

TOPICS FOR PRESENTATIONS – INSTRUCTIONS AND SUGGESTIONS

Choose one of the topics listed below, or propose a topic of your interest.

Each presentation has to be prepared by a small group of students (no more than 5 students). The presentations should be prepared in PowerPoint, indicating clearly the title and the names of the authors.

The time for each presentation will not exceed 20 minutes, plus 5 minutes of questions/discussion.

Therefore, each presentation should consist of no more than 8/10 pages approximately. Presentations will take place on June 5, 2003, from 14.00 to 17.00. The file of each presentation has to be sent by e-mail to Cristina Colombo (ccolombo@liuc.it) not later than June 4, 2003.

The last page of each presentation must contain a list of references. Below each topic, you find a starting list of references. Your research work consists in finding other relevant references on the topic chosen.

1. Diffusion and standardization

Description: Choose one or more standards, e.g. digital TV, MP3, JPEG, UMTS, and describe how they evolved. Discuss the proprietary regime (public vs. private) and how such regime has affected its diffusion. The standard emerged is technologically superior to any existing alternative?

References:

- David, P.A. "Clio and the Economics of QWERTY." *American Economic Review* 75 (1985), pp.332-37
- Liebowitz, S. J., and S. E. Margolis. "Network Externality: An Uncommon Tragedy." *Journal of Economic Perspectives* 8 (1994): 133-150. [also other papers in the same issue]

Case studies (you may use them for your presentation):

- Postrel S.R., "Competing Networks and proprietary standards: the case of quadrasonic sound", *Journal of Industrial Economics* XXXIX/1990 pp.169-85
- Besen S.M., "AM versus FM: The Battle of Bands", *Industrial and Corporate Change* 1/1992, pp.375-96
- Rosenbloom R., Cusumano M., "Technological Pioneering and Competitive Advantage: The Birth of the VCR Industry", *California Management Review*, vol. XXIX (4), 1987, 51-75.
- D.Dranove and N.Gandal, The DVD vs. DIVX Standard War: Empirical Evidence of Vaporware, <http://www.haas.berkeley.edu/groups/iber/wps/econ/E00-293.pdf>
- web site of *The Economist*: www.economist.com

2. The case of "open source"

Description: Discuss the economic arguments against intellectual property, i.e. patents and copyright. Discuss a case of open-source (collective) innovation.

References:

- Lawton G. "L'avanzata del copyleft", <http://www.internazionale.it/copyleft.html>
- Special issue of "New Scientist": <http://www.newscientist.com/hottopics/copyleft/>
- Lerner J., Tirole J., "The Simple Economics of Open Source", <http://www.nber.org/papers/w7600.pdf>
- Nuvolari A. "Collective Invention during the British Industrial Revolution: The Case of the Cornish Pumping Engine", <http://www.business.auc.dk/druid/conferences/winter2001/paper-winter/Paper/nuvolari.pdf>
- Nuvolari A., "Open Source Software Development: Some Historical Perspectives", <http://cournot.u-strasbg.fr/etic/papers/Nuvolari.pdf>
- Rosenberg D.K., *Open Source. The Unauthorized White Papers*, M&T Books, 2000
- web site of *The Economist*: www.economist.com

3. Patents and scientific research

3a

Description: The number of university patents in the US has dramatically increased over the last 20 years. How did this occur? Is this a natural evolution of the relationships between science and technology, or is it the result of the Bayh-Dole Act introduced in the US in the 1980?

- Mowery D.C., Nelson R.R., Sampat B.N., Ziedonis A.A. (2001), "The growth of patenting and licensing by U.S. universities: an assessment of the effects of the Bayh-Dole act of 1980", *Research Policy* 30, pp.99-119
- Mowery D.C., Sampat B.N. (2001b), "University Patents and Patent Policy Debates in the USA, 1925-1980", *Industrial and Corporate Change* 10/3, pp.781-814

3b

Description: Following the US experience, the Italian government has recently proposed a new law, whose objective is to provide more incentives to patent to academic scientists and public researchers. The opportunity to introduce such changes, however, is highly controversial. Discuss.

- Balconi M., Breschi S., Lissoni F., "Networks of Inventors and the Location of University Research: An Exploration of Italian Data", CESPRI working paper n.127, Centro Studi sui Processi di Internazionalizzazione, Università Commerciale L. Bocconi, Milano, 2002 (<http://www.cespri.it>)
- Balconi M., Breschi S., Lissoni F., "Il trasferimento di conoscenze tecnologiche dall'università all'industria in Italia: nuova evidenza sui brevetti di paternità dei docenti", *Quaderni del Dipartimento di Economia Politica e Metodi Quantitativi*, n.141, Università di Pavia, April 2002 (<http://economia.unipv.it/eco-pol/quaderni.htm>)
- Margherita Balconi, Stefano Breschi, F. Lissoni, *Ma sui brevetti funziona bene l'intesa tra i docenti universitari e l'industria* Sole 24 Ore, 19 gen. 2002.

4. High-technology clusters and technology districts

Description: the production of innovations is remarkably concentrated in few high-tech clusters or technology districts. Discuss the case of a specific cluster: how the cluster emerged as a leading centre of technological innovation? Discuss the role of MNCs and labour mobility as key vehicles of knowledge diffusion.

References:

- A. Saxenian, *Regional Advantage. Culture and Competition in Silicon Valley and Route 128*, Harvard University Press, Harvard.
- Special issue of *Industrial and Corporate Change*, vol. 10 (4), 2001.
- Patel, P. and K. Pavitt, "Large Firms in the production of the world's technology: an important case of non-globalisation", *Journal of international business studies* 22: 1-21, 1991.
- Patel, P. and Vega, M., "Patterns of internationalisation and corporate technology: location versus home country advantages", *Research Policy*, vol 28, 145-155, 1999.
- Breschi S., Lissoni F., "Localised knowledge spillovers vs. innovative milieux: Knowledge tacitness reconsidered", *Papers in Regional Science* 80(3), 2001, 255-273.
- Several papers in journals: *Research Policy*, *Regional Studies*, *Journal of Economic Geography*