharing of interesting projects and external contacts taken by IAP members
- Situation of the different working groups
- Follow-up committee
- Next network meeting

18h00   *End of meeting*

ANNEX 4: <u>Minutes of the meeting of June 4, 2004</u>

<p style="color:red; text-align:center">IAP V/16. *The loyalties of knowledge*</p>

<p style="color:red; text-align:center">Friday, June 4^{th,} 2004 –
Ecole des Mines de Paris</p>

<p style="color:red; text-align:center">5th Network meeting
"Public controversies"</p>

<p style="color:red; text-align:center">Report</p>

- ***Attending****:* Hans Comijn (VUB), Daniel de Beer (VUB), Laurent Dessuter (VUB), Dani De Wael (UG), Karen François (VUB), Serge Gutwirth (VUB), Mireille Hildebrandt (VUB), Bruno Latour (CSI-ENSM), Noortje Marrès (CSI-ENSM), François Mélard (ULg-FUL), Wim Schreurs (VUB), Isabelle Stengers (ULB), Nathalie Trussart (ULB).

- ***Excused***: Marianne Franckel (ULg-FUL), Jean-Claude Grégoire (ULB), Jean-Paul Van Bendegem (VUB), Edwin Zaccaï (ULB).

- ***Report***: Hans Comijn (VUB) and Nathalie Trussart (ULB).

!!!! NEXT NETWORK MEETING: DECEMBER 16, 2004 in ROTTERDAM !!!

10:50. Introduction of Noortje Marres and of her work with Richard Rogers. By Bruno Latour.

10:55. The space of politics. By Bruno Latour.
Nowadays, public space is very much web based. This is a blessing not because the web is interesting in itself, but because it allows us to think back about the origin of public space.

      <u>Poster</u>: Picture used by nazis, "Germein Beim Thing", School Poster Circa 1920. <u>A "thing" as a place of encounter. Heidegger.</u>

Following Heidegger[7], we define a "thing" as a place of encounter, a place where we are assembled around. This is a very interesting definition of a thing, because it allows us to use the word in contradiction with the commonly used word "object".

Nature, as we see it, is not an assembly of objects, but an assembly of things. The problem at hand then, is that the things we are dealing with (scientific things) are very complicated assemblies of information. The problem at hand is how a thing is a thing.

> e.g. 'The weather'. Where is this thing? Outside in the street, on the computer, at the screen of the meteorologists, at the screen of television weather forecasts news, …?
> The same kind of problem holds for 'a scientific theory', 'GMOs', …

All these things are characterised by the fact that information is passed on not in a face to face way, but indirectly. Consequently, controversy cannot be resolved in a direct, face to face way.

When we are interested in controversy as thing or as assembly of things, as place of encounters, as place where we are assembled around, the problem is then how a controversy is a controversy. And it matters to find the public space of the controversy.

As well, nature is an assembly of things. The point is then to find the public space of nature. The problem we are dealing with is that the public space of nature is not the assembly that nature is, nor the assembly that society is. And then, if the public space is not nature, nor society, what is it?

Philippe Descola. Four ways of assembly between humans and non-humans.

Philippe Descola, anthropologist, can help us[8].

The public space of nature can be found in an assembly of humans and nonhumans. And humans and nonhumans have been assembled, connected with each other in four ways - conventionally called: animism, totemism, naturalism, analogism - regard to the way one suppose some other, human or non-human, to possess elements of interiority and elements of physicality. This supposition-attribution is a way to establish differences and similarities between self and others. It is a way of identification of self and others, humans or non-humans.

> - **Animism**: similar 'souls-interiority', different 'bodies-physicality'
> - **Totemism**: similar 'souls-interiority', similar 'bodies-physicality'
> - **Naturalism**: different 'souls-interiority', similar 'bodies-physicality'
> - **Analogism**: different 'souls-interiority', different 'bodies-physicality'

All of these ways we have misunderstood because we have always assumed the distinction between nature and society in trying to understand them.

> - e.g. Levy Strauss and totemism.
> - e.g. Contrary to naturalism beliefs, animism is not the projection of human on the non-human; it is not the projection of human nature on nature because there is

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[7] Heidegger Martin. *Die Frage nach dem Ding*. 1962.

[8] Philippe Descola. Anthropologie de la nature. Cours au Collège de France. 2000-2003. Figures et relations entre humains et non-humains.

Courses, given in 2002-2003, are specifically about the four modes of assembly of humans and non-humans, as presentented by Bruno Latour.

2000-2001. http://www.college-de-france.fr/media/anthrop/UPL31695_descola.pdf

2001-2002. http://www.college-de-france.fr/media/anthrop/UPL51159_pdescola.pdf

2002-2003. http://www.college-de-france.fr/media/anthrop/UPL51939_DescolaR01-02.pdf

no nature, as distinct space from human culture. There is no need for politics in animism, because as there is no separation between human and non-humans, there is no need to gather together humans and non-humans.

- e.g. Naturalism is the only mode dealing with politics.

Culture takes its specificities from its differences with nature. Culture is defined by default. Naturalism is ground on a form of anthropocentrism: non-humans are defined from her lack of humanity.

<u>Naturalism deals with politics</u>

In order to understand our politics and our controversies, the only mode of assembly of humans and non-humans we need to understand is **naturalism**, because it is the only one dealing with politics, that means dealing with the problem of assembly of humans and non-humans. How does it deal with assembly?

In this sense, the public space of controversies is nature, because it shapes nature. Therefore, we define nature, not as an outside reality, but as an inside collective; not as unified but as multiple; not as indisputable but as disputed; not as inanimate but as giving shape. These characteristics are fundamental to understand nature.

The interesting questions, by consequence, are always:

- Are the representations accurate?
- Are the representatives legitimate?

> - e.g. Picture of José Bovè. Can the criterion of representative be legitimate on website? Can we answer these questions on publications on the web, because Google does not give any of the answers? Is José Bovè legitimate? Is he out of rationality? Which tools can we use to legitimate José Bovè?
>
> - e.g. Powell during the UN session in February 2003. It is a place recognized as political space, a sort of assembly, offering a visual imagination of what is a representative assembly. Powell used a terminology like "Dear colleagues, every statement today is backed up by solid sources … these are not assertions. What we are giving you are facts and conclusions based on solid intelligence."
>
> Not only were the statements wrong at that time (they were not the facts), it was very ill-argument, very unsuitable, finding in scientific rationality the way to prove the public dimensions of his assertions, the legitimacy of what he said, and so on its representativeness as accurate. Instead of asking to come together, to try to make assertions in a difficult time, they argued they had facts. They asked scientific nature to prove their assertions.
>
> It is very complicated to not to be modern.

<u>From nature to collective. From matters of facts to matter of concern.</u>

'Nature' has been a political way of assembling - without due process - humans and non-humans to produce an anthropomorphic view of the cosmos, namely as a **matters of facts**.

The 'successor' of this 'nature' is a collective, a view of the cosmos as **matters of concern**.

In this sense, it is interesting to see how an object (matters of fact) becomes a thing (matters of concern)? How do we build institutions able to make difference between facts and assertions?

> e.g. A shuttle exploded. Two posters: one at Columbia just after the explosion, with people trying to fit the debris, the pieces to the puzzle; another, 'The exploded view' at modern art museum.

> When the shuttle exploded, the matter of fact, the object that every piece was before the explosion, became a thing, a matter of concern: "What would this piece be?" The puzzle of understanding technology: a worker trying to compare fallen debris from the explosion.

How does the object become a thing? How do matter of fact (object, something that works) become matter of concern (thing, inquiry)?

What is the space where an object never finishes to be a thing?

A 'thing' is an assembly around matters of concern.

Politics as cosmopolitics. Question of composite eligibility.

It is imperative to note that this is not new. Politics has always been 'cosmo'politics. Politics has always been a question of composition including humans and non-humans. The difference between good and bad government is about comparison between two types of cosmograms. We just forgot this inclusion of non-humans along the way.

In this re-instituted cosmopolitics, the questions to be answered are questions of composite eligibility.

> e.g. Poster. Pictures of Bush and Ben Laden made up of many small pictures of other people, in a way to make Bush and Ben Laden visible.
> e.g. Poster. Picture, by Ciceron, found by Simon Shaffer, made with same technics of composition.

The new questions to raise are about: How to make multiplicity coming to one? How to solve the problem of composition?

- Where to assemble?
- How to compose the assembly?
- How to make others speak?
- How to choose the representatives?
- How to ascertain public proofs?
- What sort of rhetoric to develop?

And the main 'problem' is the loss of direct proof of the good way of composition. We will never have direct proof, and yet, we want to have closure. How do we resolve this tension?

Applied to the web, we have the problem of visibility of composition on the web.

> e.g. Poster. Pluyné, by Gérôme. *Energeia* as shining of self evidence.

Gabriel Tarde and correlated humans.

Here comes in Gabriel Tarde's sociology, because the argument is all in Gabriel Tarde.

Making his sociology, he was inventing a good argument for study of the web: **everything begins with elements, individuals**. In case of science, we have a continuous traceability of the network. Now with the web, we have other kinds of traceability, other kinds of networks. Now, because of the web, we have the same possibility of traceability for many more things. Thanks to the web, we can produce traceability, which before was only possible for scientific activities.

Henceforth, everyone is footnotable. In terms of 'correlated man', we can argue that everybody has become as traceable as a scientist. Every move, word, payment, ... can be followed now on the web. The counterpart of this traceability is the mass of data we have to deal with. This general visibility has been made possible because of technology. In this context, the case of science provides us with an excellent possibility of general tracing references.

e.g. Total record of vote in Congress US with webcam, plus of all is possible to know about elected representatives with legal means (credit card, mistress, buys, travels,...), made by MIT lab.

As a Tardian, correlated man is great – the more correlated, the better!

Despite Tarde's idea of networks, the whole concept of social science was based on a Durkheimian use of statistics. Statistics makes for the absence of traceable links, and social science was built on that.

Now, we have the electronic means that we can use for traceability and this is a blessing.

Now, however, if we want to find closure, the questions are still there: How do we invent tools of accountability, tools of composition?

We will have to invent tools that will have to make up for the loss of closure by means of an outside reality that decides. We no longer have an outside reality to provide us with absolute proof.

e.g. Closure about what is good and bad science. In earlier times this was easier because there were less data, and they were 'facts'. It was easier to keep distinction between good and bad science, it was easier to make epistemology. Whereas now there is a lot more data, and they are things. The distinction is more far difficult to maintain.

11:45 Issue crawler: theory and practice. By Noortje Marrès

This presentation was enriched with a lot of questions and discussion. They are collected under "comments", just after the slides offered by Noortje Marrès. Those slides are also available on imbroglio.be

0. Introduction

Issue-networks on the Web:
a network of Web pages which are concerned with a specific issue, with hyperlinks among them, that has configured on the Web on a particular point in time.

Issue crawler:
a Web-based tool for network location and visualization, developed by the govcom.org Foundation, Amsterdam (in beta version).

Working with Issue crawler:
a way to harness the Web to study the politics of issues, and to asses its (non-)democratic qualities.

Comments:
- The expression "Issue-network" is taken in a primary sense, in the perspective of solving this question: 'how to locate an issue -network?'
- (Non)-democratic qualities are assessed through a specific conception of democracy, explained later.
- Public controversies are just one possible form of political issues among others.

1. The Web as a heuristic for studying issue-politics

3 questions that need to be answered, if we are to recognize the Web as a heuristic for bringing into view the politics of issues (and if we are to fully appreciate this brand of politics):
a. what is an issue-network ?
b. what is special about issue-networks on the Web ?
c. why can issue-networks, against the odds, be considered a site of democratic politics ?

Comments:
Issue-politics means specific politics of a specific issue, in contrast to lobby politics, where a particular good at stake is in opposition to general good.

2. What is an issue-network (on and off the Web)
The term "issue-network" was invented by the American political scientist Hugh Heclo (1978):
"A loose, informal alliance of issue-watchers, issue-experts and interested parties,
who define policy issues by sharing information about them."
When it comes to the Web, "issue-network" is first of all a technical term:
An active network of hyperlinked Web pages,
which exhibits issue-specificity,
and which can be seen to format an affair by circulating information about it.

Comments:
- The term "issue-network" was coined by Hugh Heclo (1978) in order to critic politics as stakeholders model of politics, lobbyist politics, which is illegitimate when comes to democracy. The web was not its ground. In his perspective, there was no public. There were lobbyists which he wanted to denounce activities.
- On the web, it is a technical term, speaking about active network. It is not about a cemetery for the past of affairs. It is about web pages constantly updated, modified.
- The circulation of information about a specific issue formats and structures this issue.

3. What the Web adds to issue-networks (compared to Heclo)
- General accessibility (of the medium)
- Traceability (as enabled by, and enacted on, the Web)
- Formality (networks evince forms)
- Net-work as format-work (networks can be seen to mobilize information formats)

(examples of info-formats: hyperlinking, news, the archive, and "the leaked report," the letter, the scientific article, the image of street protest, etc.)

Comments:
- Even beginning with a very technical definition, issue-network has also a substantial content about the politic space. Sending information on the web and studying an affair through the web are means to study publication, publicising information and affairs.
- Traceability is actively performed by using specific formats of edition (e.g. archives). Traceability is also a way to find out how an affair is constructed. Because, for sure, there are specific forms of edition and format for specific issue or some of its specific dimensions.

- There is a strong formality on the web. Informality is often a characteristic of lobbying. It is also a feature of celebration of web as space of freedom.

> e.g. A form of scandal is specifically staged when/because it comes out on the web.
>
> e.g. The banks and the climate. Certain actors, environmental NGOs, claim and make campaign on the web to denounce banks as cause/accomplice of climate change. They have a clear target: the world of banking. This campaign adopts a strategic form.

4. A second chance for issue-networks on the Web?
Contrary to their classic definition, issue-networks on the Web may be approached as a site for the organization of a public:
Hugh Heclo opposed the issue-network to democratic politics: the issue-network operates informally, and in relative seclusion (as an elaborate kind of lobby)
on the Web, issue-networks may be considered a vector of the articulation and publication of an affair, and indeed, of the organization of a public (around the issue)

Comments:
- How the network organise the affair in a issue? Does it organise a public?
Taking an issue network as a form of articulation, the question is: does the issue network organise, articulate a public or the public of an affair?

5. Issue-networks as locus of democratic politics (and its failure)
A study of issue-networks on the Web, may draw on the conception of political democracy
developed by the American pragmatist thinkers, John Dewey and Walter Lippmann:
Lippmann and Dewey understood political democracy as a particular practice of issue formation:
Public involvement in politics is occasioned by the failure of existing institutional arrangements to effectively settle an issue.
In these cases, actors implicated in the issue must organize into a political community, so as to adopt the affair and assure its settlement.
"The public consists of all those who are affected by the indirect consequences of transactions, to such an extend that it is deemed necessary to have those consequences systematically cared for."
John Dewey, The Public and its Problems (1927)

Comments out of discussion:
Dewey and Lippmann conceptualised the public as always specific to a public affair, allowing to address the question: what is the public when politics is organized by a concrete public affair?
Their argument was that a political democracy is a particular way, an ability, to form and articulate affairs. A public is formed by all the actors implicated in a specific affair, even if they do not speak out or express themselves about this affair.
In Dewey's perspective, when existing institutional arrangements are able to settle issues, there is no public, because there is no public deemed necessary to take care of

consequences of institutional transactions. Therefore, the ostensible failures of democracy are the occasion for the constitutive moment of a specific public for this specific failure. Democracy is considered as existing when fulfils its task of making a collective. Democracy is viewed as an action, the action of making collective, more than as a principle.

> e.g. An immune system can be considered as existing when it fulfils its task of making health.

This is all very different from traditional political theory which considers failures of democracy as defaults that have to be erased, avoided, in the principles of democracy. Seen as a theoretical object, democracy offers popular sovereignty and general will as a mystery. Dewey replace the mystery by a machinery in order to understand how it functions precisely when it has to function. How does democracy work to settle the closure of an affair? Through the reorganisation of the state, that is the address for the affair, that is the precise task of the public in the making.

6. Issue crawler: taking advantage of the traceability of issue formation provided by the Web
Issue crawler takes advantage of the specific ways in which issue formation is documented
and performed on the Web, so as to bring this process into view:
Network location:
the crawler follows hyperlinks, departing from starting points dealing with the issue, and performs co-link analysis, so as to demarcate the network
Network visualization:
networks can be rendered, and read, with a view to issue-specificity, network activity, and format-work performed by the network

Comments:
- Following hyperlink, departing from a link list created and fuelled by the user of the issue crawler. It seems odd, because one of the first features of a web page is its content. Regard to this content, hyperlink is a sort of trick, a quicker way to visualize the network, without analysing all content.

7. The type of questions that can be posed with the aid of the crawler
- Is X an issue (on the Web)?   (Presence of an issue-network)
- When was/is the issue?   (Network activity)
- What is the issue ?   (Claim formation)
- Who is adopting the issue?   (Actor composition)
- Where is the issue?   (The network's location)
- What is the issue's address?   (The networks mode of address)

8. What students do with Issue crawler
The widely varying hypotheses that students develop with the aid of the crawler:
- comparing the politics of global rainforests: regionalisation versus the un-grassrooting of forest politics (Natasja Hulst)
- the unperturbed pursuit of dubious science on the Web: the non-contested presence of racial science networks (Dirk Haen)

9. Conclusion
To zoom in on the configuration and re-configuration of issue-networks on the Web, means to register democratic deficits, or at least it often does:
issues fail to organize a public
issues fail to reach their address
etc.
One key task in following issue formation on the Web:
to articulate the failures - just what do they consist of - to achieve a democratic politics of techno-scientific issues.

14:45. *'Séminaires d'exploration de controverses'*. New habits of thought for bioingeneers students at ULB, taking the web as field of experimentation. By Nathalie Trussart.
The abstract of the presentation is available on imbroglio.be

15:30. Study of controversies inside a training in environmental sciences. By François Mélard.
The abstract of the presentation is available on imbroglio.be

Comment:
The reciprocal apprenticeship involved with this kind of seminaries allows and even is nearly based on the possibility to speak, and learn, about what we don't know anything about before the seminaries.

16:00. Exploring the path of further research around public controversies.

François notices that the seminaries organized at *Ecole des Mines de Paris*, *ULB* and *ULg*, because they deal with **active** public controversies, are under the same kind of constraints:
- The training staff does not know the topics to deal with and treats them with the students.
- The seminars involve reciprocal apprenticeship, on behalf on the students and on behalf on the training staff.
- They require a large amount of motivation for the training staff who needs to stimulate students' interests continuously.

Bruno stresses the fact that training for scientific students is better with **matters of concerns** than with **matters of fact**. He explains that his students are really without belief into sciences anymore.

Nathalie says that, on the contrary, most of the students at ULB begin the seminaries with a kind of blind respect for sciences, thought as an outside world, without any link with a mundane reality, defined by them as the "ethic" realm, gathering equally economic, politic, sociological aspects. The lowest common denominator of science, in this

respectful attitude, is its power to put figure on its objects: a kind of external judge able to compare and make distinctions.

Bruno stresses the importance to calm people worries about controversies, people who are convinced of loss of certainty: "if we go to controversies, we won't have certainty back". It is possible if we can make comparable the results of the study of controversies and if we can make comparable different kind of *closure* of controversies.

Therefore, public controversies raise two main problems that can explain these worries:
> - The different dimensions of a controversy are incomparable: because dealing with spheres we are used to make distinct and without communication, as different ontological territories. It leads to the risk of relativity. Without possibility to compare those different dimensions, one risk would be to consider all of them as legitimate, as colours and tastes.
> - The difficulty to produce closure: due to the trouble to make comparable the different elements at work in a controversy.

Nathalie explains one of the problems encountered by students and training staff in the exploration of controversies: how to think together all the elements coming from different realms explored during the search? For each particular controversy, one must find a new and specific way to make comparable different elements without being in blind respect for figures as the only independent judge. The hard work is about constructing a new realm/sphere/area where all those dimensions would be comparable, or at least treatable/processable together. This realm/sphere/area is always specific to a particular controversy.

Bruno stresses the fact that most of the controversies find a closure, notwithstanding the common worry We should make a kind of natural history of controversies which would show how controversies find closure in many cases. What kind of closure do we find then?
On websites, however, there is a meta-language about opening and closing of controversies, as first layer for the controversies. This helps to assure people that once we would go into controversies, we'll never get closure anymore. But if we open a website and take a look at this meta-language to analyse the warmth of a controversial discussion, to analyse what makes it exists, it is possible to retrieve from the controversies on the web another kind of certainty than the one from the past, the one people are worry about loosing it.
Isabelle stresses the fact that there is no neutral meta-language. The question is not about a distinction between a meta-language and the good language. The question is more about the type of meta-language used, producing which type of closure for which type of controversies.

Noortje recalls the questions that are possible to address now about controversies with the help of the crawler (presence of an issue-network, network activity, claim formation, actor composition, location of issues, mode of address of issues, ...). They are means to construct this natural history of controversies, looking for the types of closure that are produced along the construction of the controversies.

Serge, Mireille and Bruno emphasize that the problem of traceability, present in any study of controversies, is also a mean to enter into the correlated humans problem.

Ex-Post thoughts about the *Loyalties of knowledge* and the pedagogical dimensions of public controversies (Daniel & Nathalie)

After this network meeting devoted to public controversies both in their web and pedagogical dimensions, we have still more reasons to stress the link between the seminaries committed to students and the principal originality of our IAP-project that is defined as **educational**, concerning **training for researchers**:

> *"Our research is designed as an action research or an 'experiment' to conduct interactively with researchers from different walks of life, beyond the barrier of mutual exclusion that is created by ignorance. The question of how to whet a common appetite (create a common interest) from such different ways of seeing things, can be solved only in the field. Thus, through this experiment, our project will try to identify the new urgent training needs that the knowledge-transmitting practices linked to the democratic constitutional state must meet (e.g. in a graduate school). So, in addition to the more traditional targets of 'knowledge generation' defined in the various workpackages, we shall try to foster the communication of knowledge, in the strongest sense of the word, for here we shall consider knowledge not just as content that everyone can acquire, but as something that must 'count', 'be important', be part of the way in which a researcher states her/his questions. Our project thus talks of 'loyalty', 'ties' and 'attachment' in order to underline this very challenge"*

The *Séminaire d'exploration de controverses* organized at ULB, following the ones organised at *Ecole des Mines de Paris* and at *Université de Liège*, is the starting 'ground' of this action research in the frame of our IAP project. As such, successes and failures of this experiment led with students are to be taken into account for the networking dimension of our research project led between researchers. Their evaluation and their improvement are likely to help us to conduct our own *'experimental collective protocol'* about our demarche affirmed as necessary: the openness of academic research to questions, knowledge and doubts coming from outside.

17:00. Administrative topics.

1. Public Proofs: 4S-EASST Conference 25/28 August 2004.
Most of papers are accepted. Good work.

2. Testing expertise: IAP-Network-colloquium, Thursday 21 October 2004.
Program ready. We are invited to diffuse it. It will be distributed at the 4S-EASST Conference at Paris, 25/28 August 2004.

3. Next network meeting on "correlated humans".

VUB team will organize it at Rotterdam, Thursday 16 December 2004. Mireille already booked a conference room at Rotterdam, in Hotel 'New York'. The program will be from 11:00 to 17:00. Details of this program will be worked out by the VUB-team (in correlation with others), and will be sent in October/November. We are all invited to let them know possible outputs.

4. Annual Report 2003 and follow-up committee.
We submitted a good annual report. It was not possible to bring the follow-up committee together.

5. Annual report 2004, March 2005.
Serge and Els are in charge.

6. Full scientific report, October 2005.
The full scientific report is scheduled in October 2005 because the selection proceeding for the next phase of the funding program, starting in 2007, will begin in 2006.
A final report summary, based on this final report, is expected in October 2006.
We should put energy in it because the extension of the project is based on the evaluation of this report.

7. Common outputs and publications: imbroglio.be and four working groups.
a. Imbroglio.be
Extract from the report of our last network meeting:
"Imbroglio.be is not just a site to provide information, but is also a tool for working together and analysing this working together. One of the main objectives of the project and of website is making the plus-value (both in democratic and scientific terms) of interdisciplinary (and extrascientific/civil society) cooperation visible through the website."
 Why is there still so few activity on the website? Serge encourage all of us to achieve this objective of making plus-value of interdisciplinary cooperation visible through the website.

b. Four working groups.
Extract from the report of our last network meeting:
"These working groups will not comprise all the members of the IAP. They are expected to meet independently and produce co-signed working papers as a starting point."

Isabelle mentions that the first group, working on 'GMOs', and the third one, working on 'risk evaluation', have joined their forces, and have formed one unique group.
This group has met regularly, produced output on the weblog, and has worked on a book about GMOs as event.

The output of the second group working on the question 'when a scientist is a scientist?' will be mainly presented at the IAP colloquium, October 21st.

The fourth group working on 'correlated human' has different publications in project. Mireille, Bruno, Noortje, Karen and Serge plan to work together around correlation /

traceability / profiling: impact of profiling technologies on identity. They make reference to David Brin, 'Transparent Society' about 'profiling of the profiler'.

Added to this fourth group, Bruno, François and Nathalie plan a common article on controversies teaching, pedagogical experience on controversies.

Serge recalls the importance of mentioning the IAP project in all publications.

8. VUB - seminars
The next year session of VUB seminars will focus on our own work. Laurent is in charge of the organisation.

ANNEX 5: <u>Agenda of the meeting of December 16, 2004</u>

PÔLES D'ATTRACTION INTERUNIVERSITAIRES

INTERUNIVERSITAIRE ATTRACTIE POLEN

INTERUNIVERSITY ATTRACTION POLES

PHASE V/16

'Les loyautés du savoir'

'The loyalties of knowledge'

'De verbondenheden van het weten'

<div style="border:1px solid black">

6th Network meeting
Seminar on Correlated Human

</div>

Thursday, December 16th 2004

PROGRAM & ORGANIZATION

Date: Thursday December 16th, 2004
Venue: 11:00 am
Place: Hotel New York, Koninginnenhoofd 1, 3072 AD Rotterdam
General information, access and room reservations: http://www.hotelnewyork.nl
Contact: Karen François (Bruxelles) Email: karen.francois@vub.ac.be
Mireille Hildebrandt (Rotterdam) Email: hildebrandt@frg.eur.nl

Topic

'Correlated Human' is one of the two transversal subjects of the project which means that it "will be examined by each team in the network from the angle of its own perspective or speciality but within the framework of a constant dialogue involving the entire network". Besides , 'Correlated Human' is the specific topic of WP8@VUB - Correlated man and man as seen by law.

The aim of this network meeting is to present some thoughts on 'Correlated Human' and to further discuss the concept.

Program

11:00 Session 1: Serge Gutwirth: The correlated human revisited. A slope beyond boom and doom

11:30 Questions

11:45 Session 2: WP 8 Correlated humans, law and democracy

Mireille Hildebrandt: Attachments and profiles
Wim Schreurs: The human trace: correlations, privacy and data protection law

12:25 Discussion

12:45 Lunch

14:00 Administrative topics
- Sharing of interesting projects and external contacts taken by IAP members
- Situation of the different working groups
- Follow-up committee
- Final Report (October 2005)
- Next network meeting

14:30 Session 3: WP 9 Correlated mathematicians/philosophers

Hans Comijn: How to reach closure without mathematical facts?
Karen François: The pleasure to walk on the earth, leaving your traces (behind)
Jean Paul Van Bendegem: Finding Mathematical Traces everywhere

15:30 Discussion

16:00 Coffee

16:30 Session 4: WP 10 The loyalties of social scientists researching for public policy

Valerie Smet: Social science-policy relations in Belgium: proceedings of PhD-research.

16:50 Discussion

17h00 End of meeting

ANNEX 6: <u>Minutes of the meeting of December 16, 2004, Rotterdam</u>

Present:

Isabelle Stengers, Jean-Claude Grégoire, Nathalie Trussard, Serge Gutwirth (chair), Laurent De Sutter, Daniel De Beer, Mireille Hildebrandt, Wim Schreurs, Jean Paul van Bendegem, Hans Comijn, Sebastien Denis, Els Soenens (secretary), Karen François (secretary).

Apologies:
Dani de Waele, Valérie Smet, Bruno Latour

Opening:
Serge Gutwirth opened with the apologies of Bruno Latour who was obliged to give a course at his university. Valérie Smet is hospitalised. We sent a card to both of them.
Serge introduced Els Soenens, our new VUB colleague who's involved in the FIDIS project.
Isabelle is running ahead while remarking that FIDIS (**Future** Identity in the Information Society) would be a better concept instead of our 'correlated human'.

Topic
 'Correlated Human' is one of the two transversal subjects of the project which means that it "will be examined by each team in the network from the angle of its own perspective or speciality but within the framework of a constant dialogue involving the entire network". Besides, 'Correlated Human' is the specific topic of WP8@VUB - *Correlated man and man as seen by law.*
The aim of this network meeting is to present some thoughts on 'Correlated Human' and to further discuss the concept.

Program

12:00   Session 1: <u>Serge Gutwirth: The correlated human revisited. A slope beyond boom and doom</u>

Abstract

During our third network meeting of May 2003 in Gent I presented a paper under the title *The correlated human and the human as seen by law*. I published a part of it on imbroglio (art. 127: *What's a correlated human ?*). This presentation has triggered a number of interesting critical reactions, both during the meeting and afterwards. Further discussions took place in different fora (imbroglio, FIDIS, VUB-seminar, Paris Network meeting, WG Correlated Human …). In this talk I will try to explain how these discussions have fed and influenced my thinking of the concept of correlated human.

Text shall be available at imbroglio

Serge made a reference to the following literature:
Brin, David (1998) *The Transparent Society, Will Technology Force Us to Choose between Privacy and Freedom*, Perseus Books, Reading Massachusetts.

Handout

I. Introduction
II. The 19th century's Ms. and Mr. Average. Measurement.
III. The contemporary correlated human. Detection. (The detectable or traceable human).
IV. Beyond *boom* and *doom*
V. The democratic constitutional state
     1. Double bind: order and liberty
     2. Three essential constitutional mechanisms
          - human rights: bulwarks and political empowerment
          - rule of law: legality and *trias politica*
          - democracy: representation, participation, transparency, accountability
VI. Two legal tools: opacity of the individual and transparency of power
     1. Stopping power through opacity tools
     2. Channelling power through transparency tools
     3. Distinguishing both Articles 7 and 8 of the Charter of Fundamental Rights of the European Union
VII. Privacy as an opacity tool. Data protection as a transparency tool. But not exclusively !
VIII. Back to *correlated* or/and *detectable* humans
     1. Application of the existing legal framework
     2. Prospective account: What should be protected through opacity or privacy tools and what should be protected through transparency tools?

<u>Basics of data protection</u>
The basic practices or principles of data protection are spelled out in the international legal data protection texts produced by institutions such as the Organization for Economic Cooperation and Development (OECD),[9] the Council of Europe[10], the UN[11] and the European Union.[12] Each of these organizations produced what has become a classic basic data protection instrument, respectively the OECD Guidelines, the Treaty 108 and the Data Protection Directive.[13] The EU has also included the right to data protection in the European Charter of Fundamental Rights.[14]

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[9] Cf. OECD Guidelines Governing the Protection of Privacy and Transborder Data Flows of Personal Data, 23 September 1980 in *Guidelines Governing the Protection of Privacy and Transborder Data Flows of Personal Data*, Paris, OECD, 1980, 9-12; *International Legal Materials*, 1981, I, 317. (further cited as "OECD Guidelines")

[10] Treaty 108: Convention for the protection of individuals with regard to automatic processing of personal data, Council of Europe, January 28, 1981, *European Treaty Series*, no. 108; *International Legal Materials*, 1981, I, 422

[11] The *United Nations Guidelines* are a more recent international instrument: Guidelines concerning computerized personal data files, adopted by the General Assembly on 14 December 1990. We will not further discuss these UN-Guidelines, because in Europe they are overshadowed by the other regulations.

[12] Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data on the free movement of such data, *Official Journal of the European Communities*, L 281, 23 November 1995, 31-50 (further cited as "Data Protection Directive")

[13] This directive has been supplemented by data protection provisions in a number of more specific directives (cf. infra).

[14] Charter of Fundamental Rights of 7 December 2000 of the European Union, *Official Journal of the European Communities*, C 364, 2000, 1, entered into force December 7, 2000.

The OECD Guidelines take the form of a short document that contains no more than a listing of the data protection principles.[15] These principles are:[16] 1. the collection limitation principle;[17] 2. the data quality principle;[18] 3. the purpose specification principle;[19] 4. the use limitation principle;[20] 5. the security safeguards principle;[21] 6. the openness principle;[22] 7. the individual participation principle;[23] 8. the accountability principle[24]. These principles apply to all personal data, whether in public or private sectors. Data protection does not focus specifically on the instruments used for surveillance or processing, but only looks at the object of these actions, namely personal data: whenever there is processing of such data, the data protection principles apply.[25]

National data protection laws in general provide for a series of rights for individuals such as the right to receive certain information whenever data are collected, the right of access to the data, and if necessary, the right to have the data corrected, and the right to object to certain types of data processing. Also, these laws generally demand good data management practices on the part of the data controllers and include a series of obligations: the obligation to use personal data for specified, explicit and legitimate purposes, the obligation to guarantee the security of the data against accidental or unauthorized access or manipulation, and in some cases the obligation to notify a specific independent supervisory body before carrying out certain types of data processing operations. These laws normally provide specific safeguards or special procedures to be applied in case of transfers of data abroad.

<u>Articles 7 and 8 of the Charter of Fundamental Rights of the European Union</u> (**incorporated** in the draft constitution of the European Union):
Article 7: "Everyone has the right to respect for his or her private and family life, home and communications".
Article 8: "Everyone has the right to the protection of personal data concerning him or her. Such data must be processed fairly for specified purposes and on the basis of the consent of the person

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[15] The two European instruments widen the scope in many respects and create supervisory data protection committees, which are unknown in the OECD Guidelines.

[16] Cf. KIRSCH, W.J., 'The Protection of Privacy and Transborder Flows of Personal Data: The Work of the Council of Europe, the Organization for Economic Co-Operation and Development and the European Economic Community', *Legal issues on European integration*, 1982, No. 2, 31-32.

[17] There should be limits to the collection of personal data and any such information should be obtained by lawful and fair means and, where appropriate, with the knowledge or consent of the data subject.

[18] Personal data should be relevant to the purposes for which they are to be used, and, to the extent necessary for those purposes, should be accurate, complete, and up-to-date.

[19] The purposes for which personal data are collected should be specified not later than at the time of data collection. Subsequent use should be limited to the fulfillment of those purposes or such others as are not incompatible with those purposes and as are specified on each occasion of change of purpose.

[20] Personal data should not be disclosed, made available or otherwise used for purposes other than those first specified except: a) with the consent of the data subject; or b) by the authority of the law.

[21] Personal data should be protected by reasonable security safeguards against such risks as loss or unauthorized access, destruction, use, modification, or disclosure.

[22] There should be a general policy of openness about developments, practices, and policies with respect to personal data. Means should be readily available for establishing the existence and nature of personal data, and the main purposes of their use, as well as the identity and usual residence of the data controller.

[23] An individual should have the right of notification, access and rectification.

[24] A data controller should be accountable for complying with measures that give effect to the data protection principles.

[25] People often tend to be amazed when these principles are spelled out, but the major part of it is impregnated by classical human rights thinking. It is sufficient to compare the content of these principles with some of the recent Guidelines of the Committee of Ministers of the Council of Europe on human rights and the fight against terrorism containing ideas such as supervision, exclusion of arbitrariness, proportionality and the idea of transparency: Cf. Guideline II (*Prohibition of arbitrariness*): All measures taken by states to fight terrorism must respect human rights and the principle of the rule of law, while excluding any form of arbitrariness, as well as any discriminatory or racist treatment, and must be subject to appropriate supervision. Guideline III (*Lawfulness of anti-terrorist measures*) 1. All measures taken by states to combat terrorism must be lawful. 2. When a measure restricts human rights, restrictions must be defined as precisely as possible and be necessary and proportionate to the aim pursued. Cf. *Guidelines of the Committee of Ministers of the Council of Europe on human rights and the fight against terrorism*, Final activity report issued by the Group of specialists on Human Rights and the fight against terrorism, 3rd July 2002 <http://www.coe.int>

concerned or some other legitimate basis laid down by law. Everyone has the right of access to data that has been collected concerning him or her, and the right to have it rectified. Compliance with these rules shall be subject to control by an independent authority".

References

Paul De Hert and Serge Gutwirth, "Making sense of privacy and data protection. A prospective overview in the light of the future of identity, location based services and the virtual residence" in IPTS, *Security and Privacy for the Citizen in the Post-September 11 Digital Age. A prospective overview. Report to the European Parliament Committee on Citizens' Freedoms and Rights, Justice and Homme Affairs* (LIBE), July 2003, IPTS-Technical Report Series, EUR 20823 EN, p. 111-162. See also: ftp://ftp.jrc.es/pub/EURdoc/eur20823en.pdf

Paul De Hert and Serge Gutwirth, "Veiligheid en grondrechten. Het belang van een evenwichtige privacypolitiek" in E.R. Muller (red.), *Veiligheid. Studies over inhoud, organisatie en maatregelen*, Alphen aan den Rijn, Kluwer, 2004, 587-631

Paul De Hert and Serge Gutwirth, "Privacy, data protection and law enforcement. Opacity of the individual and transparency of power", 2004, 31 p. (to be published)

11:50   Session 2: WP 8 Correlated humans, law and democracy

11:50   Wim Schreurs: The human trace: correlations, privacy and data protection law

Every day, our information society becomes more and more based on the processing of 'personal' information. If a person wants to consume information (movies, shopping), one has to produce information (personal data) at the same time. When our personal data (actions, behaviours, characteristics) are profiled and correlated with other data, the information society becomes even more practical, more effective, more powerful. But if profiling can be seen as an improvement, how to deal then with the possible disadvantages of profiling? Analysing the law in relation to profiling is an important issue: Can you object profiling? Do you know your profiles? Where are they? Can you change or delete your own profiles?

On the basis of a concrete example - interactive television - and on the basis of the three basic steps in the profiling process - i.e. gathering personal information, processing personal data (profiling) and using the personal data (profiles) - I will analyse how the law intervenes and how it can offer protection (if any) against unwanted or harmful profiling.

Text shall be available at imbroglio

12:15   Mireille Hildebrandt: Attachments and profiles. Correlated humans and the legal subject.

As we attach ourselves in numerous ways to others (friends, websites, buildings), traces of our behaviors are recorded, stored, processed and handed over to security agencies and/or sold to commercial enterprise. The profiles that are generated from these traces impact us, even when often implicit: they confront us with images of ourselves; they may limit access to goods we need or desire and they often open up new possibilities.

To answer the question whether and if so, in which way, this should worry us I oppose David Brin's *Transparent Society* to Jeffrey Rosen's *Naked Crowd*. As I find both their projects illuminating but unsatisfactory, I will explore how a relational theory of law, as written into our project, could think the legal subject in relation to human imbroglio's and their profiles.

Text shall be available at imbroglio

13:50   Lunch & Discussion: transcript of the (recorded) discussion (available with Els Soenens)

14:25   Administrative topics

1. <u>Annual report 2004 (of March 2005) and Follow-Up Committee</u>
We have to submit the annual report by March 2005. We have a good framework, done by Mireille (annual report 2002 and 2003). This time, Serge will take the lead, Els will assist to this deliverable. Serge is asking to send the necessary information in time.

2. <u>Full scientific report, October 2005</u>
We have to realize that the full scientific report, which has to be presented in October 2005, will cover only the period of 3,5 years instead of 5 years. For us, this report comes very early. The reason is that they will start up the evaluation in order to except the candidacies for the new project. The administration is in the process of devising rules, the guidelines will arrive in the next weeks, month. Serge doesn't see a lot of trouble to deliver a full scientific report, the network is running good and Serge is hoping to extent the project. However we have to take our responsibilities!

3. <u>Next network meeting</u>
Our next network meeting shall be an organized brainstorm about our full scientific report of October 2005 which will take place on Thursday the **23rd of June 2005 at Arlon or Liège**.

4. <u>Publication proceedings *Testing Expertise* / VUBPRESS series "Imbroglios"</u>
Serge Gutwirth: "Cf. my mail of 25 November 2004: I come back to you concerning my mail of 22 October (see below in green) about the possible publication of our presentations during the Testing Expertise colloquium. Until now 4 presentations have been posted on Imbroglio (namely those of Mireille, Laurent, Isabelle and myself). No comments were made yet.
After reading Isabelle's concluding remarks I am even more convinced that we have enough material to come to an interesting publication (be it a book or a special issue of a periodical). Hence I would like the others to post or to send me their papers as well, let us say before the 10th December.
Afterwards I would like 1. to start up a process of cross-referencing and comments through imbroglio (1 month) and 2. to organize one brainstorm session amongst us about the text (somewhere in the second half of January)
This would lead to a reworking and integration of the articles (1 month). Please let us know what you think (reply all). If we agree, I will start to think about a publisher and/or contact some editorial boards of periodicals (ex. Science and public policy)".

We are thinking of the following publishers:
1. The series of Sal Restivo: SUNY, series in Science, Technology, and Society, published by State University New York Press (www.sunypress.edu).
2. VUBPRESS (Serge is chairman of this)
3. Sage Publications.

First of all, we have to publish the first versions on imbroglio (tree of questions). The following presenters have to put there text on the web:

Sebastien Denys (Université Libre de Bruxelles) - How did 'public dossier' prevent the creation of a public for the Bayer oilseed rape in Belgium?

Nathalie Trussard (Université Libre de Bruxelles) - A public to be informed or to be taken into account?

Daniel de Beer (Vrije Universiteit Brussel) - GMOs and risk assessment: what is at stake at the European level?

Marc Mormont (Fondations Universitaire Luxembourgeoise) - Organising public involvement in the siting process of nuclear LL waste

Jean Paul Van Bendegem, Hans Comijn and Karen François (Vrije Universiteit Brussel) - Towards an ecology of proofs and arguments

5. Working groups
Serge Gutwirth: " These working groups will not comprise all the members of the IUAP. They are expected to meet independently and produce co-signed working papers as a starting point.
The first group, lead by Daniel de Beer (VUB), will focus on Daniels research on the European policy towards GMO'S.
The second group, following Jean-Paul Van Bendegem's question "When Is a Scientist a Scientist?" will engage the issue of the respective position of scientists, experts and citizens in the new procedures of democratic decision (e.g. citizens for a) appearing in relationship with GMO'S. Jean Paul Van Bendegem (VUB) will take the lead

The third group concerning the question of (scientific and political) "risk evaluation" will be lead by Sébastien Denys (ULB).
The fourth group, lead by Mireile Hildebrandt and Karen François, will dive deeper into issues related to the correlated human."

Two groups are working well, we shouldn't force the other.
Serge is pleased to notice the good cooperation in and between the different working groups. He is convinced that, if these working groups proceed to work as they have done so far, they will come up with interesting results in future.

6. VUB-seminar
The seminars are continuing, the program is in the making. All information is available on the imbroglio calendar, it works and it is very efficient! Up to now, we have invited

several persons. There are two more places in the schedule. We are thinking of the Doctorate on organized crime.

7. <u>Sharing of interesting projects</u>
Postponed

8. <u>Varia</u>
none

15:55   Session 3: WP 9 Correlated mathematicians/philosophers

<u>15:55   Hans Comijn: How to reach closure without mathematical facts?</u>

When faced the topic is correlated human, on has to wonder: 'What is the problem? Where is the matter of concern?' One could warn for a growing traceability, but since Gabriel Tarde and Bruno Latour, I consider the growing traceability a blessing rather than a matter of concern, let alone a curse. In this respect, only the low traceability of mathematical things seems to me matter of concern. The correlated mathematician, much more than the correlated scientist, has been a man in disguise. The second matter of concern I can see is the problem of how to reach closure when the majority of mathematical facts, of mathematical objects appear to be mathematical things.

Text shall be available at imbroglio

<u>16:15   Karen François: The Pleasure to Walk on Earth, Leaving your Traces (Behind)</u>

In its most specific meaning, the term correlation is associated with statistics. This is a classical story we all know. However, it is still a story that needs to be told and criticized because it claims neutrality and objectivity while it is an act with a political meaning. What more needs to be told? As we are leaving traces behind, correlations are only one of the possible constructions that can be made on those traces. The correlated human is only a small part of the traceable human whereas the latter seems to be a more interesting and challenging one. (Maybe we should consider to rename our 'transversal theme'?)
Generally speaking, traces as such are neither good nor bad but they can be used in different ways. One tends to have a rather negative view on the matter, however, we will look at the problem from the bright side. In a first example we shall elaborate on 'mathematical traces'. They lead to a better understanding of mathematics. Within the context of the classroom they will alert students of the relativity of mathematical truth and knowledge and it puts mathematics back in a humanised perspective. In a second example we want to plea for traceability in the political context. Within the scientific context, traceability is a precondition whereas in the political (and social – cultural) context it is rather seen as potential threat to human rights and privacy. Finally we shall elaborate on the eventual comparison between sciences and politics.

Text shall be available at imbroglio

<u>16:35   Jean Paul Van Bendegem: Finding Mathematical Traces everywhere</u>

Take an object, any object. By looking at it, by studying its properties, its behaviour, what have you, it is generally accepted that part of its history can be reconstructed: how was it made? What kinds of processes were required for its production? What circumstances? What kind of environment? …. Usually one focuses on societal, political, economical, technological, perhaps "pure" scientific dimensions, but why not include *an explicit mathematical dimension*? The coffee cup in front of me is a (part of a) cylinder; therefore we have succeeded one way or another to "make" circles. Looking around in my study, the most familiar geometrical form I see is a rectangle. Why? Perhaps because it is a literally economical form? (Think of the "old" Egyptians and think of the many ways to divide land; do you necessarily need a tool for making a right angle? Why not negotiate?) It is this kind of mathematical traces that indicate how thoroughly mathematized our daily world is, and hence how well-suited and receptive it has become for explicit mathematization as, e.g., in the shape of bank accounts, time tables, road maps (including gps), databases, … We have made the world "correlatable".

PP Presentation shall be available at imbroglio

16:55 Discussion: transcript of the (recorded) discussion (available with Els Soenens)

17h00 End of meeting

ANNEX 7: <u>Colloquium program of October 21, 2004</u>[26]

Testing expertise

Colloquium

THURSDAY, OCTOBER 21, 2004
Promotiezaal D.2.01

Vrije Universiteit Brussel

Colloquium organized by the *Interuniversity attraction pole*-network 5.16 *The loyalties of knowledge. The position and responsibilities of the sciences and of scientists in a democratic constitutional state* financed by the *Belgian Science Policy*
More info: http://www.imbroglio.be

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[26] Most of the presentations are now available in the "tree" of www.imbroglio.be

Theme

Expertise has turned into an essentially contested concept.
The traditional idea that problems of validity can be solved by checking on the constraints within the discipline and its practice that has produced the expertise is upset by the interactions between the different disciplines and their practices that cause a permanent rebuilding of these internal constraints. At the same time the idea that problems of relevance can be solved by experts is upset by the growing influence of laypersons who are confronted by a multiplicity of expertises that produce conflicting, if not contradictory claims on truth, reality and solutions of the problem at hand. Hence the traditional idea that laymen can defer their judgment on *matters of fact* to experts is turned into the more challenging idea that *matters of concern* will be decided upon in interactive processes between those that claim relevant expertise and those that are affected by the expertise-based decisions.
The participants to this colloquium will discuss such interactive processes, including the specific roles that are being played by proofs and arguments, both formal and statistical, as they occur in public proceedings, in a judicial setting and in participatory technology assessment proceedings.

Program

08h45   *Coffee*

09h20   Introduction by **Bruno Latour** *(Centre de Sociologie de l'Innovation - Ecole Nationale Supérieure des Mines Paris)*

09h45   Session 1: Public proceedings

Sebastien Denys *(Université Libre de Bruxelles)* **- How did 'public dossier' prevent the creation of a public for the Bayer oilseed rape in Belgium?**
>   Public information is typically used as part of educational strategies in order to improve the acceptability of already made science-based policies. The empirical analysis of 'public dossiers', from the perspective of the concerned citizen asking for information, shows a trajectory of public information starting from 'zero information' to 'excess of information'. The only roles left to layman are: staying aside passively or becoming an expert (able to distinguish among the information flow what is important from what is trivial). None of these two possibilities contribute to the empowerment of citizens.

Nathalie Trussart *(Université Libre de Bruxelles) - **A public to be informed or to be taken into account?**
>   From the perspective of the public servant, as a psycho-social type of the biosafety institutions in current European Member States, we aim at testing the Belgian 'public dossier' as an emerging practice experimenting new procedures to produce proof as 'public': to gather claims, to put them to the test and decide which ones are irrelevant, to articulate the pertinent ones to form a public agreement, and to follow up, in a pragmatic learning, the effects of those distinctions. In specific 'public dossiers' compiled about GM oilseed rape in Belgium, what is at stake to be constructed, to be proved and to be made public are the distinction and the new connections between inclusion of pertinent information and exclusion of irrelevant ones. In the European device of biosafety institution, may the Belgian 'public dossier' be a leakage path?

Daniel de Beer *(Vrije Universiteit Brussel)* **- *GMOs and risk assessment: what is at stake at the European level?***

> With the years the European institutions have been led to improve their guidelines on GMO risk assessment. However, the risk assessment takes place within a device that seems to be curbing its function. What is at stake?

10h30   *Discussion*

11h00   *Coffee*

11h30   Session 2: <u>The testing of expertise in a judicial setting</u>

Serge Gutwirth *(Vrije Universiteit Brussel and Erasmus Universiteit Rotterdam)* **– *Expertises and truths in different judicial settings***

> This paper assumes that the distinctive forms of adjudication in anglo-saxon and continental legal systems are mirrored by their respective underlying judicial concepts of truth. In this paper we will discuss the effects of such differences upon the positions and roles of expertise in the courts.

Mireille Hildebrandt (*Vrije Universiteit Brussel and Erasmus Universiteit Rotterdam*) **- *The trial of the expert: épreuve and preuve***

> This paper works out the historical difference between testing a case (risky business, presuming uncertainty) and proving a case (claiming objective knowledge, presuming certainty is possible). This historical perspective will then be used to highlight the different attitudes to expert knowledge in court: *deferring to* or *trying of* science in court? Special attention will be given to the establishment of legal certainty in relation to scientific uncertainty.

12h00   *Discussion*

12h20   *Lunch*

14h00   Session 3: <u>Partcipatory Technology Assessment</u>

Danny De Waele and Valérie Smet *(Universiteit Gent)* **- *Democracy put on the scene. Backstage reflections on the rationality of the Public-Science-Policy connection***

> Reflections can be made on the role of public issues, citizens, public opinion, public information, consultation and participation, concerning the utilization of biotechnology and of social sciences for policy reasons. How is the debate organized in the triangular relation between Public, Science and Policy, when dealing with biotechnology (e.g. GMOs, Novel Food) or with social issues (e.g. insecurity, integration); which claims are made; what is the reality/praxis? We propose a general analysis of 'participative democracy' in terms of rationality, 'rationality as ritual', legitimation, representation, power, knowledge utilization, etc., and give a specific view on relevant differences and similarities between biotechnology and social issues

Laurent De Sutter *(Vrije Universiteit Brussel)* **- *Breaking the Mirror: Some Challenges to Representation through PTA Practices and Institutions***

> Participatory Technology Assessment (PTA) practices and institutions show that representation is the key-issue for understanding contemporary democracies. Through

PTA, we can understand that what we have now to take into account is the shift from representation of 'the' public to representation of 'a' public - where the public is not given anymore, but is to be constructed. This shift is what leads us to what one may call 'technical democracy'.

Marc Mormont (Fondation Universitaire Luxembourgeoise) - Organising public involvement in the siting process of nuclear LL waste

The author has been organising a four-year process of public discussion around the siting of low-level radioactive waste in two Belgian municipalities. This contribution will give an account of the reasons why policy makers called on sociologists, of the methodology sociologists proposed and of the active role they played in the process. Interactions between local stake-holders and engineers will be described as reshaping of the technical project on one hand and as a learning process for the technicians.

14h45 *Discussion*

15h15 *Coffee*

15h45 *Session 4:* Maths/stats

Jean Paul Van Bendegem, Hans Comijn and Karen François (Vrije Universiteit Brussel) - Towards an ecology of proofs and arguments

Many studies in the sociology of mathematics focus either on the sociological factors determining, to some extent, internal mathematical results or on the multiple and complex relations between mathematics, seen as a subgroup, and society. There is, however, a very good case to be made that both approaches should be brought together. The "ecological" approach we are proposing here is a metaphor to explain why it is possible that a mathematical (or scientific for that matter) proof is not necessarily a proof for the non-mathematician or non-scientist, i.e., when it becomes a public proof. An important philosophical consequence we want to stress is that philosophers, logicians and mathematicians have wrongly emphasized the logico-mathematical reasoning as an ideal to be aimed at by all forms of reasoning, guaranteeing absolute certainty.

16h15 *Discussion*

16h35 *Closing remarks by* **Isabelle Stengers** (*Université Libre de Bruxelles).*

ANNEX 8: <u>Laurent De Sutter: Proposition de thèse de doctorat:</u>
<u>"Cosmopolitique de la représentation. Etude sur la construction juridique du</u>
<u>public."</u>

A – Objet

La structure de l'état de droit démocratique est historiquement traversée par la nécessité de rendre commensurable le petit nombre des gouvernants avec le grand nombre des gouvernés. Cette nécessité s'est institutionnellement traduite sous la forme d'un « principe » de représentation. Celui-ci visait à opérer une définition de la multitude populaire ainsi qu'une définition de l'activité de gouvernement qui rendent le monopole de la prise de parole politique par les gouvernants légitime. Le principe de représentation était donc avant tout un principe de justification de la structure institutionnelle de l'état de droit démocratique: en tant que telle, la double définition de la multitude populaire comme « nation souveraine » et du petit nombre des gouvernants comme « représentants de la nation » reposait donc sur le devenir-performatif d'une fiction qui voulait que la représentation politique soit un phénomène collectif[27].

Cela signifie que dans la théorie traditionnelle de la représentation politique telle qu'elle a été traduite dans les textes constitutionnels de la quasi-totalité des états occidentaux, et telle qu'elle a ensuite été interprétée par les cours constitutionnelles crées dans la foulée de la seconde guerre mondiale par ces mêmes états, était une théorie dont l'objet (la représentation) était d'abord expliqué par ce qu'elle créait. Autrement dit, c'est parce qu'une double fiction de collectif était définie (le collectif « nation » et le collectif « représentants ») que quelque chose comme une représentation légitime était rendue possible. Pourquoi ? Parce qu'entre ces deux collectifs, le principe de représentation établissait un *équilibre fonctionnel* qui visait à pallier au *déséquilibre numérique* qui l'entachait à l'origine. Cet équilibre, à son tour, reposant sur une troisième fiction: celle de la « volonté générale » (Rousseau, Kant) comme expression de la nation et comme répons des représentants. C'est en ce sens d'une triple fiction constructiviste que les grand théoriciens du droit constitutionnel ont très rapidement pu accepter, avec Carré de Malberg, que « Le représenté ne crée pas le représentant. C'est lui, au contraire, qui est *constitué* par la représentation. »[28]

Revenir aujourd'hui sur le principe de représentation et sur la théorie qui en est sous-jacente, c'est alors d'abord prendre en charge le constructivisme de la représentation au-delà des apories induites par son régime de fiction de collectifs abstraits. Car dans la théorie traditionnelle de la représentation, le caractère constructiviste de la représentation constitue d'abord un garde-fou contre la possibilité d'une remise en cause de ce caractère abstraitement collectif: accepter le fait qu'il n'y a pas de représenté (c'est-à-dire, pour pousser l'hypothèse au plus loin, qu'il n'y a pas de « nation », ni même de « peuple ») en-dehors de sa construction par l'ensemble des techniques juridiques (« mandat représentatif ») qui dépendent de l'expression du « principe » de représentation, c'est

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[27] G. Burdeau, F. Hamon et M. Troper, *Droit constitutionnel*, 27° éd., Paris, L.G.D.J., 2001, p. 161 et s.
[28] *Ibid.*, p. 164. Ce sont les auteurs qui soulignent.

d'abord présumer qu'il y a du collectif *donné* aux deux bouts de la représentation: c'est-à-dire la nation souveraine à l'origine, et la nation représentée à la fin. Entre les deux, la représentation organise un transfert de l'*exercice* de cette souveraineté du collectif *construit* comme représenté à un autre collectif *légitimé* comme représentant.

Face à cette théorie traditionnelle de la représentation, on ne voit d'habitude que deux positions interprétatives possibles: le redoublement de légitimité ou la critique dé-légitimatrice. La première est celle qui gouverne la plus grande partie de la théorie du droit constitutionnel contemporaine. Elle vise à redoubler la légitimité de principe de la représentation par une légitimité de rationalité. Ce que fait la théorie du droit constitutionnel, c'est construire discursivement la rationalité juridique de la construction de principe de la représentation. Il s'agit donc de construction au second degré: construction de construction, ou représentation de représentation. A l'inverse, la plupart des acteurs de ce que l'on appelle « société civile », de même que la plupart des théoriciens politiques « critiques », partagent l'idée que, comme fiction créatrice de fictions, le principe de représentation doit être écarté pour revenir à la réalité concrète du jeu de forces qui gouverne la dévolution politique du pouvoir[29].

Au contraire, la présente thèse souhaite prétendre prendre en charge le caractère constructiviste de la théorie traditionnelle de la représentation sans avoir à répondre de l'alternative entre redoublement de légitimation et critique dé-légitimante – et donc en mettant la question de la légitimité abstraite de côté. Pourquoi ? Parce que cette alternative fait partie du jeu d'alternatives qui soutiennent encore aujourd'hui ce que Bruno Latour appelle « épistémologie politique », c'est-à-dire la déconsidération de la politique par le partage ou la division en pouvoirs de ce qui en constitue le cosmos indivis mais pluriel[30]. Tandis que la présente thèse souhaite revenir sur le caractère constructiviste du principe de représentation, et l'accepter sans devoir contresigner l'attirail de fictions autour desquelles sont construites les techniques juridiques de la représentation. C'est-à-dire aussi, accepter le principe de représentation en le détachant de ces techniques juridiques, et en insistant notamment sur la singularité qu'il représente par rapport aux règles attachées à la technique principale du mandat représentatif (règles électorales essentiellement). L'argument polémique central de la présente thèse serait donc le suivant: la représentation ne constitue pas un principe de légitimation, la représentation ne concerne pas les collectifs « nation » et « gouvernement », la représentation diffère de l'élection. En somme, la représentation n'a rien à voir avec la division de la politique en vérité (politicienne) et fiction (juridique). La représentation a à voir avec la manière dont la politique comme le droit participent d'une écologie politique commune[31].

Pour pouvoir soutenir un tel argument, il est nécessaire de porter son attention vers les lieux où s'expérimentent aujourd'hui des manières inédites de convoquer l'argument de la représentation et de la représentativité en politique, et de donc de le reconfigurer en

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[29] Cf. B. Latour, « Why Has Critique Run out of Steam ? From Matters of Fact to Matters of Concern », à paraître dans *Critical Enquiry*.

[30] Cf. B. Latour, *Politiques de la nature. Comment faire entre les sciences en démocratie*, Paris, La Découverte, 1999.

[31] *Ibid.*

droit[32]. Parmi ceux-ci, ce que l'on appelle *Participatory Technology Assessment* (PTA) semble être un exemple paradigmatique. Formée autour d'institutions gouvernementales indépendantes du processus traditionnel de prise de décision politique (de gouvernement), mais *articulée* sur lui, l'histoire déjà riche des expériences de PTA a aidé à remettre en cause l'argument de la représentation d'un point de vue interne aussi bien qu'externe. Interne: la représentation comme règle de composition du groupe de participants au PTA. Externe: la représentation comme principe de légitimité d'une politique gouvernementale de l'expertise. Ce qui s'est produit à travers la démultiplication des expériences de PTA, c'est donc aussi une démultiplication du sens de la représentation – et une désarticulation de son canevas de principe au profit d'une expérimentation de ce qui contribuait à la justifier: la « nation », le « peuple ». C'est-à-dire, plus largement, le « public » dont parle John Dewey[33].

L'argument principal de la présente thèse est donc le suivant: les pratiques et les institutions de PTA constituent un continuum d'expérimentation démocratique dont le but est d'inventer un nouveau sens à la représentation en visant à chaque fois la constitution d'un public spécifique au problème pour lequel elles sont spécifiquement convoquées[34]. Ce que les pratiques et institutions de PTA apprennent à la démocratie et à la politique, c'est que le « public » n'est pas un donné (« nation » ou « peuple ») qui servirait à expliquer un « principe », mais bien quelque chose à construire dans chacun des cas où un public particulier doit être impliqué *parce que cette implication le concerne*. La représentation décrit le processus de construction au coup par coup de ce public à partir d'un « concernement » ou « intéressement » en ceci qu'elle décrit d'abord la façon dont la politique doit sans arrêt re-parcourir son aire d'action sans jamais oublier que tout y est tout le temps à refaire. La représentation, comme le dit très bien Bruno Latour, est la trajectoire suivie par la politique comprise comme un mobile, et non plus comme procédure de verrouillage de « l'espace public » unifié par le consensus rationnel – à la façon de la « discussion sous voile d'ignorance » de John Rawls, ou de « l'éthique communicationnelle » de Jürgen Habermas[35].

Le corollaire juridique d'une telle reconsidération politique de la représentation est le suivant: la nécessité de formaliser, dans les textes qui définissent les règles de la prise de décision politique, l'altération constitutive des principes qui en gouvernent le dispositif pour que soient comptés pour valides et intégrés dans l'arène politique elle-même l'option d'une telle expérimentation du « public ». Où interviennent les pratiques de PTA dans le déroulement légal de la prise de décision politique ? Comment y interviennent-elles ? Que font-elles à ce processus de prise de décision légalement structuré ? Est-il possible de justifier juridiquement le renversement du principe traditionnel de représentation et de faire de sa mise en crise politique une ressource juridique ?

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[32] Cf. I. Stengers et B. Bensaude-Vincent, v° Démocratie, *100 mots pour commencer à penser les sciences*, Paris, Les Empêcheurs de penser en rond, 2003, p. 112.
[33] Cf. J. Dewey, *Le Public et ses problèmes*, trad. fr. J. Zask, Paris, Farrago/Léo Scheer, 2003.
[34] Cf. M. Callon, P. Lascoumes et Y. Barthe, *Agir dans un monde incertain. Essai sur la démocratie technique*, Paris, Le Seuil, 2001.
[35] Cf. B. Latour, « Et si l'on parlait un peu politique ? », *Politix*, vol. 15, n° 58, 2002, p. 143 et s.

Répondre à ces questions dans le cadre d'une tradition constitutionnelle qui, comme en Belgique, pense la représentation à l'échelle étatique et uniquement à travers l'expression d'intérêts ou l'existence de partis, implique donc d'abord de remonter à (et de questionner) son caractère de « principe » (Dworkin, Fish). En quoi peut-on parler, dans le droit constitutionnel belge, d'un « principe » de représentation ? Qu'est-ce qu'un « principe », en droit ? En quoi ce « principe » diffère-t-il de, comprend-il ou exclut-il l'ensemble des techniques juridiques qui assurent, dans le droit constitutionnel (et administratif) belge, une représentation d'intérêts ou une représentation de partis ? Dans quelle mesure est-il possible de penser ce « principe » de représentation en manière telle qu'il autorise juridiquement les désaxages des procédures traditionnelles de prise de décision politique ? Est-il possible d'assumer que c'est précisément en vertu de son caractère de « principe » que la représentation permettrait d'expliquer juridiquement les désaxages des procédures traditionnelles de la prise de décision politique tels qu'opérés par des pratiques et des institutions comme celles de PTA ?

En retour, le fait de poser ces questions a pour conséquence de revenir à la façon dont la représentation est traitée à l'intérieur même des pratiques et institutions de PTA. Il est en effet souvent assumé que le public constitué dans une expérimentation de PTA doive constituer aussi un miroir fidèle de la population convoquée par hypothèse à l'expérimentation. De même, les principales critiques adressées aux pratiques et institutions de PTA portent précisément sur l'absence de satisfaction que celles-ci donnent à leur prétention à constituer un miroir fidèle. Ces deux positions recoupent peu ou prou celles qui visent la représentation telle qu'elle travaille en général les assemblées politiques. En ce sens, il est possible de soutenir que les pratiques et institutions de PTA elles-mêmes constituent des laboratoires expérimentant, avec la constitution de leur public, le désaxage de la pensée traditionnelle de la représentation dans son principe. Ne pourrait-on pas dès lors considérer les pratiques et institutions de PTA comme de véritables *métonymies politiques* dont les leçons de technique procédurale pourraient devenir des leçons de technique juridique portées à l'échelle des arènes politiques ?

De même, poser toutes ces questions oblige à intégrer la pensée du fait que si les procédures de prise de décision politique ne peuvent plus se satisfaire de la complétion des critères de validité qui y sont traditionnellement en vigueur, c'est que leur désaxage par la représentation se porte en tout point de celles-ci – mais aussi en amont et en aval. En amont: là où se dessine le contexte de la prise de décision (par exemple: l'incertitude dans les questions de sciences et de techniques). En aval: dans la multiplicité des organes européens et internationaux déterminants quant aux marges de manœuvres concrètes des procédures de prise de décision politique nationales. C'est-à-dire que la question de la représentation – et donc, de la constitution d'un public déterminé – doit déjà être posée au moment de l'émergence d'un état de nécessité requérant une prise de décision politique ; et doit encore être posée lorsque cette prise de décision se confronte nécessairement à un état de fait ou de droit européen ou international. Le droit a-t-il les moyens de donner au « principe » de représentation l'ampleur d'un critère de vérification d'une « bonne » prise de décision ?

B – Méthode

La théorie traditionnelle de la représentation – qu'elle s'inscrive dans sa tradition ou qu'elle la critique – se présente sous la forme d'une réflexion abstraite sur les principes sous-jacents à l'ordre constitutionnel de l'état de droit démocratique. Celui qui refuse de contresigner les données de cette réflexion, et qui souhaite redonner à la représentation son caractère constructiviste et donc concret, doit procéder autrement. La thèse s'articulera dès lors sur la présentation de plusieurs cas concrets de remise en cause de la représentation par pratiques et institutions de PTA. La distinction doit en effet être faite entre pratiques et institutions: les premières concernent des *façons de faire* nouvelles entrées en vigueur au sein d'institutions anciennes ; tandis que les secondes concernent des *entités constituées* dans le but de répondre aux exigences de développement de procédures de *technology assessment* participatives. Les cas qui seront présentés appartiennent tous au domaine des OGM et couvrent cinq pays: Danemark, France, Royaume-Uni, Pays-Bas et Belgique.

A leur sujet, il faudra d'abord expliquer pourquoi le domaine des OGM constitue un domaine privilégié d'observation des pratiques et institutions de PTA en ce qui concerne la question spécifique de la représentation. Il faudra aussi expliquer l'existence d'expériences réussies dans ce domaine, comme d'expériences ratées. La question de savoir ce qu'il est possible d'apprendre de l'échec de certaines expériences de PTA en matière d'OGM n'est en effet pas dépourvu d'intérêt pour ce qui concerne la représentation: je soutiendrai que ces échecs ne sont explicables que par la volonté de sauvegarder une abstraction de la représentation contre sa mise en risque concrète dans les pratiques d'expérimentation de publics – et non pas, comme on le fait traditionnellement, par le manque de complétion à l'égard des attentes des parlements concernés.

Pour pouvoir soutenir cet argument, les études de cas ne seront toutefois pas suffisante. Il sera nécessaire d'également revenir sur le fond théorique de la conception traditionnelle de la représentation: souveraineté, constitution, peuple, nation, fiction, constituent autant de concepts qui contribuent à former l'armature conceptuelle d'une vision abstraite de la représentation comme principe de légitimation. Cette armature devra être déconstruite pour en arriver à reconstituer le reste démocratique où la représentation peut être concrètement convoquée et agie – en politique comme en droit. Il faudra partir du fait qu'en effet la structure de la démocratie est une structure actuelle et concrète pour en énoncer la vanité, et donc la nécessité d'insister sur la caractère constructiviste de la représentation: la question ne sera plus de *savoir* ce qu' « est » la représentation et en quoi celle-ci participerait de la « vérité » de la démocratie, mais plutôt de *voir* ce que « fait » la représentation et en quoi ce faire constitue une pensée en actes de la démocratie pensée en-dehors de toute vérité. C'est-à-dire pensée comme le lieu où l'expérimentation à chaque fois réitérée de la constitution d'un public ne s'avère plus tributaire d'une dette payée à un concept intimidant.

C – Plan

Introduction

Première partie: Pour en finir avec la représentation

      Chapitre 1: Philosophie politique de la représentation
          Section 1: La triple fiction des collectifs
               §1: Souveraineté, peuple, nation, gouvernement
               §2: La volonté générale
          Section 2: Le reste démocratique
               §1: La représentation démocratique
               §2: Adieu à la légitimité

      Chapitre 2: Théorie constitutionnelle de la représentation
          Section 1: Une question de principe
               §1: Constitution et principes
               §2: Le problème avec les principes
          Section 2: La réduction de la représentation
               §1: Représentation et élection
               §2: Représentation et gouvernement: le mandat représentatif

Seconde partie: Cosmopolitique de la représentation

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ANNEX 9: <u>**Daniel De Beer's Ph.D. proposal: ″Le brevet et le dispositif dans lequel il s'enchâsse: institution démocratique perfectible, ou "forteresse" et "machine de guerre"?**</u>

Le brevet est une institution juridique ancestrale qui connaît aujourd'hui une grande fortune. Mais est-il encore ce qu'il fût et prétend toujours être? S'est-il, au prix de quelques inconvénients auxquels on doit porter remède, opportunément adapté aux nouvelles sciences et techniques et au développement de la démocratie de marché? Ou a-t-il été transformé en un dispositif juridico-institutionnel quasi autonome, dont la fonction première serait d'assurer le fonctionnement et l'extension de l'économie capitaliste? Le cas échéant, existe-t-il des mécanismes effectifs qui organisent une mise en hiérarchie et la régulation des conflits entre les droits découlant du brevet - ou les pratiques qu'il autorise, et les droits fondamentaux que les premiers viendraient à contrarier? Mise en questions et éléments de réflexion à partir de deux cas de figure: les organismes génétiquement modifiés et les médicaments essentiels pour les pays du Sud.

I.   <u>**La problématique**</u>

1.   **Le droit et le système des brevets**

<u>Une astucieuse institution juridique entre l'intérêt individuel et l'intérêt collectif</u>

Le droit des brevets a pour objet les nouvelles inventions d'ordre technique; il organise l'octroi d'un titre conférant à son titulaire un droit privatif exclusif d'exploitation de l'invention, moyennant sa divulgation. Le mécanisme est simple. Si elle répond à certains critères fixés par la loi, l'invention acquiert un statut juridique particulier qui met son inventeur à l'abri de tout risque d'usage non désiré pendant un temps généralement fixé à vingt ans, l'inventeur disposant de recours efficaces pour mettre fin à toute utilisation intempestive de son invention. En échange, l'inventeur dévoile son invention, au bénéfice des connaissances communes. Au terme fixé, l'invention tombe dans le domaine public. Le brevet est ainsi considéré comme une astucieuse institution juridique qui crée un point d'équilibre entre l'intérêt individuel et l'intérêt public. Le mérite du système tient, dit-on, à son caractère dynamique et incitatif. Le monopole d'exploitation conféré à l'inventeur encourage les investissements dans la recherche et par là, la création de connaissances utiles, d'innovations et de richesses.

<u>Un droit présenté comme étant neutre, technique, autonome et clos</u>

On affirme que le droit des brevets, qui est une ramification du droit économique, est purement technique. L'invention n'est protégée qu'à la condition de répondre à des critères objectifs, évalués par des techniciens. La plasticité de ce droit lui permet de naviguer de concert avec l'évolution des sciences et des techniques. Ce droit serait également neutre ou passif. Aucun droit particulier ne serait accordé à l'inventeur, pas même celui d'exploiter son invention. A proprement parler, plutôt qu'un monopole, on pourrait

soutenir que le droit des brevets se limite à organiser une protection temporaire de l'invention contre le piratage.

On peut d'ailleurs s'interroger sur l'étrangeté de ce droit qui ne confère ni ne consacre aucun droit, au sens positif du terme… Par commodité de langage, on fera cependant état des "droits liés au brevet".

Le système des brevets a également la particularité d'être autonome et clos. Sous quelques réserves de plus en plus marginales, il n'a pas d'autres contraintes que celles fixées par son droit propre. Le brevet a ses concepts, sa logique, ses procédures, ses mécanismes de régulations et ses tribunaux. Forçant quelque peu le trait, on peut dire que le droit des brevets épuise son propos; tout y est dit et rien de ce qui lui est étranger ne peut aisément le contraindre.

Le droit des brevets peut susciter néanmoins une certaine perplexité. Son principe actif est en effet en contradiction formelle avec les principes qui promeuvent le développement de l'économie de marché auquel on l'associe pourtant étroitement.

<u>Un formidable développement</u>

Né il y a plusieurs siècles, le droit des brevets s'est développé et généralisé en Occident dans la foulée de l'industrialisation qui a caractérisé la fin du dix-huitième et surtout le dix-neuvième siècle. Ces dernières années, le brevet a cependant connu une incroyable fortune. Il a pris dans la vie économique et sociale une place insoupçonnée il y a encore vingt-cinq ans.

Grosso modo, le costume est toujours le même: les législations se sont affinées et elles se sont internationalisées, mais les concepts et les procédures qui organisent, encadrent et régulent les brevets demeurent fondamentalement inchangés depuis deux siècles. Pourtant, le contour des frontières du domaine de la brevetabilité, les conditions de brevetabilité, le champ des revendications, le régime des exceptions et des dérogations, le statut et la fonction économique du brevet ont si considérablement évolué qu'on peut se demander si le système des brevets d'aujourd'hui est bien le fils de ce qu'il fût et prétend toujours être.

On peut dater les grandes étapes qui ont marqué cette formidable évolution. Vu selon une perspective disciplinaire, celle-ci s'est faite par le truchement de deux processus. Le premier est interne au droit des brevets; il est issu de sa pratique. Suivis par les législateurs et les tribunaux, les offices chargés d'accorder les brevets ont fait preuve d'audace dans l'interprétation des critères qui président à leur délivrance, notamment par l'élargissement progressif des frontières de la brevetabilité. L'histoire des brevets est ainsi émaillée de petites révolutions, dont la moindre n'est pas d'avoir rendu le vivant brevetable. Le second processus est d'ordre institutionnel. Droit national à l'origine, le droit des brevets s'internationalise de plus en plus par un double phénomène d'uniformisation ou d'intégration aux échelons national, régional et international en même temps qu'il s'est vu promu au rang de pilier du droit économique international consacré et défendu par l'Organisation Mondiale du Commerce (O.M.C.).

Le brevet exerce un pouvoir attractif considérable. Il existe une forte inclinaison à faire ressortir du droit des brevets des "inventions" qui y échappaient, comme les obtentions végétales ou les logiciels.

2. Des dysfonctionnements et des questions

Cette destinée ne s'accomplit pas sans heurt. On peut citer quelques exemples, dans le désordre, des problèmes que suscite et rencontre la pratique des brevets: l'insécurité juridique découlant de l'incapacité des offices de brevets d'absorber les demandes, et du manque d'approfondissement des examens préalables à la délivrance du brevet; le découpage de la connaissance en parcelles privatisées par des brevets successifs, l'interdépendance des inventions et des brevets qui s'y attachent, les effets du système de brevet sur les échanges d'information ou encore la brevetabilité grandissante des outils de recherche, qui sont autant de facteurs handicapant la recherche et créant des surcoûts importants de gestion et de transactions; la dilution de la frontière entre invention et découverte qui facilite les brevets flibustiers etc.

Ces difficultés sont particulièrement aiguës dans le domaine des sciences du vivant. Ainsi, l'assimilation du gène à une molécule chimique a ouvert la possibilité de breveter la séquence en tant que telle (hors de son expression naturelle), l'application découverte, ainsi que toutes les applications qui pourraient être découvertes par la suite, ce qui constitue un réel handicap pour la recherche et multiplie le risque d'être confronté à l'effet verrou de brevets antérieurs. Il est d'ailleurs probable que d'autres problèmes surviennent à brève échéance, dans la mesure où l'intérêt cognitif du dogme réductionniste en génétique est fortement remis en cause. Des "inventions" plus subtiles risquent de voir le jour. Il faudra peut-être alors réinterpréter les critères qui déterminent l'interdépendance des brevets, à moins que la solution ne vienne de la science elle-même, par l'affinement des techniques moléculaires. De toute manière, la plasticité du droit des brevets tel qu'il est mis en pratique, n'augure pas une crise majeure.

Diverses solutions ont été préconisées pour pallier ces inconvénients. On a prôné l'affermissement des institutions régulatrices des brevets et un respect plus strict des principes de base: le renforcement des offices de brevet; une meilleure application ou l'extension de l'exemption pour la recherche; un retour à une application plus rigoureuse des critères de brevetabilité; une plus grande effectivité de certains mécanismes du droit des brevets comme les licences obligatoires en cas de brevets interdépendants ou de brevets verrous etc. D'autres plaident pour l'extension d'initiatives de type *copyleft*, *patent pools* ou *PIPRA* (une initiative de présidents d'universités américaines), qui ont en commun de vouloir faciliter l'accès et le partage de certaines connaissances, tantôt de manière ouverte, tantôt au sein d'un groupe déterminé d'acteurs. Parfois l'objectif est de soutenir les pays en voie de développement. Exceptionnellement, il s'agit de savoirs dont on considère qu'ils méritent le statut de bien public à l'instar de ceux qui ont trait au décryptage du génome humain. Plus largement, l'objectif est de déparasiter la recherche et l'innovation par la mise en commun ou la collectivisation de savoirs ou de procédés qualifiés de précompétitifs ou de routiniers. De manière générale, il ne manque pas d'avocats du système des brevets qui font confiance au système lui-même et au marché

pour remédier naturellement à ces dysfonctionnements, notamment par le biais d'accords sectoriels entre les acteurs économiques…

3.   Des effets sociétaux préoccupants, de nouveaux acteurs et de nouveaux savoirs

Ce qui précède procède d'une vision disciplinaire des questions que pose le système de brevet; elle est partielle. En effet, on s'accorde à reconnaître que le système de brevet n'est pas étranger à la transformation de l'écologie de la production des savoirs, y compris dans les enceintes traditionnellement considérées comme étant non, ou moins soumises aux contraintes de la valorisation financière immédiate. Dans le contexte de la mondialisation libérale et de l'affaiblissement de l'Etat comme acteur économique, le brevet joue un rôle important dans le bouleversement des modes de production du savoir scientifique et des rapports entre science et société. L'argument économique, décliné sous forme d'association entre "économie de la connaissance - la connaissance et l'économie étant fortement articulées l'une à l'autre par le brevet, progrès et richesses" est puissamment sollicité. Cette association semble fonctionner comme une donnée, à l'aune de laquelle toutes les questions doivent être envisagées. Quoiqu'il en soit de la réalité ou des mérites de ces dernières assertions, d'autres questions s'ajoutent à celles relatives au bon fonctionnement du système des brevets en tant que tel. Elles touchent à l'organisation de la recherche publique, aux choix de recherches, aux possibilités de développer une expertise indépendante et aux rapports entre décision politique et expertise, à la capacité de développer des recherches d'intérêt général sur des sujets non, ou moins économiquement valorisables etc. La question des rapports entre science et démocratie est ainsi posée.

Cette problématique a été rendue plus complexe et plus riche par des changements de perception et d'intéressement du public vis-à-vis de la science et de la gestion publique de celle-ci, ainsi que par l'émergence de nouveaux acteurs. Ces derniers semblent avoir fortement concouru à l'avènement des profanes comme parties intéressées au débat et à sa publicisation. Cette mise sur la place publique entraîne la revendication de la transparence des expertises ouvrant la voie à d'autres mises en perspective ou au contredit. Elle a aussi et surtout pour effet de légitimer le public comme partie intéressée et même prenante, à l'expertise sur laquelle se fonde la décision politique, concourrant ainsi à une construction sociale différente de l'objet de l'expertise. Le cas des organismes génétiquement modifiés (O.G.M.) en constitue un bon exemple.

Ces nouveaux venus se sont également imposés comme acteurs en tant que tel, que ce soit en participant aux instances qui participent à la gestion ou à l'évaluation de l'expertise, en produisant et diffusant des "contre-expertises", ou en recourant aux mécanismes juridiques de régulation comme ceux qui autorisent la contestation d'un brevet ou le recours contre une décision administrative (en matière d'O.G.M. par exemple). Il arrive qu'un public concerné se fasse reconnaître comme partie intervenante et impose de nouvelles prises en considération dans la production des innovations. Les malades du Sida ont ainsi provoqué la modification des protocoles expérimentaux sur les prototypes médicamenteux, en dénonçant le recours aux échantillons placebo et en s'imposant comme interlocuteurs dans l'élaboration de nouveaux protocoles. Parfois, ces

acteurs deviennent eux-mêmes producteurs de savoirs et de techniques selon des modalités en marge de celles qui sont basées sur l'économie des droits de propriété intellectuelle (par exemple les *Communities Based Research* outre Atlantique, l'*Okoinstitut* (l'Institut d'écologie citoyenne) en Allemagne, les Boutiques de science hollandais, ou encore dans un autre registre les mouvements dits de logiciels libres.

La question des droits de propriété intellectuelle, du droit des brevets en particulier, et de la place qu'il occupe dans ces problématiques, est ainsi remise dans un contexte plus large qui autorise une lecture critique non disciplinaire et des délibérations prospectives.

4.   Autonomie et marges de manœuvre

Toutefois, dès qu'il s'agit de mettre en débat le droit des brevets, la réflexion butte sur la difficulté provenant de l'architecture institutionnelle dans laquelle il s'insère. Entre l'Etat qui abandonne toujours davantage sa souveraineté dans le domaine des brevets, les institutions régionales - constituées par des instruments juridiques contraignants de portée régionale (l'Accord de Bangui par exemple) ou par le rattachement des Etats à des entités politiques régionales à qui on délègue la compétence en matière de brevet (comme la Communauté Européenne) -, et la clé de voûte qu'est l'Accord sur les droits de propriété intellectuelle relatifs au commerce (A.D.P.I.C.) dont l'O.M.C. est le garant, il n'y a pas que des différences d'échelles. Plus on s'élève dans les échelons, plus on a l'impression que le brevet se déterritorialise et largue les amarres avec les dispositifs politiques et juridiques qui autorisaient une mise en tension et en hiérarchie avec d'autres normes et valeurs. En revanche, d'autres fidélités et d'autres liens s'imposent, dans lesquelles des considérations économiques prennent le pas sur les autres; venant du haut ils dégringolent en cascade et contraignent les Etats.

Plusieurs indices donnent d'ailleurs à penser qu'il y a une inclinaison à sortir du droit des brevets ce qui pourrait le contraindre ou le limiter. Ainsi, il semble y avoir une tendance à affaiblir et affadir voire à supprimer les concepts juridiques d'ordre public et de bonnes mœurs, qui pouvaient être sollicités dans le droit des brevets. Il s'opère parfois un glissement au bénéfice de la notion d'éthique qui n'est pas un concept juridique opératoire, du moins dans le système des brevets. Les mesures qui permettraient une police du biopiratage, comme l'obligation de mentionner l'origine géographique de la matière vivante qui a servi de base à une invention, sont éludées au profit d'autres mécanismes étrangers au droit des brevets et en réalité peu contraignants. Face au phénomène de capture des savoirs traditionnels par les brevets, on préfère les recenser officiellement pour les mettre à l'abri, plutôt que de s'interroger sur le remède à apporter au système de brevets qui favorise ce piratage…

5.   Brevet et système économique

Les considérations qui précèdent amènent à se demander s'il ne s'est pas noué une alliance particulière, juridiquement consacrée, entre le système des brevets et le système économique. En termes économiques, il ne semble plus qu'il s'agisse seulement de s'approprier de la connaissance technique en vue de processus productifs. La connaissance technique a acquis une nouvelle valeur; elle ne serait plus seulement une

étape dans la création de marchandises, mais par l'entremise du brevet, ne serait-elle pas devenue à la fois un argument économique, une marchandise en tant que telle, un mécanisme favorisant la création de monopoles et un mode de production de rentes? Autrement dit, les problèmes que pose la pratique des brevets à la croissance dite vertueuse de l'économie de la connaissance sont-ils des dysfonctionnements, des écarts, ou sont-ils inhérents au système?

6.   Le brevet comme dispositif

On peut coupler ces questions avec celles qui ont déjà été évoquées à propos de l'évolution de la pratique du droit des brevets et de sa nouvelle plasticité. N'y a-t-il pas là les indices d'un changement de fonction des critères de brevetabilité? Il ne s'agirait plus de séparer et d'exclure ce qui ne rentre pas strictement dans les conditions de brevetabilité, mais d'inclure. Le vrai critère ne serait-il pas l'intérêt économique créé par le système de protection lui-même: dès lors qu'elle est économiquement intéressante, l'invention devrait à priori pouvoir être protégée et c'est le système de brevet lui-même qui, dans cette perspective, serait mis à l'épreuve?

Il y aurait ainsi trois phénomènes, liés d'un côté à la place qu'occupe le droit des brevets dans le droit, d'un autre côté à l'alliance particulière, juridiquement consacrée, entre le brevet et le système économique, et enfin à l'évolution des critères de brevetabilité. Mis coude à coude, ces trois phénomènes, s'ils se confirment, constitueraient le brevet en un dispositif. Davantage qu'un système ou un mécanisme, il s'agirait d'un ensemble de moyens, pour partie en amont du marché et de ses règles proprement dit, disposés et articulés de sorte à assurer le développement du système capitalisme, davantage que du marché proprement dit. Ne pourrait-on user à bon escient de métaphores et avancer que ce dispositif serait à l'image tant d'une "machine de guerre" que d'une "forteresse"? Le dispositif du brevet ressemblerait à une machine de guerre dans le sens où il serait devenu une stratégie qui s'autoalimente pour conquérir de nouveaux domaines du monde, et les transformer en marchés captifs, en dehors de toute gestion politique par les Etats. La métaphore de la forteresse est, quant à elle, évoquée pour caractériser le dispositif du brevet, en ce qu'il est organisé pour résister à tout ce qui pourrait le mettre en tension, en hiérarchie avec d'autres normes et valeurs. Si tel est le cas, jusqu'où le dispositif du brevet contraint-il la fabrication des politiques publiques? Quelles sont les possibilités effectives de mise en tension et de régulation politique et judiciaire des droits, des intérêts et des valeurs contraires ou différents à ceux qui sont associés au brevet?

II.   <u>Projet de thèse: questions et terrains de recherche</u>

1.   Les questions

Les questions ont déjà été évoquées plus haut. Le droit des brevets ne serait-il pas devenu la pierre angulaire d'un dispositif dont la fonction est d'accommoder l'économie de la connaissance au développement de nouvelles formes du capitalisme? Ce dispositif ne fonctionnerait-il pas, selon les situations, comme une machine de guerre ou une forteresse? Comment ce dispositif contraint-il la fabrication des politiques publiques? Quelles sont les possibilités effectives de mise en tension et de régulation politique et

judiciaire des droits, des intérêts et des valeurs contraires ou différents à ceux qui sont associés au brevet?

Ces questions seront abordées à travers l'analyse de deux cas de figure: les O.G.M. agricoles et l'accès aux médicaments essentiels dans les pays du Sud.

2. Une "forteresse"? Premier cas de figure: l'accès aux médicaments essentiels dans les pays du Sud

La problématique de l'accès aux médicaments essentiels pour les pays du Sud est intéressante pour analyser si les droits liés au brevet et les droits fondamentaux sont conciliables et quels sont les modes juridiques efficients de régulation. On sait que le coût des médicaments brevetés constitue un obstacle majeur à leur accès pour des millions de personnes qui ne constituent en aucun cas un public solvable. Depuis plus de cinq ans, un terrible bras de fer oppose les firmes pharmaceutiques et les Etats qui les soutiennent aux populations concernées et à leurs Etats. Les deux camps s'adossent au même droit international des brevets consacré par le système de l'O.M.C. Or, sans rentrer dans le détail, on peut tenir que ce texte prévoit explicitement des dérogations à la rigueur des brevets en pareilles occurrences. Il a fallu une mobilisation populaire planétaire organisée par des acteurs non institutionnels pour le faire admettre, sans toutefois que la majorité des Etats du Sud n'ose encore s'en prévaloir. La reconnaissance de ce que le droit des brevets ne peut faire obstacle au droit des Etats de mettre en œuvre des politiques de santé publique de nature à lutter plus efficacement contre les pandémies qui déciment leurs populations, ne connaît que de timides mises en pratique. Ceux qui s'opposent à toute entorse à la rigueur du brevet, même autorisée par les textes, ne cessent d'affirmer qu'il y aurait là le germe de la mort de la recherche et du progrès médical. On retrouve le credo associant économie de la connaissance, brevet et progrès.

Depuis le célèbre procès de Pretoria qui a mis aux prises les firmes pharmaceutiques, fortement appuyées par les Etats-Unis et l'Europe, au gouvernement sud-africain, la situation a évolué plutôt favorablement pour les populations touchées. Cependant, on est encore loin de la mise en pratique de la reconnaissance juridique et institutionnelle du principe de la primauté du droit à la vie et aux soins, ou du droit - du devoir? - des Etats à mettre en œuvre des politiques de santé publique efficientes, sur les droits conférés par les brevets. Lorsque la pression internationale contraint les firmes pharmaceutiques et leurs alliés de lâcher quelques concessions de principe, celles-ci sont aussitôt combattues de mille et une manières et le rapport de force laisse bien peu de marge de manœuvre à ceux qui souhaitent se prévaloir des accommodements qu'autorise le texte du droit des brevets. S'il y a rapport de force, il y a néanmoins du droit; il traverse même toute la problématique, comme argument, moyen ou enjeu.

Un des intérêts de l'étude de la problématique de l'accès aux médicaments essentiels gît dans la multiplicité des acteurs institutionnels et non institutionnels qui se sont mobilisés, et dans les dynamiques qui ont du être mises en place par les seconds pour amener les premiers à jouer leur rôle. Il est intéressant d'analyser la manière dont la question a été imposée en tant que problème juridique à résoudre, notamment grâce à des acteurs non institutionnels pour qui le droit n'appartient pas à leur champ naturel de compétence et

d'activité; comment le rapport de force a été modifié ou à tout le moins différemment construit; comment droit des brevets, santé publique et droits de l'Homme ont été mis en tension; comment se sont nouées les interactions entre les différents échelons, depuis le plus local - des malades usant leurs sandales dans les rues de Pretoria -, jusqu'au plus global - l'O.M.C. - …

Comment cette problématique est-elle devenue un évènement au sein duquel une diversité d'acteurs et de perspectives se sont mêlés, bouleversant les rapports habituels entre différents principes, valeurs ou notions -tels que le droit des brevets, l'économie de la connaissance, la santé publique et le droit à la vie ou à l'accès aux soins, et les mettant en tension? Comment ces tensions se sont-elles ou non résolues et quelle est la part du droit dans cette histoire? Quels enseignements critiques peut-on en tirer sur le dispositif du brevet? Ce sont les notions ou les principes de médiation du droit entre droits et intérêts, de débat démocratique, d'Etat de droit (*rule of law*), de transparence et de responsabilité (*accountability*), d'intérêt commun ou public, de libertés publiques, de contrat social qui sont directement ou indirectement mis en jeu. La problématique de l'accès aux médicaments essentiels dans les pays du Sud, confirme-t-elle ou infirme-t-elle l'hypothèse selon laquelle le dispositif du brevet a les caractéristiques d'une forteresse?

Cette problématique permet aussi d'irriguer la question des alternatives. Confrontés au refus des firmes pharmaceutiques d'entreprendre des programmes de recherche dans le domaine des maladies négligées - ces maladies qui ne déciment que des populations non solvables -, et à l'absence ou la faiblesse des relais par les pays argentés qui ont les moyens d'avoir une recherche publique, certains acteurs se sont attelés à réunir les moyens de mettre sur pied une recherche alternative. La tâche n'est pas facile car des instituts de recherche, ou des chercheurs à titre individuel, enclins à soutenir l'initiative, se trouvent empêtrés par leurs relations contractuelles avec le secteur privé ou par les contraintes liées à leur statut. Un des problèmes majeurs à résoudre est celui du statut juridique à conférer aux molécules qu'ils espèrent inventer. Il faut à la fois pouvoir négocier l'utilisation de savoirs antérieurs brevetés avec des entreprises peu favorables à la démarche - sans pouvoir offrir de rémunération -, se prémunir contre la prise de brevets pirates, assurer la rémunération des instituts de recherche et des entreprises (en général des fabricants de médicaments génériques) qui acceptent une prise de risque dans l'aventure, éviter de faire obstacle aux recherches ultérieures et garantir une diffusion maximale à un prix minimum. L'équation semble fort complexe, ce qui conduit à réinterroger la relation entre les droits de la propriété intellectuelle, la liberté de la recherche scientifique et le bien commun.

Enfin, il n'est pas sans intérêt de noter que, jusqu'à présent, les problèmes que pose l'articulation entre brevets et médicaments sont territorialisés ailleurs qu'en Occident. En termes d'analyse, de débat et de mobilisation, et sauf exceptions marginales, le lien n'a pas encore été publiquement établi avec les difficultés non négligeables qui se profilent pourtant à l'horizon pour les pays occidentaux.

3.   Une "machine de guerre"? Second cas de figure: les O.G.M. en agriculture

La problématique des O.G.M. peut permettre la vérification, en l'espèce en tout cas, de nombre des caractéristiques dont on soupçonne qu'elles seraient devenues celles du dispositif du brevet: un mode de création et d'appropriation de nouvelles marchandises, producteur de nouvelles formes de rentes et de marchés captifs, inséré dans un dispositif juridico-institutionnel qui en assure l'efficacité et la pérennité, et disqualifiant les normes et les valeurs qui pourraient lui faire obstacle.

La problématique des O.G.M. ayant été constituée publiquement en problème, on peut également tâcher de voir comment et selon quelles modalités les préoccupations sociales sont prises en compte, dans un contexte émotif moins prégnant que celui des médicaments. En effet, outre les doutes et les incertitudes sur les mérites des cultures transgéniques par rapport aux cultures traditionnelles et quant à leurs effets sur l'environnement et la santé, la question du modèle agricole et socio-économique qu'imposent les cultures transgéniques est posée, avec une acuité particulière pour de nombreux pays en voie de développement. On craint la dislocation du tissu social, l'abandon des approches intégratives et systémiques de la production agricole, l'instauration d'une dépendance vis-à-vis de quelques firmes monopolistiques rendant plus précaire l'équilibre financier domestique, la perte de la liberté de choix et de la diversité des cultures etc. Quelques désastres survenus dans des pays en voie de développement et les conséquences pour les fermiers de certaines pratiques de géants de l'agro-alimentaire en Amérique du Nord attestent le sérieux de ces préoccupations. Ce ne sont pas les O.G.M. en tant que tels qui sont mis en cause, mais les effets économiques et sociaux qu'entraîne leur mise sur le marché dans le cadre d'une économie de marché. Ce type d'inquiétude est fréquent lorsqu'il y a innovation, nouvelle technologie, ou nouvelle configuration d'un mode de production de marchandises. Cependant, la particularité ne tiendrait pas tant à la nouveauté, mais au régime juridique attaché à la nouvelle marchandise mise en production.

En Europe, ces questions ont été mises à l'agenda public, entre autres sous l'impulsion de certains syndicats agricoles et du mouvement altermondialiste qui les relie aux relations Nord-Sud, sans occuper cependant la place acquise par d'autres arguments dans le débat public sur les O.G.M., tel qu'il s'est progressivement configuré. A tout le moins, ces préoccupations semblent avoir été relativement peu métabolisées par les instances européennes et la législation en tient peu ou prou compte, si ce n'est sous l'angle de la coexistence physique entre les différents systèmes agricoles. Peut-être est-ce du pour partie parce que ces questions n'ont que de faibles rapports avec la protection des consommateurs et de l'environnement européen, pour partie en raison des modifications profondes qu'a déjà connu le monde agricole, ou aussi en raison des contingences de la politique agricole communautaire…

En revanche, l'attitude européenne a des incidences sur la manière dont les pays du tiers-monde se positionnent à l'égard des O.G.M., dans la mesure où l'Europe constitue un marché pour leurs produits d'autant plus important que de nombreux pays bénéficent de conditions préférentielles pour l'exportation. Sans l'avoir décidé, l'Europe a joué jusqu'à présent le rôle de verrou freinant l'adoption des cultures transgéniques dans ces pays. Il s'agit là de l'un des enjeux du recours introduit par les Etats-Unis et d'autres pays

producteurs d'O.G.M. contre l'Europe auprès de l'Organe de Règlement des Différents de l'O.M.C.

Dans les pays du tiers-monde, ce sont des mouvements et groupements de paysans, ainsi que des organisations non gouvernementales (O.N.G.) souvent actives dans la mouvance altermondialiste, qui luttent pour que les effets socio-économiques du modèle agricultural transgénique soient pris en pleine considération.

Divers instruments internationaux touchent de près ou de loin aux O.G.M.: La Convention internationale sur la Protection des Végétaux, la Convention de Rio sur la Diversité Biologique, le Protocole de Carthagène sur la Prévention des Risques liés aux Biotechnologies, le Codex Alimentarius… On devrait pouvoir ajouter les instruments relatifs au droit d'obtention végétale. Certaines organisations internationales comme la Banque Mondiale, ou l'Organisation des Nations Unies pour l'Alimentation et l'Agriculture (F.A.O.) se sont aussi mêlées au débat. Mais y a-t-il mise en débats de droit et de statut juridique, de préoccupations socio-économiques domestiques, ou culturelles liées aux cultures O.G.M.?

En définitive, l'analyse permettra-t-elle de conclure à la réalité des risques socio-économiques associés aux cultures transgéniques? Le cas échéant, le dispositif du brevet est-il un facteur qui en renforce la prévisibilité, voir le caractère inéluctable, et si oui de quelle manière? Quelles en sont les incidences sur les possibilités et les modalités de mise en débat et de régulation démocratiques? Comment, sous quelle forme et à quels niveaux - institutionnels ou non, ces questions sont-elles effectivement mises en débat? Y a-t-il une traduction juridique de ces conflits d'intérêts, une mise en confrontation et des mécanismes de régulation? Des accommodements ou des aménagements sont-ils envisagés?

4.   Repères méthodologiques

L'approche se fera selon une approche inductive, à partir de la mise en récit de chacune des deux problématiques que sont les O.G.M. agricoles et les médicaments pour les pays du Sud. Cette mise en récit permettra de mobiliser et de mettre à l'épreuve des faits les différents arguments - juridiques bien sûr, mais aussi institutionnels, politiques, économiques etc. -, de voir comment ils ont cheminés et se sont entrecroisés, et ce qu'il en est advenu.

Dans les deux cas de figure, les questions ont d'abord été constituées en problème public à l'échelon local. Il est dès lors opportun de partir de situations géographiquement localisées. Pour les médicaments, l'Afrique du Sud et la Thaïlande ont été retenues. La première car c'est là qu'historiquement le droit des brevets a été mis publiquement en question tant sur le plan judiciaire que politique, et c'est à partir du territoire sud-africain que c'est construite une problématique et une dynamique mondiales. La seconde a la caractéristique d'avoir tenté de mettre en pratique les possibilités d'atténuation de la rigueur du droit des brevets qu'offraient les instruments internationaux tels qu'ils existaient à l'origine ou tels qu'ils ont été aménagés au fil du temps. La situation est un peu différente dans le domaine des O.G.M. agricoles. Il n'y a pas eu un évènement

spécifique, localisé, qui aurait servi de déclencheur à la mise en problématique publique. En revanche, deux cas peuvent servir de point de départ à l'analyse: l'arrivée du coton transgénique en Inde et du soja génétiquement modifié au Canada. Ces deux situations ont été l'occasion de la mise en débat de questions économiques et sociales étroitement liées avec le dispositif juridique encadrant ces mises en culture.

D'autre part, les questions qu'ont soulevées ces quatre cas ont été problématisées et constituées en évènements qui se sont construits et propagés grâce à l'action d'acteurs locaux non institutionnels, ce qui mérite une attention particulière.

5.   Plan thématique provisoire

La méthode choisie a l'avantage de permettre de mieux mettre en relief le caractère évolutif et enchevêtré des problématiques retenues, ce qui aurait été rendu plus ardu par une approche purement analytique. L'inconvénient en est la difficulté d'articulation et d'agencement entre les diverses composantes. Le plan thématique ébauché en annexe 1 devra être régulièrement ajusté au fil du travail.

6.   Programmation

- 2004.   O.G.M. et aspects sociaux et économiques: le dispositif du brevet comme "machine de guerre"?
- 2005.   L'accès aux médicaments essentiels dans les pays du Sud: le dispositif du brevet comme "forteresse"?
- 2006.   Analyse critique et conclusions.

7.   Première bibliographie sommaire

Voir annexe 2.

Le 17 mai 2004
Daniel de Beer

<u>Annexe 1</u>

Plan thématique provisoire

I.   **<u>L'accès aux médicaments essentiels</u>**

Préambule 1: le Sida

Préambule 2: la fabrication d'un nouveau médicament, processus, aspects juridiques et financiers; le médicament comme marchandise; médicaments et brevets, bref historique; l'industrie pharmaceutique; brevets pharmaceutiques, Uruguay Round et accord sur les A.D.P.I.C.

1.   **Afrique du Sud**

La situation de l'Afrique du Sud en 1999: la pandémie du SIDA dans le contexte national (institutionnel, juridique et social), le gouvernement, les acteurs locaux, le projet de loi sud-africain.

Treatment Action Campaign (O.N.G. sud-africaine): de la solidarité à l'expertise.

Le procès: les arguments (économiques, juridiques et moraux); la mobilisation nationale et internationale, les acteurs étatiques (ou équivalents); le silence des organisations internationales; le poids et le rôle des acteurs non institutionnels; les argumentaires, la construction d'une problématique publique (aspects politiques, moraux, juridiques et économiques).

La déconstruction des arguments économiques; les failles des arguments basés sur l'alliance R&D, molécules, accès aux médicaments et intérêts économiques; vers une nouvelle articulation entre droits de l'Homme, Santé Publique et droit des brevets?

2.   **De Pretoria à l'O.M.C. et à la Déclaration de Doha**

Les mobilisations: les tentatives de reconstruction par les entreprises pharmaceutiques d'une image positive; l'entrée en lice de nouveaux acteurs institutionnels; le droit infléchi, les accords régionaux et bilatéraux comme stratégie, les enjeux de Doha (O.M.C.); le rôle des Etats-Unis et de la Communauté Européenne, la mobilisation d'Etats du Sud; le rôle des acteurs non institutionnels; discours officiels, pratiques officieuses et coulisses; le droit à toutes les sauces.

La Déclaration de Doha: négociations; droit, économie et politique; la Déclaration.

Analyse juridique de la déclaration de Doha; convergences et divergences.

3.   **La Thaïlande**

Thaïlande et Sida: contexte juridique et social; contexte économique et fabricants de médicaments génériques; les acteurs institutionnels et non institutionnels; dynamique publique et politique publique; la Déclaration de Doha mise en pratique.

Batailles juridiques et rétorsions économiques; les raisons d'un échec.

Un procès exemplaire: droits de l'Homme, Santé Publique et obligations étatiques versus Etat thaïlandais; politique publique nationale de Santé Publique et contraintes internationales.

**4.	De Doha à Cancun**

Les diplomaties concurrentes.

**5.	L'Accord du 30 août 2003**

Analyse juridique, praticabilité. Compromis ou régime d'exception?

**6.	Sida et pays en voie de développement**

De nouveaux acteurs; répondre à l'urgence; les contraintes des acteurs internationaux (O.M.S., ONUSIDA etc.); Accord du 30 août et marché; la prolifération des accords bi et multilatéraux; le droit et sa mise en pratique.

**7.	Recherche et développement, brevets et alternatives: les maladies négligées**

Drugs for Neglected Diseases Initiative.

**8.	Le dispositif du brevet: une "forteresse"?**

**II.	<u>Les O.G.M. agricoles</u>**

Préambule. Les O.G.M. agricoles, repères scientifiques, historiques et juridiques.

**1.	L'arrivée du coton transgénique en Inde**

Le contexte juridique, social et économique; introduction des cultures transgéniques, les conséquences de mauvaises récoltes; culture transgénique, contrat et droit applicable, modèle agricole; les acteurs, la construction d'un problème public; réalités socio-économiques locales et développement; politique et droit.

**2.	Le soya transgénique au Canada**

Le contexte juridique, social et économique; introduction des cultures transgéniques, les questions et problèmes; culture transgénique, contrat et droit applicable, modèle agricole; les acteurs, la construction d'un problème public; politiques et primauté du droit.

3. **La Communauté européenne et les aspects culturels, sociaux et économiques liés aux cultures transgéniques**

Les controverses "*Terminator*" et "riz doré", brevet et pratiques juridiques, la faim dans le monde comme argument réversible; de la constitution d'un problème politique public complexe à sa désagrégation partielle, la part le droit; Communauté Européenne, O.G.M. et pays en voie de développement; Communauté Européenne, Etats-Unis et O.M.C.

4. **Droits économiques et sociaux, sécurité alimentaire, brevets et marché: quelles passerelles?**

5. **La brevetabilité du vivant**

Evolution. La disqualification et le contournement progressifs du droit d'obtention végétale; l'autonomie techno-juridique du droit des brevets; techno-droit et capitalisme.

6. **Du laboratoire à la marchandise: itinéraire physique, économique et juridique. Les acteurs: économie et droit, l'inévitable tendance à la création de monopoles?**

7. **Le brevet comme dispositif: une "machine de guerre"?**

III. <u>Analyse critique et conclusions</u>

Mise en corrélation des deux études; avatars historiques, caractéristiques spécifiques des cas de figure ou paradigmes? Une modélisation est-elle possible? Analytique ou critique? Droit, institutions et acteurs; politique, économie et droit; "demain est un autre monde"?

Annexe 2

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ANNEX 10: <u>Wim Schreurs' PhD proposal: "Ambient intelligence and the protection of personal information"</u>

1. Working Title

Ambient Intelligence and the protection of personal information.

2. Topic of Research

<u>i. general</u>

In this Ph.D. thesis, the relation and the interaction between ambient intelligence and the protection of personal information through data protection laws and through other legal instruments will be analyzed and studied.

Ambient intelligence being a rather new and unknown phenomenon , it needs further explanation before explaining the goal and relevance of this Ph.D. thesis.

<u>ii. ambient intelligence</u>

Ambient intelligence (sometimes called 'ubiquitous computing or pervasive computing') refers to a collection of I.C.T.'s (information and communication technologies) in which objects and subjects communicate and interact with each other in an automatic, permanent, invisible way and this more in particular by using personal information. The intelligent environment, collecting our personal data and other information can subsequently make several links between the data, adapt and learn from the subject's behaviours and preferences.

Examples of those ambient intelligence technologies are electronically tagged devices like clothes, money, medicines and foodpackages with embodied integrated circuits, human-computer interfaces by which the registration of body and brain activity takes place by computers that create services on the basis (of the automatic processing) of this body and brain activity[36], houses with domotica that is wirelessly connected with intranets and internet, location based services, electronic identity cards, biometric devices, interactive television et cetera.

These examples indicate clearly - and this is important for the Ph.D. thesis - that there is an increasing and incontournable use of goods and services that are built on the processing of (personal) data. Thus, an essential characteristic of ambient intelligence is that it works if there is a processing of (personal) data. A short example:

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[36] The creation of so-called human-computer interfaces (the connection between human and computer) is becoming a main topic of research and development. The possibility of computers and machines that react on body and brain impulses, is not a fiction. *See* Microsoft Corp. patent application US6754472 ("Methods and apparatus for transmitting power and data using the human body"). *See also* the many researches on this subject carried out by Kevin Warwick (University of Reading).

Joe comes home and decides to watch a movie. The heating in the tv room turns on, the sofa's back immediately adapts to Joe's 1.90m and the movie starts exactly in the scene where Joe fell asleep the day before. This all occurs automatically by an ambient intelligence system which constantly locates Joe inside the house and which monitors his activities. But therefore, the system needs to register information. Then questions on how this (personal) information is protected, arise. Is this information a personal datum at all? What happens with the data? How long are they conserved? Who has access to the data: the sofa and the tv company? The problem is that these ambient intelligence technologies do a lot more than one would think at first sight. They record information about when one comes home, how long (s)he stays at home, which movie (s)he watches, how long (s)he sits in the sofa, etc.

iii. The protection of personal information

Today, our personal information can be protected against abuse (in the broadest sence) through different legal instruments such as tort and liability law, e-commerce law, fair trade practises, intellectual property rights, self-regulation and of course, data protection law. Data protection law is the main 'tool' to protect personal information. It will also be the main topic of research in my Ph.D. thesis.

Data protection law is the collection of international, european and national laws on the protection of personal data and the free movement of such data. Data protection law is applicable to personal data[37] - which are considered not to be of a property nature - and is based on some basic principles like the 'proportionality' and the 'transparency' principles. It provides strict regulations for the collection, the use and the dissemination of personal data in order to protect individuals against the unlawful use of their personal data.

The principles (derived originally from the OESO-Guidelines) are applicable in almost all data protection laws such as the Belgian data protection Act [38], the E.U. Data Protection Directive 95/46 and the E.U. Privacy and Electronic Communications Directive[39]. Being implemented in article 8 of the Charter of Fundamental Rights of the European Union[40], data protection will even become a constitutional right.

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[37] "Any information relating to an identified or identifiable natural person ('data subject') ; an identifiable person is one who can be identified, directly or indirectly, in particular by reference to an identification number or to one or more factors specific to his physical, physiological, mental, economic, cultural or social identity" (Article 2 Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data on the free movement of such data, *Official Journal of the European Communities*, L 281, 23 November 1995, 31-50, further cited as "E.U. Data Protection Directive 95/46").

[38] Law of 8 December 1992 on the protection of privacy with regard to the procession of personal data, as modified by the law of 11 December 1998, *B.S.* 3 februari 1999.

[39] Directive 2002/58/EC of the European Parliament and of the Council of 12 July 2002 concerning the processing of personal data and the protection of privacy in the electronic communications sector (Directive on privacy and electronic communications), *Official Journal of the European Communities,* L 201, 31 July 2002, 37-47, further cited as "E.U. Directive 2002/58 on Privacy and Electronic Communications").

But the effects and the applicability of the regulations on personal data protection are often restricted. They are for example not always applicable to anonymous data, provide often difficult and formal procedures to regulate the collection and the use of the data and contain many exceptions. And also finally, all kinds of actual misuses (like spam f.e.) indicate that the data protection rules cannot sufficiently be enforced in an international and digital environment.

The evolution towards ambient intelligence - an overall computerization of our society - is going hand in hand with new legislative developments concerning data protection. Today for example, there is already a draft framework decision on the European agenda, in which internetproviders are obliged to organise a data retention - of one to three years - of all traffic and location data concerning mail, internet and telephone communications on the territory of the E.U. Another draft legislation concerns a Council regulation for biometric passports, containing digital photos and digital fingerprints.

Besides data protection law, which is not always applicable (see f.e. anonymous data) and which is not always effective , other legal tools could provide support to protect our personal information. Although, this has to be analyzed: There is f.e. a broadly supported legal doctrine which states that there is not a property right on personal data.

On the other hand, we can see that other legal tools can support data protection laws, such as the e-commerce directive which obliges information service providers to stop the distribution of illegal content on their networks (the so-called 'notice and take-down' procedure) or the copyright directive which forbids the fabrication, distribution and use of technologies which circumvent the protection of copyrighted information.

The goal of my research is to analyse *if* - and especially *how* - the protection of personal information, data protection law and ambient intelligence can live together. In other words: How a constructive interaction can take place. Therefore, many questions will be addressed, such as: How can ambient intelligence develop without eroding data protection law ? How to apply data protection law to ambient intelligence without straining the desired developement of ambient intelligence techniques ? How to deal with social risks and legal uncertainties linked to ambient intelligence at the level of data protection ? How to deal with national data protection laws in a boardless worldwide communication network? Is data protection law sufficient enough to protect personal information in ambient intelligence applications or do we need other (legal) instruments ? Can data protection rules be dealt with as precautionary rules? How can technology "as it is" be obliged to take into account data protection law? Which mechanism work, and which don't? How can we use other legal instruments as a support for the protection of personal information if data protection fails? Etc…

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[40] Article 8 of the Charter of Fundamental Rights of the European Union, *Official Journal of the European Union*, C 364, 18 December 2000, 1-22: "1. Everyone has the right to the protection of personal data concerning him or her. 2. Such data must be processed fairly for specified purposes and on the basis of the consent of the person concerned or some other legitimate basis laid down by law. Everyone has the right of access to data which has been collected concerning him or her, and the right to have it rectified. 3. Compliance with these rules shall be subject to control by an independent authority".

I will address the question whether data protection is überhaupt the right and most adequate solution. Which parts of data protection laws and regulations should be confirmed, abandoned or changed and which legal principles should be introduced? What is the role of technology? How to protect personal information in law and technology without at the same time being contra-productive and blocking the implementation of technology?

3. Purpose and Relevance of Research

The relation between personal information, data protection law and ambient intelligence is of great relevance and importance[41].

- Actual developments in technology and society make clear that ambient intelligence and its supporting technologies[42] are integrating into our society in a fast and very substantial way. The use of smart technology, based on the use of personal data, seems unavoidable.

- An essential characteristic of ambient intelligence is that it is based on the processing of (personal) data. The automated registration, processing and exchange of personal information is the basic ingredient of ambient intelligence. Data protection law is of high importance to channel the impact and consequences of ambient intelligence in a society.

- Although many other aspects such as intellectual property law, international private law, tort (precautionary principle) and contract law, play also an important role for ambient intelligence, data protection law and its possible implications seem to be one of the most relevant issues to be studied. This has been indicated in several studies on ambient intelligence.

- The rate of personal information abuse grows faster than ever. Identity theft is only one example of possible abuse. Unsolicited electronic information ("spam") and illegal access to information ("hacking") are other examples.

- Another important element of ambient intelligence is that the processing of personal information occurs often automatically and is non-perceivable for the data subject. The use of cookies[43] shows this clearly. Personal data are often processed by third parties without the data subject even being aware it. Not only the volume of personal data traffic but also the automatic and the invisible[44] way this happens, increases enormously.

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[41] On 25 November 2004, the search for "ambient intelligence" in Google gave circa 50.400 results. On 3 December 2004, the same search gave 53.200 results.

[42] Radio frequency identity tagging (RFID) ; electronic identity cards ; global positioning system ; increasing intelligence in objects - PDA's etc…

[43] Small programs which are installed on your computer which register your on-line behaviour and which make you or your computer recognizable upon a new visit. They are recognized to be personal data in the sense of the law on data protection.

[44] Cfr. the term *ambient*

- The importance of prospective research on law and technology - how to channel (new) technology and law - has already been indicated in the past where the lack of interaction between copyright and patent law and technology led to out-of-hand situations of over- or underprotection. These laws, even today, can hardly deal with technologies like on-line copying, software investions and electronic business methods.

- Data protection law has already been confronted with absurd situations, such as e.g. in the Lindqvist case, in which the E.C.J. stated that mentioning personal data of a third person on a personal homepage without his explicit consent, constitutes an infringement of data protection law, even if these data are commonly known and correct.[45]

- Our information society is based on two sorts of equally important major information streams, namelythe information upstream (the personal information we give to others) and the informational downstream (the information we want to have access to).

- Key technology and policy makers expressed already the relevance of the subject. All reports and studies about ambient intelligence or ubiquitous computing refer to privacy and data protection law as a key issue for ambient intelligence.

My conclusion is that this subject (ambient intelligence) is most interesting and even one of the most important issues in relation with the way our information society is evolving today. In order to channel this evolution of ambient intelligence and the impact for the protection of personal data, I will analyse how personal information can be protected.

4. Methodology

The Ph.D. thesis will be built on three parts.

The first part will be completely devoted to a description of ambient intelligence. The use of personal information within these technologies, the indication of what information is used and especially the way how this use is technologically organised and implemented, will be carefully analyzed.[46]

The second part will contain a short, descriptive but clear overview of actual data protection law and of other laws that can influence or support data protection. The basic principles of data protection which are of importance for the implementation of ambient intelligence and which will be subject to analysis in the next chapter, will be identified.

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[45] E.C.J. (*Bodil Lindqvist v. Kingdom Sweden*), 6th November 2003, http://www.curia.int.

[46] Several reports, technology studies, scenarios, conference proceedings, interviews with key actors in the field and other research information are available. New information will become available in the framework of - and due to many opportunities provided by - the FP6 Network of Exellence FIDIS (*The future of identity in the information society*) wherein my research group LSTS is a partner and workpackage leader (cf. http//:www.fidis.net). LSTS is also a partner in the FP6 Specific Support Action SWAMI (*Safeguards in a world of ambient intelligence*), a research project of 18 months which wil be started up on February 1, 2004. I will be a key player in this project which will enable me to cooperate with specialised research groups in Spain (IPTS), Finland (VTT), Germany (Fraunhofer Institute) and in the UK (Trilateral).

The third part - which is the core of my Ph.D. thesis - will dive into the relationship and interaction between ambient intelligence and the protection of personal information (data) with an eye upon the elaboration of possible approaches and concepts for future data and personal information protection law.

As regards the methodology, my Ph.D. thesis will not start from existing legal constructions (data protection law) in order to analyze, critize and try to improve it. The starting point is not the law but a technological evolution (which constitutes also an important economical, societal and cultural evolution). The research will be descriptive and analytic both towards the chapters one and two, but prospective and interrelational (interdisciplinary) towards chapter three.

5. TABLE OF CONTENTS

CHAPTER I: WHAT IS AMBIENT INTELLIGENCE

This chapter will indicate and determine the limited object of my research: limited towards the technology (by describing what is not considered to be ambient intelligence for the purpose of this thesis) as well as towards the legal study object (by describing how personal information is treated in ambient intelligence).

1. Terminology and definitions

As a start, the term 'ambient intelligence' will be explained. Definitions, descriptions and other tools will be used and attention will be payed to the several terminologies that are used (like pervasive computing, ubiquitous computing, embedded intelligence, invisible computing, seamless intelligence…).

2. Description and analysis of research studies and results

I will analyse several research projects on ethical, economical, legal, social, technological and other relevant aspects, like Future of Identity in an Information Society (F.I.D.I.S. Network of Excellence - E.U.), Safeguards in a world of ambient intelligence (S.W.A.M.I. - E.U.), Philips and Microsoft (private research projects), "The intelligent environment: the need for converging technologies and a new business model" (I.W.T. – BE). All the relevant aspects for defining and limiting the subject of this Ph.D. will be extracted.

3. Description and analysis of Ambient Intelligence Scenarios

Writing future scenarios for ambient intelligence is an important part of prospective research. ISTAG Scenarios of Ambient Intelligence (made by J.R.C.-I.P.T.S. (ES - E.U.) and other scenarios (the SWAMI project will also generate scenarios) can indicate possible trends and applications, and they must be taken into consideration when making laws concerning personal information. Therefore, these scenarios will also be studied and become object of research.

4. Description and analysis of supporting technologies and tools

Ambient intelligence technologies indicate how ambient intelligence works in practice. From those technologies and their supporting contracts, one can learn what effectively will happen with (the status of) personal information. *Subject* identification and authentication technologies like electronic biometric identity cards (what is on it ? how can it be used ?), anonimizers and pseudonimizers (how do they work ? what happens with the data ?), as well as *object* identification and authentication technologies like radio frequency identity tags (RFIDs), cookies, GSM, location based services must also be analysed.

Also real built applications of ambient intelligence must be taken into consideration, as well as the emergence of smart cards, wireless internet, intelligent agents, messengers, personal digital assistants (PDAs), gesture recognition, embedded speech recognition, brain-body-computer interface, smart cars, smart homes, smart clothes, …

5. Link with data protection

On the basis of the first parts of this chapter, an identification of the object of research is necessary in order to distinguish the topics which are not part or object of this research.

How personal information is concretely used ; what happens with personal information in these technologies and scenarios ; where and how long it is stored ; who has access to the data ; if they are sold ; if profiles are made or used ; if the information is anonymized ; how the data subject is informed about the data procession ; how the data subject gives consent ; does a data subject überhaupt has a choice to give consent: are profiles made and if yes, how extensively are they used ; how contracts are made about data procession ; what is mentioned in the (on-line?) contracts ; does the data subject has any freedom at all to decide himself about if, how and to what extend his personal data are processed, … These and other questions are the very important issues to deal with in the following chapters.

Identifying the characteristics of ambient intelligence and putting these characteristics in relation with personal data and information protection, should be the outcome of this chapter. The main goal (and difficulty) will be to extract and to understand the possible problems for personal data and personal information protection in relation with ambient intelligence, and vice versa.

CHAPTER II: TODAY'S LEGAL PROTECTION OF PERSONAL INFORMATION.

International, European and national data protection laws constitute the main study object of my Ph.D. Other laws regarding personal information are also study object but only as far as they concern the protection of regulation of personal data and information.

A. General Data Protection Law.

1. Introduction

A short introduction on data protection law with links to the history of data protection, the ratio legis and the legal nature of data protection is necessary, as well as the relation and the distinction between privacy and data protection law (and the term "informational privacy").

2. Overview of the instruments of data protection law

These instruments (legislations) are from a different level and nature. Data protection law is organised on international, supranational and national level and is built on binding and non-binding instruments. Especially legislation at E.U. level will be an important part of this study because they influence national laws of 25 E.U. Member States.

The general binding international instruments can be found in Treaty 108 of the Council of Europe - Convention for the protection of individuals with regard to automatic processing of personal data, 28 January 1981 ; Article 8 European Convention of Human Rights, 4 November 1950 ; The Charter of Fundamental Rights of 7 December 2000 of the E.U.

Some non-binding instruments to be analysed are the OECD Guidelines Governing the Protection of Privacy and Transborder Data Flows of Personal Data, 23 September 1980 ; United Nations Guidelines concerning computerized personal data files, adopted by the General Assembly on 14 December 1990. The more general legislation at E.U. level will be E.U. Data Protection Directive 95/46 and E.U. Directive 2002/58 on Privacy and Electronic Communications.

I will also study national law of Belgium (Belgian data protection law of 8 December 1992 as revised in 1998 and supplemented by the Royal Decree of 21 February 2001) and other countries which have to be indicated further.

3. Analysis

From all these data protection laws, its basic rules and principles in relation with ambient intelligence will be deduced.

3.1.   Application ratione materiae
3.2.   Application ratione personae
3.3.   Application ratione loci

3.4.   Profiling
3.5.   Enforcement
3.6.   Basic principles of general personal data protection

> Collection limitation principle
> Lawful collection principle[47]
> Data quality principle
> Purpose specification principle
> Use limitation principle
> Security safeguards principle
> Transparancy principle
> Individual participation principle
> Accountability principle
> …

B. Other laws regarding the protection of personal information

More specific legislation at E.U. level with important consuequences for data protection and ambient intelligence will be a.o. e-commerce Directive 2000/31, electronic signature Directive 1999/93, the copyright Directive 2001/58 and draft legislations like the draft framework decision on the retention of personal data and the draft council regulation on biometric passports.

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[47] For the purpose of this Ph.D. Thesis considered as a seperate principle. It belongs normally to the "collection limitation principle".

CHAPTER III: DATA PROTECTION AND AMBIENT INTELLIGENCE

In this part I will try to conceptualize the interaction between ambient intelligence and data protection. The main goal (and difficulty) will be to extract and to understand the possible problems for the protection of personal information in relation with ambient intelligence and to find a solution for these problems. I will also look if it is not possible to find solutions in other domains than data protection law.

1. Self-regulation?

First, I will analyse in short the possibilities of self-regulation for self-regulation is a widely envisioned possibility for regulation on/of the internet.

2. Personal information and intellectual property rights?

I will study more profoundly the possibility of giving an (intellectual) property character to personal data, which means that principles of intellectual property law could be applicable. Although the principles of (intellectual) property law are different than principles of data protection law (which does not recognize property rights in personal data), there are many aspects in common. While both laws deal with the protection of information, they are principally based on the concept of preliminary consent of **the 'rights holders'** before lawfully having the right to use the information. At the end, we can see that copyright is confronted with the same problems as I expect will happen with data protection (explosion of processing and copying of data) and that the recent sui generis right on database protection (aren't we all databases?) which protects the database and not the data, have strong connections with data protection and ambient intelligence.

3. Anti-discrimination law?

Anti-discrimination law can sometimes be applicable towards the procession of personal information as well. More in particular, this can be f.e. the case when personal information is processed anonymously (to build profiles) and when this information is used afterwards to take automated decisions towards some people and not towards other people, or when particular information is send to persons on the basis of anonymous profiles, while other persons receive other information on the basis of their profiles. In other words, anti-dicrimination law can be an alternative for the protection of personal information when the laws on data protection are not applicable, due to the anonymous character of the information or the application of an exception in data protection law.

4. Data protection law?

In relation with ambient intelligence, I will analyse general and specific laws regarding data protection for each aspect and basic principle incorporated in this body of law. I will

analyse whether this basic principle should for example be confirmed, renewed or abandoned. By doing this, I will try to (re)formulate a general approach to data protection laws in relation with ambient intelligence. [48]

I will analyse for each relevant law:

4.1. The application ratione materiae

Which or what kind of personal information is and should be covered by the law? Are there data which fall outside the protection and if yes, when and why? Should not all personal information be covered by data protection law or, just on the contrary (which is an argument that is often used to make ambient intelligence possible) should certain data which fall under actual data protection not better fall outside data protection law?

How to deal with the difference between sensitive data (very strongly protected) and other data (less protected). Does this difference still hold when ambient intelligence combinates non-sensitive data and sensitive data?

Does it make a difference when and where the data are proceeded? What if the same data are processed through a private and a public communications network?

4.2. Application ratione personae

Who can enjoy data protection? Today, in almost all cases, data protection law protects only natural persons. Only in some cases, legal persons are protected too. Does this distinction still hold in relation with ambient intelligence? Are data, which belong to, or come from legal persons, not worth protecting too?

4.3. Application ratione loci

This is an important issue and is related not only to data protection, but also to international private law. One is confronted with difficulties when data protection law is not harmonized in places where people move and ambient intelligence is applicable. Which data protection law is applicable when the ambient intelligence service is delivered in one state, the contract made in another state and the data are collected in a third state? Should data protection not be a personal right instead of a territorial right?

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[48] It is to my opinion very important that my analysis of data protection law should not only be in the sole advantage of the data subject (consumer) or in the sole advantage of the data controller (producer). It seems important to take law ánd technology into consideration and to conceptualize this relation into a possible interaction.

And one can even ask: which law is applicable? The law where you are or your national law? The applicability of the national law of the data subject (personae criterium) instead of the place of the procession (territory criterium) should be put into question. Personal data are linked with identity and the state of a person. Those aspects are partially regulated by the national law of a person. First of all, it is practically possible due to technology (your digital identity decides which law is applicable). Also, it creates certainty because one always knows which law is applicable and one is protected by the law of his country. At the end, one could suggest that this approach of law can be a solution in a world without physical borders.

4.4. Enforcement

As we all know, enforcement is a major issue in international relations, which are essential in the information society (*see* spam etc…). Should legal measures (like in copyright law) be taken where the fabrication, distribution or use of data protection law - circumventing technologies is forbidden?

4.5. Collection limitation principle

There should be limits to collections of personal data, collections should be proportional compared with the purpose for which the collection took place. How to define or decide which data are necessary and which are not - and therefore extra-proportional? Can law define which data are necessary and which not, or can this be agreed contractually?

It is lawful to ask more data than necessary, f.e. by giving a person some minor advances like price reductions etc… Should the law not impose in a compulsory way that under certain conditions, only certain data could be collected, with or without the consent of the subject even if there is a contractual relation (*see* similar provisions in consumer protection law). In other words, should the proportionality principle not be translated more concretely into law? One cannot deny that in almost all cases, data subjects are obliged by contractual provisions to give (unnecessary) data away just because they can't refuse practically (although they can theoretically). This question also relates to the approach of data protection in a wider scale: How to bring in line the development of such technologies with the principles of a democratic constitutional state in which the public (not really represented by lobby groups) is consulted and involved in decision taking?

4.6. Lawful collection principle

Personal data should only be obtained by lawful and fair means and, where appropriate, with the knowledge or consent of the data subject. This is a very important issue when it comes to "consent". How to organise this "consent" when there is in fact an overall, automatic and continuous registration of data? And, in order to give informed consent, how to organise this information in an understandable and opposable way? Are click-through-contracts like software license agreements during installation procedures, which

nobody reads because they just want to install the product, morally and legally acceptable when it comes to personal data?

4.7. Data quality principle

The data collected should be accurate, complete and up-to-date. This principle is strongly linked with the 'individual participation principle' and the 'purpose specification principle'.

4.8. Purpose specification principle

The purposes for which personal data are collected should be specified not later than at the time of data collection. Subsequent use should be limited to the fulfillment of those purposes or other purposes not incompatible with those purposes. This principle is linked with the lawful collection principle.

4.9. Use limitation principle

Personal data should not be used for purposes other than those first specified except with the consent of the data subject or by the authority of the law. This principle is also linked with the lawful collection principle, although it's application only starts *after* the collection of personal data.

4.10. Security safeguards principle

Personal data should be protected by reasonable security safeguards against such risks as loss, unauthorized access, destruction, use, modification, or disclosure.

4.11. Transparency principle

There should be openness about practices and policies with respect to the collection and the use of personal data. This also is a major issue. It is related with the consent principle and connected with the legal, the technological and the contractual organisation of the procession of data. How, for example, can one know who possesses your personal data and why?

4.12. Individual participation principle

Individuals should have the right of notification, access and rectification. How to organise this with technology? Can you oblige technology to implement the rights to access, in other words – can you forbid technology which does not allow the execution of a right to access and rectification in a decent way?

Another aspect is the property principle. If one has access, why not have a right to obtain a copy of these data? In some cases, these data will be destroyed while one person could have reasons to keep them. This would even be a safeguard against the loss by those who committed to retain the data for a certain period of time.

4.13 Accountability principle

Data controllers should be accountable for complying with measures that give effect to the data protection principles. How to organise this?

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