Universidad de Navarra

Artificial Intelligence in Journalism

Teaching guide 2025-26

INTRODUCTION

Artificial intelligence in Journalism provides an approach to the foundations of the emerging AI-assisted newswork, together with a practical introduction to the AI tools for news gathering, production and publishing.

- **Degree**: Journalism + Diploma en Global Journalism
- **Module**: Module VI: Electives
- **Number of credits**: 3 ECTS
- **Year**: 3rd or 4th year
- **Semester**: 2nd semester (from January to May)
- **Type of course**: Elective
- **Instructors**:
- Professor in charge:
  - Dr. Ramón Salaverría
- Assistant professor:
  - Dr. Clara González Tosat
- **Language**: English
- **Department**: Department of Journalism, School of Communication
- **Lecture schedule**: Tuesday, 9.00-10.45 hours
- **Classroom**: 1140 (Master Classroom), School of Communication

Final exam: To be announced

LEARNING OUTCOMES (Competencies)

The competencies indicated below correspond to those accredited for the Journalism Degree at the School of Communication, Universidad de Navarra.

1.KNOWLEDGE

- **RA9.** Understand the structure and operation of the communication company, its organizational form, management strategies, and systems for content production and distribution.

2.SKILLS

- **RA16.** Search, identify, select, and prioritize any type of source or document (written, audio, or visual) necessary for the development of speeches or presentations.
- **RA17.** Select and process information with the purpose of disseminating it for private or collective use through various media and platforms or in the creation of productions of any kind.
- **RA18.** Command information and communication technologies and techniques in different media and languages.

- **RA21.** Identify and correct errors made in the creative or organizational processes of editing, production, and realization of informative products.

3.COMPETENCIES

- **RA22.** That students have the ability to gather and interpret relevant data (usually within their field of study) to make judgments that include reflection on relevant social, scientific, or ethical issues.
- **RA25.** Conceptualize, plan, and develop collaborative projects in the field of journalism.
- **RA29.** Acquire knowledge and apply theory, skills, techniques, and tools necessary in the creation of informative products.
- **RA30.** Understand and apply the language and techniques specific to each traditional media (press, radio, and television), as well as new digital platforms (internet), and explore their possibilities for multimedia convergence.

PROGRAM

Preliminary session. **Introduction to the class and activities**

Session 1. **AI-assisted Journalism**

- 1.1. Definition, history and key concepts of AI
- 1.2. Exploration of the impact of AI on news gathering, content creation, and delivery

Session 2. **Ethics and Bias in AI Journalism**

- 2.1. Ethical considerations and potential biases associated with AI-assisted journalism
- 2.2. Examination of case studies highlighting the ethical challenges in using AI for news production
- 2.3. Overview of legal frameworks and privacy concerns related to AI-assisted journalism

Session 3. **AI Tools for News Gathering**

- 3.1. Introduction to AI-powered tools for data mining, sentiment analysis, and news monitoring
- 3.2. Hands-on practice with tools to extract and analyze news data from various sources

Session 4: **Automated Content Generation (I): Text**

- 4.1. Overview of AI-generated content, including automated news articles and reports
- 4.2. Analysis of the benefits, limitations, and implications of automated text generation in journalism

Session 5: **Automated Content Generation (II): Image**

- 5.1. Overview of AI-generated photos and images

- 5.2. Analysis of the benefits, limitations, and implications of automated image generation in journalism

Session 6: **Automated Content Generation (III): Video, Sound and Multimedia**

- 6.1. Overview of AI-generated video, sound and multimedia content
- 6.2. Analysis of the benefits, limitations, and implications of automated video, sound and multimedia generation in journalism

Session 7: **Automated Data Analysis and Visualization**

- 7.1. Overview of AI-driven data analysis and visualization in news
- 7.2. Discussion on how AI can enhance investigative journalism, data analysis, and uncovering hidden patterns

Session 8: **AI-Assisted News Delivery**

- 8.1. Examination of AI-driven techniques for personalized news delivery, subscription gathering and audience engagement
- 8.2. Case studies on the use of chatbots, recommendation systems, subscribers' tracking and user analytics in journalism

Session 9: **AI and Fact-Checking**

- 9.1. Exploration of AI-based fact-checking tools and algorithms
- 9.2. Discussion on the role of AI in combating disinformation in journalism

Session 10: **Future Trends and Challenges of AI in Journalism**

- 10.1. Exploration of emerging trends and developments in AI-assisted journalism
- 10.2. Reflection on the future impact of AI on the journalism profession and its role in society

[**Note**: Given the ever-evolving nature of AI-assisted journalism, this syllabus is designed to be flexible and adaptable to incorporate emerging and pertinent aspects.]

SESSION STRUCTURE AND ACTIVITIES

Each session is structured to follow the **flipped classroom methodology**. At the beginning of the class, a group of students will deliver a presentation based on the assigned pre-class materials, introducing the key concepts of the topic. This will be **followed by a theoretical explanation provided by the professors**, who will expand on the concepts presented by the group, clarify doubts, and connect the content to broader frameworks and real-world examples.

The second part of each session consists of a **practical workshop** designed to apply the concepts discussed. Students will work hands-on with AI tools to explore their applications in journalism, including news gathering, automated content creation, prompt writing and data visualization.

ASSESSMENT

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General principles

Students are expected to do **all assignments and oral presentations in English**. No exceptions will be made for any student, regardless of their English language proficiency.

We promote the ethical use of information resources. For this reason, **plagiarism is not allowed** in this subject. Any copying in assignments, exercises, or other activities will be penalized. A work is considered plagiarism when it reproduces, either entirely or in part, textual, graphic, and/or audiovisual content from external sources without proper attribution. If professors detect any plagiarism in the practices, whether total or partial (including a single paragraph, for example), the student will receive a grade of 0 for the corresponding assignment.

Likewise, **fraud is not tolerated**. Any deception, simulation, or forgery employed to illegitimately improve academic results will be penalized. In light of this subject's specific topic, it is important to **clearly differentiate between content authored personally by the student and automatically generated content**, whenever applicable.

Evaluation in ordinary call

In the ordinary call, **Artificial Intelligence in Journalism** is assessed as follows:

- **Assignments: 60%**
- **Tests: 20%**
- **Attendance and participation**: **20%**

Each of these three elements is evaluated as follows:

1. Assignments (60%)

The assignments follow a **flipped classroom methodology**, requiring students to prepare independently before class sessions. At the beginning of each class, a group of students will deliver a presentation using a PowerPoint (or similar) to introduce the key concepts of the assigned topic. These presentations will be evaluated based on a detailed rubric that considers criteria such as clarity, organization, depth of analysis or use of real tools.

Post-Class Project Work:

After each workshop or practical session, students will document their learning and practical outputs in a concise written report. These individual contributions will be compiled and refined into a **collective booklet** showcasing the class's work on AI-assisted journalism.

- **Final Booklet**: The booklet will be structured collaboratively, with students assigned specific sections based on their work during the semester. It will include detailed examples of AI tools, ethical analyses, and case studies, serving as a practical resource on AI in journalism.

2. Tests (20%)

There will be a single **final exam**, consisting of a **multiple-choice test** based on the content covered throughout the semester. The exam will evaluate students' understanding of key theoretical concepts and their ability to apply practical knowledge from the course.

3. Attendance and participation (20%)

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Active engagement in all class activities is essential.

Criteria to pass the course

- Students whose final grade is 5 points or more will pass the course.
- Students whose final grade is below 5 points will not pass the course and will be graded as *Suspenso*.
- Students who do not show up to at least 60% of classes will be graded as *No presentado*, unless they can justify their absence with evidences such as medical proof or something similar.

Evaluation in extraordinary call

For those who do not pass the course in the ordinary call in May (grades *Suspenso* or *No presentado*) there will be an extraordinary multiple choice test exam in June, which will account for 50% of the final grade. The remaining 50% will be calculated with the average mark of the assignments, tests and participation throughout the semester.

Students with special learning needs

Accommodation will be provided for students with special learning needs, either regarding the methodology and/or evaluation of the course, but they will be expected to fulfill all course objectives.

OFFICE HOURS

Dr. Ramón Salaverría (rsalaver@unav.es) — CV | personal web | Twitter: @rsalaverria

- Department of Journalism, desk 1531. Ismael Sánchez Bella Building.
- Office hours: Monday, from 5.45 to 6.45 pm

Dr. Clara González Tosat (cgonzalezt@unav.es)

- Tutoring sessions will be conducted with students upon prior request via email.

READINGS AND RESOURCES

Readings

AI-assisted Journalism

- Marconi, Francesco (2020). *Newsmakers: Artificial Intelligence and the Future of Journalism*. New York: Columbia University Press. Find it in the Library
- Beckett, Charlie & Yaseen, Mira (2023). *Generating Change. A global survey of what news organisations are doing with artificial intelligence*. London: London School of Economics.

- Simon, F. M. (2024). Artificial Intelligence in the News: How AI Retools, Rationalizes, and Reshapes Journalism and the Public Arena. New York: Columbia Journalism Review. [PDF]

Ethics of AI

- Council of Europe (2023). Guidelines on the responsible implementation of artificial intelligence systems in journalism. Strasbourg: Council of Europe.
- Floridi, Luciano (2023). *The Ethics of Artificial Intelligence. Principles, Challenges, and Opportunities*. Oxford, UK: Oxford University Press. Find it in the Library
- Thomson Foundation (2023). *Paris Charter on AI and Journalism*. November 10th, 2023. [PDF]

Resources

AI Toolbox

- Journalist's Toolbox (constantly updated by the Society of Professional Journalists). AI Tools for Journalists.

Generative AI

- Diab, M., *et al*. (2022). *Stable Diffusion Prompt Book*. https://openart.ai/promptbook
- Thompson, A. D. (2022). *The ChatGPT Prompt Book*. https://lifearchitect.ai/chatgpt-prompt-book/

Generative Imagery

- This Person Does Not Exist. https://thispersondoesnotexist.com/
- Dreamstudio AI. https://beta.dreamstudio.ai/generate

Deep Learning

- *Deeplizard*. Understanding Convolution Operations In Neural Networks