



TECHNICAL SHEET OF THE SUBJECT

Data of the subject	
Subject name	Ethics: privacy and hacking
Subject code	DOI-MCS-521
Involved programs	Máster Universitario en Ingeniería de Telecomunicación [Segundo Curso] Máster en Ciberseguridad [Primer Curso]
Level	Master
Quarter	Semestral
Credits	1,5 ECTS
Type	Obligatoria
Department	Department of Industrial Organization
Coordinator	Javier Camacho Ibáñez
Course overview	This module's objective is to make the student reflect on the ethical dimension of the use of data and resources in the age of the digital economy. On the one hand, the student is introduced to the basics of ethical reasoning, so that he can apply it to two particular areas related to cybersecurity: privacy and ethical hacking. In an environment where all organisations compete for data to optimise different artificial intelligence systems and other algorithms for decision-making, access, use, transfer and retention of this data is a challenge in an unequal regulatory environment, where several fundamental rights, such as security and privacy, compete. Ethical hacking is presented in its most broad sense, that is, not only as the consented action of trying to penetrate a security system but as any non-violent use of technology, in favour of a cause, political or otherwise. Ethical hacking, from this point of view, is often ethically and legally ambiguous and involves a series of chaine

Teacher Information	
Teacher	
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SPECIFIC DATA OF THE SUBJECT

Contextualization of the subject
Prerequisites
There are no prerequisites.

Competencies - Objectives

THEMATIC BLOCKS AND CONTENTS

Contents - Thematic Blocks

1. Introduction to Ethics
2. Ethical reasoning
3. Privacy in the Age of the Digital Economy
4. Fundamentals of privacy in organisations
5. Definition and types of Ethical Hacking
6. Intrusion/penetration test
7. Discovering vulnerabilities and reward programs

TEACHING METHODOLOGY

General methodological aspects of the subject

EVALUATION AND CRITERIA

Ratings

Final exam: 40%

Assignments (group/individual): 60%

BIBLIOGRAPHY AND RESOURCES

Basic Bibliography

Blanken-Webb, J., Palmer, I., Deshaies, S. E., Burbules, N. C., Campbell, R. H., & Bashir, M. (2018). A Case Study-based Cybersecurity Ethics Curriculum. In 2018 {USENIX} Workshop on Advances in Security Education ({ASE} 18).

Coleman, E. G. (2012). Coding freedom: The ethics and aesthetics of hacking. Princeton University Press.

Coleman, G. (2014). Hacker, hoaxer, whistleblower, spy: The many faces of Anonymous. Verso books.

Dennedy, Michelle, Jonathan Fox, and Tom Finneran. The privacy engineer's manifesto: getting from policy to code to QA to value. Apress, 2014.

Engelmann, Severin & Chen, Mo & Fischer, Felix & Kao, Ching-Yu & Grossklags, Jens. (2019). Clear Sanctions, Vague Rewards: How China's Social Credit System Currently Defines "Good" and "Bad" Behavior. 69-78. 10.1145/3287560.3287585.

Mac Sithigh, D., & Siems, M. (2019). The Chinese social credit system: A model for other countries?. The Modern Law Review, 82(6), 1034-1071.

Maurushat, Alana. Ethical Hacking. University of Ottawa Press, 2019.

Narayanan, Arvind, and Vitaly Shmatikov. "How to break anonymity of the netflix prize dataset." arXiv preprint cs/0610105 (2006).

Ohm, Paul. "Broken promises of privacy: Responding to the surprising failure of anonymization." UCLA I. Rev. 57 (2009): 1701.

Richterich, A. (2018). The Big Data Agenda. University of Westminster Press.

Ryffel, T., Trask, A., Dahl, M., Wagner, B., Mancuso, J., Rueckert, D., & Passerat-Palmbach, J. (2018). A generic framework for privacy preserving deep learning. arXiv preprint arXiv:1811.04017.



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Syllabus
2021 - 2022

Wong, K. L. X., & Dobson, A. S. (2019). We're just data: Exploring China's social credit system in relation to digital platform ratings cultures in Westernised democracies. *Global Media and China*, 4(2), 220-232.