

NEWSREEL 2

2020-1-HU01-KA203-078824

NEW TEACHING FIELDS FOR THE NEXT GENERATION OF JOURNALISTS

TEACHING GUIDE

AI & JOURNALISM, ROBOT JOURNALISM & ALGORITHMS



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The project was funded by the European Commission. The views expressed in this publication do not necessarily reflect those of the European Commission.

About the Newsreel Project

An indispensable ability that journalists need to acquire is the creative and responsible use of digital tools. Journalists should be reliable and trustworthy sources of news amidst the digital din as they need to provide a counterpoint to the wealth of unverified information that affects the raw emotions and tempers of audiences around the world. The target audience of the EU-funded NEWSREEL2 - New Teaching Fields for the Next Generation of Journalists project is the millennial and post-millennial generations of journalists whose lifestyles are inherently linked to digital devices and social media. The primary aim of NEWSREEL2 is to improve their digital skills in a creative and responsible way to enhance the societal benefits of the digital era. To achieve these objectives, the NEWSREEL2 project team developed innovative teaching methods and materials for media and journalism students.

The project is the extension of NEWSREEL - New Skills for the Next Generation of Journalists, widening the scope of the original four journalistic fields covered (data journalism, collaborative journalism, new business models and ethical challenges) with nine new ones: (1) 'Storytelling in social media' enables students to learn how to present journalistic contents on social media networks. (2) 'Graphic journalism' helps students to get to know the basic tools and subgenres of comics journalism. (3) Improving students' 'democratic sensibility' enables them to be aware of their social role and responsibility in the democratic society of the digital age. (4) 'Covering migration' helps to improve their research and reporting skills and understanding migration in a global context. (5) 'Foreign coverage' enables students to contribute to a more balanced coverage of international topics. (6) 'Journalism for voice-activated assistants and devices' teaches students how to use them and see their potential in newsrooms. (7) 'AI and journalism, robot journalism and algorithms' teach their usage, and enables students to clearly see the potential benefits and risks. (8) 'Verifying and analyzing fake news' teaches students to be able to identify information and opinion going viral and to verify information with the help of suitable tools and software. (9) 'Debunking disinformation' helps students to get solid knowledge about the mechanisms used for debunking fake news and disinformation. The project aims to facilitate efficient international cooperation between university-based journalistic ecosystems. All educational materials produced by the project partners are open free and accessible through open licenses via the NEWSREEL2 website (<https://newsreel.pt.e.hu/>).

The project partners are the University of Pécs, in Hungary; the Erich Brost Institute, from the Dortmund Technical University, in Germany; the University Institute of Lisbon (ISCTE-IUL), in Portugal; the University of Bucharest, in Romania; the

Masaryk University, from Brno, in the Czech Republic; and Hostwriter, from Berlin, in Germany.

The Teaching Guides

There is a teaching guide for each field of the NEWSREEL2 project. The main goal of these teaching guides is to give some hints that can help teachers and trainers to implement the developed courses. The guides help understand how the courses are structured and showcase the complete courses and the e-learning or other teaching materials available for each course on the online platform. Through the guides you can have access to main goals of the course, for whom it was thought, bibliographical references and other contents that can help you get the most out of the contents the NEWSREEL2 team has prepared.

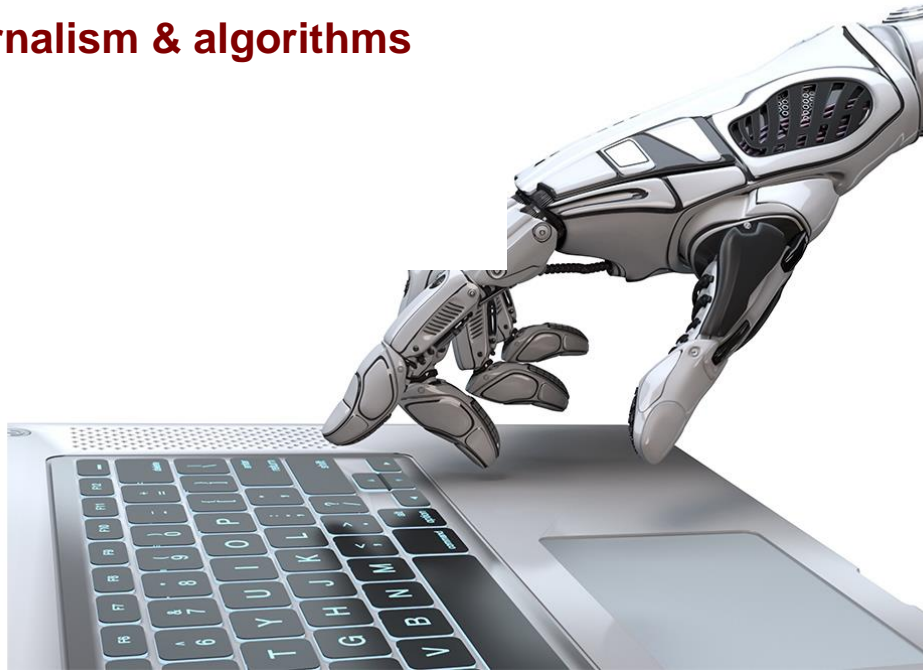
The structure

Besides the detailed syllabus, this course provides e-learning materials developed to support the teaching process. You can find these e-learning materials in the syllabus and in this teaching guide.

The teaching guides structure is the following:

- The professional field
- Target audience
- General objectives
- Specific objectives
- Professional competences to be enhanced
- Course
 - o Complete course
 - Contents according to the Syllabus
 - Advised teaching methods
 - Evaluation suggestion
 - Bibliography suggestions
 - o E-learning or other teaching materials
- Notes to teachers
- General observations
- The team

AI & journalism, robot journalism & algorithms



The professional field

The professional field of this course is Journalism Studies.

Target audience

There are no preconditions, but it is recommended for students that already completed some degree in journalism or communication fields, preferably a bachelor's degree.

General objective of the course

This course is aimed to give tools for students to understand the role, potential and limitations of artificial intelligence in journalism, so that they know the basics about robot journalism and algorithms. It's an entry point course.

Specific objectives of the course

At the end of this course students should be able to:

- identify and understand the algorithmic approaches being used in journalism, in several areas that range from content production to computational story discovery and news curation and dissemination;
- understand how automated content production works, how it's used by news organizations;
- discuss the benefits and limitations of automated content production;
- be able to know when it's appropriate to deploy automated content production;
- understand the basics of algorithms in news curation and dissemination;
- know how to think about metrics and how editorial criteria can be introduced into news organization's curation algorithms that might be being developed;
- being able to use some methods to investigate algorithm's accountability;
- identify how algorithms are creating a new object for journalistic investigation, which is giving rise to a specialized practice called algorithmic accountability reporting;
- and understand the importance of ethics and accountability in the making of algorithms.

Professional competences to be enhanced

This course is aimed to enhance collaboration skills, innovation skills in the field and problem-solving skills. It is also thought to let the students be able to translate theoretical insights into journalistic practice and vice versa and to get skills to reflect and identify when it is appropriate to deploy automated content production in a newsroom. Being able to appropriately discuss benefits and limitations of the use of artificial intelligence in media, in general, and journalism is another competence brought by the course.

COURSE

Contents

Classes

Class 1: Algorithms and news media. Course introduction. Syllabus. Class presentation.

Introduction to the course. The importance of this field in society and in journalism. What are algorithms, how and where they are used, in a general way, and in news media. Brief introduction.

Class 2: What algorithms are and how they're used in the media industry, in general and news production, in particular.

What is Artificial Intelligence and robot journalism. What are and how are algorithms used in the media industry and news production. Discussion about the past, the present and the future.

Class 3: What are the benefits and limitations of automated content for news production.

What are the main benefits of the use of automated tools. What does their use mean to news production. And what are the limitations of their use. Discuss the possible future and implications, but also the gains in the current newsrooms.

Class 4: Dissemination and news curation: the importance of algorithms. The role and power of platform curation algorithms in news distribution.

The use of AI in news curation and distribution is more and more a practice. How does this work. How can this help journalism and journalists.

Class 5: Algorithm's accountability and transparency

The need for algorithm accountability and transparency is a very important part of this course. Algorithms are developed by people with specific needs, do complete certain tasks. It's important to understand how they work, which are their objectives, and who wrote them. The so-called black boxes in which some algorithms are closed

can be harmful for the journalistic work, but also if algorithms built for journalistic purposes are not accountable and transparent enough to be understood.

Class 6: Why investigating algorithms in society is important for journalism.

The role of journalists investigating and helping people understand how algorithms work is of most importance, in a world more and more mediated by platforms and tools for which functioning algorithms are core. So, journalists must understand the basics about algorithms and call out when they are being used in a biased or harmful way. There for is the need to have skills to allow journalists to investigate them.

Class 7: Ethical implications of algorithms to produce news. Being transparent with your own use of algorithms in news work.

This class is strongly linked to both classes before, but now with a clearer focus on news production and the use of algorithms to do so. This class's main goal is to create awareness of the ethical implications of the use of algorithms in this production and the need for them to be unbiased and for their use to be declared to the users.

Seminars

Seminar 1: How does an algorithm work. How to write a template to drive automated text production.

This seminar has a hand-on approach that will allow students to understand how an algorithm works, in a more profound way. The students will build a template for an algorithm based on a flowchart and will understand better what AI is (trying the Turing test).

Seminar 2: Content optimization and how to think about metrics for content optimization: several approaches.

Getting hands-on about content optimization and how to think about content optimization with practical examples using some social media platforms.

Seminar 3: Writing a simple template for automated text production, having in mind content optimization.

Using an AI tool to write a template for a simple automated text production, analyzing all the phases we should go through, from thinking about the public, to ethics and transparency.

Seminar 4: Presentation of the template for automated text production.

Groups of students should present their template for automated text production that will be discussed at the seminar.

Seminar 5: Different methods to approach investigation algorithms.

How to investigate algorithms: a practical approach.

Teaching methods

For the courses, the main teaching methods are lectures combined with discussion. The seminars are based on discussions and exercises with a hands-on approach.

Evaluation

Course

Class participation will take 10% of the final grade and students should show knowledge of the compulsory reading and ability to answer questions during the lecture or/and discuss topics.

Seminar/laboratory

During the seminars, students will be assigned group work – 3 case studies, each of them will make up to 10 %, max. 10 % each of the final score.

The students should achieve at least 60 % of the overall score; all tasks must be finished and submitted/performed.

Short Bibliography

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E-Learning contents

You can find the following classes on the e-learning platform:
https://newsreel.ptte.hu/ai_journalism_robot_journalism_algorithms

- What algorithms are and how they're used in the media industry
- What are the benefits and limitations of automated content for news production
- Algorithm's accountability and transparency
- Ethical implications of algorithms to produce news. Being transparent with your own use of algorithms in news work

Notes to the teachers

The course is divided into classes and seminars. The classes are aimed at more theoretical contents and seminars are more prone to practical and experiencing work. We advise that each teacher adapts the seminars to their students and their more specific needs. As the field of AI is growing very fast, the contents of this course are a starting point that should be considered with further work on new tendencies.

General observations

Our previous research made clear that most of the journalists that are working in the Artificial Intelligence field were self-taught, they have been learning by doing and trying to get knowledge from several sources, in some cases not linked specifically with communication or journalism teaching. So, bearing in mind the growing importance of this field it is extremely necessary that we start to have an offer that is specifically thought for journalists. When we started working on this field ChatGPT wasn't public knowledge yet, the field of AI has been growing very fast in importance and public exposure, so having journalists improving their skills in this area is more important than ever.

The team

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