

## "Web Science" Dossier

## Presentation

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Submission date: September 2008

Accepted in: September 2008

Published in: October 2008

The Internet is now a constant in all parts of life and at all levels: personal, academic and professional. In only a few years, the Internet has changed the way we relate, study, work, shop, spend our free time, etc. The web, the collection of resources accessible over the Internet, has become a gargantuan oracle where people search, create and share information on any subject, and where they communicate globally, breaking down the barriers of time and space. The possibility of being connected almost all the time from anywhere means that users have a perception of the web as something that is always available to cover any need. The rapid evolution of the technology available, both hardware and software, together with its relatively low cost, means that ever more users access the web and use it for more reasons.

Web science, which has become a hot topic recently, looks to explain the evolution of the web as a complex organism and an independent ecology, though multidisciplinary analysis of the range of knowledge areas that converge in the web. These are mainly technological (how does the web evolve technologically), organisational (what standards and specifications support this evolution) and social (what use do users make of this technology). There are also other areas involved in these changes, given that many economic, political and legal interests do not want to be left out of the evolution of the information society. Web science looks to provide a reference framework to ensure the proper analysis of all of these events from a range of perspectives and different levels of resolution, taking into account all the elements involved

and the relationships established between them, with a clear multidisciplinary spirit to promote the participation of the widest possible selection of members of the scientific community.

This dossier presents what is meant by Web science through the following contributions:

- "Science, the Web and Web Science", by Daniel Riera, where the author provides an introduction to the concept of Web science, reviewing the first works on the subject that have appeared in recent years.
- "Trust on the Web: Some Web Science Research Challenges", by Kieron O'Hara and Wendy Hall, where the authors present the state of the art in Web science and the challenges set by multidisciplinary analysis of a range of quotidian fields.
- "E-learning from the Perspective of Web Science: Looking to the Future", by Julià Minguillón, where the author introduces e-learning as a clear example for the case study of the web, as an evolving field (distance education) where technology has played a part, as have methodological, organisational and other factors.

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