## Gone with the wind? : Towards a new age of shared scientific contents

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Abstract: Science communication should be understood as an optimized process of bidirectional character based on feedback that influences the increase of R & D + i of an area of knowledge. Encouraging feedback facilitates the process of scientific communication in all its forms, both formal and informal. But changes in patterns of scientific communication, produced by the requirements of the development of e-Science and social networks mean rethinking and propose new methods and systems for the management of scientific and technological information that focus on the rational and sustainable use and help to solve problems such as lack of communication or poor scientific technology transfer, as in the cases presented. It is therefore proposed that since formal scientific communication channels are consolidated in the field of science, this situation should be used to encourage, from this formal context, the use of informal channels, including e-Science as a virtual platform integrated into the Web of Science. Formal channels of scientific communication would also acquire a new role, which of the digital literacy of the scientific community, educating in the use of new mechanisms for sharing and disseminating research results.

**Keywords:** Scientific communication, e-Science, Sustainable management of information, Digital literacy of the scientific community

## **GONE WITH THE WIND?**

## TOWARDS A NEW AGE OF SHARED SCIENTIFIC CONTENTS

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Is the scientific community able to channel and take advantage of information flowing through informal channels?

Scientific Communication is sending, two-way, the knowledge generated through formal and informal channels. (Borgman)

Formal channels are those intended to be published and therefore available to the public concerned having passed some of the control mechanisms for the contents of science > Books, magazines, conference proceedings, databases, etc.

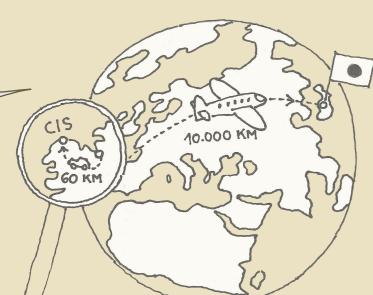
Informal channels are reduced to the private sphere, the sphere of personal relationships between scientists > mail, conferences, social relations, Social Web, etc.

Making science visible

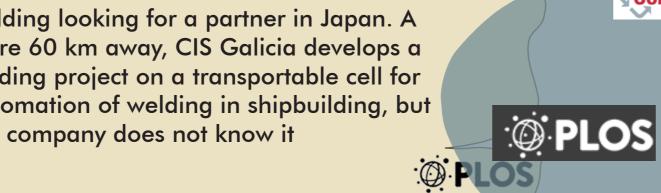
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An efficient scientific communication in a given area of knowledge impacts on improving their R & D + i

But there are problems in Scientific Communication as the following examples show:



1st case: Company of the naval field, located in A Coruña and interested in robotics welding looking for a partner in Japan. A mere 60 km away, CIS Galicia develops a leading project on a transportable cell for automation of welding in shipbuilding, but the company does not know it





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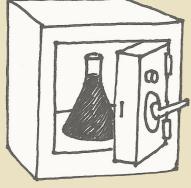




experts







**2nd case:** Technology Centre in the field of aquaculture is patenting a vaccine. While the patent is not formalized, you can't transfer its technology so its know-how can't be used by other researchers for similar projects

\* Cases collected by the author during the development of Master´s Final Work in Technology Watch of the Master in Information Science in the Digital Environment, 2011/2012 (UDC)



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Formal scientific communication channels are **NOT** sufficient in these situations to channel the information to the interested scientific community and, moreover, the information flowing through informal channels is too scattered, creating situations of scientific incommunication that prevent the sustainability of information, understood as the use of media and existing resources for the generation of new knowledge

Scientific social networks generate participation, collaboration and open dissemination of research that has not yet been published

The management of information shared in informal channels is the key to the process of scientific communication

Proposal to solve the problem of lack of scientific communication: since the formal scientific communication channels are consolidated in the field of science, this situation should be used to encourage, from this formal context, the use of informal channels

Formal channels of scientific communication must take on new roles

Integrating informal channels in the Web of Science

Influence the digital literacy of scientists, understood as the education of the scientific community in the use of new mechanisms for sharing and disseminating research results, in particular, and information in a general way

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