

**From a Psychological Experiment to Computer Simulations
of Scientific Discoveries: an Introduction to Cognitive Studies of Science
and Technology**

ABSTRACT. This paper is a presentation of a research field which is known as cognitive studies of science and technology. It discusses the main methods that are used in this field of science (the *in vivo*, *in vitro*, *ex vivo*, *in historio*, *in magnetico*, and *in silico* approaches) and presents example research results. This paper especially focuses on computer simulations of scientific discoveries as models of research practices. Cognitive studies of science and technology are compared with social studies of science and technology which represent a similar but older and more institutionalized research field that was developed by sociologists of scientific knowledge and anthropologists of science. In conclusion, the text focuses on convergence and synergy between social and cognitive studies of science and technology.

KEY WORDS: automated systems of scientific discovery, cognitive science, cognitive studies of science and technology, methodology, social studies of science and technology

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