

**Course title:** The global governance of the Internet and of Future Emerging Technologies

**Language of instruction:** English

**Professors and professors' contact:** Josep Ibáñez (josep.ibanez@upf.edu) and Adrià Rodríguez-Pérez (adrian.rodriiguez@upf.edu).

**Course contact hours:** 45

**Recommended credit:** 6 ECTS credits

**Course prerequisites:** There are no prerequisites for this course.

**Language requirements:** Recommended level in the European Framework B2 (or equivalent: Cambridge Certificate if the teaching language is English, DELE or 3 semesters in the case of Spanish)

**Course focus and approach:** The course focuses on the governance of cyberspace, the internet and the future emerging technologies (i.e., Artificial Intelligence, blockchain, cryptocurrencies, biometrics, as well as quantum computing and post-quantum cryptography). These topics are approached from the perspectives of International Relations and Global Governance, including International Political Economy (IPE) and international (cyber)security.

**Course description:** The course is aimed at analysing how the Internet and Future Emerging Technologies are governed at a global level. In a continuously evolving context, the course is an invitation to reflect about different initiatives at the international level aimed at addressing some of the key challenges traditionally associated to these technologies (including issues of privacy and data protection, limitations on freedom of expression and content moderation online, as well as the social and environmental impact of digital technologies). In this sense, the course will focus on understanding the role that non-State actors (such as international governmental and non-governmental organisations, non-state public organisations, private companies, and the broader global civil society) play in these initiatives as well as the models of governance that each of these players support and promote when it comes to the governance of the Internet and of Future Emerging Technologies.

**Learning objectives:** At the end of this course, students will be able to:

- Understand the models of governance of the Internet and of Future Emerging Technologies at the global level.
- Explore different initiatives at the international level aimed at addressing some of the key challenges traditionally associated to Future Emerging Technologies.
- Identify and critically assess the role played by non-State actors in these global governance initiatives.

**Course workload:** the course combines lectures, case studies on specific issues, and all sorts of activities for students, including writing essays and preparation of presentations, among others. In all sessions students will be expected to actively contribute to debates and group work.

**Teaching methodology:** The course will combine different activities in class and independent work to be carried out by the students between sessions. In-class session will include:

- Lectures by the professors (about 45-60 minutes) on the topic of each session.
- Seminars that will be based on simulations (role-playing), policy analysis, presentations, and debates.
- Case studies, many of them to be prepared and presented by students.
- 'In the spotlight' sessions, combining an introductory session by the professors on a specific issue and a debate among students.

Work outside class will include readings, watching documentaries, gathering data, and preparing the above-mentioned sessions.

**Assessment criteria:**

Seminars: 40%

Class participation 30%

Final assignment: 30%

**BaPIS absence policy**

Attending class is mandatory and will be monitored daily by professors. Missing classes will impact on the student's final grade as follows:

<b>Absences</b>	<b>Penalization</b>
Up to two (2) absences	No penalization
Three (3) absences	1 point subtracted from final grade (on a 10-point scale)
Four (4) absences	2 points subtracted from final grade (on a 10-point scale)
Five (5) absences or more	The student receives an INCOMPLETE ("NO PRESENTADO") for the course

The BaPIS attendance policy **does not distinguish between justified or unjustified absences**. Students are expected to manage their attendance to sessions.

Only absences for medical reasons will be considered justified absences. The student is deemed responsible to provide the necessary documentation. Other emergency situations will be analysed on a case-by-case basis by the Academic Director of the BaPIS.

The Instructors, the Academic Director, and the Study Abroad Office should be informed by email without any delay.

**Classroom norms:**

- No food or drink is permitted in class.
- A ten-minute break is foreseen in the middle of each session.

**Weekly schedule:****PART I. THEORETICAL PERSPECTIVES  
ON THE GOVERNANCE OF THE INTERNET****WEEK 1. The global governance of the Internet and of Future Emerging Technologies**

*Session 1. Course description and introduction to Internet governance*

Syllabus, assessment and readings.

Introduction to the global governance of the Internet and of Future Emerging Technologies.

*Session 2. Normative dimensions of Internet governance*

Course lecture.

Case Study / In the spotlight: OpenAI vs. the neurorights movement.

**WEEK 2. Actors and authorities in Internet governance**

*Session 1. Actors and authorities in global governance (I)*

Course lecture.

Case Study / In the spotlight: the International Corporation for Assigned Names and Numbers (ICANN).

*Session 2. Actors and authorities in global governance (II)*

Course lecture.

Case Study / In the spotlight: the Cities Coalition for Digital Rights.

**WEEK 3. Norms and institutions in Internet Governance**

*Session 1. Norms and institutions in Internet Governance*

Course lecture.

Case Study / In the spotlight: the UN's on International Law in Cyberspace, (I) the GGE and (II) the OEWG.

*Seminar 1: Who governs your emoji keyboard?*

**PART II. GLOBAL SOCIOPOLITICAL CHALLENGES  
OF DIGITAL TECHNOLOGIES****WEEK 4. Freedom of expression online**

*Session 1. Freedom of expression online (I)*

Course lecture.

Case Study / In the spotlight: Taming the Big Tech.

*Session 2. Freedom of expression online (II)*

Course lecture.

Case Study / In the spotlight: A governmental perspective on disinformation.

*Session 3. Freedom of expression online (III)*

Course lecture.

Case Study / In the spotlight: Disinformation in the political process

**WEEK 5. Privacy and data protection**

*Session 1. Privacy and data protection*

Course lecture

Case Study / In the spotlight: The global reach of the GDPR.

*Seminar 2: Spyware and the rise of cyber-mercenaries.*

**WEEK 6. Internet and solidarity rights**

*Session 1. Right to Internet access*

Course lecture.

Case Study / In the spotlight: The geopolitics of the Internet's infrastructures.

*Session 2. Digital technologies and environmental rights*

Course lecture.

Case Study / In the spotlight: The hidden pollution behind the digital economy.

**PART III. NEW GOVERNANCE MODELS  
FOR FUTURE EMERGING TECHNOLOGIES**

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**WEEK 7. Artificial Intelligence and Machine Learning**

*Session 1. Artificial Intelligence and Machine Learning*

Course lecture.

Case Study / In the spotlight: Weapons of math destruction.

*Seminar 3: Killer robots.*

**WEEK 8. Blockchains and Distributed Ledger Technologies**

*Session 1. Blockchains and Distributed Ledger Technologies*

Course lecture.

Case Study / In the spotlight: Non-Fungible Tokens (NFT).

*Session 2. Cryptocurrencies & CBDC*

Course lecture.

Case Study / In the spotlight: The rise and fall of Meta's Diem.

**WEEK 9. Digital identities, biometrics & quantum computing**

*Session 1. Digital identities*

Course lecture.

Case Study / In the spotlight: Self-sovereign identities.

*Session 2: Biometrics*

Course lecture.

Case Study / In the spotlight: Facial recognition technologies.

*Session 3. Quantum computing*

Course lecture.

Case Study / In the spotlight: Quantum sensing.

**WEEK 9. Quantum computing and post-quantum cryptography***Session 1. Post-quantum cryptography*

Course lecture.

Case Study / In the spotlight: The NIST's competition on post-quantum algorithms.

*Session 2. Wrapping up the global governance of the Internet and of Future Emerging Technologies*

**Last version: June 2022.**

**Required readings:**

Readings will be uploaded by the professors on the course's intranet.

**Recommended bibliography:**

BARTLETT, Jamie. 2018. *The People Vs Tech. How the internet is killing democracy (and how we save it)*. London: Penguin Random House.

GOLDENFEIN, Jake. 2019. *Monitoring Laws: Profiling and Identity in the World State*. Cambridge: Cambridge University Press.

IBÁÑEZ, Josep. 2007. "Who governs the Internet? The Emerging Regime of E-Commerce". Jean-Christophe GRAZ and Andreas NÖLKE (eds.) *Transnational Private Governance and Its Limits*. London, UK: Routledge, pp. 142-155.

IBÁÑEZ, Josep. 2011. "Transnational Private Authorities and the Erosion of Democracy". Noé CORNAGO, Igor FILIBI and Justin O. FORSINI (eds.) *Democracy with(out) nations? Old and new foundations for political communities in a changing world*. Bilbao: Universidad del País Vasco, pp. 203-208.

KAYE, David. 2019. *Speech Police. The Global Struggle to Govern the Internet*. New York, US: Columbia Global Reports.

LESSIG, Lawrence. 2006. *Code. Version 2.0*. New York: Basic Books.

LEVY, Steven. 2001. *Crypto. How the code rebels beat the government— saving privacy in the digital age*. New York: Penguin Books.

- MARTIN, Keith. 2020. *Cryptography. The Key to Digital Security, How it Works, and Why it Matters*. New York: W.W. Norton & Company.
- MAURER, Tim. 2018. *Cyber Mercenaries: The State, Hackers, and Power*. Cambridge, UK: Cambridge University Press.
- MOROZOV, Evgeny. 2014. *To Save everything, Click Here: The Folly of Technological Solutionism*. New York, US: PublicAffairs.
- O'NEIL, Cathy. 2016. *Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy*. New York, USA: Crown Publishers.
- SINGH, Simon. 1999. *The Code Book. The Science of Secrecy from Ancient Egypt to Quantum Cryptography*. Nueva York: Anchor Books.
- TUFEKCI, Zeynep. 2017. *Twitter and Tear Gas: The Power and Fragility of Networked Protest*. USA: Yale University Press.
- VELIZ, Carissa. 2020. *Privacy is Power. Why and How You Should Take Back Control of Your Data*. London, United Kingdom: Bantam Press.
- WEBERBACH, Kevin. 2018. *The Blockchain and the New Architecture of Trust*. Cambridge, Massachusetts and London, UK: The MIT Press.
- ZUBOFF, Shoshana. 2019. *The Age of Surveillance Capitalism. The Fight for a Human Future at the New Frontier of Power*. London, United Kingdom: Profile Books.