

NEW ECONOMY: DIGITAL ECOSYSTEMS & PLATFORMS

IE University

Professor: **ADRIANA HOYOS VEGA**

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Academic year: 23-24

Degree course: SECOND

Semester: 1^o

Category: COMPULSORY

Number of credits: 3.0

Language: English

PREREQUISITES

This course is designed for second year IE-BIE students. A minimal level of digital literacy and basic knowledge of macroeconomics and microeconomics is key to succeed in this course.

Other interested members of the IE community will require the consent of the professor, based on their previous exposure to specific knowledge and / or experience in the field to attend or audit the course.

SUBJECT DESCRIPTION

The main focus of the course will be on how the modern world has evolved and progressed by the underlying forces of technology as a byproduct of human thought processes, invention and collaboration. It will examine how human intelligence has derived in a flux of constant innovation and exponential economic growth, bringing our species to a comprehensive, overall prosperity leveraged with technology.

The course will tackle a diverse array of theories on how the different dynamics have shaped (and are shaping) the way we live. The only way to deeply understand the changing nature of the new economy's landscape and to get a real glimpse of what the future could look like, is by actively participating in the digital culture and understanding human behavior in a Hub economy. Finally, it will inquire into the role of Artificial Intelligence in Society, and will explore the role of humans in the new algorithmized world, result of a platformed economy.

OBJECTIVES AND SKILLS

This course aims to teach the key concepts that explain the complex dynamics of today's world through the influence of technology, economic complexity and decision-making. After taking this class, students should be capable of:

- Understanding the transition of the modern world's social, economic and political systems from both a macro and a micro perspective, and how digital platforms are changing the ways we conceive the world, while tackling the key elements of behavioral science.
- Analyzing, benchmarking, designing and replicating smart digital models, using various theories

around different fields of society, such as: finance, public policy, regulation, ethics, economic development, education, politics and business.

- Defining the fundamental notions of a platformed Society, and their intersection with the economy.
- Challenging theories, structures and models related to the digital economic dynamics.

METHODOLOGY

The melding between economics, data, technology, policy and psychology has become of the utmost importance, resulting in not only an academic revolution, but a priority in the real sector, that obliged economists and public officials to revisit the traditional economic theories and update them. This course will teach how the new digital ecosystems have acquired a deep understanding of human behavior, which has allowed them to design tailored models and comprehensive systems that foster a more sophisticated and complex approach to individuals.

Different to the typical academic setting in which theories are presented -normally one at a time, and some implications are derived, students are presented with actual data and real-life examples for them to analyze and interpret by using alternative systems. This course will bridge the gap between the deductive and inductive methods, with and 'out-of-the-box' approach.

Teaching methodology	Weighting	Estimated time a student should dedicate to prepare for and participate in
Lectures	24.0 %	18 hours
Discussions	13.33 %	10 hours
Exercises	24.0 %	18 hours
Group work	16.0 %	12 hours
Other individual studying	22.67 %	17 hours
TOTAL	100.0 %	75 hours

PROGRAM

SESSIONS 1 - 2 (LIVE IN-PERSON)

1. Is Today's World Better than a Century Ago? Data > Opinion
 2. Rationality: Perceiving Economic Reality Through a Tech Lens
- Book Chapters: Reading: Chapter 1 of the book: "Abundance". (ced)*

SESSIONS 3 - 4 (LIVE IN-PERSON)

3. Collective Intelligence and Collaborative Knowhow
 4. The Keys to Economic Complexity
- Article: "Mind the Mind Gap". (Harvard University, 2021.) (ced)*
Article: "The Missing Link in Economic Development". (Harvard University, 2020.) (ced)

SESSIONS 5 - 6 (LIVE IN-PERSON)

5. Making Sense When Thinking and Creating Coherent Economic Networks in an Incoherent World
6. The Crowd Economy

Article: "Under the Hood, the Computational Engine of Economic Development". (MIT, 2016.) (ced)
Article: "Managing Our Hub Economy". (HBS R1705F-PDF-ENG)

SESSIONS 7 - 8 (LIVE IN-PERSON)

- 7. How Platforms use Cognitive Biases and Heuristics to Influence Your Perception of Reality
- 8. Decision Making in a Sharing Hub Economy

Article: Reading: "Sharing Economy in Open Innovation Dynamics". (J. Open Innov. Technol. Mark. Complex. 2019, 5, 102) (ced)

SESSIONS 9 - 10 (LIVE IN-PERSON)

- 9. The Intellectual Rational of Fake News and its Expansion through Digital Platforms
- 10. The Role of Digital Technologies, Artificial Intelligence and Social Media in the 'Post-Truth' Era

Working Paper: "Combating Fake News: Agenda for Research action". (Harvard Kennedy School)

SESSIONS 11 - 12 (LIVE IN-PERSON)

- 11. Moonshot Thinking Strategies: Using Crowd Economics, AI and the Information Society
- 12. From Individual Choices to Collective Trends: Digital Identities in Social Media and the Metaverse

Book Chapters: "The Second Machine Age". (ced)

SESSION 13 (ASYNCHRONOUS)

- 13. Innovation and Economic Design Thinking in AI

Podcast: Podcast: "Happiness, Crypto Stablecoins and Crypto Strategy". (Youtube)

SESSIONS 14 - 15 (LIVE IN-PERSON)

- 14. Our Connected Life
- 15. Final Exam

Book Chapters: "The Future of Minds and Machines". (From page 11 to page 21)

EVALUATION CRITERIA

Students will be timely updated on their grades throughout the semester, for them to be able to keep track of their performance. Assigned readings are mandatory, graded and key for a successful learning experience.

Participation(1):	25%
Quizzes (2):	12%
Self-grading (3):	3%
Final exam (4):	35%
Group projects (5):	25%

Please note the following

(1) The quality of class participation matters for the grade. Students are expected to participate in structured and engaging class discussions, and if necessary beyond the classroom, also through written interactions. Only students with a perfect attendance are eligible to get a 10/10 in participation and/or honors. ELECTRONIC DEVICES ARE ONLY ALLOWED IN SPECIFIC CIRCUMSTANCES, when the Professor indicates so.

(2) Individual pop quizzes are devoted to performing specific tests and assessing learning and reading.

(3) The self-grading is a comprehensive semester-long review, that will be discussed with the professor.

(4) For the final exam: Students will be evaluated on the depth of their knowledge acquired throughout the semester, the comprehensiveness of their analysis, clarity of the argument, viability of recommendations, quality of conclusions, format and written composition.

(5) There will be group problem sets and projects that include analysis, evaluation and diagnostics.

All exercises are meant to facilitate students' transition from analytical tools to coherent relevant inference.

Criteria	Percentage	Comments
Participation	25 %	Overall Course Engagement
Quizzes	12 %	Pop Quizzes
Self-Assessment	3 %	Self-Grade
Final Exam	35 %	Final Exam
Group Pojects	25 %	Group Work

GENERAL OBSERVATIONS

Each student has four attempts over two consecutive academic years to pass this course.

For every BIR Program mandatory class aside from the IR Unplugged and BIR Electives, students are required to obtain the minimum grade of 5 required to pass the course. Students whose grade in the Final Exam (or the largest assignment) is below 5 will fail the course. The rule applies to whichever assignment carries the greatest weight to the final grade. Dates and location of the final exam will be posted in advance and will not be changed.

Students must attend at least 70% of the sessions. Students who do not comply with the 70% attendance rule will receive a 0.0 on their first and second attempts and go directly to the third one (they will need to enroll in this course again the following academic year).

Students who are in the third or fourth attempt must contact the professor during the first two weeks of the course.

The Bachelors in Economics pursues to develop the knowledge, skills and attitudes for bringing transformative and sustainable change in today's world. Therefore, all the courses follow the principles of sustainability and diversity. Firstly, this course considers the agenda 2030 and builds upon the Sustainable Development Goal 1, 8 and 9. Secondly, this course is committed to an inclusive learning environment and looks to be enriched and enhanced by diversity along numerous dimensions, including race, ethnicity and national origins, gender and gender identity, sexuality, class and religion.

ATTENDANCE

In-person attendance is mandatory at IE University, as it is an essential factor of IE's learning methodology. While we do closely monitor attendance in each course, we also consider our students responsible for their own agenda and commitments, as adult university students. With that in mind, each student may miss up to 30% of the sessions within a given course and still maintain the possibility of passing that given course. This 30% "buffer" is to be used for any absences, such as: illnesses, personal emergencies, commitments, official/governmental matters, business and/or medical appointments, family situations, etc. Students should manage their various needs, and situations that may arise, within that 30% buffer. If a student is absent to more than the allowed 30% of the sessions (regardless of the reason), s/he will obtain a 0.0 grade for that course in both the ordinary and extraordinary calls of the current academic year, and s/he will have to retake the course during the following academic year.

RETAKE POLICY

Any student whose weighted final grade is below 5 will be required to sit for the retake exam to pass the course (except those not complying with the attendance rules, whom are banned from this possibility).

Grading for retakes will be subject to the following rules:

- The retakes will consist of a comprehensive exam or equivalent assignment. The grade will depend only on the performance on this exam; continuous evaluation over the semester will not be considered.
- Dates and location of the retakes will be posted in advance and will not be changed.
- The exam/assignment will be designed bearing in mind that the passing grade is 5 and the maximum grade that can be attained is 8 out of 10.

PLAGIARISM / ACADEMIC HONESTY

Plagiarism is the dishonest act of presenting another person's ideas, texts or words as your own. This includes in order of seriousness of the offense:

- providing faulty sources;
- copy-pasting material from your own past assignments (self-plagiarism) without the instructor's permission;
- copy-pasting material from external sources even while citing them;
- using verbatim translations from sources in other languages without citing them;
- copy-pasting material from external sources without citing them;
- and buying or commissioning essays from other parties.

IEU students must contact the professor if they don't know whether the use of a document constitutes plagiarism. For help with your academic writing, contact the Writing Center (writingcenter@faculty.ie.edu). The professor will also advise the student on how to present said material. All written assignments must be submitted through Turn-it-in, which produces a similarity report and detects cases of plagiarism. Professors are required to check each student's academic work in order to guarantee its originality. If the originality of the academic work is not clear, the professor will contact the student in order to clarify any doubts. Students using external tutorial support should report it to the professor and the BIR Program from the moment they began receiving this support. In the event that the meeting with the student fails to clarify the originality of the academic work, the professor will inform the Director of the Bachelor Program about the case, who will then decide whether to bring the case forward to the BIR Academic Review Panel. Very high similarity scores will be automatically flagged and forwarded to the Academic Review Panel. Plagiarism constitutes a very serious offense and may carry penalties ranging from getting a zero for the assignment to expulsion from the university depending on the severity of the case and the number of times the student has committed plagiarism in the past.

8- OTHER INFORMATION

CODE OF CONDUCT IN CLASS

1. Be on time. Students arriving more than 5 minutes late will be marked as “Absent”. Only students that notify in advance in writing that they will be late for a specific session may be granted an exception (at the discretion of the professor). Students attending online must always have their cameras on during the session or risk being marked absent.
2. If applicable, bring your name card and strictly follow the seating chart. It helps faculty members and fellow students learn your names.
3. Do not leave the room during the lecture: Students are not allowed to leave the room during lectures. If a student leaves the room during lectures, he/she will not be allowed to re-enter and, therefore, will be marked as “Absent”. Only students that notify that they have a special reason to leave the session early will be granted an exception (at the discretion of the professor).
4. Do not engage in side conversation. As a sign of respect toward the person presenting the lecture (the teacher as well as fellow students), side conversations are not allowed. If you have a question, raise your hand and ask it. If you do not want to ask it during the lecture, feel free to approach your teacher after class. If a student is disrupting the flow of the lecture, he/she will be asked to leave the classroom and, consequently, will be marked as “Absent”.
5. Use your laptop for course-related purposes only. The use of laptops during lectures must be authorized by the professor. The use of Social Media or accessing any type of content not related to the lecture is penalized. The student will be asked to leave the room and, consequently, will be marked as “Absent”.
6. No cellular phones: IE University implements a “Phone-free Classroom” policy and, therefore, the use of phones, tablets, etc. is forbidden inside the classroom. Failing to abide by this rule entails expulsion from the room and will be counted as one absence.
7. Escalation policy: 1/3/5. Items 4, 5, and 6 above entail expulsion from the classroom and the consequent marking of the student as “Absent.” IE University implements an “escalation policy”: The first time a student is asked to leave the room for disciplinary reasons (as per items 4, 5, and 6 above), the student will incur one absence, the second time it will count as three absences, and from the third time onward, any expulsion from the classroom due to disciplinary issues will entail 5 absences.

PROFESSOR BIO

Professor: **ADRIANA HOYOS VEGA**

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ADRIANA HOYOS VEGA

SHORT BIO

Adriana Hoyos' work interests relate to digital economics, the future of society, governance, international development, tech innovation, market access, public policy, behavioral science, PPPs, ESG and strategy. She has experience as a political strategist, which includes serving as senior advisor for various presidential campaigns, including two in the USA. Her consulting and academic work includes writing a series of consulting documents as replicable models at a global scale. Adriana is a professor at IE University, where she teaches different courses on the dynamics between technology, economic growth and policy, focusing extensively on the role of online platforms and how they serve as a hub to connect the different realms that are shaping society.

Adriana has been a Senior Fellow at Harvard University for several years, and previously she was the CEO of Women's World Bank (Co). She served as a diplomat, representing Colombia as Economic Attaché in Spain, head of Plan Colombia for the EU and Kyoto Protocol lead for the UN. She has also worked as an independent strategy consultant since 2001, both in the private and public sectors, as well as for some large foundations. Adriana has served in different boards of directors, advisory boards and expert panels, including (currently): The Millennium Project (EP), Katerva (EP), Blacksmith (AB), SciTheWorld (AB), ANAR Foundation (BoD) and Think Value (AB).

OTHER INFORMATION

ADDITIONAL RESOURCES

SUGGESTED BOOKS

Aral, Sinan; 2020. "The hype machine: how Social Media disrupts elections, economy and health: how we must adapt".

Ariely, Dan; 2017. "The Irrational Bundle".

Ariely, Dan; 2012. "The Honest Truth About Dishonesty: How We Lie to Everyone - Especially Ourselves".

Ariely, Dan; 2008. "Predictably Irrational: The Hidden Forces That Shape Our Decisions".

Bohnet, Iris; 2016. "What Works: Gender Equality by Design".

Brockman, John; 2014. "What Have You Changed Your Mind About? Today's Leading Minds Rethink Everything".

Chabris, Christopher; Simons, Daniel; 2011. "The Invisible Gorilla: How Our Intuitions Deceive Us".

Cialdini, Robert B; 2006. "Influence: The Psychology of Persuasion".

Corr, Philip & Plagnol, Anke; 2018. "Behavioral Economics: The Basics".

Diamond, Jared; 2005. "Guns, Germs, and Steel: The Fates of Human Societies".

Erikson, Thomas; 2019. "Surrounded by Idiots: The Four Types of Human Behavior".

Harari, Yuval Noah; 2017. "Homo Deus: A Brief History of Tomorrow".

Kahneman, Daniel; Sunstein, Cass; Sibony, Olivier; 2021. "Noise: A Flaw in Human Judgment".

Le Bon, Gustav; 2010. "The Crowd: A Study of the Popular Mind".

Levitt, Steven; 2009. "Freakonomics".

Issenberg, Sasha; 2016. "The Victory Lab: The Secret Science of Winning Campaigns".

McAfee, Andrew and Brynjolfsson, Erik; 2017. "Machine, Platform, Crowd: Harnessing our Digital Future".

Mele, Nicco; 2012. "Skyrocketing Numbers: How Technologists Help Politicians Win Elections".

Mullainathan, Sendhil; 2014. "Scarcity: The New Science of Having Less and How It Defines Our Lives".

Pinker, Steven; 2021. "Rationality: What It Is, Why It Seems Scarce, Why It Matters".

Pinker, Steven; 2018. "Enlightenment Now: The Case for Reason, Science, Humanism, and Progress".

Pinker, Steven; 2011. "The Better Angels of Our Nature".

Rosling, Hans; 2018. "Factfulness: Ten Reasons We're Wrong About the World. Why Things are Better than You Think".

Ross, Lee; 2011. "The Person and the Situation".

Surowiecki, James; 2004. "The Wisdom of Crowds: Why the Many are Smarter Than the Few".

Taleb, Nassim Nicholas; 2010. "The Black Swan".

Thaler, Richard; Sunstein, Cass; 2021. "Nudge, The Final Edition".

Thaler, Richard; 2015. "Misbehaving the Making of Behavioral Economics".

ARTICLES & PAPERS

- Bughin, Jacques. McKinsey; 2017. "The Case for Digital Reinvention".
- Chancel Lucas. World Inequality Database; 2019. "Ten Facts About Inequality in Advanced Economies".
- Chesbrough, Henry. UC Berkeley; 2013. "Managing Open Innovation in Large Firms".
- Clark, Gregory. University of California; 2005. "Human Capital, Fertility and the Industrial Revolution".
- Friedman, Thomas. NYT; 2005. "IMF's Transcript Forum, The World is Flat".
- Gladwell, Malcolm. The New Yorker; 2010. "Why the Revolution will not be Tweeted".
- Guevara, Miguel Et Al. MIT; 2016. "Linking Economic Complexity, Institutions, and Income Inequality".
- Guitard, Claude and Schenk, Eric. University of Strasbourg; 2015. "Crowdsourcing and the Evolution of a Business Ecosystem".
- Hidalgo, Cesar and Hausmann, Ricardo. Harvard University; 2009. "The Building Blocks of Economic Complexity".
- Horton, John. New York University; 2019. "Owning, Using and Renting: Some Simple Economics of the Sharing Economy".
- Kahneman, Dan. Princeton University; 2011. "Before You Make That Big Decision".
- Lakhani, Karim. Harvard University; 2015. "Using the Crowd as an Innovation Partner".
- Maselli, Ilaria. Centre for European Policy Studies; 2016. "The Impact of the Collaborative Economy on the Labor Market".
- McKinsey; 2009. "And the Winner is: Philanthropists and Governments Make Prizes Count".
- Pennycook, Gordon. MIT; 2020. "Fighting COVID-19 Misinformation on Social Media: A Nudge Intervention".
- Taylor, Matthew Et Al. Consulting Report for UK Government; 2017. "Good Work: the Taylor Review of Modern Working Practices".

EXPERTS

- Andrews, Matthew; Harvard University. <https://www.hks.harvard.edu/faculty/matthew-andrews>
- Aral, Sinan; MIT. <http://web.mit.edu/sinana/www/>
- Ariely, Dan; Duke University. <https://danariely.com/>
- Baum, Matthew; Harvard University. <https://www.hks.harvard.edu/faculty/matthew-baum>
- Chesbrough, Henry; UC Berkeley. <https://haas.berkeley.edu/faculty/chesbrough-henry/>
- Coscia, Michelle; Harvard University. <https://growthlab.cid.harvard.edu/people/michele-coscia>
- Diamandis, Peter; Singularity University. <https://www.diamandis.com/>
- Guitard, Claude; University of Strasbourg. <https://unistra.academia.edu/GuitardClaude>
- Gilbert, Dan; Harvard University. <https://psychology.fas.harvard.edu/people/daniel-gilbert>
- Hidalgo, Cesar; MIT. <https://chidalgo.com/>
- Iansiti, Marco; Harvard University. <https://lsh.harvard.edu/people/marco-iansiti>
- Kahneman, Daniel; Princeton University. <https://scholar.princeton.edu/kahneman/home>
- Lakhani, Karim; Harvard University. <https://lsh.harvard.edu/people/karim-r-lakhani>
- Lazer, David; Northeastern University. <https://cssh.northeastern.edu/people/faculty/david-lazer/>
- Mele, Nicco; Harvard University. <https://nicco.org/>
- Mialhe, Nicolas; Harvard University. <https://thefuturesociety.org/people/firstname-name-3/>

Mullainathan, Sendhil; U.Chicago. <https://www.chicagobooth.edu/faculty/directory/m/sendhil-mullainathan>

Norton, Michael; Harvard University. <https://www.hbs.edu/faculty/Pages/profile.aspx?facId=326229>

Pinker, Steven; Harvard University. <https://stevenpinker.com/>

Thaler, Richard; University of Chicago. <https://www.chicagobooth.edu/faculty/directory/t/richard-h-thaler>

Tversky, Amos; Stanford University. <https://thedecisionlab.com/thinkers/economics/amos-tversky/>

Vogl, Roland; Stanford University. <https://law.stanford.edu/directory/roland-vogl/>

