

Academic Year: ( 2022 / 2023 )

Review date: 18-05-2022

Department assigned to the subject: Social Sciences Department

Coordinating teacher: GENOVA FUSTER, GONZALO

Type: Compulsory ECTS Credits : 3.0

Year : 1 Semester : 2

## OBJECTIVES

### Core Competences:

- Having and understanding the knowledge that provides a basis or opportunity to be original in the development and/or application of ideas, often in a research context
- Students know how to apply their acquired knowledge and problem-solving skills in new or unfamiliar settings within broader (or multidisciplinary) contexts related to their field of study.
- Students are able to integrate knowledge and to face the complexity of making judgments based on information that, being incomplete or limited, includes reflections on the social and ethical responsibilities linked to the application of their knowledge and judgments.
- Students know how to communicate their conclusions and the knowledge and ultimate reasons behind them to specialised and non-specialised audiences in a clear and unambiguous way.
- Students have the learning skills that will enable them to continue studying in a way that will be largely self-directed or autonomous.

### General Competences:

- Ability to understand and analyze the main global social theories and how they are changing with the application of computational tools.
- Ability to identify, define and formulate social science problems and solve them using computational techniques. This includes the ability to assess all the factors involved, not only technical but also legal.
- Ability to compile and analyze existing knowledge in the different areas of computational social sciences, and to propose possible solutions to the problems raised.
- Ability to apply theoretical and methodological knowledge of computational social sciences to the analysis and resolution of specific cases and empirical problems.
- Ability to address issues raised under new or unfamiliar environments, within the context of computational social sciences.
- Ability to plan and carry out research in the field of computational social sciences in an autonomous way.
- Ability to communicate and present, in a clear, precise and rigorous manner, concepts and results related to computational social science activities to both specialized and non-specialized audiences.

### Specific Competences:

- Ability to understand and analyze the main theoretical-methodological approaches of computational social sciences, their potentials and limitations, and to apply them to the analysis of specific social problems.
- Ability to identify the challenges of the digital society and propose specific solutions from an interdisciplinary approach, combining analytical tools from the social and computational sciences, to combat them.
- Ability to understand ethical issues and apply legislation concerning personal data protection and Big Data and AI techniques.

### Learning Outcomes:

- Ability to understand and identify the new challenges faced by the Social Sciences in the digital world.
- Ability to understand and analyze individual and collective aspects of human behavior in the digital

world.

- Ability to understand and analyze the emerging social mechanisms in a hyperconnected and globalized world.
- Ability to understand and analyze the consequences of technology on social relations.
- Knowledge of good practices in ethical data management.

## DESCRIPTION OF CONTENTS: PROGRAMME

### 1. Ethics in Computational Social Sciences

- What is ethics? Ethics as good life and as social peace.
- Freedom as a radical constitutive of the human being and as an observable phenomenon in the social sciences
- Personal responsibility before the psychological influence of the environment
- The rationality of ethics: public ethics and private ethics. Is it possible to reason about right and wrong?
- Social engineering: responsibility before the transformations of society

### 2. Real-world effects and unintended consequences of algorithmic systems

- Programmed algorithmic ethics and learned algorithmic ethics
- How to assess the predictability of consequences in ethical decisions (human and algorithmic)
- Should we be afraid of artificial intelligence?

### 3. Surveillance capitalism

- Qui prodest? Who benefits from my searches?
- Technology companies: economic sustainability and creation of addictions
- How to ensure that technology does not turn against us

### 4. Legislation and protection of personal data and privacy

- The European model versus the North American and Chinese models
- Something to hide? What is sensitive data, and why is it sensitive
- Why the ethical commitment of large corporations alone is not enough, and why legislation and external control alone is not enough

## LEARNING ACTIVITIES AND METHODOLOGY

Training Activities:

- Theoretical classes
- Theoretical-practical classes
- Tutorials
- Group work
- Individual student work

Teaching Methods:

- Presentations in the professor's lecture room with computer and audiovisual support, in which the main concepts of the subject are developed and a bibliography is provided to complement the students' learning.
- Critical reading of texts recommended by the subject professor: Press articles, reports, manuals and/or academic articles, either for later discussion in class, or to expand and consolidate knowledge of the subject.
- Resolution of practical cases, problems, etc. raised by the professor, either individually or in a group.
- Presentation and discussion in class, under the moderation of the professor, of topics related to the content of the subject, as well as practical case studies.
- Developing pieces of work and reports, individually or in group.
- Seminars/lectures by national and international experts, in face-to-face or remote synchronous sessions.

## ASSESSMENT SYSTEM

- Participation in the class (30%)
- Individual or group work done during the course (70%)

<b>% end-of-term-examination:</b>	0
<b>% of continuous assessment (assignments, laboratory, practicals...):</b>	100

#### BASIC BIBLIOGRAPHY

- Collman, Jeff, Sorin Adam Matei (eds.) Ethical Reasoning in Big Data: an exploratory analysis, Springer, 2013
- Uwe Engel, Anabel Quan-Haase, Sunny Xun Liu, Lars E Lyberg (eds.) Handbook of Computational Social Science, Volume 1. Theory, Case Studies and Ethics, Routledge, 2021

#### BASIC ELECTRONIC RESOURCES

- Online Ethics Center for Engineering and Science . Big Data in the Life Sciences: Bibliography, Social and Behavioral Sciences: <https://onlineethics.org/cases/big-data-life-sciences-collection/big-data-life-sciences-bibliography-social-and-behavioral>