

## Specialization

### *Information Technology: Historical to Policy Considerations*

#### **Description**

This specialization is designed for students interested in the history of information and associated technologies (computing, telecommunications, automation, emergent technologies: bio-nano technology) and/or historically informed information technology policies. The emphasis is placed on European contexts. The list of possible topics includes:

*Historical Issues:* The analog-digital debate, the emergence and establishment of the software-hardware demarcation and the persistence of a software crisis, the transition from the ideal of a computer utility to the realities of personal computing, the history of human computers, the transition from the computer being a mathematical machine to the computer being a communication device, continuities and discontinuities from the history of the telegraph to the history of the internet, the convergence of computing, telecommunications, and biotechnology, information technology and the emergence of nanotechnology.

*Policy Issues:* The emergence and elaboration of (national and/or international) state and business institutions and practices that affected information technology. Possible topics: activities of executive, legislative, and judicial authorities, firm and inter-firm actions, initiatives of scientific and professional institutions (societies, clubs, associations, councils, committees, chambers, etc.), the place of regulatory and standardization institutions, the role of award and patent related institutions. Information Technology, Social Sciences, and Humanities (Historical Computing or History and Computing). .

#### **Core Literature**

- Blok, Aad, and Greg Downey. eds. 2003. *Uncovering Labour in the Information Revolutions, 1750-2000*. New York: Cambridge University Press.
- Coopey, Richard. ed. 2004. *Information Technology Policy: An International History*. Oxford: Oxford University Press.
- Hashagen, Ulf, Reinhard Keil-Slawik, and Arthur Norberg. eds. 2002. *History of Computing: Software Issues*. Berlin: Springer.
- Kubicek, Herbert, William H. Dutton, and Robin Williams. eds. 1997. *The Social Shaping of Information Superhighways: European and American Roads to the Information Society*. New York: St. Martin's Press.
- Hannah Landecker. 2007. *Culturing Life: How Cells Became Technologies*. Cambridge, Massachusetts: Harvard University Press.
- MacKenzie, Donald. 1996. *Knowing Machines: Essays on Technical Change*. Cambridge, Massachusetts: MIT Press.
- Tympas, Aristotle. 2004. Calculation and Computation. In *New Dictionary of the History of Ideas*, Volume I. Maryanne Cline Horowitz. ed. New York: Charles Scribner's Sons. 255-259.
- Tympas, Aristotle. 2005. Computers: Analog, and, Computers Hybrid. In *Encyclopedia of 20<sup>th</sup>-Century Technology*. Colin Hempstead. ed. London: Routledge. 195-199, and, 202-204.

## **Language of Instruction**

English

## **Minimum and Maximum Number of Students**

1-5

## **Thesis Topics Samples**

- Competing information technology traditions and policies--local, regional, trans-regional, national, international (e.g. Europe vs. the US, the European North vs. the European South, competing national or regional computing traditions)
- History of reconfiguration of information technology in use: from scientific to business and government uses (e.g., computing in biomedicine, telecommunications in firm or ministry accounting)
- Public image of information technology and science

## **Schedule of Introductory Course**

6 three-hour meetings at the beginning of ESST's second semester.

## **Specialization Coordinator**

Aristotle Tympas, [tympas@phs.uoa.gr](mailto:tympas@phs.uoa.gr)

## **List of Possible Thesis Tutors**

Aristotle Tympas

Associate Professor

Philosophy and History of Science Department

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Research Interests: History of Info/Bio Technology, Info/Bio Technology Policy

Yiannis Caloghirou

Associate Professor

Chemical Engineering Department

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Research Interests: Technology Policy, Industrial Policy

## **Web Link**

ESST at the Graduate Program in the History and Philosophy of Science and Technology (GPHPST), National and Kapodistrian University of Athens and National Technical University of Athens, Greece

[www.hpst.phs.uoa.gr](http://www.hpst.phs.uoa.gr)