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SYLLABUS:

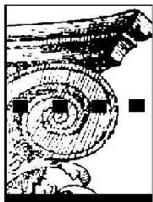
Discipline addresses innovation as a key element of the competitive process. The competitive dynamic in the various market structures takes on specific formats according to the competitive interests imbricated with the innovative processes over time. Innovative dynamics is not self-determined at the same time as it influences it is influenced by competitive dynamics. It begins with this discussion of the interaction between innovation and competitive processes in oligopolistic markets. Following this approach is rescued from Schumpeter, seeking the root of discussion innovation and competition. Therefore, the discussion adds elements that complicate this relationship (innovation / market) with the notion of cumulative and evolutionary trajectories in complex systems. From this point of view, it addresses the nature of innovation that establishes more or less competitive dynamics in the industrial sectors. Later, the focus is changed for a discussion of competitiveness and innovation focusing on conceptual and analytical aspects. Another relevant aspect to be considered is the competition between technological standards established within market structures. It is not only innovation "per se" that defines the technological standard, but innovation combined with a competitive strategy. Finally, specific cases are discussed.

1. COMPETITION IN OLIGOPOLISTIC MARKETS

1. PICTON, M. (2000). Competition, rationality and complexity in economics and biology. In: COLANDER, D. Complexity and history of economic thought. Routledge.
2. POSSAS, M. (2002). Concorrência schumpeteriana. In: KUPFER, D. & HASENCLEVER, L. (org.). Economia Industrial: Fundamentos Teóricos e Práticas no Brasil. Rio de Janeiro: Campus, cap. 17.
3. HIGACHI, H.. A abordagem neoclássica do progresso técnico. In: Pelaez, V. & Szmrecsanyi, T.. Economia da inovação tecnológica. Ed. Hucitec.
4. SZMRECSANYI, T.. A herança schumpeteriana. In: Pelaez, V. & Szmrecsanyi, T.. Economia da inovação tecnológica. Ed. Hucitec.
5. POSSAS, M. (1989). Dinâmica e Concorrência Capitalista – uma abordagem a partir de Marx. S. Paulo: Hucitec. Cap. 2 .
6. POSSAS, M. (1989). Dinâmica e Concorrência Capitalista – uma abordagem a partir de Marx. S. Paulo: Hucitec. Cap. 4.
7. Diana Suárez, Analía Erbes y Florencia Barletta (compiladoras). Teoría de la innovación: evolución, tendencias y desafíos – Herramientas conceptuales para la enseñanza y el aprendizaje. Los Polvorines: Universidad Nacional de General Sarmiento ; Madrid: Ediciones Complutense, 2020.

2 INNOVATIONS AND MARKET IN A SCHUMPETERIAN APPROACH

1. ROSENBERG, N. (2005). A historiografia do progresso técnico (cap. 1). In: ROSENBERG, N. (2005). Por dentro da caixa preta. Editora Unicamp.



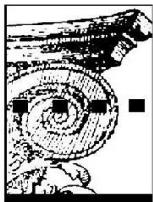
2. DOSI, G. (1982) Technological paradigms and technological trajectories: A suggested interpretation of the determinants and directions of technical change. *Research Policy*. Volume 11, Issue 3, June 1982, Pages 147-162
3. NELSON, R. (1990). Capitalism as an Engine of Progress. *Research Policy* 19, 193-214
4. ROSENBERG, N.. (1994). Exploring the Black Box. Cap. 3. Cambrigde.
5. MOWERY, D. & ROSENBERG, N. (2005). A influência da demanda de mercado nas inovações: uma revisão crítica de alguns estudos empíricos recentes (cap. 10). In: ROSENBERG, N. (2005). Por dentro da caixa preta. Editora Unicamp.
6. SCHERER, F. (1992). Schumpeter and Plausible Capitalism. *Journal of Economic Literature*. Vol. 30, No. 3, Sep., 1992
7. BAKER, J. B.. Beyond Schumpeter vs. Arrow: How Antitrust Fosters Innovation. June 1, 2007 *Antitrust Law Journal*, Vol. 74, 2007
8. KAMIEN, M. & SCHWARTZ, N (1982), Market Structure and Innovation, Cambridge, CUP. Cap. 2 (338.K15)

3. INNOVATIONS, CUMULATIVE PROCESSES AND EVOLUTIONARY TRAJECTORY IN COMPLEX SYSTEMS

1. DOSI, G. Sources, Procedures and Microeconomic Effects of Innovation. *Journal of Economic Literature*, XXVI (setembro,1988).
2. DOSI, G., NELSON, R. (1994). An Introduction to Evolutionary Theories in Economics. *Journal of Evolutionary Economics*.
3. KIM, L.. (2005). Da imitação à inovação – a dinâmica do aprendizado tecnológico da Coréia. Cap. 4 – Estruturas analíticas. Editora Unicamp.
4. KIM, L.. (2005). Da imitação à inovação – a dinâmica do aprendizado tecnológico da Coréia. Cap. 5 – A indústria automobilística:... Editora Unicamp.
5. KIM, L.. (2005). Da imitação à inovação – a dinâmica do aprendizado tecnológico da Coréia. Cap. 6 – A indústria de produtos eletrônicos Editora Unicamp.
6. KIM, L.. (2005). Da imitação à inovação – a dinâmica do aprendizado tecnológico da Coréia. Cap. 7 – A indústria de semicondutores... Editora Unicamp.
7. KIM, L.. (2005). Da imitação à inovação – a dinâmica do aprendizado tecnológico da Coréia. Cap. 8 – A imitação e a inovação nas pequenas empresas. Editora Unicamp.

4. INNOVATION AND INDUSTRIAL DYNAMICS

1. PAVITT, K. (1984). Sectoral Patterns of Technical Change: towards taxonomy and a theory. *Research Policy*, 13.
2. PAVITT, K. (1994). Key characteristics of large innovating firms. In: DODGSON, M. & ROTHWELL, R. *The handbook of industrial innovation*. Edward Elgar.



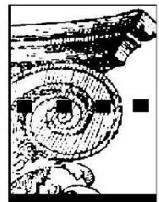
3. DOSI, G.; LECHEVALIER, S. & SECCHIY, A.. Introduction: Interfirm heterogeneity – nature, sources and consequences for industrial dynamics. *Industrial and Corporate Change*, Volume 19, Number 6, pp. 1867–1890. 2010
4. PAVITT, K., ROBSON, M. & TOWNSEND, J.. Technological accumulation, diversification and organisation in uk companies, 1945-1983. *Management Science*, Vol. 35. No. I. January 1989.
5. TANG, J.. Competition and innovation behaviour. *Research Policy*, 35 (1), p.68-82, Feb 2006
6. DOSI, G.; MARSITI, O.; ORSENIGO, L. & SALVATORE, R.. Learning, Evolution Market Selection and the Industrial Structures. *Small Business Economics* 7:411-436, 1995.
7. DOSI, G. & GRAZZI, M.. On the nature of technologies: knowledge, procedures, artifacts and production inputs. *Cambridge Journal of Economics* 2010, 34, 173–184.

5. COMPETITIVENESS AND INNOVATION: CONCEPTUAL AND ANALYTICAL ASPECTS

1. HAGUENAUER, L. (1989). Competitividade: Conceitos e Medidas. Uma resenha da bibliografia recente, com ênfase no caso brasileiro. IE/UFRJ, Texto para Discussão nº 211.
2. FAGERBERG, JAN & SRHOLEC, MARTIN. The Competitiveness of Nations: Why Some Countries Prosper While Others Fall Behind. *World Development* Vol. 35, No. 10, pp. 1595–1620, 2007. 2007
3. ŞENER, S. & SARIDOĞAN, E.. The Effects Of Science-Technology-Innovation On Competitiveness And Economic Growth. *Procedia - Social and Behavioral Sciences*, 24, p.815-828, Jan 2011
4. POSSAS, S. (1999). Concorrência e Competitividade. Notas sobre estratégia e dinâmica seletiva na economia capitalista. S. Paulo: Hucitec. Cap.6 - 338.6048 P856
5. FERRAZ, J. C.; KUPFER, D. & HAGUENAUER L. *Made in Brazil – Desafios Competitivos para a Indústria*. Cap. 1.
6. WANG, TAI-YUE / CHIEN, SHIH-CHIEN / KAO, CHIANG.. The role of technology development in national competitiveness — Evidence from Southeast Asian countries. *Technological Forecasting and Social Change*, 74 (8), p.1357-1373, Oct 2007.
7. PUDELKO, MARKUS & MENDENHALL, MARK. The contingent nature of best practices in national competitiveness: The case of American and Japanese innovation processes. *European Management Journal* (2009) 27, 456–466.
8. FANKHAUSER, SAM; BOWEN, ALEX; CAEL, RAPHAEL; DECHEZLEPRETRE, ANTOINE; GROVER, DAVID; RYDGE, JAMES & SATO, MISATO. Who will win the green race? In search of environmental competitiveness and innovation. *Global Environmental Change* 23 (2013) 902–913.

6. COMPETITION AND TECHNOLOGICAL STANDARDS

1. LUDVALL, B..(1995). Standards in an innovative world. In: HAWKINS, R.; MANSELL, R. & SKEA, J.. *Standards, innovation and competitiveness*. Edward Elgar.



2. TEECE, D. J. Profiting from innovation in the digital economy: Enabling technologies, standards, and licensing models in the wireless world. *Research Policy*. Volume 47, Issue 8, 2018. **INCLUIR ESTE TEXTO NA BIBLIOGRAFIA.**
3. DAVID, P.. (1995). Standardization policies for network technologies: the flux between freedom and order revisited. In: HAWKINS, R.; MANSELL, R. & SKEA, J.. Standards, innovation and competitiveness. Edward Elgar.
4. MANSELL, R. (1995). Standards, industrial policy and innovation. In: HAWKINS, R.; MANSELL, R. & SKEA, J.. Standards, innovation and competitiveness. Edward Elgar.
5. TECHATASSANASOONTORN, A. A. & SUO, S.. Influences on standards adoption in de facto standardization. *Inf Technol Manag* (2011) 12:357–385
6. WONGLIMPIYARAT, J.. Technology strategies and standard competition — Comparative innovation cases of Apple and Microsoft. *Journal of High Technology Management Research* 23 (2012) 90–102
7. DOLFSMA, WILFRED / SEO, DONGBACK..Government policy and technological innovation—a suggested typology. *Technovation*, 33 (6-7), p.173-179, Jun 2013
8. WU, JIE. Technological collaboration in product innovation: The role of market competition and sectoral technological intensity. *Research Policy*, 41 (2), p.489-496, Mar 2012
9. BERGEK, ANNA / BERGGREN, CHRISTIAN / MAGNUSSON, THOMAS / HOBDAY, MICHAEL. Technological discontinuities and the challenge for incumbent firms: Destruction, disruption or creative accumulation., *Research Policy*. In Press, Corrected Proof, Apr 2013
10. VIALLE, PIERRE / SONG, JUNJIE / ZHANG, JIAN. Competing with dominant global standards in a catching-up context. The case of mobile standards in China. *Telecommunications Policy*, 36 (10-11), p.832-846, Nov 2012.
11. BITZER, JÜRGEN / SCHRÖDER, PHILIPP J.H.. The Impact of Entry and Competition by Open Source Software on Innovation Activity. *The Economics of Open Source Software Development*, Jan 2006

7. CASE STUDIES

1. SHAPIRO C. & VARIAN H.. *A economia da informação*. Cap. 7: As redes e o feedback positivo.
2. DAVID, PAUL A.. *Clio and the Economics of QWERTY*. *Economic History*, vol. 75, No. 2.
3. FREEMAN, C. & SOETE, L. (2005) *A economia da inovação industrial*. Cap. 6 e 7. Editora Unicamp.
4. MOWERY, D. & ROSENBERG, N. (2005). *Trajetórias da inovação*. Cap. 5. Editora Unicamp.
5. LESTAGE, ROMAIN / FLACHER, DAVID / KIM, YEONBAE / KIM, JIHWAN / KIM, YUNHEE. Competition and investment in telecommunications: Does competition have the same impact on investment by private and state-owned firms? *Information Economics and Policy*, 25 (1), p.41-50, Mar 2013.
6. BING, J.. (2009) *Building cyberspace: a brief history of internet*. In: BYGRAVE, L. A. & BING, JJ. *internet governance*. Oxford.



7. CAWSON, A.. (1994) Innovation and consumer electrics. In: DODGSON, M. & ROTHWELL, R. The handbook of industrial innovation. Edward Elgar.
8. GNYAWALI, D. R. & PARK, B-J (ROBERT). Co-opetition between giants: Collaboration with competitors for technological innovation. *Research Policy*, 40 (5), p.650-663, Jun 2011
9. GEORGE J.Y. HSU A.; YI-HSING LIN B. & ZHENG-YI WEI. Competition policy for technological innovation in an era of knowledge-based economy. *Knowledge-Based Systems* 21 (2008) 826–83.
10. R.ROY AND J.C.K.H. RIEDEL. Design and innovation in successful product competition. *Technovation*, 17(10) (1997) 537-548.
11. ALEXY, OLIVER / REITZIG, MARKUS. Private–collective innovation, competition, and firms' counterintuitive appropriation strategies. *Research Policy*, 42 (4), p.895-913, May 2013

8. ASSESSMENT

Position paper (4.0):

1. A position paper on the basic text presented by the teacher.
2. Two position paper on two other texts in which a relevant question should be raised to be exposed and discussed. It is not a presentation or a seminar. It is about raising an issue that needs to be discussed (to take a position on the text). Each one should briefly expose its positions at the open discussion time.

Paper (6.0):

1. A survey based on all texts relating the seven modules of the course.