

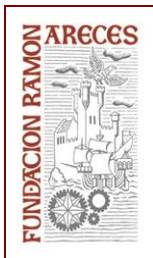
Seminario: Culturas científicas e innovadoras: progreso social

International Seminar: *BuildinScientific and innovative cultures: Social progress*

Madrid, 28 de octubre de 2013

Madrid, October 28, 2013

1. [Science communication in the media, Bruce Lewenstein](#)
2. [A Cultural History of Science and Technology, , Andrew Jamison](#)
3. [Students preferences and interests for scientific and technological careers in the Iberoamerican region, Carmelo Polino](#)



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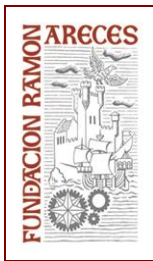
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Science communication in the media, Bruce Lewenstein

Since World War II, science and scientific developments have had a regular presence in traditional journalism outlets: newspapers, magazines, radio, and television. Most studies have shown that journalism coverage has focused especially on new technologies, on health and medicine, and on a few topics such as space exploration. Science has also appeared in entertainment media, such as Hollywood films, television dramas, and literature; few studies have examined these areas for systematic understanding of science's presence there. With the rise of new media and the collapse of the traditional media economy at the beginning of the 21st century, new forms are developing for science's presence in media: blogs, podcasts, online-only "publications," open-access to scientific literature, videos (both professionally produced and home-made). These new media forms both open up new opportunities for communication from science to multiple publics, but also create opportunities for those publics to communicate with scientists about those publics' interests, ideas, concerns, and values. We are just now beginning to understand the patterns and dynamics of this new media environment. Some of the early findings: Science communication has a robust presence in new media, with extensive participation by working scientists in public communication; publics use the "comments" sections of journalism stories to explore ideas and concerns only loosely linked to the topic of the original story; the tone of online discussions can have an impact on readers' and viewers' assessments of the contents of the original stories; publics actively seek information about scientific topics using search engines, but results may not match the topics of interest to the searchers. These results suggest that modern media provide fertile ground for social appropriation of science, but that the appropriation process is shaped largely by interests and forces beyond the control of the scientific community.

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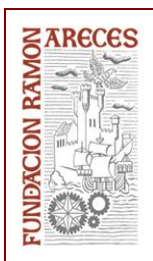
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A Cultural History of Science and Technology, , Andrew Jamison

We all know that science and technology are deeply embedded in culture, but, among scientists and engineers, as well as their historians, the more cultural aspects of technology and science have tended to receive limited attention. Important exceptions were the American writer Lewis Mumford - and, in particular, his classic work, *Technics and Civilization* from 1934 that was one of the first to discuss the cultural preconditions, as well as the cultural consequences and contradictions of science and technology - and the British cultural historian and theorist Raymond Williams who wrote about the relations between technology and broader cultural processes in a number of books that have contributed to the creation of the academic field of cultural studies.

In this presentation culture will primarily refer to the broader social and cultural movements that have affected and, in turn, been affected by science and technology. I will discuss how science and technology have been part of broader social and political struggles, from the Reformation of the 16th and 17th centuries through the social movements of the 19th and 20th centuries and into the present. In the 19th century, romanticism and socialism both affected and were affected by science and technology and in the early 20th century, the modernist movements in Europe and the United States provided sites for the emergence of new combinations of science and engineering, and of art and technology, as well as influential approaches to urban planning, architecture and design. Similarly, in the environmental movements of the 1970s grass-roots forms of engineering provided “utopian” or radical examples of appropriate technology that have since developed into significant branches of industry.

Particularly influential was how, within the context of the opposition to nuclear energy, many professional scientists and engineers joined forces with environmental activists to experiment with alternative forms of energy. In countries like Denmark, as a part of the movement against nuclear energy, an organization for renewable energy was created that provided a space, or cultural context in which people could learn how to build wind energy power plants and solar panels. Like similar activities in other countries, these forms of science and engineering were a kind of democratic, or grass-roots innovation process, and like other movements today, in organic agriculture, alternative health care, sustainable



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design and architecture, they open scientific and technological development to popular, or public participation.

The presentation will draw on my books, *Hubris and Hybrids: A Cultural History of Technology and Science*, written with Mikael Hård (Routledge 2005) and *A Hybrid Imagination: Science and Technology in Cultural Perspective*, written with Lars Botin and Steen Hyldgaard Christensen (Morgan and Claypool 2011).

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Students preferences and interests for scientific and technological careers in the Iberoamerican region, Carmelo Polino

University graduates have steadily increased in the Iberoamerican region. In this context, the social sciences have pre-eminence: the vast majority of new university degrees correspond to these areas of knowledge. On the contrary, natural sciences –and certain engineers specializations- remained stable or suffered a decreased. The promotion of natural sciences or technological careers requires paying attention to science education and teaching conditions. But it is also needed to look at young preferences and their social backgrounds. I will present selected indicators from a regional survey with young students. I will examine the interest in scientific and technological careers and exploring the social and pedagogical factors that stimulate or discourage such interest.

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