

Editorial

University in the 21st century

The Scientific Communications Act of 2007 (HR 1453) was introduced by the US House of Representatives on 9th March. The National Science Foundation, an independent United States Government agency that supports fundamental research and education, has thus been allowed to spend ten million dollars for each of the fiscal years 2008 through 2012 to provide communications training to improve the ability of scientists to engage in public dialogue.

The Congress found this action necessary because scientific and public policy issues are nowadays so closely intertwined that scientists – especially those spending taxpayers' money – have to be able to explain technical topics to non-scientific audiences. Most importantly, however, this bill stemmed from the need to create a “scientific citizenship” for everybody.

Both the necessity for scientists to be able to communicate and for audiences to have a solid scientific knowledge are not new, not even to large political institutions. The new aspect of the *Scientific Communications Act of 2007* is that not only researchers, but also university students need to be trained to better communicate. In this way, future generations of scientists and technicians will be ready to establish a more conscious and mature communication with society.

If the Act is passed and brings about positive results, then university itself will change, as a third mission will be added to education and research: the dissemination of scientific knowledge.

The issue of a *Third Mission* or a *Third Stream* for universities has been debated in the United States and in some European other countries over the past few years. Nevertheless, it has generally been referred to as mere “knowledge transfer” from universities and research institutes to industries.

In a knowledge-based society and business world this task is even more important. However, according to analysts of the British Russell Group and other experts, this interpretation of the *Third Mission* has not lived up to expectations, as an efficient knowledge transfer from Education to Industry cannot be linear, and because what mostly counts in a society investing in innovation for its development is to create a strongly innovation-oriented environment, where dialogue between universities and business leaders – or better, between Education and Industry – develops naturally. In other words, the need thus arises for a cultural *milieu* to be created that facilitates the production and the use of knowledge.

In a democratic society, this environment should be of participatory nature, where citizens favour the creation of knowledge and play an active role in putting it into practice. What is more, in a democratic, knowledge-based society, everyone should have the chance to access knowledge and use it to improve their lives in economic, environmental and cultural terms.

This does not merely stems from the need for social justice, but also from the need for efficiency: if a culture of innovation is widespread and people actively participate in it, a society investing in knowledge will develop faster and have deeper roots.

If all this is true, then reinterpreting the role of universities is necessary. Together with knowledge transfer to industries, the *Third Mission* ought to also include a proactive approach in the dissemination of knowledge and the creation of a scientific citizenship, which obviously means reconsidering the role of universities by both studying the relation existing between science and society more in detail and training students to face the challenge of the *Third Mission*, as expressed in the *Scientific Communications Act of 2007*. Besides, more resources and a higher degree of independence in communicating with non-scientific audiences is another essential prerequisite.

This may prove to be an indispensable gateway to be opened to move from the 19th to the 21st century education, from a society based on matter transformation to one founded on knowledge.

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