

Course title: The Global Governance of the Internet and Future Emerging Technologies

Language of instruction: English

Professors and professors' contact:

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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)

Course focus and approach: The course focuses on the governance of cyberspace, the Internet and 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 analyzing how the Internet and Future Emerging Technologies are governed at a global level. In a continuously evolving digital environment, 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 organizations, non-state public organizations, 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: 30%

Class participation 30%

Mid-term exam: 20%

Final exam: 20%

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:

Absences	Penalization
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.

**PART I. CONCEPTS AND ISSUES
ON THE GOVERNANCE OF THE INTERNET**

WEEK 1. Introduction to Internet governance

January 10, 2024

Session 1. Course description and introduction to Internet governance
Syllabus, assessment, and readings. Introduction to Internet Governance and Future Emerging Technologies.

WEEK 2. Normative dimensions of Internet governance

January 15, 2024

Session 1. Regulating the internet: is it feasible?

January 17, 2024

Session 2. Regulating the internet: Is it desirable?

Case studies / In the spotlight: The geopolitics of cyberspace; Neurotechnologies and the neurorights movement.

WEEK 3. Actors and authorities in Internet governance

January 22, 2024

Session 1. Actors in Internet governance

January 24, 2024

Session 2. Authorities in Internet governance

Case studies / In the spotlight: Mapping international actors; Internet Corporation for Assigned Names and Numbers (ICANN)

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**PART II. CURRENT ISSUES
ON THE GOVERNANCE OF THE INTERNET AND CYBERSPACE**

WEEK 4. The Platform Economy

January 29, 2024

Session 1. From the data economy to the platform economy

January 31, 2024

Course seminar 1. Who governs your emoji keyboard

Case studies / In the spotlight: The Big Tech; Freedom of expression online vs online content moderation

WEEK 5. Cybercrime and cybersecurity

February 5, 2024

Session 1. Cybercrime and cybersecurity: old wine in new bottles?

February 7, 2024

Session 2. The right to privacy and the right to data protection

Case studies / In the spotlight: Key escrows; Spyware and the rise of cyber-mercenaries.

WEEK 6. Digital rights

February 12, 2024

Session 1. A fourth generation of human rights?

Mid-term exam

February 14, 2024

Session 2. Digital technologies and environmental rights

Case Study / In the spotlight: Internet shutdowns; Rights in conflict? The global governance of geoengineering

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

WEEK 7. Artificial Intelligence and Machine Learning

February 19, 2024

Session 1. Artificial Intelligence and Machine Learning

February 21, 2024

Course seminar 2. Lethal Autonomous Weapons Systems (LAWS) & Killer Robots

Case studies / In the spotlight: Algorithmic audits; Biometrics.

WEEK 8. Blockchains and Distributed Ledger Technologies

February 26, 2024

Session 1. Blockchains and Distributed Ledger Technologies

February 28, 2024

Session 2. Cryptocurrencies & CBDC

Case studies / In the spotlight: Non-Fungible Tokens (NFT); The rise and fall (and rise?) of cryptos.

WEEK 9. 5G and cloud infrastructures

March 4, 2024

Session 1. 5G and 6G

March 6, 2024

Session 2. Cloud infrastructures

Case studies / In the spotlight: The superpower's race for 5G infrastructures; Data protection and cloud providers – a clash of jurisdictions?

WEEK 10. Quantum computing

March 13, 2024

Session 1. Quantum computing

Case studies / In the spotlight: Study visit to the BSC.

WEEK 11. Post-quantum cryptography

March 18, 2024

Session 2. Post-quantum cryptography



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

March 20, 2024

Final exam of the course

Last version: November 20, 2023.

Required readings and materials:

Readings and materials 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.
- CASTELLS, Manuel. 2010. *The Rise of the Network Society*. West Sussex: Blackwell Publishing Ltd, 2nd edition.
- DENARDIS, Laura. 2013. "The Emerging Field of Internet Governance". Dutton, William H. (ed.) *The Oxford Handbook of Internet Studies*. Oxford: Oxford University Press.
- FLORIDI, Luciano. 2007. "A Look into the Future Impact of ICT on Our Lives". *The Information Society*, 23(1), pp. 59-64.
- FRY, Hannah. 2019. *Hello World: Being Human in the Age of Algorithms*. London: Penguin Random House.
- GOLDENFEIN, Jake. 2019. *Monitoring Laws: Profiling and Identity in the World State*. Cambridge: Cambridge University Press.
- HILDEBRANDT, Mireille. 2020. *Law for Computer Scientists and Other Folk*. Oxford: Oxford University Press.
- HOOFNAGLE, Chris Jay & GARFINKEL, Simson L. 2022. *Law and Policy for the Quantum Age*. Cambridge: Cambridge University Press.
- IBÁÑEZ, Josep. 2007. "Who governs the Internet? The Emerging Regime of E-Commerce". GRAZ, Jean-Christophe & NÖLKE, Andreas (eds.) *Transnational Private Governance and Its Limits*. London, UK: Routledge, pp. 142-155.
- 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.
- MUELLER, Milton L. 2002. *Ruling the Root. Internet governance and the taming of cyberspace*. Cambridge, MA: MIT Press.
- MOROZOV, Evgeny. 2014. *To Save everything, Click Here: The Folly of Technological Solutionism*. New York, US: PublicAffairs.
- MURRAY, Andrew D. 2011. "Nodes and Gravity in Virtual Space". *Legisprudence*, 5(2), pp. 195-221.
- MURRAY, Andrew D. 2011. "Internet regulation". Levi-Faur, David (ed.) *Handbook on the Politics of Regulation*. Cheltenham and Massachusetts: Edward Elgar Publishing Ltd, pp. 267-279.

- O'NEIL, Cathy. 2016. *Weapons of Math Destruction: How Big Data Increases Inequality and Threatens Democracy*. New York, USA: Crown Publishers.
- NOBLE, Safiya Umoja. 2018. *Algorithms of oppression: how search engines reinforce racism*. New York: New York University Press.
- 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.