

MSE-MGU

Economics of Information and the knowledge economy: on the edge of the future?

April 2018 lectures

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I. Economics of Information: the state of the art.

(i) *The beginnings: Jacob Marschak, Roy Radner and George Stigler*

- a. Why “teams” matters.
- b. What is a “team”. The development of information and its transmission in teams.
- c. Contribution and limits
- d. The “information-search” theory.

(ii) *The asymmetric information assumption and the contribution of Joseph E. Stiglitz*

- a. Diamond and the P. Diamond contribution
- b. Stiglitz contribution.
- c. Akerlof and the “market of lemons”
- d. Macroeconomic implications: from the Grossman-Stiglitz paradox to a general critic of market efficiency.

(iii) *Blurred definitions*

- a. What is information and what is “signal”
- b. Information and knowledge: from quantity to quality?
- c. Herbert Simon and the hypothesis of information saturation.
- d. What has military strategy to teach us?

(iv) *What are consequences of information economics?*

- a. What is left of microeconomics
- b. What is left of the theory of the firm?
- c. What is innovation?

II. Promises of the knowledge economy

(i) *Why the knowledge society.*

- a. The historical approach.
- b. Internet and the centrality of knowledge.
- c. Evolution or radical turn?

(ii) *Is learning central to growth?*

- a. The Solow paradigm
- b. Link between investment and the diffusion of knowledge.
- c. The specificity of learning and Arrow contribution (Learning by Doing)

- (iii) ***A general critic of Walrasian competition and of the Schumpeterian vision.***
 - a. Are markets efficient to diffuse knowledge?
 - b. Is the Schumpeterian competition efficient to diffuse knowledge?
 - c. How far are economics of knowledge creating a new paradigm?
- (iv) ***How to rethink trade, industrial and macroeconomic policies under the frame of the knowledge economy***
 - a. The implication on trade and a possible justification to protectionism.
 - b. The quest for an industrial policy.
 - c. Macroeconomic consequences

III. A critic of mainstream and neo-mainstream view of knowledge

- (i) ***Redefining knowledge, preferences and learning***
 - a. Knowledge, explicit knowledge, tacit knowledge
 - b. The impact of individual preferences
 - c. How to learn to learn
 - d. Back to the economics of knowledge: the different kind of knowledge
- (ii) ***The limits of individualism***
 - a. The individual basis of knowledge
 - b. Why individualism (in a theoretical meaning) is impossible.
 - c. The limit of Holism
 - d. Is a synthesis possible?
- (iii) ***From "objective" to "subjective" point of view***
 - a. The limits of objectivity
 - b. What is subjective knowledge
 - c. Opposition on combination?
 - d. Taking interactions seriously
- (iv) ***How learning is embedded in a society***
 - a. Representation, ideology, and the ability to learn
 - b. Power and Gender and their relevance for learning
 - c. Intellectual property rights (IPR): an incitation or a constraint?
 - d. Why learning is a public good

Conclusion

- a. Is flexibility or stability the best paradigm for a "learning economy"?
- b. Why competition could be destructive
- c. Could social interactions be a substitute for incitation?

Examination:

The lecture will end with an examination of 2h00 where students will have to answer four (4) questions on a list of five (5).

Bibliography:

Here is the complete list of bibliographical references.
I put in **red** what is absolutely to be read before the lecture.

Chapter I.

- Marschak J., "Toward an Economic Theory of Organization and Information" in D. Thrall, R.L. Davis and C.H. Coombs, (eds.), *Decision Processes*, John Wiley, New York, 2012, Chap. XIV, pp. 187-220.
- Marschak J., "Remark on the Economics of Information" in Coll., *Contribution to scientific Research in management*, University of California Printing, Berkeley Ca., 1960, pp. 79-98.
- Stigler G.J., "The Economics of Information" in *Journal of Political Economy*, vol. 69, n°3, June 1961, pp. 213-225**
- Diamond P.A., "A Model of Price Adjustment" in *Journal of Economic Theory*, vol. 3, n°2, June 1971, pp. 156-168.
- Stiglitz J.E., "Information and the Change in the Paradigm in Economics", in *American Economic Review*, vol. 92, n°3, June 2002, pp. 460-501.**
- Stiglitz J.E. and S. Salop, "Information, Welfare and Product Diversity" in G. Feiwel (ed.), *Arrow and the Foundation of the Theory of Economic Policy*, New York University Press, New York, 1987, pp. 328-340.
- Heiner R., "Uncertainty, Signal-Detection, Experiments and Modelling Behavior", in R.N.Langlois, (ed), *Economics as a Process: Essays in the New Institutional Economics*, Cambridge University Press, Cambridge, 1986
- Akerlof G.A., "The Market of 'Lemons': Quality, Uncertainty and the Market Mechanism" in *Quarterly Journal of Economics*, vol. 84, n°3, 1970, August, pp. 488-500.**
- Arnott R.J. and J.E. Stiglitz, "Labor Turnover, Wage Structures and Moral Hazard : The Inefficiency of Competitive Markets" in *Journal of Labor Economics*, vol. 3, n°4/1985, October, pp. 434-462.
- Grossman S.J. and J.E. Stiglitz, "Information and Competitive Systems" in *American Economic Review*, vol. 66, n°2/1976, *Papers and Proceedings*, pp. 246-253.
- Grossman S.J. and J.E. Stiglitz, "On the Impossibility of Informationally Efficient Markets" in *American Economic Review*, vol. 70, n°3/1980, pp. 393-408.**
- Simon H., "Organization and Markets" in *Journal of Economic Perspective*, vol. 5, n°2/1991, pp. 25-44.
- Simon H, "Rationality as Process and as Product of Thought", in *American Economic Review*, vol. 68, n°2, 1978, pp. 1-16.**
- Guerrien B., "Is there anything worth keeping in standard microeconomics" in E. Fullbrook, (ed.), *The Crisis in economics*, Routledge, Londres et New York, 2003, pp. 104-107.
- Greenwald B.C. et J.E. Stiglitz, "Asymmetric Information and the New Theory of the Firm : Constraints and Risk Behavior" in *American Economic Review*, vol. 80, n°2/1990, *Papers and Proceedings*, pp. 160-165.**

Chapter II.

- Greenwald B.C. and J.E. Stiglitz, *Creating a Learning Society – A New Paradigm for Development and Socials Progress*, New York, Columbia University Press, 2014.**
- Greenwald B.C., "Financial Markets Imperfection and Business Cycles", in *Quarterly Journal of Economics*, Vol. 108, 1993, n°1, pp. 77-114.
- Grossman S.J. and J.E. Stiglitz, "On the Impossibility of Informationally Efficient Markets" in *American Economic Review*, vol. 70, n°3/1980, pp. 393-408.

- Gerschenkron A., *Economic Backwardness in Historical Perspective*, Cambridge, Mass., Harvard University Press, 1962
- Arrow K.J., "The Economic Implication of Learning by Doing", in *Review of Economic Studies*, Vol. 29, 1962, n°3, pp. 155-173.**
- Solow R., "Technical Change and the Aggregate Production Function" in *Review of Economics and Statistics*, Vol. 39, 1957, n°3, pp. 312-320.**
- Solow R., "A Contribution to the Theory of Economic Growth" in *Quarterly Journal of Economics*, Vol. 70, 1956, n°1, pp. 65-94.
- Robinson, J., "The production function and the theory of capital", *Review of Economic Studies*, Vol. 21, 1953-4, n°2, 81-106
- Harcourt G.C. and N.F. Laing, *Capital and Growth*, Harmondsworth, UK: Penguin, 1971.
- Gilbert R.J., "Looking for Mr. Schumpeter: Where are We in the Competition-Innovation Debate", in Jaffe A.B, Lerner J. and Stern S., (eds), *Innovation Policy and the Economy*, Cambridge, Mass., MIT Press, 2006.
- Chang H-J., "Kicking Away the Ladder. Infant Industry Promotion in Historical Perspective" in *Oxford Development Studies*, Vol. 31, 2003, n° 1, pp. 21-32.
- Chang H-J., et Cheema A., *Conditions for Successful Technology Policy in Developing Countries – Learning Rents, State Structures, and Institutions*, INTECH Discussion Paper Series n°2001#8, Maastricht, 2001.**
<http://www.intech.unu.edu/publications/discussion-papers/2001-8.pdf>
- Charlton A. and Stiglitz J.E., *The Right to Trade*, UNCTAD, 2012,**
<http://unctad.org/meetings/en/Miscellaneous%20Documents/Right-to-Trade-Report.pdf>
- Newbery, D. and J. E. Stiglitz, "Pareto Inferior Trade," in *Review of Economic Studies*, Vol. 51, (1982), n°1, January, pp. 1-12.

Chapter III.

- Foray, D., Lundvall, B.A., "From the economics of knowledge to the learning economy", in Foray, D., Lundvall, B.A. (eds.) *Employment and Growth in the knowledge-based economy*, Paris, OECD, 1996,**
http://www.globelicsacademy.org/2011_pdf/Lundvall%20-%20From%20the%20Economics%20of%20Knowledge%20to%20the%20Learning%20Economy.pdf
- David, P. A. et Foray, D., 1996. "Information Distribution and the Growth of Economically Valuable Knowledge: A Rationale for Technological Infrastructure Policies," in *Technological Infrastructure Policy*, M. Teubal et al., eds., Dordrecht et Londres, Kluwer Academic Publishers.
- Penrose E. , *The Growth of the Firm*, Basil Blackwell, Oxford, 1968;
- Richardson G., "The Organization of the Industry", in *Economic Journal*, n°3/1972, pp.883-896.
- Kogut B. and O. Zander, "Knowledge of the Firm, Combinative Capabilities and the Replication of Technology", in *Organizational Science*, vol. 3, 1992, pp. 383-397.**
- Loasby B.J., *Choice, complexity and ignorance. An inquiry into economic theory and the practice of decision-making*, Cambridge University press, Cambridge, 1976.
- Sapir J., "Novye podhody teorii individual'nyh predpotchenij i ee sledstvija" in *Ekonomitcheskij Zhurnal*, Vol. 9, n°3/2005, pp. 325-360.**
- Sapir J., "Ekonomika Informatsii : novaja paradigma i ee granitsy " in *Voprosy Ekonomiki*, n°10/2005.**
- Shackle G.L.S., *Anticipations in Economics*, Cambridge, Cambridge University Press, 1949.
- Cantillo A.F., "Shackle: Time and Uncertainties in Economics", Cambridge, University of Cambridge, 2010,**
http://www.peri.umass.edu/fileadmin/pdf/conference_papers/newschool/Papaer_GLS_Shackle_Studentship.pdf

Koertge N., "The methodological status of Popper's rationality principle", *Theory and Decision*, vol. 10, n°1, 1978, p. 83-95.

Hands D.W., "Popper and Lakatos in Economic Methodology", in U. Mäki, B. Gustafsson et C. Knudsen, (eds), *Rationality, Institutions and Economic Methodology*, *op.cit.*, pp. 61-75.

Ramstad Y., "A Pragmatist's Quest for Holistic Knowledge: The Scientific Methodology of John R. Commons", *Journal of Economic Issues* , Vol. 20, n°4, December 1986, p. 1067-1105

Currie G., "Individualism and global supervenience", *British Journal of the Philosophy of Science*, vol. 35, 1984, December, p. 345-358.

O'Driscoll G.P. and M.J. Rizzo, *The Economics of Time and Ignorance*, Basil Blackwell, Oxford, 1985