

## Technology, Media and Telecommunications

Academic Year: **2017/2018**

Term: **2<sup>nd</sup> Trimester**

Instructor(s): João Confraria

Contact(s) and Office hours: To be agreed with students

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### Biography:

João Confraria

Doctoral degree, Economics (1991, Catholic University of Portugal), Master, Economics (1988, New University Lisboa), after undergraduate studies at the Catholic University of Portugal (1982).

Member of the Board of Anacom, Autoridade Nacional de Comunicações (the National Regulatory Authority for communications markets) since 2012. Previous positions include having served as vice-president of the Portuguese Civil Aviation Authority (2007-2011), representative of the Portuguese Government at the Council of Eurocontrol (2011) and member of the Board of ICP-Anacom (1996 – 2002).

At the Catholic University of Portugal teaches Public Policy, Regulation & Competition and Telecommunications and co-coordinates the Masters on Law and Business. Former academic positions include director of the Centre for Applied Studies (2005-2007), coordinator of the Executive Program on Economics of Regulation and Competition (2003-2007) and member of the Board of directors of the MBA Program (1991-1993).

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### Course overview and objectives:

This course explains business strategies and policy trends in digital business. The course covers four distinct parts that provide a well-rounded perspective on the overall sector:

The first part presents (a) technological changes in telecommunications networks and its impact business models and firms' strategies; (b) strategic challenges to telecom operators by over the top operators; (c) regulatory options available to promote investment and competition. The discussion is based on pricing and investment strategies in European electronic communication markets, including Portugal, Germany and Spain.

In the second part of the course there is a discussion of policy, technology and business strategies that at the beginning of the XXI century led to the creation of concentrated global consumers electronic and computer markets, including software, with strong or dominant positions by Japanese, US, South Korean and Chinese firms and a residual role of European firms.

The third part presents (a) technological trends, pricing policies and conditions for building successful multisided business platforms, as well as the appropriate metrics over the business life cycle; (b) the impact of platforms on competition and market structure is evaluated, as well as current regulatory options. this discussion will be based on the success or failure of firms including the analysis of cases of MySpace, Nokia, Time Warner-AOL, OpenTable, Apple, Microsoft and Google.

The final part provides (a) an overview of the copyright industries, followed by (b) technological and policy changes in electronic communications which impacted the media and entertainment industries, and summarized with (c) a discussion about the current strategic options faced by media and entertainment firms.

At the end of the course students should be able to:

- i. Develop an analytical framework to evaluate strategic options of firms in telecommunications, media and in platform based businesses, based on an analysis of technological change and its impact on business models, regulation and market structure. Cases: the 2016 AT&T / Time Warner merger proposal, Netflix development the decline of traditional television and Portugal Telecom, Vodafone and Deutsche Telekom broadband investment strategies;
- ii. Explain the failure of some multisided platform businesses. Cases: the AOL-TimeWarner merger and the decline of Nokia and Blackberry in the smartphones markets;
- iii. Explain the success of some multisided platform businesses, under different strategic options. Cases: Apple vs. Google and Alibaba vs. E-Bay;
- iv. Understand how the network economy shapes and redefines business models of copyright-intensive industries such as media and entertainment.

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#### Course Content:

0. TMT ecosystems and digital businesses. Overview.
1. Telecommunications.
  - a. Telecommunications networks. Direct network effects.
  - b. One-way and two-way network access.
  - c. The European Union Regulatory framework.
  - d. Internet interconnection.
  - e. Fixed and mobile telephony, cable TV business models.
  - f. Privatization and commercialization of the Internet
  - g. Net neutrality or the principle of open Internet. Is there a level playing field?
2. The consumers' electronic century
  - a. Strategies, success and failure in the consumer electronics industry

- b. Strategies, success and failure in the computer industry
3. Platforms
- a. Technological change and the growth of multisided platforms
  - b. Multisided platforms vs traditional one sided business models
  - c. Principles for designing successful platform
  - d. Pricing in multisided platforms. Monetization of value
  - e. Building successful business cases.
  - f. Platform metrics over platform life cycle
  - g. Decentralized peer-to-peer exchange
  - h. Migration of video contents to software configured platforms. Strategies of incumbents and entrants.
  - i. How platforms change competition and market structure
  - j. The case for and against platform regulation. Competition policy for dominant platforms.
4. Media and Entertainment
- a. Key-concepts
  - b. Copyright, Copyright Infringement and Privacy
  - c. DIY and User-Generated-Content
  - d. Download, Streaming, Blockchain
  - e. Regulation

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Required background:

Introductory course in Microeconomics (one semester, undergraduate level)

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Grading:

The final grade will be based on an essay (35%) and a final midterm (65%). Students with an average of 8/20 and 9/20 must make a final exam (100% of final grade).

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Bibliography:

Chandler Jr., Alfred, 2005, *Inventing the Electronic Century*, Cambridge, Mass., Harvard University Press;

Evans, D., and Schamlensee, R., 2016, *Matchmakers. The New Economics of Multisided Platforms*, Boston, Mass., Harvard Business Review Press

Elberse, 2013, *Blockbusters. Why Big Hits and Big Risks are the Future of the Entertainment Business*, Faber&Faber

Liu, Y., Picard, R., 2014, *Policy and Marketing Strategies for Digital Media*, New York, N.Y., Routledge

Greenstein, S., 2015, *How the Internet became Commercial. Innovation, Privatization and the Birth of a New Network*, Princeton, N.J., Princeton University Press

Parker, van Alstyne, Choudary, 2016, *Platform Revolution. How networked markets are transforming the economy-and how to make them work for you*, New York, W.W. Norton & Company

Handke, C., 2011, "Economic Effects of Copyright – The empirical evidence so far", Commissioned paper prepared for The Committee on the Impact of Copyright Policy on Innovation in the Digital Era

Vogel, 2014, *Entertainment Industry Economics - A Guide for Financial Analysis*, New York, N.Y., Cambridge University Press

Spulber, D., Yoo, C., 2009, *Networks in Telecommunications. Economics and Law*, Cambridge, Cambridge University Press (S&Y)

Yoo, 2012, *The Dynamic Internet*, Washington, D.C., The American Enterprise Institute for Public Policy Research.

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Extra Costs (case studies, platforms...):

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Miscellaneous information:

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Code of conduct and ethics:

Católica Lisbon School of Business and Economics is a community of individuals with diverse backgrounds and interests who share certain fundamental goals. A crucial element to achieve these goals is the creation and maintenance of an atmosphere contributing to learning and personal growth for everyone in the community. The success of CATÓLICA-LISBON in attaining its goals and in maintaining its reputation of academic excellence depends on the willingness of its members, both collectively and individually, to meet their responsibilities.

Along with all the other members of our community, students are expected to follow professional standards and CATÓLICA-LISBON standards of Academic Integrity. Some details should be mentioned here: Please arrive on time for class with uninterrupted attendance for the duration of the class. Signing attendance sheet for anyone else in the class constitutes fraud and a violation of the CLSBE code of conduct. Use of computers and other electronic devices during the class is not allowed, unless expressly requested by the instructor of the course. Students who persistently act in a disruptive and disrespectful manner during the class session may be invited to leave.

Students are expected to behave at all times according to the fundamental principles of academic integrity, including honesty, trust, fairness, respect, and responsibility. In particular,

- a) In **individual graded assignments** of any type, students may not collaborate with others or use any materials without explicit permission from the instructor of the course;
- b) In **group assignments and reports**, all students listed as authors should have performed a substantial amount of work for that assignment;

- c) It is dishonest to fabricate or falsify data in experiments, surveys, papers, reports or other circumstances; fabricate source material in a bibliography or “works cited” list; or provide false information in other documents in connection with academic efforts;
- d) **Plagiarizing**, i.e. “to steal and pass off the ideas or words of another as one’s own and or to use another’s production without crediting the source” (Merriam-Webster Dictionary) is an Academic Integrity breach. It can be avoided by using proper methods of documentation and acknowledgement. Visit this guide for additional resources on how to avoid plagiarism in your written submissions <http://en.writecheck.com/plagiarism-guide>
- e) In **exams** students must not receive or provide any unauthorized assistance. During an examination, students may use only material and items authorized by the faculty. Use of smartwatches or other communication devices is not permitted during the exam.

Academic integrity breaches will be dealt with in accordance with the school’s code of Academic Integrity: <https://www.clsbe.lisboa.ucp.pt/system/files/assets/files/academicintegritycode.pdf>

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