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REPORT

The *Fourth Journées Hubert Curien* Nancy (France) September 2-7, 2012

Taking a Fresh Look at Bridging the Gap between Scientists and the Public

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Inaugurated[1] in 2005 by the Henri Poincaré University (Nancy, France), the *Journées Hubert Curien*[2] were originally designed as forums for science communication professionals: animators, mediators, journalists, scientific mediators, museum and association staff, information officers from research organizations or universities and so on, to discuss the issues linked to the diffusion of science.

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[1] This account draws heavily from the official program of the *Journées Hubert Curien*, the preparatory documents to the conference, and the introduction from the soon to be published book collecting the 17 keynote talks, edited by Patrick Baranger and Bernard Schiele.

[2] Hubert Curien (1924-2005), scientist and French politician, had an exceptional scientific career and personal path. He was successively a university professor, a researcher at the Paris Mineralogy Laboratory, Chairman of many research institutes, notably the National Center for Scientific Research (CNRS), the European Science Foundation, the European Space Agency, before being appointed Minister for Research and Technology under three distinct governments. As Minister, he promoted the development and the promotion of scientific and technical culture. The *Journées Hubert Curien*, which take place every two years, are named in memory of his contribution. See: André, M., (2008), Hubert Curien, un artisan majeur de l'Europe de la science, http://www.embarcaderedusavoir.ulg.ac.be/journeeshubertcurien/actes/JHCurien-MAndre.pdf (as of January 10, 2013).

In the wake of the success of the first *Journées*, it was decided to renew the event every two years. The first three *Journées* dealt with the following topics: "Which mediators for which mediations?" (2005), "Scientific, technical and industrial culture and regional development" (2008), and "Against ecological and economic breakdowns, what part can PCST play?" (2008).

In the year 2012, the *Journées* were held in Nancy from September 2nd to 7th at the University of Lorraine. The topic was "Science Communication, International Perspectives, Issues and Strategies". They aimed to enact a qualitative break with the previous events by investigating new forms of interactions between scientists and the public, drawing from international experiences.

The train of thought that guided the scientific committee over the last two years can be summarized as follows:

The Rationale

The evolution of modern societies is characterized by the growing integration of science and technology. The impact of the development of knowledge and of its applications in all daily activities conjures up new representations. Those representations bear witness not only to the transformation of the relationship of science to the world but also to the transformation of the idea we have of the world. From them stem complex issues for societies, their organizations and their citizens.

The role of universities and research centres

The relationship between science, technology and society is thus at the heart of contemporary debates. This is why questions about the publicizing of science and technology, strategies of mediation and modes of public participation recur. Until now, however, government attention has mainly been focused on the actions of actors on the periphery of the scientific field. This explains the emphasis on the development of science museums, in all their forms, the media interests served by science

journalism, and the wide array of associations and organizations dedicated to valorising and promoting various audience groups. Science and technology actors were called upon or mobilized only indirectly, reinforcing the widespread misconception of a scientific community isolated, withdrawn and unable to talk to anyone who is not a member.

Therefore, it was decided this conference should stress that **universities and research centres are lively places engaged in the mediation of science**.

The new rules for communicating science and technology

The mediation of science now takes place in an environment where the rules for communicating science and technology have changed. The need for a dialogue between knowledge producers and their audiences, for whom the ethical, political and economic issues raised by research and its impacts are most important, is now as important as the advancement of knowledge itself. The real question is how to reach ambivalent audiences who are at the same time convinced of the benefits of science and technology but wary of their impacts. Nowadays, those audiences simultaneously subscribe to the worldview of science and criticize it.

Because science is a central value of modern societies, it was also decided to stress that **the need to share knowledge remains, and ways to communicate science and technology are now raised in a new way**.

To broach those questions, an international comparative approach was deemed essential. The knowledge, policies and practices of different nations could enrich our global comprehension through a mirror effect. For that reason, seventeen keynote speakers from so many countries, each related to a different background, were invited to attend the conference and share their experience with the participants and to exchange with them.

In short: universities and research organizations are vibrant communities fully engaged in science communication. Their actions are all the more important because the relationship between science, technology and society at large is at the heart of current debate, particularly at a time when the rapid expansion of digital technology opens up uncountable modes of interaction between producers and users of information. This conference intended to take a closer look at the new forms of dialogue between those who are directly involved in the production of knowledge and those for whom ethical, political and economic questions linked to research and its outcomes are considered just as important as the progress of knowledge.

The Objectives

This question led to four main objectives:

- ***To remind us that universities and research centres are dynamic places engaged in the mediation of science***. This is contrary to the misconception that sees them as isolated and withdrawn.
- ***To promote and stir up public involvement***. The evolution of the relationship between science and society has led to their increasing integration, to the point that contemporary society (the so-called 'knowledge society') is showcased as their natural and homogeneous endpoint. Science is today at the heart of culture: it not only transforms values, but also transforms the organizational patterns of society. It is thus unavoidable that the public, concerned with the issues and debates brought about by the relationship between science and society, wants an active part in it.
- ***To rethink ways of interacting with the public and come up with new ones***. Until now, national and regional policies on science valorisation and promotion have mainly targeted the actions of actors on the periphery of the scientific field. Actors in science and technology have

been challenged or mobilized only indirectly. However, there is a public demand for a direct dialogue with researchers because the impact of science on society raises ethical, political and economic issues—issues whose importance is now on par with the advancement of knowledge.

- ***To interact in a world where the rules of the game have changed***. Because cyberculture multiplies the interactions between information producers and users *ad infinitum*, it makes of anybody a mediator among other mediators. In the globosphere, everyone is simultaneously on an equal footing and in opposition to everyone else.

Four Key Issues

At the risk of simplifying, it is possible to give a general idea of the main discussions that took place during the *Journées Hubert Curien*. These discussions followed a new approach, resulting in questions different from those that were previously raised. The papers presented at the conference can be regrouped under four topics.

New issues, new challenges for governments and scientific institutions

In most nations today, scientific research remains poorly understood, poorly perceived and sometimes frowned upon. Besides, a number of research fields and technoscientific choices are strongly questioned, debated, criticized and even rejected. Moreover, the steadily increasing disaffection for training and careers in science and technology indicates a recomposition of the role and importance of science within contemporary society even as science and technology are the driving forces of change in modern societies. These issues have become a major concern for governments and scientific institutions, just as the ambivalence of public opinion has also become one. In short, the context has changed, while the traditional strategies for the promotion of science are now out of phase with the expectations

and questions of the public. In front of this evolution of the relationship between science and society, governments and scientific institutions (universities and research institutions) are expected to acknowledge this evolution and seek the means with which to engage citizens, especially when every piece of information can be endlessly passed around the Internet.

The changing patterns of public behaviour

Research on cultural practices offers alternatives to the classical 'young' or 'general' audience categories used by professionals. By highlighting different relationships, newer categorizations mark out new types of audience. Reading habits, TV preferences, media uses, cultural outings, amateur activities and so on all reveal new audiences. For example, research into museums now differentiates between visitors and visits, the latter being characterized by *in situ* behaviour by visitor/s who attend alone, as part of a couple, with a few friends or in a larger group. Each combination reflects specific modes of knowledge appropriation. All this is pushing for an understanding of the modes of interaction of the public with science from an entirely new vantage point.

The success of scientific cafés is very eloquent. Which, for this conference, raises two questions: How can we conceptualize the audiences for mediations developed by university and research institutes? As an audience for research institutes, are university students a specific audience, a privileged one, or both?

Scientific institutions as science mediators

Beyond research, it appears that scientists play a major part in the mediation of science. Furthermore, its importance will increase because citizens, on the one hand, expect to engage with producers of knowledge and, on the other hand, to be listened to because everyone is affected by the impacts and changes it brings about. Traditionally, universities and research institutes often partner with science centers, science museums, associations, media, companies and so on and their internal

communication services are often mobilized to conceive, organize and implement actions of mediation. But the evolution of the expectations of the public forces scientific institutions to rethink their strategies and to engage in a direct dialogue with the public. Which raises the difficult problem of maintaining the balance between producing and mediating knowledge. While its importance is now acknowledged by all, some questions remain: do all laboratories, research centers and universities engage in mediation? To what extent? To whom do universities and research institutes delegate the mediation of science? All this shows that the relationship between science and society are rapidly evolving, and that scientists should involve themselves more in the public space.

The forms of mediation

The shift from 'public understanding of science' to 'public engagement with science' does not resolve questions about modes of action. We are looking for new forms of engagement, and therefore for new forms of public debate. Are those new forms shaped in any way by the research institutes that mobilize them? Is the issue of the 'general public's' confidence in or suspicions about scientific research more acute when research institutes engage in mediation? Which tools, structures and resources can be mobilized by laboratories, research centres and universities for science communication?

Highlights of the Conferences

- Nearly 800 participants.
- An exceptional and novel event that brought together 200 speakers from 67 countries.
- Keynote speakers coming from all six continents: Claudie Haigneré (President of Universcience – France), Gauhar Raza (Head SCM, NISCAIR – India), Ulrike Felt (University of Vienna – Austria), Michel Claessens (ITER – France), Bernadette Bensaude-Vincent (Sorbonne – France), Jan Riise (Director of Agadem

AB – Sweden), Maja Horst (University of Copenhagen – Denmark), Catherine Franche (Executive Director of EsCSITE – Belgium), Martin Bauer (LSE – UK), Fabienne Crettaz Von Roten (University of Lausanne – Switzerland), Hester Du Plessis (Head RIA, and HSRC – South Africa), Mariano Gago, former Minister for Higher Education and Research – Portugal), Carmelo Polino (REDES – Argentina), Ren Fujun (CRISP – China)[2].

- Politicians involved in the mediation of science also attended, including two former ministers (Portugal and France).
- A diversity of speakers and participants: academics, researchers, politicians, journalists, association workers, CST activists and so on.
- A two day training for PhD candidates that generated a lot of interest: 700 applicants from all over the world; 131 accepted.
- A topic mindful of social expectations that focuses on the questions and issues of science mediation.
- A will to give active researchers a voice, especially by underlining their role in the mediation activities of universities.
- A will to reinforce the links with society.
- A valorization of the role and mission of universities: formation, research and public diffusion.
- A concern for the deterioration of public trust, and for researching the means to renew the trust.
- A comparative approach to benefit from the best international experiments.
- Promote participation and involvement on the part of the public to foster a more direct link with society.

[2] Their keynote talks will be put together in a yet to be published book by the CNRS, *Science Communication Today*, to be available in early 2013.

Postgraduate Study Days: Knowing how to disseminate research

A three-day post 'Post-graduate Study' event was also organised before the conference on 2-4 September 2012. In line with the objectives, the conference provided an opportunity to raise awareness among PhD students of the stakes involved and the tools available for science communication. A total of 131 budding researchers, whatever their discipline, and whether or not they had any experience of Science Communication were selected out of 700 applications received from all over the world to take part in a two-day training event in the form of workshops, talks and the conference. These two days provided to those who attended it: an introduction to Science Communication in an interdisciplinary setting; the opportunity to exchange experience with other PhD students and international keynote speakers; a convivial context to enhance creativity and motivation; and the opportunity to take a more detached view of one's doctoral thesis.

The Declaration of Nancy

The fourth *Journées Hubert Curien* reasserted the essential part that citizens must play in decisions that affect them and their future by launching the Nancy Declaration[3] (see box).

Science and Society: Nancy Declaration

Science and technology are today part of our daily lives and our modernity, even if the public has some difficulty coping with the transformations of our world, which is becoming more and more technology-oriented and is rapidly changing. Today, almost every political, social or economic debate links to scientific and technological challenges.

However, citizens feel 'left aside' because they believe that scientific research and its applications are discussed and decided without involving them, and scientists have the impression that they are increasingly unheard and unlistened to.

[3] Adopted by the participants gathered in the Plenary Assembly

Many countries have undertaken, with real success, activities in science communication and mediation to promote public engagement, through democratic debates, on collective challenges. The aim is also to build trust and strengthen the links between science, technology and society.

Participants in the *Journées Hubert Curien* international conference on science communication, who met in Nancy (France) from 4 to 7 September 2012, call on research stakeholders and decision-makers to **Strengthen the links between science, technology and society and value the role of citizens in science**

In order to achieve this goal, it is necessary to support, with adequate means, the structures involved in science and technology mediation and communication, which obviously include universities and research organizations, but also media, social networks, science centres and museums, centres for scientific culture etc.

Participants in the fourth *Journées Hubert Curien* call for the following:

- **Citizens are key actors in research and innovation:**
  - because research developments, including their applications, implications and questions, must be communicated and discussed with the public;
  - because the distinctions between scientists and citizens are no longer relevant, as they all contribute to social decisions;
  - because solutions to current grand challenges are not only of a technological nature, but also require social, political and economic decisions;
- **The education of citizens and the future generations in science and the scientific method is an indispensable component of democratic citizenship at national and global levels;**

- **Stimulating the interest of young people for scientific studies and careers is vital for the sustainable and harmonious development of the economy;**
- **Science mediation is an integral part of scientists' jobs, so it deserves to be fully acknowledged and rewarded during their professional careers.**

— Nancy, 7 September 2012