



D6.2 Teaching and Learning Materials and MOOC report

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Abstract	Deliverable D6.2 outlines the design, development, and deployment of the SMIDGE MOOC Platform and its associated teaching and learning materials. The platform was created to provide flexible, open-access training for investigative journalists, security analysts, and other professionals engaged in countering disinformation, conspiracy theories, and online extremism. It also accommodates broader audiences such as educators, students, and citizens interested in strengthening their media literacy. The SMIDGE Platform was developed using a re-engineered Moodle environment, adapted to reflect best practices from leading MOOC systems like Coursera. This allowed the team to implement a sustainable, open-source solution capable of long-term operation beyond the project's lifetime. Emphasis was placed on modularity, user autonomy, and minimal maintenance, ensuring content accessibility and future updates. The pedagogical model is based on three principles: progressiveness, flexibility, and customization. The course comprises twelve thematic units, preceded by an introduction to the SMIDGE project and its HYPE theory. Early modules focus on foundational skills in media literacy and information disorders, while later ones address topics such as online extremism, media ecosystems, social media architecture, data journalism, and counter-narrative strategies. Each unit contains short video lessons, scripts, curated readings, case studies, self-assessment tools, and user satisfaction questionnaires. A visual recommendation system guides users toward content suited to their professional interests, without enforcing a fixed learning path. Content creation involved both internal



	experts and external contributors from partner institutions and beyond. All materials follow a standard production protocol and are supported by documentation on copyright, content licensing, and rights transfers. The platform integrates legal safeguards and open-access frameworks, promoting ethical content sharing and widespread dissemination. The user experience is enhanced by embedded media, downloadable resources, timed activity estimates, and automated certification. A tracking system monitors learner engagement, supporting quality assurance and evaluation. Additional resources, such as webinars, podcasts, and event recordings, complement the main modules and are released progressively throughout the project. Special attention was paid to legal and ethical considerations. The platform complies with GDPR and other data protection regulations. Terms of use and an honor code provide a coherent framework for platform participation. Technical support and academic tutoring are available to users via designated contact points. Enrollment and access are open throughout the project and will continue for five years post-completion, under the responsibility of Fondazione Villa Montesca. The platform reflects the project's broader aims to translate scientific insights into practical, actionable knowledge. It is both a dissemination mechanism and a core output, empowering professionals and citizens to navigate today's complex information ecosystem with critical awareness and ethical responsibility. The SMIDGE MOOC contributes directly to building societal resilience against disinformation and extremist narratives by fostering informed, reflective, and autonomous learning experiences.
Key Words	MOOC; Learning Management System; SMIDGE Platform; Course Plan, Lesson scheme; Video-lesson production; Data protection; Copyright; Open resources; Online learning



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1.Introduction to the document: structure, contents and learning strategies and methodologies of the SMIDGE Platform

This document summarizes the main features of the project for the development of the SMIDGE MOOC Platform. The project was designed based on the requirements outlined in the approved proposal, which identified two core elements:

- The need to create a course for professionals specializing in information and analysis aimed at countering and preventing the spread of fake news and conspiracy theories. In fact, the main massive training platforms are primarily targeted at a university audience and are therefore structured to provide training proposals specifically tailored to academic settings.
- The need to effectively utilize and disseminate the scientific findings of the project, making them accessible to a broader audience beyond academics or experts in the field.

Considering these requirements, the FVM experts conducted a detailed analysis of the leading experiences of massive training platforms in Europe. This study, carried out in collaboration with the project partners, highlighted some preliminary considerations summarized below:

- The main massive training platforms are primarily targeted at a university audience and are therefore structured to provide training proposals specifically tailored to academic settings.
- Leading European and international universities tend to adopt a small number of platforms that, while not setting a universal standard, serve as key reference points.
- Most users, particularly those in academic but also others, prefer content management platforms that are user-friendly, easy to implement, and sufficiently flexible to accommodate diverse training paths.

The identification of potential points of comparison led to an in-depth study of the COURSERA platform, which is widely used by various universities across Europe and beyond, particularly in the United States and Latin America. Consequently, the SMIDGE Platform has adopted COURSERA's conceptual and pedagogical framework, albeit adapted to meet the specific requirements of the courses to be delivered. Specifically, COURSERA's model emphasizes modular learning, self-paced progress, user autonomy, and time-estimated activities, guided by a visual interface that helps learners align content with professional goals.

In keeping with the principles of massive open online education, the platform is designed as an open and modular system, enabling interaction with users wherever possible. However, its sustainability in the long term has also been a key consideration. This has necessitated the development of a model supporting the autonomous usability of the platform. Notably, even after the project's conclusion, the platform is expected to be independently managed, with content remaining accessible to future users and requiring only minimal technical updates.

Regarding content maintenance, the platform's structure is designed to remain stable over time, allowing both users and lecturers/teaching experts to contribute additional materials in the future.



The adoption of an open-source licensing model further ensures the flexible and seamless distribution of all content. In line with the philosophy of open systems, this model supports reproducibility in other contexts while respecting content authorship and copyright.

2.LMS Learning Management System: a re-engineered version of MOODLE

The SMIDGE Platform is developed using the MOODLE Learning Management System (LMS). MOODLE, an open-source software launched 20 years ago, is supported by a global community. Fondazione Villa Montesca has extensive experience with MOODLE, managing over ten active training platforms stemming from European, national, and international projects (by way of example, the **GEMINI e-platform**, providing high school students and teachers for a deep analysis of gender-related issues through the lens of serial dramas; **desinfoEND MOOC**, to train educators and adult education volunteers on an innovative methodology to teach ICT and ML competences while promoting critical thinking to tackle disinformation; **CALCULATE interactive platform**, tailored for parents of children with dyscalculia in order to improve their skills and provide them with support on how to help children overcome difficulties in dealing with math subjects).

MOODLE ensures high standards in both portability and cybersecurity for educational purposes. To tailor the learning environment to the specific needs of SMIDGE users, the MOODLE platform has been re-engineered with the following features:

- **Video Lessons Slot.** This tool allows the integration of video materials directly into the platform. Users can view video lessons within the MOODLE environment, eliminating the need for external links or third-party storage solutions, which helps maintain a clean and organized learning environment. However, video files cannot be downloaded.
- **Documentation Slot (Viewable and Downloadable).** This feature enables the upload of documents in various formats (e.g., Word, Excel, PowerPoint, PDF, JPG)
- **Self-Learning Test Slot.** This tool supports the creation of quizzes with multiple choices. The system includes a question database, which randomizes questions for each quiz attempt. This ensures varied and effective self-learning experiences.
- **Certification Slot.** Upon completing a Unit, users can download a certificate of completion. This feature not only motivates learners by maintaining high engagement levels but also supports the modular and customizable structure of the SMIDGE Platform. If the user successfully completes all the Units, the system generates a Certificate of completion of the entire learning experience.

For the creation of the SMIDGE Platform, the principle of self-consistency is applied to the development of video lessons and learning materials. The SMIDGE Platform can be defined as self-consistent learning experience because participants will be able to easily access the content and carry out the planned activities without needing help from external figures or relying on materials not initially provided. For the proper general organization of the SMIDGE Platform, the principle of self-consistency involved the following practical implications: (i) Modular structuring of the contents; (ii) Inclusion of introductory and support documentation at the beginning of the course (i.e. Unit 0, introduction to the SMIDGE project) as well as information on the methodology and technologies

used; (iv) availability of communication tools to address potential issues and doubts (contact for technical support; contact with the classroom tutor).

In distance learning, particularly in modern e-learning approaches, achieving learning objectives involves not only acquiring content-related skills but also developing the ability to learn through content interaction. Monitoring this interaction is crucial and requires both quantitative and qualitative analysis tools.

A significant feature of the re-engineered MOODLE platform for the SMIDGE Platform is **user activity tracking**, which has multiple applications:

- Administrators can evaluate user engagement with educational activities.
- Tracked data allows assessment of users' processing time, such as time spent reviewing documents.
- The tracking feature can serve as valid documentation for certifying activities.

The data related to users' activity tracking will be maintained in the Villa Montesca servers and only Villa Montesca professionals will have access to them. If SMIDGE consortium members are interested in acquiring SMIDGE Platform data (for research purposes only), Villa Montesca will send them in an anonymous and disaggregated form.

After evaluating various e-learning platforms, the FVM team selected Coursera as the basis for implementing certain MOODLE functionalities for the SMIDGE Platform. Coursera is a global platform for online learning and career development, serving over 148 million learners and 7,000 institutions worldwide. Key Coursera-inspired features embedded in the SMIDGE Platform include:

- **Unit Content Previews:** Before accessing a Unit, the platform displays a summary of its contents, including the number of video lessons and their total duration.
- **Document and Assignment Summaries:** Each Unit will show the number of documents and assignments, along with an estimated reading or completion time.
- **Assignment Passing Criteria:** Users must complete assignments with a minimum of 70% correct answers to earn a certificate. Assignments can be attempted multiple times.
- **Time Estimation:** Based on the above features, users can estimate the time needed to complete a Unit before starting it.

SMIDGE
Phone : +390758521512
Contacts

HOME UNITS ABOUT PROJECT NEWS TERMS OF USE AND PRIVACY POLICY ETHIC CODE
Log in

SMIDGE

Social Media Narratives - Addressing Extremism in Middle Age

SMIDGE MOOC Platform

The **SMIDGE MOOC Platform** offers **journalists, security analysts and any other interested professionals** an advanced training experience on media literacy, disinformation, and the **social impact of digital narratives**, with **particular focus on middle-aged citizens**. Through **interactive modules**, it explores topics such as news manipulation, online extremism, media ecosystems, and strategic storytelling. Designed for diverse learners, the platform equips users with **critical thinking skills, fact-checking tools, and ethical insights** to navigate today's complex media landscape in a view to **counteract online extremists in middle aged**.

UNITS

BASICS OF MEDIA LITERACY

ONLINE COURSE
UNIT 1 - BASICS OF MEDIA LITERACY

contributor: **ELLA PUT**

NEWS HIJACKING AND DISINFORMATION DISORDERS

ONLINE COURSE
UNIT 2 - NEWS HIJACKING AND DISINFORMATION DISORDERS

contributor: **DIMITRI BETTONI**

EXTREMISM AND CONSPIRACY THEORIES ON SOCIAL MEDIA

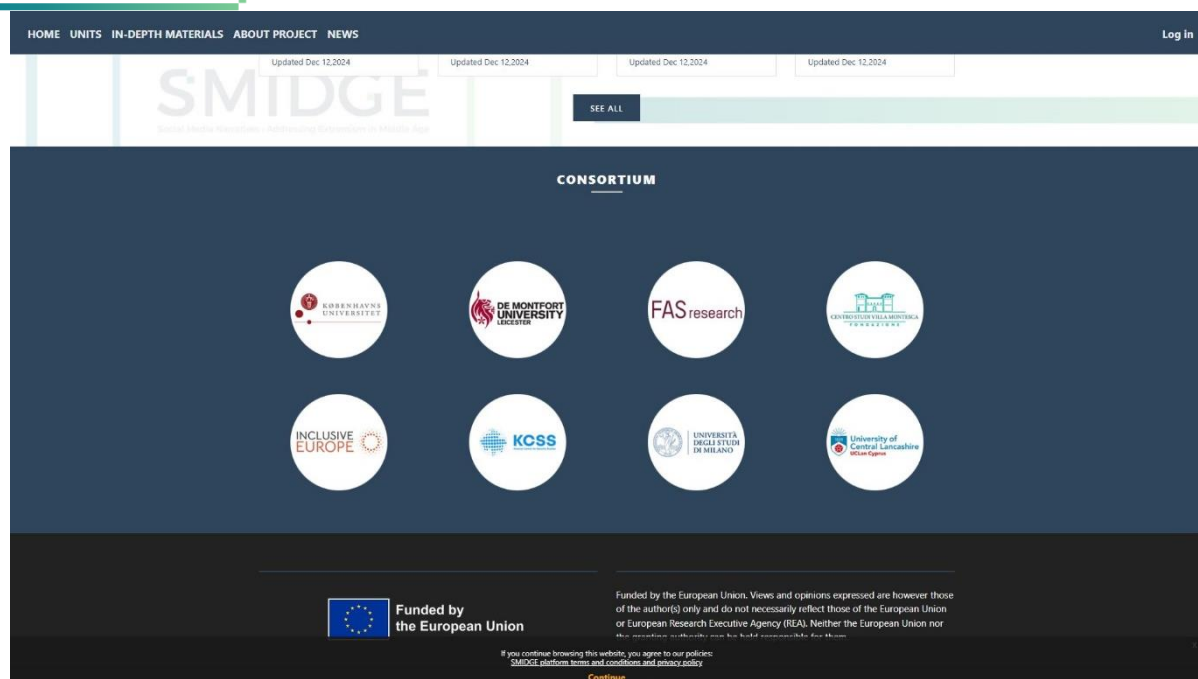
ONLINE COURSE
UNIT 3 - EXTREMISM AND CONSPIRACY THEORIES ON SOCIAL MEDIA

contributors: **MIKKEL BÆKBY PETERSEN and CHRISTIAN GULAS**

SEE ALL

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Homepage of the SMIDGE MOOC Platform

3. Structure and rationale of the SMIDGE Platform

The SMIDGE Platform scheme was designed with three criteria in mind: progressiveness, flexibility and customization.

SMIDGE is a high-level research program that brings together academics and experts from different disciplines. The SMIDGE Platform is designed to enable and facilitate access to this high level of knowledge and expertise to categories for whom basic academic-level training cannot be assumed. The course therefore consists of two sections. Lessons 2 through 6 aim to ensure that the beneficiary has the basic knowledge deemed necessary to understand the fundamentals on which the SMIDGE project is developed. Lessons 7 through 12, on the other hand, go into the project results and enable participants to fully benefit from the specific contributions that the project has produced.

The course is mainly dedicated to two different professional profiles: journalists on the one hand, security analysts on the other. However, any interested citizen can access the contents of the platform, regardless of their profession. To reconcile the requirements of openness of the training offer and its customization, the platform has an in-built recommendation system that graphically suggest to users to which professionalism a specific Unit is crafted for. In fact, some lectures, while accessible to all, are specifically designed for a professional category and are recommended through graphic elements that advise the user, while preserving their freedom of choice.

Each Unit of the SMIDGE Platform is devoted to a topic, some are broader than others, so the number of video-lessons (and related in-depth materials) can range from no less than 3 to no more than 4. Consequently, each Unit is composed by five key elements:

- 1) **Four short video lessons** (for a total of 10/20 minutes of video-learning experience for each Unit) explaining the core elements of each Unit
- 2) **The script of each video lesson**

- 3) **Four research papers/lectures/in depth narrative materials/case studies/video materials** for self-learning
- 4) **Assessment Test** is available to students to self-assess the knowledge acquired throughout the Unit.
- 5) **One questionnaire addressed users** to evaluate their satisfaction level as well as to collect their opinions about the quality of the materials provided in the Unit.

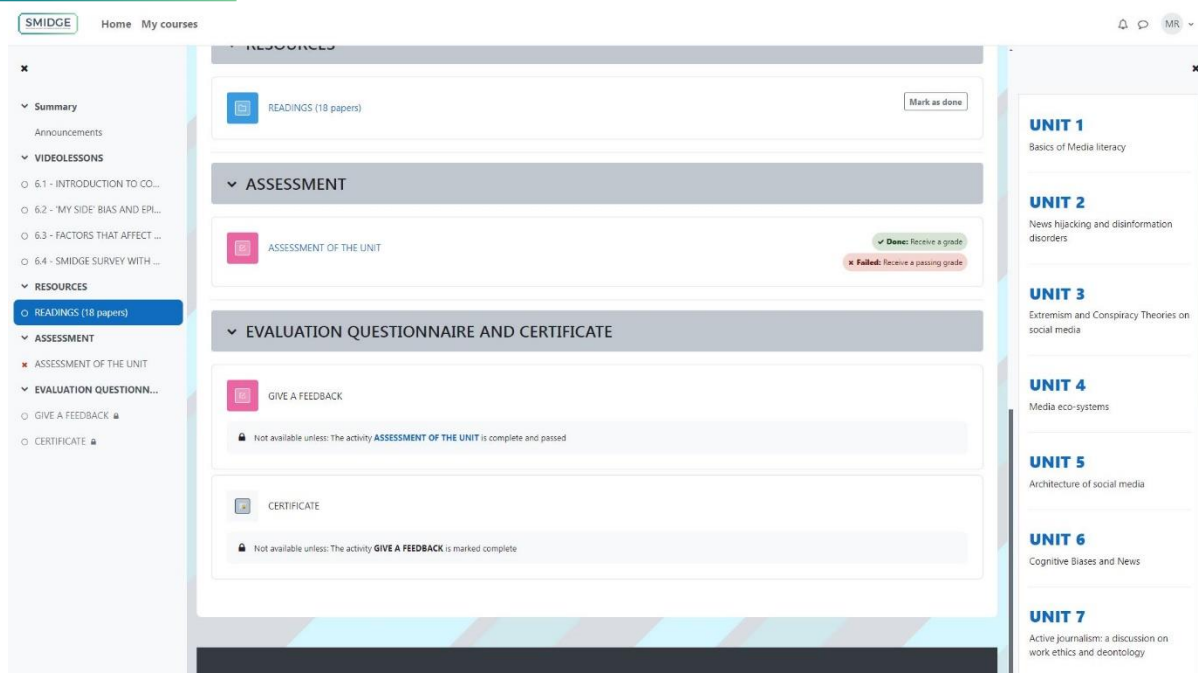
The image displays two screenshots of the SMIDGE course interface, showing the 'COGNITIVE BIASES AND NEWS' unit page and the 'VIDEOLISSONS' section.

Top Screenshot: Unit Page

- Header:** SMIDGE Home My courses
- Unit Title:** COGNITIVE BIASES AND NEWS
- Summary:** This unit explores the influence of cognitive biases on the perception of misinformation. Biases, such as my-side bias, distort our judgment, leading us to favor information that confirms our beliefs. Studies like the SMIDGE project highlight the importance of reasoning skills and epistemic beliefs in identifying fake news, suggesting that developing these skills could reduce the impact of cognitive biases and improve resilience against conspiracy theories.
- Announcements:** (Empty box)
- VIDEOLISSONS:**
 - 6.1 - INTRODUCTION TO COGNITIVE BIASES (Mark as done)
- RESOURCES:**
 - READINGS (18 papers)
- ASSESSMENT:**
 - ASSESSMENT OF THE UNIT
- EVALUATION QUESTIONNAIRE:**
 - GIVE A FEEDBACK
 - CERTIFICATE
- Unit List (Right Sidebar):**
 - UNIT 1: Basics of Media literacy
 - UNIT 2: News hijacking and disinformation disorders
 - UNIT 3: Extremism and Conspiracy Theories on social media
 - UNIT 4: Media eco-systems
 - UNIT 5: Architecture of social media
 - UNIT 6: Cognitive Biases and News
 - UNIT 7: Active journalism: a discussion on work ethics and deontology

Bottom Screenshot: VIDEOLISSONS Section

- VIDEOLISSONS:**
 - 6.1 - INTRODUCTION TO COGNITIVE BIASES (Mark as done)
 - 6.2 - 'MY SIDE' BIAS AND EPISTEMIC BELIEFS (Mark as done)
 - 6.3 - FACTORS THAT AFFECT DISCERNMENT OF NEWS (Mark as done)
 - 6.4 - SMIDGE SURVEY WITH MIDDLE AGED CITIZENS (Mark as done)
- RESOURCES:**
 - READINGS (18 papers) (Mark as done)
- ASSESSMENT:**
 - ASSESSMENT OF THE UNIT (Done: Receive a grade)



Example of the Unit's framework

Additional materials produced under the SMIDGE project and considered suitable for the SMIDGE Platform experience (e.g. snackable contents produced by KCSS within WP6; previously produced podcasts within the SMIDGE workflow; light interviews recorded during SMIDGE physical meetings; webinars produced under the SMIDGE project, ...) are added to the SMIDGE Platform under a separate Unit to enrich the learning experience. This separate Unit is composed following the releasing timeline of the SMIDGE products, under the coordination of FVM and with the collaboration of the WP6 contributors.

Online tools with open license and hosted on external servers (e.g. databases for OSINT research; free tools to debunk AI generated contents; ...) can be embedded into the SMIDGE Platform after careful analysis to be undertaken by SMIDGE consortium and validation by the Board.

Every time a new content, feature and/or material is uploaded on the SMIDGE Platform, the system will automatically inform the registered users via email about the updates. The IT personnel (FVM team) will be updated by the system about the activities performed by the users during the SMIDGE Platform contents' delivering. If certain users never access the platform, and/or their tasks are pending, the system will update the IT personnel via email.

Users can choose autonomously the order to follow their learning path: they can decide to enter the learning experience starting from the Unit they prefer, to avoid certain Units (in which they're particularly experienced, for example, or that they are not interested in) or to complete the SMIDGE Platform's experience as they want, choosing their own learning path. We expect that each user moves steps from their professional experience, their professional and personal interests thus developing a unique learning path and making the SMIDGE Platform modular and customizable – in line with the self-consistency principle.

For any kind of technical problem, the user can send an email to SMIDGEsupport@montesca.eu

If the user needs more information regarding the completion of activities, taking quizzes, or any other doubts regarding the educational activities, he can write an email to SMIDGEtutor@montesca.eu

The MOOC will be accessible for the entire duration of the SMIDGE project; the same is said for the enrolment procedure. The availability of the SMIDGE Platform, its features and contents as well as the possibility to enrol after the SMIDGE project's lifetime is ensured for five years after the project ending under the responsibility of Villa Montesca Foundation. The data will be stored in the server of Villa Montesca and will remain available until the formal revocation of consent of the users concerned. Only the Villa Montesca professionals will have access to the data.



4. Course Plan and Units' overview

The title of the SMIDGE MOOC Platform is “**Disinfo Decode: A MOOC for security analysts and investigative journalists - *Dissecting online extremisms in middle age population.***”

Herewith follows the Course Plan, detailing the number of each Unit, the title, the key topics as well as the Lecturer (within SMIDGE consortium or External Expert). The Course Plan is followed by an outline of the contents of each Unit.

UNIT NR	TITLE OF THE UNIT	RECOMMENDED FOR (JOURNALISTS, SECURITY ANALYSTS)	TOPICS OF THE UNIT	LECTURER – CONSORTIUM PARTNER ORGANIZATION
	Introduction to SMIDGE: the background and the HYPE theory	Available without enrol	1. Introduction to SMIDGE project	Sara Wilford - DMU
			2. Introduction to the SMIDGE Platform	Fabrizio Boldrini - FVM
1	Basics of Media literacy	Both	1. Introduction to Media Literacy	Ella Put (external expert) - INEU
			2. Key Concepts of Media Literacy	
			3. Practical Steps for Improved Media Literacy	
			4. Media ethics	
2	News hijacking and disinformation disorders	Both	1. Introduction to Information Disorders	Dimitri Bettoni - FVM
			2. Types and Forms of Information Disorders	
			3. Causes of Information Disorders	
			4. Combating Information Disorders	
3	Extremism and Conspiracy Theories on social media	Analysts	1. Defining extremism and hybridization	Mikkel Baekby – UCPH
			2. Explaining HYPE spaces	Mikkel Baekby – UCPH
			3. Conspiracy theories and social media practices	Line Nybro Petersen - UCPH



			4. The Moral Frames of Conspiracy Theories	Christian Gulas - FAS
4	Media eco-systems	Journalists	1. Media systems: Introduction	Marco Mazzoni - UNIPG
			2. Analysis of Hallin and Mancini's media Systems Models	
			3. The evolution of Media Systems	
			4. Media Ecology	
5	Architecture of social media	Both	1. Social Media Architectures	Raouf Hamzaoui – DMU
			2. News and centralised social media architectures: a critique	Dimitri Bettoni - FVM
			3. News and alternative social media architectures: journalism beyond tech monopolies	Dimitri Bettoni – FVM
			4. Data Collection and Privacy Considerations	Nitika Balla – DMU
6	Cognitive Biases and News	Both	1. Introduction to cognitive biases	Maura De Vos - UCLan
			2. 'My side' bias and epistemic beliefs	Kalypso Iordanu - UCLan
			3. Factors that affect discernment of news	Kalypso Iordanou - UCLan
			4. SMIDGE survey with middle aged citizens	Kalypso Iordanou - UCLan
7	Active journalism: a discussion on work ethics and deontology	Journalists	1. Introduction to Active Journalism and Deontology	Dimitri Bettoni – FVM
			2. Key Elements of Journalism Professionalism	
			3. Challenges in Upholding Journalistic Ethics	
			4. Global Journalism Cultures	
8	Politics and Economics of dis/misinformation	Analysts	1. How Google funds disinformation?	Emir Zulejhić – KCSS
			2. What are “click farms” and how BiH became one big Vales?	
			3. How is disinformation harming brands and destroying journalism?	
			4. Can broken information ecosystem be fixed?	
9	Evaluating online information	Both	1. Evaluating source trustworthiness and other key strategies	Maura De Vos - UCLan



			2. SMIDGE professional focus group: Strategies to cross check information	Vasiliki Christodoulou - UCLan
			3. SMIDGE citizens focus group: Strategies used to cross check information	Vasiliki Christodoulou - UCLan
			4. Argument based interventions	Kalypso Iordanou - UCLan
10	Strategic storytelling for countering extremism	Both	1. Introduction to Strategic Storytelling and Extremisms	Jason Lee - DMU
			2. Principles of Strategic Storytelling for Countering Extremisms	Jason Lee - DMU
			3. Techniques for Crafting effective Counter-Narratives	Jason Lee - DMU
			4. Challenges and Ethical Considerations	Sara Wilford - DMU
11	Tools and strategies for storytellers	Both	1. OSINT for fact checking: an introduction	Giovanni Ziccardi - UMIL
			2. Mastering search engines	
			3. Socmint and doxing	
			4. Reverse imaging; exif extraction; countering image and video manipulation; deepfakes detection tools	
12	Data journalism FOR NEWS VERIFICATION	Journalists	1. Data Journalism: Introduction	Ornaldo Gjergji – (external expert) OBCT/EDJNET
			2. The Data Journalism Workflow	
			3. Challenges in Data Journalism	
			4. Ethical and legal Considerations	
SMIDGE in-depth materials		Available without enrol	Snackable SMIDGE contents	

UNIT 1 - BASICS OF MEDIA LITERACY

Lecturer: Ella Put, Communication advisor WilWeg @Nuffic , NL

LESSON 1 - INTRODUCTION TO MEDIA LITERACY

Welcome to this video lesson on *Basics of Media Literacy*, part of the SMIDGE Project.

In this unit, we'll cover key concepts of media literacy, practical steps to improve your skills and the importance of media ethics. By the end, you'll have a stronger understanding of how media shapes our perceptions and important tools to engage with media critically and responsibly.

In an era where information flows rapidly and reaches vast audiences within seconds, media literacy is no longer optional - it is essential. Journalists and media professionals operate at the frontline of information dissemination, and their ability to critically assess, interpret and communicate information defines the quality of public discourse. The role of media has grown more complex, with new platforms, algorithms and global communication networks shaping how news is consumed. For media professionals, understanding these dynamics is critical to ensuring responsible and effective communication.

But what exactly is media literacy?

At its core, media literacy is the ability to access, analyze, evaluate and create media content with a deep understanding of its impact. It is not just about detecting misinformation or identifying bias; it's about developing a critical awareness of the media ecosystem and engaging with it thoughtfully and responsibly. Media literacy equips journalists and media professionals with the tools to question the sources of information, recognize the techniques used to manipulate narratives, and understand how media can shape opinions and behaviors.

For example, how a news outlet reports on a political event can be influenced not just by the event's facts, but by editorial decisions in the newsroom. The choice of headlines, framing techniques, and even the placement of stories can influence public perception. A headline that reads "Protest Turns Violent" evokes a very different emotional response compared to one that reads "Peaceful Protest Faces Police Resistance". Both are technically true, but the language used, and the emphasis placed on certain aspects can alter the public's understanding of the situation. A media literate journalist would recognize how such editorial choices impact the narrative and how audiences may interpret the information.

A journalist's role goes beyond reporting; it involves interrogating sources, verifying claims and understanding how narratives are constructed. What's more, in a world where misinformation spreads effortlessly, media professionals must develop the skills to counteract falsehoods while maintaining credibility and trust.

Media literacy also involves understanding the ethical responsibilities of journalists. Reporting accurately, fairly and with context is essential, especially when dealing with sensitive or controversial topics. For example, during the COVID-19 pandemic, journalists had to navigate misinformation about the virus while maintaining transparency about what was known and what remained uncertain. They relied on expert sources and provided clarity to the public, helping to maintain trust amid a global crisis.

LESSON 2 - KEY CONCEPTS OF MEDIA LITERACY

Media literacy is all about understanding how information is created, structured and received. But what does that really mean in practice? Let's break it down into some key concepts.

First, 'Authorship' – Who's behind the message?

Every piece of media content has an author - whether an individual journalist, a media organization or a corporate entity - who brings specific intentions, perspectives and potential biases to the table. Understanding *who* created the message, and *why*, is vital in critically assessing its credibility. For example, a news article written by a political commentator with a known ideological stance may present information in a way that aligns with their views, even if the reporting appears objective.

Next, 'Formats and Techniques of Messages' – How is the message crafted?

Media isn't just about *what* is said, but *how* it's said. Media messages are constructed using a wide range of techniques to capture attention and shape perception. These techniques include headline crafting, the strategic use of visuals, word choices, sound effects and framing. Each of these elements plays a significant role in how information is received and interpreted. For example, a headline with strong emotional language like "Unbelievable Scandal Rocks the Nation" can draw in readers and set a tone of urgency or outrage, regardless of the factual content that follows. Or think about news reports that use emotionally charged images. They can shape how we feel about a story before we even process the facts. A skilled media professional must be able to identify these techniques and understand their impact on audience interpretation.

Another key concept is 'Audiences' – Who is the message for?

Media is rarely created for *everyone* – it's often tailored for a specific audience. Different demographics interpret the same content differently based on cultural, political and social backgrounds. A journalist covering an election, for example, might emphasize different points when writing for a youth audience compared to a business audience.

Next is 'Content and Omission'

What is included in a story is just as important as what is left out. Certain details might be emphasized, while others are downplayed or left out completely. Critical media literacy requires evaluating not only what is presented but also what is missing and why.

Another question to be asked is whether there are 'Hidden Values and Perspectives'

All media messages reflect underlying values, ideologies or perspectives, even those that claim to be objective. A seemingly neutral news report can subtly convey an ideological stance depending on which sources are quoted, how language is used, or which events are highlighted or downplayed. Recognizing these subtle influences can help us think more critically about the messages we consume and produce.

And how reliable are the 'Sources'?

The reliability of a message depends on its sources. Verifying sources, checking for transparency and distinguishing between primary and secondary sources are all fundamental skills in media literacy. With the rise of online misinformation, evaluating sources has become more critical than ever. A reputable source may be identified by its history of accurate reporting, transparency in its methods or its adherence to journalistic codes of ethics.

Finally, one of the biggest challenges in media today is telling the difference between 'Facts and Opinions'

Facts can be proven true or false through evidence, while opinions are personal interpretations and judgments. The challenge for journalists is to present factual information while distinguishing it from

opinions, especially in opinion pieces or editorials. Failing to make this distinction can lead to misinformation and misinterpretation. Also, the growing prevalence of "fake news" means that media professionals must be especially diligent in verifying facts and being transparent when presenting subjective viewpoints.

LESSON 3 - PRACTICAL STEPS FOR IMPROVED MEDIA LITERACY

Building strong media literacy skills isn't just about knowing the theory – it's about having practical tools to analyze, engage with and challenge the information we encounter. Let's look at some strategies that can help strengthen media literacy in media production:

Fact-checking is the cornerstone of responsible journalism. Before publishing any claim, journalists need to verify its accuracy using credible sources, whether that's independent fact-checking organizations, primary documents, or original data. But what happens when misinformation has already spread?

That's where **debunking** comes in. This means publicly correcting false claims and providing evidence to counter them. While debunking can be effective, it's often reactive.

But research shows that stopping misinformation before it spreads is even more effective. That's called **'Prebunking'** which focuses on preparing audiences by explaining common manipulation tactics before they even encounter them and so making them more resistant to misleading content. For example, if people understand how emotional manipulation or false framing are used to distort reality, they're less likely to fall for them in the first place.

Next key strategy is 'Source Diversification'

Journalists and media professionals should always make sure that the sources they rely on are diverse. If you only rely on a small number of sources, you risk missing out on different perspectives and falling into bias. Cross-checking a variety of sources – including local, international, independent and mainstream – gives you a fuller picture of the story.

It is also crucial to be aware of echo chambers, where seeing the same viewpoints over and over just reinforces your own biases. The proliferation of social media algorithms that tailor content to users' preferences can create these echo chambers, which leads to a narrow worldview. Being aware of this helps break out of these bubbles and seek a broader, more balanced perspective.

Another key skill is 'Recognizing Cognitive Biases'

All individuals, including journalists, are susceptible to cognitive biases that can cloud judgment and influence reporting.

Take confirmation bias, for example – that's when people prefer information that supports their existing beliefs. Then there's an anchoring bias, which means we often stick too closely to first impressions; and availability bias, where we give too much weight to information that's easy to access.

Being aware of these mental shortcuts doesn't mean eliminating them entirely, but it does mean questioning assumptions, actively seeking different viewpoints, and making sure reporting is based on facts rather than personal perspectives.

And finally, let's not forget about 'Visual and Digital Manipulation'

With AI-generated content and deepfakes becoming more sophisticated, visual literacy is now just as important as traditional fact-checking. Manipulated visuals and videos are widespread on social media, and they can easily distort public perception. That's why journalists need to develop the skills

to verify images and videos, whether that's checking metadata, using reverse image searches, or cross-referencing sources.

On top of that, social media algorithms don't just determine what we see—they also influence how stories gain traction and how narratives are shaped. Understanding these digital networks allows journalists to navigate it more critically and responsibly.

LESSON 4 - MEDIA ETHICS

Ethical journalism is what makes media trustworthy. It's about accuracy, accountability, and earning public trust. But in today's fast-paced digital world, media professionals face new challenges—from misinformation to political pressure. So, how do ethical journalists deal with these issues while staying true to core principles?

Let's start with 'Accuracy versus Speed'

With digital media moving so fast, the race to break news is more intense than ever. But sometimes, that rush leads to sacrificing verification. While speed is important, especially in a crisis, putting accuracy second can spread false narratives. Ethical journalists follow strict verification processes, always cross-checking their sources before publishing.

A good example is the 2013 Boston Marathon bombing – in which misidentified suspects were quickly shared on social media and later picked up by mainstream outlets. This led to legal and reputational damage, highlighting why fact-checking should always come first, even when there's pressure to break a story.

Then there's 'Transparency and Accountability'

Transparency in the media means clearly showing where your information comes from, how you got it, and if there are any potential conflicts of interest. Whether it's investigative journalism or academic work, being clear about your sources builds credibility. Ethical reporting also means acknowledging when something isn't certain—marking speculation as such, not presenting it as fact. If a mistake happens, responsible journalists make sure to correct it publicly, ensuring that the retraction reaches the same audience who saw the original misinformation.

Balancing 'Privacy and Public Interest' is another ethical challenge.

Media professionals often face tough calls about when the public's right to know outweighs an individual's right to privacy. Ethical guidelines emphasize balancing the potential harm of sharing something with its public value. For instance, exposing the private financial records of a public official involved in corruption might be justified, but invading a private citizen's personal life for the sake of sensationalism is not. The European GDPR laws also stress the importance of protecting privacy in digital journalism, forcing media organizations to think carefully about the ethical and legal consequences of sharing personal data.

And finally, Ethical Engagement in Online Spaces' is more important than ever.

Media professionals need to think about how their content is amplified - how it shapes public discourse. Sensational crime reporting can distort how people view risks, creating unnecessary fear and even influencing policy in ways that aren't justified. Instead of just reacting to events, ethical reporting should provide context, using data to inform the public and avoid misleading narratives. This is especially important when reporting on extremism, where the wrong framing can unintentionally legitimize harmful ideologies.

In a time when digital misinformation spreads quickly, media professionals also have a responsibility to actively counteract false narratives. Ethical engagement means not just debunking misinformation

but also prebunking—getting ahead of misleading claims before they even start. Media literacy is a key part of this: helping the audience understand how disinformation spreads, how cognitive biases influence their perceptions, and how algorithms shape what they see online.

At the end of the day, journalists aren't just reporting facts, they're shaping how the public understands the world. Ethical journalism demands a focus on accuracy, responsible amplification and always putting the public interest over sensationalism.

And really, media literacy is not just a skill, it is a professional duty. In a time when information moves faster than ever, journalists and media professionals must always be vigilant, fact-checking content, and sticking to ethical standards. Strengthening media literacy helps ensure that journalism can continue serving its most important role: keeping the public informed with accuracy, integrity, and responsibility.

Thank you for watching this lesson on *Basics of Media Literacy*. We encourage you to reflect on what you've learned and apply these principles in your daily life.

For more resources, be sure to check out the additional materials provided. Stay informed, think critically and be media-wise!

UNIT 2 - NEWS HIJACKING AND DISINFORMATION DISORDERS

Lecturer: Dimitri Bettoni, FVM SMIDGE Senior Expert and journalist FVM

LESSON 1 – INTRODUCTION TO INFORMATION DISORDERS

Hello everyone and welcome to the lesson “News Hijacking and Information disorders” of the SMIDGE online course.

My name is Dimitri Bettoni, I am an Italian journalist and researcher based at Fondazione Villa Montesca, partner of the SMIDGE consortium.

The aim of this lecture is to introduce the concept of information disorders and understand their impact on news making and the right to be informed as the basis of democratic life. In a 2017 research report of the European Council, Claire Wardle and Hossein Derakhshan (2017) introduced the term ‘information disorder’. This term places greater emphasis on the different agents involved in the creation, spread and consumption of dysfunctional news. The two scholars described information disorder by distinguishing between misinformation, disinformation and malinformation. These types of information are separated by the intention with which news is spread and if harm is intended or not.

MISINFORMATION is a category of information disorders involving *false* information spread with no intent to deceive or harm. The person sharing it may genuinely believe it's true. It differs from disinformation because the motive isn't malicious. Misinformation often spreads organically through social media, fueled by rumors, biases, or misunderstandings. Examples include sharing outdated medical advice, believing a celebrity death hoax, or forwarding a news article with factual errors.

DISINFORMATION is a category of information disorder involving deliberately false or manipulated information spread to deceive and cause harm. It's not simply incorrect information; the intent to mislead is crucial. Disinformation campaigns often aim to influence public opinion, manipulate elections, or damage reputations. Unlike misinformation, disinformation is strategically crafted and disseminated, sometimes through coordinated efforts. It can exploit social media's rapid spread and emotional appeals to amplify its impact. Examples include fabricated news articles, deep-fake videos, and propaganda.

MALINFORMATION is a type of information disorder where true information is weaponized and used out of context to cause harm. It's not about fabricating falsehoods but about manipulating reality. This can involve selectively revealing private information, leaking sensitive data, or twisting factual information to create a misleading narrative. The intent is malicious, aiming to damage reputations, shame individuals, or manipulate public perception. Malinformation can be particularly damaging because it leverages truth, making it harder to refute. Examples include publishing someone's private address to harass them or releasing selectively edited transcripts to distort someone's speech. While the information itself might be accurate, the way it's used and the intent behind it make it a form of information disorder with serious real-world consequences.

But information disorders aren't just abstract concepts; they have tangible and often devastating effects on our lives and societies. They contribute to the erosion of our trust in public institutions, targeting governments, media outlets, and scientific institutions. This can lead to political instability, social unrest, and difficulty in addressing critical issues. They jeopardize the fabric of our societies: when we can't agree on basic facts, it becomes harder to trust our neighbors, colleagues, and even family members. This can fracture communities and make constructive dialogue nearly impossible, fostering polarization and social division. Finally, information disorders erode trust in the power of information itself: constant exposure to information disorders can make people cynical and distrustful of all information, even from reliable sources. This makes it harder to make informed decisions about

our lives. Information disorders can also play a role in health crisis, financial Scams, social unrest and international conflict. This is why it is important to understand and address the issue of information disorders. Before that, let's go a bit deeper.

LESSON 2 – TYPES AND FORMS OF INFORMATION DISORDERS

Let's now take a look at the key types of information disorders. The first one is fabricated Content: this is entirely false information, like deepfakes or fake news articles. For instance, a deepfake video of a politician saying something they never actually said. A different one is manipulated Content: Genuine information distorted or selectively presented to mislead. Examples are cropped or edited photos and videos used to change the context. We also have imposter content: which means attributing false information to a credible source.

An example is a fake quote attributed to a scientist or expert. We also have false context, presenting genuine content in a false context. For instance, using an old news photo to illustrate a current event, implying a connection that doesn't actually exist. And finally, we have parody and satire: while intended as humor, it can be mistaken for truth.

A satirical news website that some readers may believe is real, is one example. Information disorders share traits, and they have these traits in common: Sensationalism is one of them, which means exaggerated or shocking content designed to grab our attention, often at the expense of accuracy. An example is a Headline screaming "BREAKING NEWS: Aliens Invade!"

Another trait is emotional Appeal, which plays on strong emotions like fear, anger, or outrage to bypass critical thinking ability. An example may be posts with emotionally charged language about a very controversial topic. Another feature can be Lack of Evidence: Lacks credible sources, factual support, or verifiable information. An example is Information based on anonymous sources, unverified sources, or generic internet research. One final trait we need to highlight is Virality. This is designed to spread rapidly online through shares and re-posts, often amplified by algorithms. An example is Clickbait headlines or memes that encourage sharing without critical evaluation. These characteristics often work in concert to make information disorders more persuasive and easily spread.

LESSON 3 – CAUSES OF INFORMATION DISORDERS

Let's now take a quick overview of the causes behind information disorders. Please bear in mind that some of them will be further addressed in other lessons on the SMIDGE course. Information disorders arise from a complex interplay of factors. Technology plays a significant role, with social media algorithms, echo chambers, and the sheer speed of online sharing all working as amplifiers. Politically, disinformation is weaponized for political gain, to manipulate elections, and to sow discord. On the other side, economically the spread of misinformation can be driven by clickbait revenue, advertising models that reward engagement over accuracy, and the pursuit of profit. Furthermore, social and cultural factors like cognitive biases, declining trust in institutions, and increasing polarization make individuals more vulnerable to manipulation. These forces combine to create a challenging environment where information disorders thrive.

Social media significantly amplifies information disorders. Algorithms prioritize engagement, often boosting sensational or emotionally charged content, regardless of accuracy. Echo chambers and filter bubbles reinforce existing biases, making users less receptive to opposing views. The rapid, frictionless sharing on platforms enables information disorders to spread virally.

Furthermore, AI and automation are increasingly used to generate and disseminate misleading content on a scale, making detection and mitigation of these information disorders even more

challenging. This combination of algorithmic amplification, rapid sharing, and AI-driven content creation creates a perfect storm for the spread of information disorders.

Information disorders are also a potent political tool. Actors use it to manipulate public opinion by spreading false narratives about opponents, inflating their own achievements, or sowing discord among voters. This can influence elections by swaying undecided voters, suppressing turnout, or discrediting results. By exploiting existing societal divisions and preying on emotions, information disorders can erode trust in democratic processes and institutions, ultimately undermining democratic life. But also, economic incentives also represent fuel for information disorders. Clickbait headlines and sensational content drive traffic, generating advertising revenue for those who create and spread malicious content. Fraudulent schemes exploit this system, using information disorders to lure victims. This profit motive amplifies the spread of low-quality information, as creating and sharing falsehoods can be more lucrative than producing accurate content. The pursuit of clicks and ad revenue prioritizes engagement over truth.

Declining trust in journalism and common biases create fertile ground for information disorders. When people distrust established sources, they become more inclined to believe in misleading narratives, even if false. Social and cultural polarization exacerbates this, as individuals gravitate towards information confirming their existing belief, reinforcing echo chambers. This makes it harder to distinguish fact from fiction, further eroding trust and deepening societal divides, making populations more vulnerable to manipulation.

We now move to the final section of this lecture, on to how we can tackle information disorders.

LESSON 4 – COMBATING INFORMATION DISORDERS

We now take a look at the solutions and remedies currently in place for fighting information disorders back. Combating information disorders requires a multi-layered approach. Education and media literacy empower individuals to critically evaluate information. Platform accountability and regulation can curb the spread of falsehoods. Fact-checking and verification provide crucial counter-narratives. Technology can be part of the solution, and it offers tools to detect and mitigate information disorders. Addressing this complex challenge demands collaborative effort from citizens, private actors, and policymakers. Let's see two different approaches in addressing the challenge of information disorders:

A Systemic approach focuses on the structural issues that make democratic processes vulnerable to external interference.

Imagine a house with faulty wiring. The systemic approach looks at the faulty wiring itself, regardless of who might try to use it to cause a fire. By identifying and fixing vulnerabilities, it aims to make the system more resilient to *any* kind of external influence, regardless of who's behind it. It addresses the root causes of the problem, rather than just reacting to individual incidents. It also maximizes the protection of freedom of speech and fruitful democratic debate.

An Actor-focused approach, instead, is primarily concerned with identifying and exposing the individuals or groups who are intentionally spreading disinformation, misinformation and malinformation. This could include governments, political groups, corporations, or individuals seeking financial gain. This approach focuses on identifying the arsonist who's trying to set the fire, rather than the faulty wiring in the house.

Strengths of this approach are a strong emphasis on accountability, it helps to hold those behind disinformation and malinformation campaigns responsible for them, and it represents a deterrence mechanism, which may discourage some actors from engaging in such activities. These two

approaches are not necessarily mutually exclusive, and they can be combined in a holistic strategy to counter information disorders. This strategy can comprise several tools. Let's see which ones.

Critical thinking is crucial: question information offered to you, evaluate your sources, check their reputation and their past history, look for potential bias, and verify their claims. Fact-checking websites and best journalistic practices are essential tools for this. Journalists must prioritize accuracy, transparency in their methods, and rigorous verification. Identifying bias, both on our own and from our source, is key to responsible reporting and consumption of information. These skills empower individuals to navigate the complex information landscape.

On the other hand, platforms owned by giant tech companies must be accountable for the information they host and amplify. Regulations, like the EU's Digital Services Act, or DSA, aim to address this. The DSA mandates platforms to tackle illegal content and disinformation, increasing transparency and user control. It includes provisions for risk assessments, content moderation, and cooperation with fact-checkers. Complementing the DSA, the EU Code of Practice on Disinformation fosters self-regulation by platforms, setting standards for tackling disinformation, including commitments on ad policies and transparency.

These measures seek to create a safer online environment and limit the spread of harmful information, holding platforms responsible for their impact on public discourse. However, it's crucial to remain vigilant against the potential for authoritarian drift. Regulations intended to combat disinformation must be carefully designed to avoid censorship and protect freedom of expression, ensuring they are not misused to suppress dissent or limit access to diverse viewpoints.

Information gatekeepers such as fact-checkers and journalists also play a crucial role in verifying information and debunking falsehoods. They provide an essential counter-narrative to information disorders when they operate within a framework of ethical rules and transparent practices.

On the other hand, technology offers potential solutions: AI-powered tools to help identify manipulated media like deepfakes, natural language processing to analyze text for signs of disinformation, or blockchain technology to verify the provenance of news content, adding a layer of trust. Combined with human expertise, technologies are useful tools in the fight against information disorders.

However, the use of technology also presents risks, to the extent of doing potential damage greater than the disorders themselves. AI detection tools can be biased or make mistakes, potentially censoring legitimate speech. Automated content moderation can be easily gamed or used to suppress dissenting opinions. Furthermore, the development and deployment of these technologies can be costly, creating a barrier for smaller organizations and potentially exacerbating existing power imbalances in the information ecosystem. Technology must be used with extremely careful consideration to ensure that fundamental rights are preserved. We have seen how information disorders are categorized, what kind of features they present, and how they can be tackled. Information disorders pose a significant threat to individuals and society. Combating them requires a multi-pronged approach and, more importantly, it's a shared responsibility. By becoming informed consumers and active participants, we can collectively build a more resilient information ecosystem.

We have now concluded this lesson on news hijacking and information disorders. I hope you enjoyed this time, and I wish you a pleasant continuation with the online SMIDGE course.

UNIT 3 – EXTREMISMS AND CONSPIRACY THEORIES ON SOCIAL MEDIA

Lecturers: Mikkel Bækby, PhD fellow and postdoc, UCPH

Line Nybro Petersen, Associate Professor and SMIDGE PI, UCPH

Christian Gulas, Data Scientist and Network Analyst, FAS

LESSON 1 - DEFINING EXTREMISM AND HYBRIDIZATION

Recent years have seen growing public and scholarly interest in online extremism and the spread of conspiracy theories on social media. Research into violent extremism, terrorism, and mass shootings emphasizes how perpetrators are increasingly driven by a mix of ideological fragments, conspiracy beliefs, personal grievances, and various ad hoc convictions. This is often indicated by content uploaded on their social media profiles. This fusion trend is labelled by Danish Security and Intelligence Services as hybridization. Other commentators and scholars use terms such as “DIY ideology”, “salad bar extremism”, and “composite violent extremism”. The word “extremism” is often used as a shorthand for political extremism. Political extremism is typically understood in positional terms, either by situating ideas and practices on an ideological spectrum between the extreme left and the extreme right or by juxtaposing mainstream domains with extreme domains. While ideology is certainly a key component of extremism, the ideological spectrum cannot account for hybrid extremism because it fails to contain ideas, ways of thinking, aesthetics, and practices which cut across typical political divides. On social media, the boundaries between different ideologies and between politics, entertainment, fan culture, and other genres have become increasingly blurred. This means that various new content forms, genres, and aesthetics have entered the mix of communication which may be perceived as potentially extremist. In short, the compound character of online extremism requires researchers and practitioners to consider a range of content, which may not easily lend itself to traditional classifications by positional ideology. For example, a key feature of the hybridization trend is the proliferation and increased impact of conspiracy theories. Although conspiracy beliefs are typically strongest at the extremes, conspiracy theories are not reserved for any particular ideology. Similarly, the widespread use of ironic and humorous content forms like memes to spread extreme messages makes it difficult to clearly identify what extreme content looks like. What conspiracy theories and memes have in common is a distinct use of ambiguity. In most cases, ambiguous content is a harmless source of entertainment for social media users. But sometimes, ambiguity is weaponized to spread misinformation, hate, and subversive ideas. Making sense of ambiguity and recognizing the challenge of clearly categorizing extreme social media content is an important first step for scholars, media professionals, and security practitioners who wish to understand hybridization and mitigate the spread of extremism in society.

LESSON 2 – EXPLAINING HYPE SPACES

Aiming to better understand how social media enables the hybridization of extremism, we have developed the notion of HYPE spaces. HYPE stands for “hybridized prefatory extremism”. HYPE spaces are pockets in the mainstream culture, which may serve as a prefatory stage in some people’s trajectory toward violent extremism. HYPE spaces may be illustrated by zooming in on three domains of internet culture: (1) influencers, (2) participatory practices; and (3) memes. First, influencers may serve as hosts of HYPE spaces by promoting conspiracy theories or misinformation in a way that is not recognized as extreme. This happens, for instance, when lifestyle and health influencers on Instagram use their platforms to promote COVID-19 conspiracy theories. Or when mainstream podcasters host conspiracy theorists or extreme political figures without challenging their theories and opinions. When presented in an Instagram aesthetic or as part of an open podcast conversation,

misinformation and extreme ideas may be more difficult to detect because they appear less dangerous or violent. Secondly, HYPE spaces may emerge through mundane social media practices such as commenting on a Facebook post or YouTube video. For instance, a gaming influencer may post an opinion about migration on YouTube, prompting followers to discuss their concerns and share their grievances. At one point, some users may start to share misinformation, conspiracy theories, or escalate the discussion with hateful opinions. Through mundane participatory practices, comments sections may evolve from legitimate spaces of discourse to hostile environments, condoning violence. Third, HYPE spaces may emerge through the use of memes. Memes are characterized by their ambiguous character and incorporation of popular culture. When extreme messages are presented using images from movies like *The Matrix*, audiences may not at first recognize their extremist character because the movie reference can work as a distraction and may sometimes give cultural credibility to the message. HYPE spaces illustrate the potential of everyday media practices of turning hostile or even violent. Due to the blend of extremism, legitimate criticism, and references to popular culture, the extremism of HYPE spaces may be less noticeable because the violent or hateful dimensions are softened by their entanglement with other types of content. In HYPE spaces, the extremism is continuously softened or diluted by other types of content and practices. In this way, HYPE spaces may never evolve from prefatory to violent extremism.

LESSON 3 – CONSPIRACY THEORIES AS SOCIAL MEDIA PRACTICE

Conspiracy theories co-produced and distributed by social media users play an increasingly central role in emerging forms of extremism online. While some conspiracy theories are relatively harmless sources of entertainment to a diverse group of participants who try on identities and explore alternative explanations to various phenomena, others turn violent through harassment campaigns and online vitriol. Studies indicate that individuals who endorse conspiracy theories are more inclined to justify political violence. Conspiracy theories may appeal to social media users with a wide range of opinions and convictions due to their perpetually adaptable narratives. This points to the trend of hybridization, and the HYPE-concept which we introduced earlier in this module, which captures how extremists are increasingly motivated by a wide range of ideological fragments, disparate conspiratorial beliefs, and personal grievances (Jones and Comerford, 2023). Hybridization, we suggest, not only applies to the content of extremists' motivations, but also to the technological and aesthetic character of their communicative practices. In addition, the employment of violent strategies is also, in the eyes of the self-ascribed in-group, a morally legitimate or necessary response to perceived moral and legal offenses. This is similar to what Marwick in a study from 2021 labels 'morally motivated networked harassment'. Although outrage and hate may be the main emotions around which an extremist conspiracist community convenes, enjoyment, pleasure, and even love are also important emotional drivers. According to Jones and Comerford (2023), the hybridization trend 'significantly lower[s] the barrier to participation for individuals into a potentially radicalizing environment'. The Danish Security and Intelligence Service emphasizes how hybridization is enabled by mainstream social media where 'leading and agenda-setting individuals' spread conspiracy theories and 'threat-inducing narratives' in a 'loosely structured network' with no clear ideological center (DSIS, 2024: 30). These HYPE spaces, such as the QAnon movement, are highly textually and aesthetically malleable; they combine a broad range of narratives, e.g., connecting COVID-19 misinformation and vaccine skepticism to conspiratorial notions of a deep state or a satanic global cabal led by Bill Gates. Marwick and Partin (2024) have studied conspiratorial communities' self-labeled practice of 'baking' in which the 'bakers' utilize 'the participatory affordances of the social web to collectively construct knowledge that maintains the social and political cohesion of the conspiracy across time'. The baking practice points to a broader interpretive strategy in conspiracy theory communities where users take on the role of online sleuths. This practice is well-known in fan studies where the term 'forensic fandom' describes how fans engage with complex television narratives through 'research,

collaboration, analysis, and interpretation' (Mittell, 2009). We perceive participants to engage in a form of similar forensic play, which is centered around the interpretation of anything from social media posts to news stories and popular culture as potential 'clues' in a mystery that participants can collectively solve. Forensic play is fundamentally collaborative and based on a crowd-sourcing logic of producing 'evidence' to support and expand conspiracy theories on social media.

LESSON 4 – THE MORAL FRAMES OF CONSPIRACY THEORIES

In this video, we want to explore the reasons why disinformation and conspiracy theories are so attractive to so many people, especially in an online context. We do not want to judge people, but we want to develop a model and a better understanding of why they are so attractive. There are many different reasons. Of course, we live in a time of crisis and people are looking for answers. Disinformation and conspiracy theories are often used as a weapon in a cyber war by authoritarian regimes. Then there is the social dimension. People want to belong. In many cases, it is not so important what to believe. It's more important to believe what other people believe. Then there is the role of social media. The business model of social media rewards polarizing and emotional content, not evidence. The fifth reason is the failure of mainstream narratives. Political actors, so-called mainstream media, experts and science, often fail to give satisfying narratives about the crisis and events we face. And this brings us to the sixth and, from our perspective, one of the most important reasons. Conspiracy theories and disinformation often address deep emotions and sentiments. At the heart of conspiracy theories lies something deeper, emotionally charged moral experience. Conspiracy theories do not just inform. They contain and express strong emotions triggered by perceived violations of moral values. For example, people fear being harmed or neglected. They are afraid that their freedom is taken away or that they are told what they must do. People distrust institutions they see as abusive. People fear their communities or nations are being betrayed. People react with disgust to what they perceive as moral decay and so on. Conspiracy theories evoke and reinforce these emotions. They offer narratives that channel moral outrage, fear, disgust or anger, often by identifying a clear enemy or a hidden elite that is responsible for all these events. From a psychoanalytic perspective, conspiracy theories act like containers. They structure chaotic emotional experiences and turn them into stories that feel emotionally meaningful. They help us to metabolize information. This emotional containment is a key reason why fact checking alone often fails. Correcting misinformation doesn't address the underlying emotional drivers and may even intensify distrust. So, what can we do? Media literacy and fact checking are important, but it's not enough. We need strategies that respond to the emotional and moral needs that conspiracy theories fulfill. That means rebuilding trust, offering emotionally resonant narratives and creating spaces where people can share and process fears and frustrations without falling into the trap of disinformation and conspiracy theories.



UNIT 4 – MEDIA ECO-SYSTEM

Lecturer: Marco Mazzoni, Professor of Sociology of Communication, University of Perugia

LESSON 1 – MEDIA SYSTEM: INTRODUCTION

The notion of *the media system* is the result of a long and interdisciplinary journey, shaped by theories from sociology, political science, and media studies. The concept emerges from the encounter of two terms—*media* and *system*—each carrying a complex and evolving history. While "media" has shifted over time in response to technological and cultural changes, from mass to digital to social media, the idea of "system" draws from classic sociological theory—especially from Parsons and Easton—and refers to a structured set of interdependent elements that function together within a society.

When the two terms are combined, the result is a concept that aims to capture how communication practices are organized, institutionalized, and linked to other systems, particularly the political one. A *media system* is not simply a set of media technologies or institutions, but a broader structure of relationships through which information circulates, meanings are produced, and public opinion is shaped. It includes formal institutions like news organizations and legal frameworks, as well as informal norms, professional cultures, and economic conditions. This complexity is what Hallin and Mancini sought to capture in their 2004 book *Comparing Media Systems*. Before their work, scholars lacked a common framework to compare how media and politics interacted across different democratic countries. Hallin and Mancini addressed this gap by defining media systems as configurations shaped by both historical legacies and ongoing exchanges between the media field and other social systems. They emphasized that media systems are plural, context-bound, and dynamic – sensitive to variations in political culture, institutional development, and journalistic traditions.

To analyze media systems comparatively, they proposed four analytical dimensions: a) the structure of the media market, b) political parallelism, c) state intervention, and d) journalistic professionalism. The structure of the media market considers factors like press circulation and the development of mass readership, which reveal how widely media are consumed and by whom. Political parallelism captures the degree of alignment between media and political actors – whether news outlets openly support parties or ideologies or maintain a stance of neutrality. The role of the state addresses how governments influence media through regulation, funding, or ownership. Finally, journalistic professionalism looks at the autonomy of journalists, their adherence to ethical standards, and their orientation toward serving the public interest. These dimensions are not isolated variables, but interrelated features that reflect how media and politics co-evolve within specific national contexts. These dimensions, taken together, allow scholars to explore not just how media operate, but how they reflect and reinforce broader patterns of power, representation, and civic life.

In a nutshell, a media system is a complex and historically grounded formation that expresses the intersection of communication, politics, and society. It is not a static entity but a living arrangement – continuously shaped by internal dynamics and external influences – that structure how public communication works within a given country

LESSON 2 – ANALYSIS OF HALLIN AND MANCINI'S MEDIA SYSTEM MODELS

In a book that has become a milestone in media studies - *Comparing Media Systems* (2004) - Daniel Hallin and Paolo Mancini propose a now-classic typology of media systems in Western democracies based on three ideal types of media systems: Polarized Pluralist, Democratic Corporatist, and Liberal.

These should not be understood as fixed categories rather than interpretative frameworks that capture different historical relationships between media, politics, and institutions.

The Polarized Pluralist system, found in Southern European countries such as Italy, Spain, Greece, and to some extent France, is marked by a media landscape heavily entangled with political life. The press has traditionally served more as a tool for political elites than as an autonomous institution. Journalism in this context often lacks strong professional boundaries and tends to be opinionated, interpretative, and partisan. What emerges here is a media system that reflects and amplifies a broader pattern of weak institutional differentiation in society – where media, politics, and economic power often overlap. Far from neutral observers, journalists frequently act as political players. This system highlights the fragility of media autonomy when democratic norms consolidate late and unevenly, and when clientelist practices permeate both politics and journalism.

By contrast, the Democratic Corporatist system, seen in Northern and Central Europe (e.g., Germany, the Netherlands, Scandinavia), offers a more structured and pluralistic model. Here, a tradition of party-affiliated press coexisted with strong public service broadcasting and high levels of journalistic professionalism. What makes this model particularly interesting is its ability to institutionalize diversity: rather than pushing for a single “neutral” voice, it historically accommodated multiple, legitimate political perspectives within a shared framework. The state has played a significant but regulated role, aiming to sustain pluralism and prevent excessive commercialization. This system illustrates how state intervention in the media does not necessarily threaten freedom or professionalism when it is grounded in a strong tradition of rational-legal authority. It is precisely this institutional framework – rooted in legal norms, procedural legitimacy, and consensus – that enables political engagement to coexist with journalistic autonomy.

The Liberal system, dominant in countries such as the United States, the United Kingdom, Canada, is based on the principle of a commercially driven, politically independent press. Media are assumed to serve as watchdogs, operating at arm’s length from both the state and political actors. Journalism is deeply professionalized, and objectivity is a core norm, especially in the U.S. However, this apparent independence comes at a cost: the press is also highly exposed to market pressures, with editorial choices often shaped by audience demand and advertising logic. Despite its rhetoric of neutrality, the Liberal system can obscure underlying structural biases tied to ownership, commercialization, and the shrinking of public service ideals. It champions autonomy, but that autonomy is increasingly challenged by the logic of profit.

LESSON 3 - THE EVOLUTION OF MEDIA SYSTEMS

Nearly two decades after *Comparing Media Systems*, the typology proposed by Hallin and Mancini – Polarized Pluralist, Democratic Corporatist, and Liberal – remains a cornerstone in comparative media research. But is it still adequate for understanding journalism today? While many core features of the original models are still traceable, both the literature and the transformations in society suggest the need for critical updates.

From a scholarly perspective, one major limitation is the Western-centric scope of the original framework, which makes it less suitable for analyzing non-Western or transitional contexts. Even within Western cases, the models were built on the assumption of relatively stable media and political institutions. But over the past two decades, such stability has eroded.

Socially and politically, media systems have been transformed by new actors, technologies, and logics. The most disruptive factor has been the rise of digital and especially social media, which has introduced dynamics largely absent from the original models. Platforms like Facebook, YouTube, and X (formerly Twitter) have altered how journalism is produced, circulated, and consumed. Their opaque

ownership, algorithm-driven visibility, and affordances that privilege virality and emotional engagement have contributed to the fragmentation of audiences and the polarization of public discourse.

These developments cut across media systems. For instance, the U.S. Liberal system, once marked by a strong norm of objectivity and weak political parallelism, has shifted toward increasing ideological segmentation, exemplified by the rise of Fox News and other partisan outlets. Meanwhile, even Democratic Corporatist countries face growing pressure on public broadcasters, including funding cuts and political attacks on their legitimacy, especially from populist parties. At the same time, journalism in these systems contends with increasing precariousness, commercial pressures, and a slow but noticeable decline in public trust, particularly among younger and more digitally native audiences.

The boundaries between systems have blurred. As Hallin and Mancini themselves noted in their 2017 review, the original models are being stretched by phenomena like media commercialization, soft convergence, and hybridization. Scholars like Brüggemann et al. (2014) have found empirical deviations from the three-fold typology, while Mattoni and Ceccobelli (2018) argue for including new dimensions like grassroots participation and the impact of ICTs.

In sum, *Comparing Media Systems* remains a powerful framework – but less as a definitive map and more as a flexible compass. Understanding today’s journalism requires integrating new variables: platform dynamics, transnational media flows, the politics of algorithms, and the blurred lines between professional and user-generated content. The media systems Hallin and Mancini described have not disappeared – and the variables they used remain compasses for orientation in understanding journalism worldwide – but they are evolving in ways that challenge the stability of the original models.

LESSON 4 – MEDIA ECOSYSTEM

The concept of media ecosystem has become increasingly central to understanding how public communication evolves in the digital age. Borrowed from biology, the term captures the complexity, interdependence, and constant transformation of today’s media environment. Rather than viewing media as a set of isolated channels, the ecosystem metaphor emphasizes the dynamic interactions between platforms, technologies, institutions, and users that collectively shape the public sphere.

In contrast to earlier phases dominated first by the press and later by television, the current media ecosystem is defined by remediation – the constant interplay between old and new media – and disintermediation, where traditional journalistic gatekeepers have lost their exclusive role. Social media, messaging apps, and algorithmic platforms now allow a wide range of actors to produce and disseminate content, leading to a fragmentation of audiences and a reconfiguration of how public opinion is formed.

This new ecosystem does not simply replace previous systems; it adds layers of complexity. We now inhabit a hybrid communication space where professional journalism, user-generated content, viral memes, misinformation, and institutional messaging all coexist and compete for attention. The result is a public sphere that is more accessible, more participatory, but also more polarized and volatile.

Crucially, this environment is shaped not just by the content but by the logic of the platforms themselves: speed, virality, emotional engagement, and personalization. These dynamics create conditions for phenomena like information overload, echo chambers, and selective exposure, where users are increasingly likely to encounter content that reinforces their existing views. At the same time, the abundance of communicative opportunities enables new forms of civic participation and identity-building, giving rise to what scholars call networked publics.

In this sense, the media ecosystem is both a challenge and an opportunity. It can weaken the coherence of public debate, but it also diversifies voices and breaks down traditional hierarchies. Understanding the media ecosystem means acknowledging this ambivalence: it is a constantly evolving terrain in which old structures dissolve and new dynamics of power, participation, and visibility emerge.

UNIT 5 – ARCHITECTURE OF SOCIAL MEDIA

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LESSON 1 – SOCIAL MEDIA ARCHITECTURES

Welcome to this lecture on the architectures of social media networks. As users, we often think of social media in terms of content: tweets, posts, and videos. But behind the scenes, the network architecture dictates how that content is delivered. In this lecture, we will review the main architectural models of social media platforms and explore how they affect not only technical aspects such as content delivery but also broader issues such as censorship, privacy, and users' ability to control their own data. The architecture of a platform determines the following aspects:

- Data location: where is the data stored?
- Latency: How fast does content load?
- Privacy and Security: Who can access the data?
- Scalability: Can the platform scale efficiently to support a large number of concurrent users without performance degradation or system failures?
- Resilience: How vulnerable is the platform to outages, censorship, or attacks?

In this lecture, we classify platforms into three architectural categories:

- Centralized
- Federated
- Distributed

Centralized social networks are the dominant model. Examples include Discord, Facebook, Reddit, Telegram, and X/Twitter.

In this model:

- A single company owns and operates the entire infrastructure.
- The network architecture is the client-server model where clients (user devices) request services or data from a central server. Users connect to the central server through apps or browsers. The server processes these requests and sends back responses.
- Data is stored in company-controlled servers, often hosted on cloud services (e.g., AWS, Azure).
- To deliver content globally with low latency, Content Delivery Networks (CDNs) (e.g., Cloudflare) are used. CDNs cache content closer to users to reduce load times.

The strengths of this architecture are

- Low latency and consistent performance.
- Fast feature rollouts and user interface consistency.

- Easier moderation since all content flows through a single point.

The weaknesses include

- Privacy risks as user data are monetized through targeted advertising.
- Single point of failure where outages can disrupt service for all users.
- Censorship as governments or corporations can enforce takedowns.
- Lack of transparency due to proprietary APIs and closed algorithms (e.g., recommendation feeds).

Distributed networks are designed to minimize or eliminate reliance on central authorities by enabling direct peer-to-peer (P2P) data exchange. Unlike traditional client-server models, these systems allow users to interact without depending on a single point of control. In peer-to-peer (P2P) networks like Scuttlebutt, each participant (called a 'peer') operates as both client and server, simultaneously consuming and providing network resources including bandwidth, storage, and computational power. Some distributed platforms use blockchain-based storage solutions to achieve content persistence and tamper-resistance through cryptographic verification and decentralized consensus mechanisms. A key category of distributed systems is anonymous overlay networks, which prioritize privacy and anonymity. The Tor (The Onion Router) network is a well-known example. It enables anonymous communication via a distributed network of volunteer-run relay nodes. Tor circuits involve at least three relays – guard, middle, and exit nodes – each encrypting data with separate keys. This layered encryption, known as onion routing, prevents any single relay from knowing both sender and receiver.

I2P (Invisible Internet Project) offers similar anonymity but is fully peer-to-peer. It uses a Distributed Hash Table (DHT) for peer discovery and garlic routing, where multiple messages are bundled together for added anonymity. An emerging alternative is LLARP (Low Latency Anonymous Routing Protocol), implemented in Lokinet. Unlike Tor, LLARP removes the need for central directory authorities by using a blockchain-based DHT, where node discovery and consensus are driven by staking transactions. Distributed networks offer several advantages. They are highly censorship-resistant because there is no central entity that can be shut down. Data ownership remains with the users. This model also encourages self-hosted, community-driven platforms that promote greater user autonomy. Distributed networks improve user privacy by avoiding centralized data collection. Peer-to-peer communication and encryption protect identities and reduce surveillance risks. Users can interact pseudonymously, though threats like Sybil attacks remain a challenge. However, distributed networks face significant challenges. While pure P2P systems can scale effectively through decentralized resource sharing, networks that require global consensus or coordinated metadata (e.g., blockchains, DHTs) may encounter bottlenecks. Also, latency and bandwidth constraints are more difficult to manage, which can affect performance. Content moderation is decentralized, making it challenging to control the spread of harmful or illegal material. Another important limitation is usability: distributed platforms often have complex interfaces, lack polished user experiences, and require technical know-how to participate. In practice, distributed networks are often used for activism, whistleblowing, or decentralized communities seeking privacy and freedom. Federated networks represent a middle ground between centralized and fully distributed systems. Examples include Mastodon. In a federated model, any user can run its own server, known as an 'instance.' Each instance operates independently, with its own community, rules, and moderation policies. Despite this independence, instances can interoperate using open protocols such as ActivityPub. Federation offers several benefits. Communities are free to establish their own standards, which fosters diverse and self-governed environments. Moreover, censorship becomes more difficult because control is fragmented across many servers.

However, federated networks also face challenges. Content discovery is fragmented, lacking a global feed or algorithmic recommendations typical of centralized platforms. User experience and moderation policies can vary significantly between instances, depending on how each is managed. Moreover, running an instance requires technical knowledge and ongoing maintenance, which can be a barrier for some users. Centralized architectures dominate today's digital landscape due to their efficiency, low latency, and streamlined moderation. However, they raise significant concerns about user privacy, data ownership, and vulnerability to censorship or single points of failure. On the opposite end, fully distributed networks (e.g., peer-to-peer or blockchain-based systems) prioritize censorship resistance and user sovereignty, ensuring no single entity controls data or access. However, they often struggle with content moderation, scalability under load, and usability barriers that limit mainstream adoption. Their strengths lie in grassroots, privacy-focused communities where decentralization is a core value. Federated networks strike a middle ground by distributing control across independent, interoperable servers. This model preserves local governance and resilience while enabling broader network effects. However, federated systems face fragmented content discovery, inconsistent user experiences across instances, and reliance on volunteer-operated infrastructure. Understanding these trade-offs helps users, developers, and policymakers choose platforms aligned with their priorities, whether convenience, autonomy, or a balance of both.

LESSON 2 – NEWS AND CENTRALISED SOCIAL MEDIA ARCHITECTURES: A CRITIQUE

In this lesson, the strained relationship between journalism and the most traditional, powerful and popular social media architectures interacts. We will assess how journalism is being transformed by the algorithmic power of these platforms, and what challenges and dangers arise from the shift of the agency from the hands of journalism to the algorithmic decision-making processes.

Newsmaking on Centralized Platforms

Newsmaking within centralized social media platforms represents a fundamental **shift** from traditional journalistic paradigms. In this environment, the production and circulation of news content are profoundly **shaped by the priorities and technical design of the platform itself**. Whereas legacy media institutions once operated with relatively autonomous editorial judgment, news organizations now must continually **negotiate** with algorithmic infrastructures that act as both distributor and arbiter of visibility.

At the heart of this shift lies the tension between journalistic intent and platform logic. Social media platforms like Facebook, Instagram, Twitter (now X), and TikTok operate on engagement-based algorithms designed to maximize user attention. These algorithms do not evaluate content based on its factual accuracy, civic relevance, or **public interest**. Instead, they prioritize material that provokes **interaction**—clicks, likes, shares, and comments. For newsmakers, this creates a powerful incentive to tailor their output to fit the performative and emotional registers that algorithmic systems reward. Headlines become punchier, stories are reframed for virality, and multimedia elements such as autoplay videos, infographics, and even memes become integral components of news production.

Journalists and newsrooms increasingly rely on platform analytics to understand what types of stories gain traction. Over time, this reliance can subtly **shift editorial priorities**: complex investigative journalism may struggle to survive in the shadow of fast-moving, visually arresting content designed to 'trend.' The question of what counts as **newsworthy** is no longer solely in the hands of editors – it is now shaped in dialogue with the algorithmic tastes of centralized systems.

Furthermore, centralized platforms have assumed the role of **algorithmic gatekeepers**. Today's digital news flows through filters over which neither journalists nor audiences have full visibility or control. The architecture of these platforms determines which stories appear in user feeds, often influenced by proprietary algorithms that are not transparent to the public. In this sense, platforms exert a form of **soft censorship** – not by actively blocking stories, but by quietly deprioritizing them within the information stream.

In parallel, we are witnessing the rise of the **journalist as influencer** – a **hybrid role** shaped by the pressures and possibilities of centralized media spaces. Individual journalists are increasingly encouraged to cultivate personal brands, using their platform presence not only to distribute their work but to build and maintain an audience. This phenomenon **blurs the line between reporting and self-promotion**, between objective storytelling and personality-driven content. Platforms reward consistency, voice, and audience engagement – traits that align more closely with social media influencers than with traditional journalists. As a result, many reporters now operate in a **dual capacity**: as employees of news organizations and as semi-independent content creators navigating the same algorithmic terrain as entertainers and influencers.

In sum, news making on centralized social media platforms is no longer a linear process of gathering, verifying, and publishing information. It is a dynamic, iterative negotiation with algorithmic systems that determine who sees what, when, and why. This transformation raises **critical questions about editorial autonomy**, the commercial pressures of virality, and the civic role of journalism in a digital environment increasingly shaped by corporate platform logic.

News Consumption in Centralized Ecosystems

In centralized social media ecosystems, the experience of consuming news is profoundly shaped by the **logic of the feed**. Unlike traditional news consumption, where readers might turn to a newspaper's front page or visit a homepage curated by editors, social media users often encounter news, incidentally, mixed into a stream of entertainment, personal updates, and advertisements. The distinction between **news and non-news** content becomes blurred, as all forms of information occupy the same visual and spatial formats: a scrollable feed of algorithmically curated posts.

At the centre of this experience is the algorithm, which serves as an **invisible editor**. However, unlike human editors who prioritize relevance, balance, or public interest, algorithms prioritize engagement, designed to surface content that is most likely to keep the user on the platform. This personalization creates a situation where each user's news environment becomes uniquely tailored to their own tastes, beliefs, and habits – a phenomenon that can lead to what scholars' call "**filter bubbles**", which comes at the cost of diversity and exposure to differing perspectives.

This hyper-personalized delivery system also facilitates the formation of **echo chambers**. Because users tend to engage with content that aligns with their beliefs, and algorithms amplify what they engage with, over time the feed becomes an insular space. News stories that resonate with a user's ideological orientation are shown more frequently, while opposing narratives fade from view. These feedback loops can intensify political **polarization**, reduce tolerance for dissenting opinions, and distort one's perception of public consensus.

Moreover, the architecture of centralized platforms rewards **speed and virality** over accuracy. The design of the system encourages rapid sharing – breaking news spreads not because it has been

verified, but because it is emotionally charged or sensational. In the race to be first, traditional journalistic standards may be sidelined. This creates fertile ground for information disorders to thrive.

In such an environment, the experience of news becomes less about being informed and more about being **emotionally activated**. Users may not even recognize when they are consuming news, and their engagement is shaped more by emotional resonance than factual reliability.

IV. Implications and Critical Issues

The dominance of **centralized social media platforms** in the news ecosystem carries significant implications for the health of **public discourse**, the practice of **journalism**, and the broader **democratic process**. As these platforms increasingly shape how information is distributed and consumed, they exert a level of influence that rivals, and in many cases surpasses, traditional media institutions. This influence is not merely technological – it is political, economic, and cultural, raising urgent questions about power, accountability, and the future of the public sphere.

One of the most pressing issues is the **platforms' control over public discourse**. With their ability to elevate certain topics while suppressing others, platforms act as powerful gatekeepers. The power to shape attention in this way grants platforms a quasi-editorial role, though without the transparency, responsibility, or ethical standards that typically govern journalism. In times of crisis, protest, or political unrest, platforms may choose to suppress or amplify content, intentionally or otherwise, based on internal policies or external pressures. This capacity for **informational control**, concentrated in a few private entities, creates an uneven and opaque information landscape where **editorial choices** are driven less by civic duty and more by proprietary interests.

Closely linked to this is the challenge of **content moderation**. Centralized platforms are tasked with overseeing vast amounts of user-generated material, including misinformation, hate speech, and incitement. However, their approaches to moderation are often inconsistent and reactive. Rules are applied unevenly, and enforcement is frequently guided by economic, political, or public relations considerations rather than principled standards. Moreover, moderation practices lack **transparency**. Users and publishers often do not know why content is removed or downranked, or how decisions are made. This unpredictability erodes **trust** in platforms as arbiters of information and raises concerns about **censorship**, especially when content critical of governments or corporations is disproportionately targeted. In the absence of meaningful regulation or oversight, the moderation policies of centralized platforms can shape global information flows in ways that are neither democratic nor equitable.

Beyond questions of control and moderation lies the economic dimension of the relationship between platforms and the news industry. Many **news organizations** are now heavily reliant on social media to distribute their content and attract audiences. This dependency has deepened over the past decade, as traditional revenue models – especially print advertising and subscriptions – have eroded. In turn, platforms benefit from hosting news content, which keeps users engaged and fuels **data collection** for targeted advertising. Yet, the financial returns for publishers are minimal compared to the value extracted by the platforms themselves. Algorithm changes – like Facebook's shift away from news in favour of personal content – can devastate traffic for publishers overnight. This asymmetrical relationship places **journalistic sustainability** at risk, as media outlets must constantly adapt to platform logic just to remain visible.

Ultimately, the centralization of social media power introduces a set of structural tensions that challenge the principles of an open, informed society. As these platforms continue to mediate the production, distribution, and perception of news, they also redefine the boundaries of **public debate**, the meaning of **editorial independence**, and the viability of journalism itself. Without structural reform or alternative models of governance, the future of democratic communication may rest in the hands of actors who are neither elected nor accountable to the public they so profoundly influence.

LESSON 3 – NEWS AND ALTERNATIVE MEDIA ARCHITECTURES: JOURNALISM BEYOND TECH MONOPOLIES

In this lesson, we will explore how alternative forms of social media architecture can reshape the way news is produced and consumed. We will focus on federated and distributed platforms, two categories that broadly describe the alternatives to traditional centralised platforms. We will discuss how they address traditional issues of centralisation and assess the new issues that arise from the peculiar approach of alternative platforms.

Newsmaking on Federated Platforms

In the world of **federated social media**, the process of **news making** unfolds within a radically different technological and social logic than that of centralized platforms. Rather than operating under the control of a single corporate entity, federated platforms are composed of independently run servers – known as **instances** – that communicate with one another using shared, open protocols. This model distributes control across a **networked system**, allowing communities to self-govern, moderate, and shape their own information environments. As a result, the relationship between journalists, platforms, and publics becomes more complex, and often more democratic, but also more fragmented and uneven.

In this decentralized context, **journalists and news organizations** do not publish into a global feed governed by an opaque algorithm; they publish into **publics of varying size and structure**, each with its own cultural norms, moderation policies, and community expectations. Platforms like **Mastodon**, which operates on the **ActivityPub** protocol, allow journalists to post directly to audiences on a specific instance while remaining visible to users on others. However, visibility is not guaranteed by engagement metrics or algorithmic sorting, but by **human-driven interaction**, shared values, and the strength of interpersonal networks. This changes how journalists think about **reach**. Virality is less common and often less relevant than **credibility**, **trust**, and **contextual resonance** within specific federated communities.

Newsmaking here often emphasizes **authenticity** and **dialogue** over scale and spectacle. Journalists are not pushed to optimize for clicks or compete in a system of algorithmic attention, but they must still navigate a competitive environment—one where **reputation**, **social proximity**, and **civic relevance** shape their influence. Many journalists use federated platforms to engage more intimately with readers, clarify reporting in real time, and respond to criticism or feedback without mediation. The absence of corporate algorithms opens space for a renewed focus on **journalistic ethics** and **public service**, though this also means relinquishing some of the amplification and reach that centralized platforms provide.

Still, this environment introduces challenges. The lack of standardized formatting and discoverability mechanisms can make it harder for news to **circulate widely** or find new audiences. Additionally, smaller instances may be **isolated** or **ideologically homogenous**, which can affect the diversity of

content and dialogue. For journalists, adapting to a federated environment often requires not only technical literacy but also a commitment to building **reciprocal relationships** with communities, rather than broadcasting to a mass audience. In this way, **news making in federated media** represents not a return to old models, but a reimagining of journalism's role in a **plural, participatory digital sphere**.

News Consumption in a Federated Ecosystem

Consuming **news** within a **federated social media ecosystem** involves a shift from passively receiving content through algorithmic feeds to actively curating one's own information environment. Unlike centralized platforms, which rely on **machine learning algorithms** to deliver personalized content, federated systems return greater control to users. Here, individuals must **choose instances**, follow accounts across servers, and decide which voices they trust. This places the user in a more **deliberative role**, turning news consumption into a conscious and often communal act.

In this setting, news is not injected into feeds by a black-box algorithm but appears because of **intentional following, social trust, and local instance dynamics**. A post's visibility is not dictated by its engagement statistics but by whether others choose to **share, boost, or respond** to it. This means that news does not spread because it is optimized for clicks or emotional impact, but because it resonates with a particular community's interests and norms. As a result, **misinformation** and **clickbait** are less likely to go viral, although echo chambers can still emerge in tightly knit or ideologically aligned instances.

This more deliberate mode of consumption can foster **deeper engagement** with content. Users often read posts in full, engage in extended discussion threads, and seek clarification directly from journalists or sources. The pace is slower, the tone more reflective, and the emphasis is on **dialogue rather than performance**. Many federated platforms lack the algorithmic feedback loops that nudge users toward outrage or polarizing content, making it possible – though not guaranteed – for users to maintain **more diverse information diets** and engage in **civic discourse** grounded in curiosity rather than confrontation.

However, this model is not without limitations. Because there is no single point of access to the entire network, users may not always encounter the same breadth of information as they would on a centralized feed. News stories can remain **contained within instances**, creating **informational silos** that mirror offline social divisions. Moreover, the federated nature of the system can lead to **inconsistent experiences** – where the same post is visible and discussed in one instance but completely absent in another. This fragmentation may pose challenges to the creation of **shared public knowledge**, especially in moments that require a coordinated understanding, such as elections or public health crises.

Yet, for many users, this trade-off is worthwhile. The opportunity to construct a **self-directed news environment**, engage directly with content creators, and avoid the manipulative aspects of algorithmic sorting makes federated media appealing. News consumption becomes not just a passive intake of headlines, but a participatory and often dialogic process that echoes the **ideals of democratic media literacy**.

Implications and Critical Issues

The rise of **federated platforms** for news making and consumption introduces a series of complex implications that challenge conventional assumptions about digital media. On one hand, federated systems offer a compelling alternative to the commercialized, attention-driven model of centralized social media. On the other, they present new dilemmas around **governance, equity, and infrastructure** that cannot be ignored. At the core of these issues lies the tension between **decentralized freedom** and the need for **cohesive public communication**.

One of the most striking implications is the redefinition of **media power**. In centralized platforms, a handful of corporations control the visibility of content and the terms of public debate. In federated environments, no single actor holds such sway. Instead, power is distributed across thousands of independently operated nodes. This redistribution can be liberating—enabling greater **editorial autonomy**, community-driven moderation, and resistance to **corporate or state capture**. Yet, it also creates inconsistencies in policy enforcement, content standards, and access to resources. Smaller or marginalized communities may struggle to gain visibility, and instances may face difficulties managing **harmful content**, especially without the centralized tools or staff available to larger platforms.

The economic model of **journalism** also becomes uncertain in federated spaces. Without the infrastructure for mass monetization – such as integrated ad networks or recommendation algorithms – news outlets must rely on **direct support**, donations, or creative funding models. While this may reduce the influence of advertisers and commercial pressures, it raises sustainability challenges. The **infrastructure of federation** – server costs, moderation labour, and software development – is also often maintained by volunteers or small teams. This introduces concerns about the scalability and long-term viability of federated alternatives as journalistic hubs.

Finally, the question of **discoverability** looms large. While federated media emphasizes community and trust, it often lacks the connective tissue that enables content to flow freely and broadly. This can hinder the formation of a **shared public sphere**, limiting opportunities for collective debate and coordinated action. In moments of crisis or widespread misinformation, the absence of centralized authority can delay effective responses or lead to fragmented understandings of events.

Despite these challenges, federated architectures hold a mirror to our assumptions about what social media should be. They offer a glimpse into a media future where **public discourse is decentralized, governance is participatory, and journalism** is once again rooted in community relationships rather than algorithmic metrics. Whether this vision can be scaled, sustained, and equitably realized remains an open question – but one worth pursuing as part of a broader reimagining of the digital public sphere.

Newsmaking and News Consumption in Distributed Social Media Architectures

Newsmaking on Distributed Platforms

In the realm of **distributed social media architectures**, the process of **news making** unfolds in a radically decentralized environment, where control is fragmented across networks rather than concentrated in a single authority or institution. These platforms – often built on **peer-to-peer protocols** or **blockchain technologies** – reimagine communication as a system free from central oversight, where users are both participants and custodians of the information flow. Within this structure, the act of producing news becomes less about publishing to a mass audience and more

about establishing **credibility**, **continuity**, and **presence** within a dispersed, often loosely connected network.

Unlike centralized or even federated platforms, where content is housed on servers run by organizations or communities, distributed networks operate through **nodes** – individual users’ devices that collectively maintain the platform. Journalists working in such spaces must adapt to a system in which there is no central timeline, no unified feed, and no guaranteed discoverability. Instead, visibility depends on **network consensus**, **reputation protocols**, or **cryptographic trust signals**. On platforms like **Scuttlebutt**, **Nostr**, or **Farcaster**, news emerges through social webs, passed between peers, cached locally, and verified through a mix of social endorsement and technical integrity.

The implications for **journalistic practice** are profound. In this context, traditional authority is replaced by **decentralized trust**. Journalists must rely on their **digital identity**, the **transparency of their methods**, and their **track record** across the network. There is no editorial gatekeeper to confer legitimacy, no algorithm to boost visibility—only the ongoing work of maintaining **authenticity** and **relational credibility**. News stories often evolve through conversation, are updated incrementally, and may be forked or remixed by other users, making journalism here more fluid, collaborative, and open-ended.

However, this openness also invites complexity. The lack of moderation infrastructure and institutional backing means that **verification**, **accountability**, and **standard setting** fall to the network itself, often with uneven results. While this empowers users to bypass censorship and challenge dominant narratives, it also places enormous responsibility on individual actors to uphold the values of **journalistic integrity** in a space that is inherently difficult to govern. In short, **news making on distributed platforms** is an act of both technological participation and social negotiation, where authority is earned, not granted, and where the architecture itself is part of the editorial process.

News Consumption in a Distributed Ecosystem

Consuming **news** within a **distributed social media architecture** is an experience marked by **autonomy**, **fragmentation**, and **technical complexity**. Unlike the linear, curated experience of centralized platforms, or the community-driven logic of federated systems, distributed platforms offer no single stream, no uniform interface, and often no consistent visibility. Instead, users navigate a landscape shaped by local storage, cryptographic validation, and **direct peer connections**, making **news discovery** less passive and more akin to digital exploration.

On platforms like **Nostr** or **Scuttlebutt**, content is not delivered by a central algorithm but retrieved through a process of **selective synchronization**. A user’s feed is not a ranked, reactive flow of trending topics, but a set of posts pulled from people or nodes they trust, stored locally, and occasionally cross-referenced with the wider network. As a result, **news consumption** becomes deeply relational – it depends on who you know, whose keys you follow, and how information travels across your personal graph of trust.

This has a twofold effect. On one hand, it fosters a sense of **intimacy** and **contextual understanding** rarely found in traditional feeds. Users often follow not institutions, but individuals, forming closer, dialogic relationships with sources. On the other hand, it limits exposure to unexpected or dissenting perspectives. Without algorithmic nudging or centralized curation, the burden of maintaining a **diverse information environment** falls entirely on the user. Discovery is slower, serendipity rarer, and the range of viewpoints narrower unless one deliberately expands their network of trust.

Moreover, the **technical layer** of these platforms can serve as both a filter and a barrier. Users must understand how to verify identities, interpret metadata, and assess the credibility of posts without the aid of platform labels or recommendation systems. In this environment, **media literacy** is not just about reading critically – it requires understanding the protocols that govern content distribution and the signatures that mark it as trustworthy. This can empower technically adept users, but also exclude those unfamiliar with the mechanics of decentralized systems.

Yet, for those who engage deeply, the experience can be empowering. To consume news in a distributed network is to reclaim agency: to choose not only what you read, but how, from whom, and under what conditions. It encourages reflection over reaction, **decentralized knowledge creation** over mass broadcasting, and a return to the idea that public discourse should be built on trust, not manipulation. It is slower, sometimes messier, but offers a vision of media consumption grounded in **sovereignty, resilience, and intentionality**.

Implications and Critical Issues

The emergence of **distributed social media architectures** raises fundamental questions about the future of **journalism, public knowledge, and digital democracy**. These systems, by design, challenge the assumptions that have underpinned much of the internet’s development over the past two decades: centralization, mass scalability, and algorithmic control. In their place, they propose a more fragmented but potentially more **equitable and autonomous** model—one in which users reclaim control over their data, their identity, and their communicative practices.

One of the most significant implications lies in the realm of **journalistic authority**. Without centralized platforms to amplify or certify content, and without institutional intermediaries to filter information, journalists in distributed environments must build trust directly with their audiences. This restores a kind of **interpersonal accountability**, but also complicates efforts to scale, monetize, or institutionalize news production. While this may open space for **grassroots reporting**, it can also result in a **proliferation of unverifiable claims**, especially in the absence of robust community norms or validation mechanisms.

There is also the matter of **governance**. Distributed platforms typically resist top-down regulation, relying instead on cryptographic trust, open protocols, or community consensus. This makes them resilient to censorship and surveillance, particularly in repressive regimes, but also difficult to moderate effectively. Harmful content, coordinated disinformation, or harassment campaigns can circulate unchecked if the network lacks the tools or cohesion to respond collectively. The **absence of central accountability**, while liberating, can create vacuums where **bad actors** thrive and **public trust** erodes.

Moreover, distributed systems introduce a **technological barrier to entry**. While they promise freedom and decentralization, they often require users to manage keys, understand protocols, and maintain data locally. This creates an accessibility divide that may exclude those without technical proficiency or stable infrastructure, reinforcing existing inequalities in digital participation. For **journalism**, this could mean that the audiences most in need of trustworthy reporting are least likely to encounter it on these platforms.

Still, the potential of distributed architectures should not be underestimated. They offer a sandbox for rethinking media systems from the ground up, free from the influence of surveillance capitalism or corporate governance. They invite a reorientation of the digital public sphere around **sovereignty**,

community autonomy, and **protocol-level innovation**. But they also demand a new literacy – technical, ethical, and civic – that we are only beginning to cultivate.

LESSON 4 – DATA COLLECTION AND PRIVACY CONSIDERATIONS

Hello everyone and welcome to the SMIDGE project. Today I will be discussing some aspects of data collection and key privacy considerations with respect to social media architecture. My name is Dr Nitika Bhalla, and I am a project manager within the SMIDGE consortium. So just to give you an idea of what areas will be discussed in today's slides, first give a brief introduction, then talk about data collection types and methods, privacy considerations, aspects of legal compliance & regulation, and some of the challenges around developing social media architecture and finally some key learning outcomes. The increase in online social networking use has led to user anxiety related to privacy and the unauthorized exposure of personal information. Hence, when designing the architecture of social media platforms, how the data is collected, and privacy considerations are most critical. Large-scale sharing in virtual spaces means that researchers, designers and technology developers now need to reconsider the challenges and adhere to the ethical and social responsibility of collecting data and maintaining privacy.

- These require planning to gather necessary user information while safeguarding sensitive details through features like:
 - Granular Privacy Settings
 - Policies around data usage,
 - Legal compliance with regulations like GDPR,
- Ensuring users have control over their data and understand how it's being used/accessed and stored.

First, we start with key aspects of data collection and privacy in social media architecture. There are a number of key data types collected within these platforms, and this is embedded within the architecture, these include: basic user information so for example name, email address, username and password. There are certain types of demographic data such as age, location and they might want to know the gender. Behavioral data – this is where the architecture has been designed to collect information on the amount of post interactions, including likes, comments, shares etc. Another type of data collection will be around the device itself, mainly the IP address, the type of device and browser information. So, these are the key types of data that is collected. Now we are going to move on to 'how' the data is collected. So, information can be gathered from the user in the following ways: we have the basic registration and the creation of a user profile. And as we know as soon as the user signs up to a particular platform, they will need to add their basic information. User interactions are also tracked as how often they post, comment, like and share posts. The use of cookies, which monitor user activity across websites and platforms, although these can be managed by the user through their browser settings. There are what's called tracking pixels, which are basically an image embedded within a web page to collect user behavior. Finally, API integration is where the platform can access data from third party applications when users connect to their various social media accounts. Since various types of data is collected, naturally this raises privacy concerns of the user, for example, identity theft where scammers can steal user information through privacy loopholes and location settings, there is a rise in harassment and cyberbullying leaving users exposed to external threats, there can be a spread of misinformation and disinformation, and the potential for malware and viruses to corrupt the user's device, as well as third party apps which can share your information. So given

the extent of data collected when designing these social media architectures, a range of ethical and privacy issues need to be considered right at the start of the design and development process to enhance the transparency and trust with users: These considerations can include, granular privacy settings so allow the user control over who they can share their information with, data minimization so only collect data that is essential to the platforms core functionality, data encryption to protect against unauthorized access to personal information, there are also user consent mechanisms and data anonymization. In addition, many platforms will have data retention policies, defining how long the user data is stored and when it will be deleted. Legal compliance and regulation are critical in protecting users and the public, some of the key legislations include GDPR which gives the user control over their data and requires companies to have responsible data protection practices. There's the CCPA (California consumer privacy act) these are privacy laws around data collection and user rights. And also, the online safety act which is about the protection of users from online harm and removing illegal content. Whilst nearly all developers are keen to take a responsible approach in designing safe and trustworthy social media architecture, however there are some inherent challenges that need to be considered, these include: Third party data sharing, so how do we manage privacy concerns when integrating with third party applications, there is algorithmic bias so ensuring that data analysis and targeting algorithms do not lead to any discrimination. And another key challenge is around data breach prevention so trying to implement robust security measures to protect users and make sure they are effective. So finally, some key take home messages: data collection and privacy considerations are critical when designing social media architecture. The developer must have some responsibility for how user information is collected and stored securely and only used with user consent whilst not compromising with the platform's core functionalities, privacy considerations include features like granular privacy settings, data minimization practices, anonymization techniques and data encryption. There needs to be compliance and regulation with the likes of GDPR, CCPA and online safety act to protect users and the public in general.

UNIT 6 – COGNITIVE BIASES AND NEWS

Lecturers: Maura De Vos, Bachelor of Science Research Assistant UCLan

Vasiliki Christodoulou, Assistant Professor in Psychology, UCLan

Kalypso Iordanou, Professor of Psychology, UCLan

LESSON 1 – INTRODUCTION TO COGNITIVE BIASES

Why do people who believe in conspiracy theories persist in their beliefs, despite substantial evidence against them? One significant reason lies in the phenomenon of cognitive biases. Cognitive biases are systematic errors in our thinking and judgement during the processing and interpretation of information. They are a result of our brain's reliance on heuristics- mental shortcuts that enable faster information processing but sacrifice accuracy. These biases influence how misinformation is perceived in the media, why it feels intuitively compelling, and why it can persist even against strong counterevidence.

Research from cognitive psychology has highlighted the key role of cognitive biases in misinformation susceptibility. For instance, studies have consistently shown that my side bias (also called confirmation bias) is strongly associated with being more vulnerable to misinformation. This bias explains the tendency to strongly favor information which supports our existing beliefs. Bias can influence how we engage with news, often causing individuals to be selective in seeking and trusting various sources.

In the SMIDGE survey we explored how factors such as reasoning skills and epistemic beliefs affected middle-aged adults' susceptibility to misinformation in news contexts. Our findings suggest that these factors significantly impact individuals' ability to discern between real and fake news.

In the following sections of this lesson, we will explore these concepts in greater depth, particularly focusing on how my side bias and epistemic beliefs shape our understanding of news. We will examine other factors that can affect individuals' discernment abilities, and we will discuss the results of our survey in greater depth.

LESSON 2 – MYSIDE BIAS AND EPISTEMIC BELIEFS

Some factors that are related to how individuals engage with information they receive are their epistemic beliefs and reasoning skills.

A considerable number of adults do not hold sophisticated epistemic beliefs, which involve appreciating the complexity of knowledge and the constructive role of humans. In the scientific domain in particular, the broadest challenge is the need to incorporate the human knower as the source and constructor of knowledge. Human rational construction and interpretation need to be recognized as essential to science. They entail the construction of **alternative possibilities (multiple representations of truth, or theories) that need to be coordinated with empirical evidence**, in an ongoing process that constitutes scientific work. This epistemic understanding is fundamental for understanding scientific knowledge as evolving and subject to revision.

Epistemic beliefs deserve careful examination, as they are closely connected with **reasoning skills**. We found evidence in our studies that **individuals with sophisticated epistemic beliefs produced arguments on socio-scientific issues of greater quantity, better quality, and higher diversity:**

- During reading, they used different criteria to evaluate the information they were reading, such as considering the number of scientific studies supporting a particular finding or the methodology used

- They were less likely to show my-side bias when asked to write a summary after reading controversial historical accounts, in contrast to those who held non-sophisticated epistemic beliefs who focused only on the account which was consistent with their prior beliefs

LESSON 3 – FACTORS THAT AFFECT DISCERNMENT OF NEWS

Another variable related to the ability to discern fake news and engage with conspiracy theories is individuals' argumentative reasoning, which also encompasses the motivation to engage in reasoning. **Argumentative reasoning is the ability to construct and evaluate arguments.** In our studies, we found several limitations in individuals' reasoning skills.

For example, we found an **inclination for most individuals to think simplistically about complex issues**. Individuals do not take multiple considerations into account when making judgments. These weaknesses constrain the productivity of reasoning on a complex topic.

We also found evidence of individuals exhibiting my-side bias when reading texts. For example, we asked young adults to read two accounts about a recent war in their country – an own-side account from a historian of their ethnic group and an other-side account from a historian from the adversary ethnic group – and think aloud during reading. We observed using the think-aloud method that participants exhibited my-side bias during reading. When they were reading the own-side account, they engaged in coherence-based processing but did not engage in any kind of reflective thinking. In contrast, when reading the other-side account, they critiqued it and expressed their disagreement. The findings on cognitive processing of information during reading are consistent with the disconfirmation bias and other empirical findings showing that **individuals tend to engage in superficial processing of belief-consistent information without critically evaluating it, while they tend to examine belief-inconsistent information to a greater extent and try to refute it.**

LESSON 4 – SMIDGE SURVEY WITH MIDDLE AGED CITIZENS

In the SMIDGE project, we examined how reasoning skills and epistemic beliefs, along with other factors, relate to individuals' ability to discern misinformation online. To address this objective, we conducted a large survey with **635 middle-aged citizens between the ages of 45 to 65**.

Participants who were recruited through Prolific were primarily from the UK, Italy, Germany, and Greece, with smaller participation from other European countries. Participants engaged with two types of video content—one containing misinformation and another presenting accurate information, and subsequently evaluated 20 news headlines, evenly split between accurate news and misinformation. They also responded to various questions measuring the factors of interest. We used three topics: climate change, vaccination, and immigration, which are topics associated with diverse opinions and inaccuracies, and participants were randomly assigned to one of the three topics. Participants' **reasoning skills were assessed with an open-ended question** asking them to write an argument supporting their position on a controversial topic from one of the three topics we used in the survey. For example, regarding the topic of immigration, participants were asked to write their views on whether children who were brought to the EU illegally should be allowed to remain as adults. **Examining participants' reasoning skills, we found a positive relation between their reasoning skills, particularly their ability to construct a two-sided response - considering different perspectives - and their ability to identify fake news headlines.**

Epistemic beliefs also showed to play a role- advanced epistemic beliefs predicted a better ability to discern fake news. Those who relied on emotions to assess information were worse at identifying the fake news. On the other hand, those who prioritized evidence were better at discerning fake news

and real headlines. More importantly, we found that the same is true for conspiratorial thinking. Those who relied on emotions were more inclined to conspiratorial thinking and those who relied on evidence were more resistant.

Our findings show that, at least in middle-aged people, epistemic beliefs and reasoning skills are related to their ability to discern fake news and conspiracy theories online. Strengthening these cognitive skills and individuals' dispositions for engagement in critical thinking might be promising for effectively reducing reliance on cognitive biases and improving resilience against conspiracy theories.

UNIT 7 – ACTIVE JOURNALISM: A DISCUSSION ON WORK AND ETHICS AND DEONTOLOGY

Lecturer: Dimitri Bettoni, FVM SMIDGE Senior Expert and journalist FVM/OBCT

LESSON 1 – INTRODUCTION TO ACTIVE JOURNALISM AND DEONTOLOGY

Hello, my name is Dimitri Bettoni, I am a journalist and researcher based at Fondazione Villa Montesca, partner in the Smidge project. This lecture is devoted to what I call “active journalism,” an inclusive definition of forms of journalism that push the role of journalists beyond the pure reporting of events and facts and expand the purpose of the profession into the territory of moral imperatives and social change. This lecture aims to promote reflection on what constitutes good journalism. In the context of the Smidge project, this means a deep understanding of the role and ethical implications of journalism in countering extremism and conspiracy theories.

In journalism, reference is often made to ethical standards governing the practice of the profession. These norms are brought together in a professional code, also referred to as journalistic ethics, or journalistic deontology. Deontology is an ethical theory that focuses on duty, rules, and obligations. In journalism, it refers to a duty-based approach to media ethics, where journalists are guided by precise moral principles. These principles are connected to the purpose and the functioning of the profession. Two main purposes are at the core of journalism in a democratic society:

- Inform the public, so it has the necessary awareness and knowledge to exercise its rights
- Mediate the dialogue between the different parts of society, particularly between the citizenship and the social institutions

The generally accepted highest expression of journalism is public interest journalism. It refers to reporting that is done not for profit, popularity, or entertainment, but to expose truths, inform the public, and support accountability, especially concerning matters that affect the well-being of our society.

LESSON 2 – KEY ELEMENTS OF JOURNALISM PROFESSIONALISM

In the mainstream journalistic framework, even considering many different cultures and media traditions, there is a shared conviction that the principles of journalism are universal. These standard principles can be summarized as follows:

1. Truth & Accuracy

Journalists cannot always guarantee ‘truth’, but getting the facts right is the cardinal principle of journalism. Journalists should always strive for accuracy and ensure that facts have been checked. When they cannot corroborate information, journalists should tell it clearly.

2. Independence

Journalists must be independent voices, and they should not act on behalf of other special interests. Journalists should declare any of their political affiliations, financial arrangements, or other personal information that might constitute a **conflict of interest**.

3. Fairness and Impartiality

Most stories have at least two sides. While there is no obligation to present every side in every piece, stories should be balanced and add context. Objectivity is not always possible, even not always desirable, but impartial reporting builds trust and confidence.

4. Humanity

Journalists should do no harm. What they publish or broadcast may be hurtful, but they should be aware of the impact of their words and images on the lives of others.

5. Accountability

A sure sign of professionalism and responsible journalism is the ability to hold the media accountable. When journalists commit errors, they must correct them, and their expressions of regret must be sincere not cynical.

To uphold these principles is a tough job, as there are many factors that jeopardize or even impede their exercise. Let's see some examples.

LESSON 3 – CHALLENGES IN UPHOLDING JOURNALISTIC ETHICS

Considering what we have discussed so far, we might be tempted to take for granted that journalism acts as a watchdog, ensuring the accountability of institutions and actors, in the interest of citizens and the wider society. During their professional activities, journalists are regulated by local and international laws in place, and by the deontological norms of the profession. Deontological and ethical considerations stem from the conceptualization of what is journalism and what constitutes its mission. But these deontological norms may be weakened or entirely eluded by a high number of factors.

Media Ownership

Owners of media companies may directly or indirectly influence editorial decisions, pushing content that aligns with their political views or business interests, suppressing stories that don't. This is the reason for implementing strict separation between the ownership and the editorial staff, which must remain independent and free in the exercise of the profession.

Political pressure

It can interfere in journalism in subtle and not-so-subtle ways, often undermining the media's ability to report freely, fairly, and independently. Governments or political actors may censor certain topics or block publication of stories. Political figures may use harassment, lawsuits, arrests, or even violence to silence journalists or discourage critical reporting. Governments can control access to information, allowing or blocking it depending on their interest. Even without direct threats, politicians can shape public narratives by:

- Calling unfavorable news "fake"
- Discrediting journalists as biased
- Rallying supporters against critical media

Commercialization

It represents the influence of the markets. Media organizations who are bound to live in a free, competing capitalistic arena, may choose to prioritize content that attracts audiences and advertisers, rather than what is beneficial for the public.

Time constraints

They are summarized in the speed versus accuracy dilemma. This rush can spread misinformation and erode public trust. It also means that journalists have less time to develop the relationship with their sources, are more dependent on pre-packaged Content, avoid complex or investigative stories, and reduce fact-checking.

Mental burnout

Burned-out journalists often suffer from fatigue, brain fog, and low motivation, which can lead to:

- Mistakes in facts, editing, or judgment
- Poor attention to detail
- Sloppy reporting or superficial stories
- When under stress, journalists may also take shortcuts that compromise ethical standards.

Transparency dilemma

The “rule of transparency” is a tool for trust building, and it pushes journalists to disclose the methods of their newsgathering, so that the reliability of their work can be publicly assessed.

On the other hand, transparency exposes journalists to a scrutiny eye that is often unfriendly to them. Journalists need to protect their sources, their communications, their tools and financial resources from this peering eye, or their work will be compromised or impeded.

Adiaphorization

A term by the sociologist Zygmunt Bauman, “adiaphorization” refers to the process by which certain actions and behaviors are removed from moral consideration—they are made morally “neutral” or indifferent. While objectivity is a cornerstone of journalism, it can sometimes slide into moral neutrality, treating all sides as equally valid, even when one involves clear harm or injustice. Journalism risks to:

- lose moral compass
- inform without prompting reflection or responsibility
- turn human suffering into consumable content

Despite all these challenges, the exercise of high-quality journalism is not only possible, but a professional duty that can be performed in many ways. Let’s see now which ones.

LESSON 4 – ALTERNATIVE JOURNALISM AND GLOBAL JOURNALISM CULTURES

Other forms of journalism exist beyond its traditional role of power’s watchdog or reinterpreting this role in a different way: alternative journalism, citizen journalism or solution journalism, are examples of different and even contested interpretations of the journalistic profession. Their existence stems from new ideas of what constitutes good journalism, and what a good journalist is expected to do over the course of the job. The concept of “**alternative journalism**” as developed by media scholars **Chris Atton** and **James Hamilton**, refers to forms of journalism that challenge the norms, practices, and power structures of mainstream media. Their framework is rooted in critical media theory and

emphasizes **participation, diversity, and resistance**. Atton and Hamilton argue that mainstream journalism often reinforces dominant ideologies and commercial interests. Alternative journalism, by contrast, **questions the idea of objectivity, rejects exclusive professional gatekeeping**, and aims to **amplify marginalized voices**. Alternative journalism serves as a tool for **resistance, social justice**, and **political change**, rather than striving for neutrality or detachment. It promotes **citizen participation** in the form of Blogs, zines, community radio, and grassroots media, as examples of journalism where people outside the mainstream media industry produce content together. This form of journalism is often issue-oriented rather than event-oriented, looking at the bigger picture and at social changes in place.

Alternative journalism values **pluralism**, offering alternative perspectives, experiences, and knowledge systems especially from **non-Western communities** and other populations historically excluded from the established media industry. Outside the Western journalistic tradition, the core mission of journalism may assume a different shape: its main duty may be to contribute to nation-building processes, liberation movements, emancipation, strengthening social unity and cohesion, while pluralism and freedom of the press are seen as secondary elements. In conclusion, when addressing conspiracy theories and extremism, journalists have a delicate role, one that implies awareness of the power dynamics of the society they are part of, as well as the ethical implications and the consequences of their reporting. I hope that you find this lesson on active journalism inspiring and useful, and I wish you a good continuation with the SMIDGE course.

UNIT 8 – POLITICS AND ECONOMICS OF DIS/MISINFORMATION

Lecturer: Emir Zulejhić, Editor and co-founder of the Media fact-checking website “Raskrinkavanje.ba” and program coordinator at “Why not”

LESSON 1 – HOW GOOGLE FUNDS DISINFORMATION?

Welcome to the MOOC platform of the SMIDGE project. I am Emir Zulejhić, program coordinator at Citizens Association “Why not” from Sarajevo, and I am one of the co-founders of Bosnian fact-checking platform Raskrinkavanje.ba. We at Raskrinkavanje have been chasing disinformation since 2017. But besides chasing disinformation, we are also trying to understand the disinformation landscape, as well as the business model of disinformation. Yes - disinformation, in many cases, is business just like any other. You probably know how the media companies usually make money. And that is by renting advertising space to advertisers that want to promote their products or services. The more popular and visited the media, means more views of such ads, which bring in more money.

And that is the regular business model of media companies. But, when Google AdSense platform came, it changed the media and advertising industry. But mostly, the disinformation industry. Google AdSense is a platform that serves as a middleman between media companies and advertisers. Whoever owns a website and wants to monetize it, they don't have to reach advertisers directly. They can simply register on Google AdSense platform, and let Google bring them ads and money. On the other hand, companies that want to advertise need to as well register on Google AdSense and create an ad. Advertisers have an option for filtering: they can choose in which country or on which website they want to show their ads. But most advertisers don't do such filtering, since the ultimate goal is to reach as big an audience as possible. Google, on the other hand, has public policies regarding the AdSense platform and ads placement. Their policy is saying that the Google Ads will not be shown on links with content “that makes unreliable or harmful claims” on a range of issues, including health, climate, elections and democracy. We at Raskrinkavanje, just as many other fact-checkers around the world, are seeing examples of Google Ads being placed next to disinformation for years now. We all suspected that Google does not implement its own rules and allows the monetization of disinformation and other harmful content described by Google's own rules. But the ProPublica, together with several fact-checking organizations including Raskrinkavanje from Bosnia, decided to do the largest-ever analysis of Google's ad practices on non-English-language websites in late 2022. The investigation found Google regularly place ads, including those from major brands, on articles that appear to violate its own policy. By doing so, Google is funneling revenue to some of the most prolific purveyors of false information in Europe, Latin America and Africa, a ProPublica investigation has found.

Websites with disinformation regarding local elections, conspiracy theories regarding Covid-19, propaganda about ongoing wars, as well as any other potentially harmful topic - are full of Google Ads. In Serbia, Croatia and Bosnia, three Balkan countries where democracy is fragile, 26 of the top 30 most prolific publishers of disinformation in the region earn money from Google. ProPublica also scanned close to 10,000 active articles that fact checkers in the three Balkan countries flagged for false claims since 2019. Just over 60% were still earning money with Google. Google has publicly committed to fighting disinformation around the world, but it seems that it is doing the opposite, helping the disinformation sources to earn money. Google's roughly \$200 billion in annual ad sales provides essential funding for non-English-language websites that disinform and harm the public. In conclusion, the ProPublica research proved what fact-checkers are seeing for years: Google is funding disinformation. In my other videos on this platform, you can learn what the broader consequences of such an approach are, on both the media landscape, as well as businesses and brands.



LESSON 2 – WHAT ARE “CLICK FARMS” AND HOW BIH BECAME ONE BIG VALES?

Welcome to the MOOC platform of the SMIDGE project. I am Emir Zulejhić, program coordinator at Citizens Association “Why not” from Sarajevo, and I am one of the co-founders of Bosnian fact-checking platform Raskrinkavanje.ba. In my first video on this platform, I talked about the business of disinformation and tried to explain how Google is funding the disinformation with billions of dollars. If you haven’t already, I suggest you first watch that video, and then process this one. In this video, I will talk about one specific consequence of the fact that Google is funding disinformation, called “click farms”. If you are interested in disinformation issues, you probably already heard of Macedonian city Vales. It is a small city in Northern Macedonia which became globally popular during 2016. In the final weeks of the 2016 US presidential election, stories in The Guardian and on BuzzFeed revealed that the Macedonian town of 55,000 was the registered home of at least 100 pro-Trump websites, many of them filled with fake news. In the period after the elections, it was revealed that young unemployed people of the Vales, figured out how to easily earn money by creating disinformation about the US election on an English language website they created. They connected the websites with Google AdSense platform and started earning money by influencing US elections from thousands of miles away. They openly said to journalists that investigated the story, that they are not interested in political influence and the outcome of the elections - they are only interested in making as much money as possible. But I am pretty sure that you never heard about the similar problems and shady disinformation industry in Bosnia and Herzegovina. That is why today I am going to present to you how the entire Bosnia became one huge Vales, but with much less attention.

Bosnia is a country with a population of 3.4 million people. Raskrinkavanje is a fact-checking platform that operates in Bosnia since 2017, and today we have 3.600 rated sources in our disinformation database. That means that a country of 3.5 million population, had at least 3.600 sources whose content was rated on Raskrinkavanje at least once. That is way too big number of news websites in such a small country. Most of them were created only to monetize content by Google AdSense, and not to do proper journalism. Some of them are only stealing content from other real news sources, some of them publish almost exclusively disinformation content, while others have created an entire networks we call “click farms”. “Click farms” are basically disinformation money machines on steroids. People in the Vales figured out that they can earn a decent amount of money by monetizing disinformation websites. But people in Bosnia took a step forward - they asked themselves what if I create 10 websites instead of one, will that multiply earning as well? And the answer is sadly positive.

“Click farms” is a term we use for networks of several websites that have different domains and names, sometimes also different designs - but the content on them is mostly the same and they have the same owner. In some networks there are 5-10 websites, but in some even more. Some of them also took the next step - they created dozens of profiles on social media, mostly on Facebook, or they bought the existing ones. Those social media pages often do not have any connection to the website in its name of purpose. For example, Facebook pages named “best cakes receipts” or “literary quotes”, or “daily jokes” on the first look are not connected to any news website or disinformation. But the fact is that they use such names on the pages only to attract followers. In reality, those who follow such pages never get any receipt or joke from them, and the only content they can get are news links. Those links are usually from generic websites called “Daily news”, “News 365” or similar. By creating dozens of websites and then sharing their content on dozens of pages on social media, owners of such “click farms” are multiplying earnings from Google AdSense platform, even if the content is the same on all the websites. The disinformation industry in Bosnia is so developed that there are actors who are only creating Facebook pages and trying to get as many followers as possible by using various strategies. When they reach their goal, they are selling their pages to disinformation business owners. Why is this happening? Well, Bosnia is a country with one of the highest youth unemployment rates in Europe. On the other hand, the online space in Bosnia is almost totally unregulated. Who is making this



possible? As I explained in a previous video on this platform, Google's advertising platform AdSense is funding disinformation and funneling billions of dollars of advertising money to owners of such websites and networks. Why is this important? The biggest consequences of "click farms" and disinformation business in general, is that the online landscape is being flooded with disinformation. Such disinformation can harm our democracy, our public health, as well as every individual life in many ways. Other equally important harm is being done to real media outlets and companies. And the most important question is how to fix this mess? In my last video on this platform, I will try to give a solution.

LESSON 3 – HOW IS DISINFORMATION HARMING BRANDS AND DESTROYING JOURNALISM?

Welcome to the MOOC platform of the SMIDGE project. I am Emir Zulejhić, program coordinator at Citizens Association "Why not" from Sarajevo, and I am one of the co-founders of Bosnian fact-checking platform Raskrinkavanje.ba. In my first video on this platform, I talked about the business of disinformation and tried to explain how Google is funding the disinformation with billions of dollars. In the second video, I explained what "click farms" are and how developed the disinformation industry is in my country. In this video I am going to talk about two major consequences of the disinformation industry: how disinformation influences brand safety, as well as how it is destroying real and high-quality journalism. Let's start with brand safety. While reading articles on any website, you probably can see many ads being displayed across those articles. Sometimes you just want to get rid of the full screen ad, or you don't even pay attention to them if they are displayed inside or next to the articles. Sometimes you pay attention or even click on the ad. But have you ever been thinking about who chose which ad will end on which website, and what kind of ads will be displayed to you? Well, mostly nobody, or some automated systems without human intervention, and that is the problem. Why is it a problem? Well, if you are a company that sells health products, you don't want your ad to be shown on articles that are claiming that the "farmaco mafia" is poisoning people just to sell more drugs. Or on an article claiming that Covid-19 pandemic never existed and it was all experiment, or also strategy to sell health products. Or, if you are a company that deals with green energy, displaying your ads on articles claiming that climate change is not real, could harm your business. In the third case, if you are a company that does not operate in Russia since the full-scale invasion of Ukraine, you don't want your brand to appear next to Russian war propaganda. I could go on with hundreds of examples, but the conclusion would be the same – disinformation can negatively impact people's perception about brands. People could stop buying those brands or start thinking that the company values and principles are just existing on paper, simply because they keep seeing ads of that company next to anti-vaccination, anti-science, anti-democracy and human rights claims and narratives, not next to Russian or Israeli war propaganda. Advertisers need to start thinking about these problems. Even if you are not actively and consciously thinking about these things, your brain is consciously receiving signals.

The bigger problem of the disinformation industry is that it harms and even destroys real and high-quality journalism. Especially in countries where people are used to free information and not used to subscriptions. The first aspect of that problem is content monetization. Real media outlets are investing resources in creating their original content. They are buying equipment, hiring journalists and other people in their newsrooms, and sending them to the field. All that costs money. And when they finally publish that content, it can let say reach 20.000 people. On the other hand, the owner of an anonymous disinformation website which has no newsroom or equipment, steals and copy-paste that content within seconds. In addition to stealing content, they usually fabricate disinformation in headlines they write, and which are the only authentic content on such websites. Then they share it across their network of distribution, and they do that again by using strategies that professional media outlets would never do. Short-term result? The real media company earns for example 100 dollars of ads revenue on such articles. But the anonymous news website earns several times more, this not having any production costs. And what would be the long-term result of such a situation? Well, the

mainstream media outlets are more often choosing to compete with disinformation news sources in using non-professional approaches. Since they cannot win them and get more attention and revenue by sticking to high-level standards, they choose to lower their standards to stay alive. That results in many highest quality mainstream media outlets, becoming sensationalistic websites with a lot of clickbait headlines. On the other hand, most media outlets today are overproducing content to reach numbers they want. Can one editor proof-read 200 articles that some media publishes daily? Of course not. Some of them are also copying “click farms” - some mainstream media are using dozens of pages on social media to multiply their reach. In a country where people are used to free information and where news subscriptions do not exist, this approach ultimately leads to the death of high quality and professional journalists. And that could bring us to a very dangerous world to live in. But can this be fixed? I believe it can, and in my last video on this platform, I will try to give a solution.

LESSON 4 – CAN BROKEN INFORMATION ECOSYSTEM BE FIXED?

Welcome to the MOOC platform of the SMIDGE project. I am Emir Zulejhić, program coordinator at Citizens Association “Why not” from Sarajevo, and I am one of the co-founders of Bosnian fact-checking platform Raskrinkavanje.ba. In my first video on this platform, I talked about the business of disinformation and tried to explain how Google is funding the disinformation with billions of dollars. In the second video, I explained what “click farms” are and how developed the disinformation industry is in my country. In the third video I talked about two major consequences of the disinformation industry: how disinformation influences brand safety, as well as how it is destroying real and high-quality journalism. After I presented the problems, my last video on this platform is going to suggest a solution for those problems. Can we reverse the process and save credible information and high-quality journalism? I believe we can, and these are the steps I think we should take to do that:

Number one: Tech companies. In the first video I talked about how Google is not implementing the anti-disinformation policies the company has in place. I believe that this should be the one of the first steps in the fight for information integrity. Tech companies that have policies already should implement it equally across the globe. The ones who are lacking such policies should create them. Technically looking, this should not be a complicated thing to do. The most complicated thing to do here would be a shift in business models from a revenue driven approach to a humanity driven approach. But realistically, we cannot expect that simply because they are also making millions out of disinformation.

This brings us to number two: Governments. Governments should have more strict regulations regarding online space and information integrity. This is a very dangerous field - governments can very easily slip into authoritarian and anti-democratic solutions that suppress freedom of expression and promote censorship. We do not want that, and we need to be very careful when creating such regulations. The European Union is the pioneer in doing it right: Digital Services Act is a piece of legislation adopted recently in the EU, that could bring the democratic solution to content moderation. This legislation does not regulate the content directly, but it rather forces tech companies to create, implement and report on transparent measures and mechanisms that protect information integrity and users' safety.

The number three are Media companies. Media outlets should invest more in high quality journalism instead of competing with anonymous disinformation websites for the share of the ads market using non-professional strategies. I am aware that bigger budgets for the media outlets are a necessity for such an approach, but that brings us to my final fourth point.

Number four: Advertisers. I believe that the advertising industry is the key for fixing information integrity. They should stop funding disinformation by placing ads on disinformation websites and articles. They need to start thinking about the bigger picture and the harm that not filtering ads

placement is doing to both society as well as their brands. Advertisers are choosing who they are paying bad actors or good actors. By creating blacklists and whitelists of news sources, they can channel ads money from disinformation websites to professional high-quality journalism.

I know that it is not an easy task to create blacklists and whitelists and that it takes a lot of time and effort. But it is doable. Fact-checkers, journalistic associations, academic as well as another research could be the key. They can create indicators of credibility and create lists of credible and noncredible websites, which can be used for blacklisting or whitelisting. This could solve two problems at once - it could de-fund disinformation actors, as well as providing more money for real media outlets.

UNIT 9 – EVALUATING ONLINE INFORMATION

Lecturers: Maura De Vos, Bachelor of Science Research Assistant UCLan

Vasiliki Christodoulou, Assistant Professor in Psychology, UCLan

Kalypso Iordanou, Professor of Psychology, UCLan

LESSON 1 – EVALUATING SOURCE TRUSTWORTHINESS AND OTHER KEY STRATEGIES

In this lesson, we will turn our attention to evaluating the trustworthiness of online information sources and exploring key strategies for discerning credible content. Drawing insights from the SMIDGE project focus groups with citizens and professionals, we address common challenges and practical solutions for assessing information reliability. Lastly, we will highlight how argument-based interventions can assist in this process.

Every day, we encounter vast amounts of information from diverse sources. Online platforms, especially social media, enable misinformation to spread rapidly, creating significant challenges in determining accuracy. Empirical research has consistently found that frequent **social media users are more susceptible to misinformation**, a result also confirmed by our large-scale SMIDGE survey conducted across various European countries. Those who had spent more time on social media had more difficulty discerning between fake and real news. The trustworthiness of the sources we rely on also plays a crucial factor. **People who are prone to conspiratorial beliefs often distrust traditional news outlets and instead favor alternative sources that align closely with their existing belief** sources which may not always meet rigorous standards of transparency or evidence verification.

Evaluating source trustworthiness effectively involves considering multiple dimensions, including transparency of the publisher, expertise of authors, editorial standards, evidence quality, and consistency with independently verifiable information. Empirical research highlights several practical strategies for improving our ability to assess source credibility, such as:

- ***Cross-checking facts across multiple independent sources.***
- ***Assessing the credibility of authors and publishers.***
- ***Identifying rhetorical tactics and emotional manipulation used to promote misinformation.***
- ***Employing critical thinking to evaluate claims based on evidence rather than intuition.***

In the sections ahead, we will dive deeper into each of these strategies, incorporating recommendations from citizens and media professionals gathered during the SMIDGE project.

LESSON 2 – SMIDGE CITIZENS FOCUS GROUP: STRATEGIES USED TO CROSS CHECK INFORMATION

Introduction: SMIDGE focus group research

In this section I will describe the results of a series of focus groups that we conducted as part of the smidge project. We conducted focus groups with **46 participants from six countries—Cyprus, Denmark, Italy, Kosovo, Belgium, and the UK**. Participants were between 45 and 65 years old and fluent in the language of their focus group.

We explored two key questions: First, how common is misinformation, fake news, and conspiracy content online? Second, what strategies do people think could help tackle misinformation? Let's look at what participants said.

Theme 1: How Common is Misinformation?

Most participants agreed: **misinformation is everywhere on social media.**

Many people frequently come across fake news, conspiracy theories, and false information.

Some said that certain platforms, like social media or even television channels, seem to emphasize misleading content.

Only one person stated that they never encountered conspiracy theories—possibly because they do not engage with or notice them.

Here are some of the specific observations' participants shared: "A lot of fake news is online." "Bloggers don't always share authentic content." "Conspiracy theories often appear in comment sections." In terms of country-specific insights, participants from Cyprus and Denmark spoke more about the widespread nature of misinformation. Some people in the Western Balkans mentioned cyber-attacks spreading disinformation in the region. Many participants felt that misinformation is so widespread that it is impossible to fully stop.

Theme 2: What Solutions Do People Suggest?

Participants suggested a **variety of strategies for dealing with fake news and conspiracy theories.** These included **platform control, dialogue, fact-checking, education, and even humor.**

Some believed that blocking malicious accounts or controlling platforms more strictly could reduce misinformation.

Others emphasized the importance of engaging in respectful conversations.

One participant said, "If we talk about conspiracies, we should use a scientific approach—examine, question, and explore." Many suggested that reliable, fact-checked information should be easier to find. One person said, "We need more balanced views from reliable media." Another participant mentioned that tips on selecting reliable news should be widely available. A few participants suggested using AI to filter fake news, while others questioned whether AI-generated content itself could be a source of misinformation. Education was frequently mentioned as a long-term solution. Humor was also suggested as a way to counter misinformation, alongside online warnings to label misleading content.

Conclusion: What We Learned

This study highlighted that most people see misinformation as a major issue online. Experiences vary by country, with some regions reporting higher exposure to cyber-attacks or manipulated content. People suggested many different solutions – some favored regulation and platform control, while others emphasized discussion and awareness. No single approach was universally agreed upon. This study shows that people are aware of misinformation and are exploring ways to handle it in their own communities.

LESSON 3 – SMIDGE PROFESSIONALS FOCUS GROUP: STRATEGIES TO CROSS CHECK INFORMATION

Introduction: Understanding Professionals' Perspectives

In addition to speaking with citizens, we conducted **three focus groups in the UK, Cyprus, and Italy, as well as four interviews in Cyprus with influencers and professional journalists.**

Our goal was to understand how professionals experience misinformation, false content, and conspiracy theories online. Like citizens, professionals recognized that social media has the potential for positive change and harm. However, they placed greater emphasis on the risks of manipulation, polarization, and the role of digital platforms in shaping public perception.

This lesson will cover: How professionals describe the impact of misinformation online; The solutions they proposed; Key differences and similarities between professionals and citizens

Theme 1: The Impact of Social Media and Misinformation

Many professionals agreed that misinformation is widespread and has a strong influence on public opinion.

Some of their key concerns were that: social media can shape public perception, often amplifying certain narratives while suppressing others.

Algorithms reinforce users' existing beliefs, making it harder to be exposed to diverse perspectives.

Political actors and influencers use digital platforms to steer conversations, spread disinformation, and polarize societies.

People consume content passively, often believing what aligns with their views without questioning sources. Some direct insights from participants included: “The power of digital technology threatens our sense of security.”; “People agree with their own views and stereotype those who disagree.”; “Misinformation is no accident – it’s created to manipulate public perception.”

Professionals also pointed out specific dangers of unchecked content, such as: Scams and misleading content spreading unchecked. Lack of safeguards against harmful or misleading information. The rapid spread of conspiracy theories, particularly during global crises.

Unlike citizens, professionals were less focused on personal exposure to misinformation and more concerned with how digital systems amplify, monetize, and weaponize false content.

Theme 2: Solutions to Misinformation – Professional Suggestions

Many of the professionals' recommendations overlapped with those from citizens, but they also introduced several **unique ideas, particularly related to media literacy, strategic communication, and ethical platform governance.**

1. Media Literacy & Critical Thinking

Raising awareness about how misinformation works, including psychological biases like confirmation bias. **Training people to analyze media content, rather than just fact-checking specific stories.** Encouraging individuals to reflect on why they follow certain influencers or pages. Teaching people how to read and evaluate news sources, not just whether something is true or false. One participant stated: “We need to develop critical thinking skills – not just tell people what’s true but help them assess information on their own.”

2. Digital Platform Responsibility

Professionals called for stronger regulations, including fact-checking mechanisms and transparent content moderation policies. They suggested that digital platforms should be held accountable for how their algorithms spread misinformation. Some believed censorship is not the answer, warning that blocking content or platforms could push misinformation underground rather than eliminating it.

One participant noted: “Debunking doesn’t work if people don’t trust the debunker. We need platforms to be transparent about their algorithms.”

3. Persuasive & Humanistic Approaches to Debunking Misinformation

Rather than aggressively fact-checking, professionals recommend engaging people in thoughtful dialogue and avoiding condescension. They emphasized the need to present counterarguments in a way that resonates emotionally and psychologically. Some suggested using storytelling and real-life examples to help people understand the consequences of misinformation. One journalist suggested: “Instead of just telling people they’re wrong, show them how misinformation affects real people—it makes a stronger impact.”

4. Strategic Communication & Psychological Insights

Professionals recommended using persuasive communication techniques, including insights from advertising and behavioral psychology. They highlighted that misinformation spreads because it appeals to emotions—therefore, counter-messages should connect emotionally, not just rely on logic.

One participant said: “The challenge isn’t just fake news—it’s that people believe what reinforces their identity. We need to understand why before we can change it.”

Key Differences & Similarities Between Professionals and Citizens

While there were some common views, professionals and citizens had notable differences in how they approached misinformation. In terms of solutions on the topic of fact-checking, citizens emphasized finding credible sources while professionals stressed media literacy and persuasive communication. On the role of digital platforms, citizens believe more frequently that platforms should block fake content while professionals say that platforms should be transparent about how they spread content.

Conclusion: Key Takeaways from Professionals’ Views

According to them, misinformation isn’t just accidental – it is often intentional, serving political or financial interests. Algorithms and influencers play a major role in shaping what people believe, reinforcing biases. Fact-checking alone isn’t enough— people need to develop stronger media literacy and critical thinking skills. Digital platforms should be held accountable, but censorship isn’t necessarily the solution. Persuasion and strategic communication matter – changing minds requires emotional connection, not just facts.

LESSON 4 – ARGUMENT BASED INTERVENTIONS

In an extended line of research, we along with other researchers found that dense engagement in argumentation is a facilitative condition for developing evidence-based argumentation skills. A common finding across these empirical studies is that, following participation in an intervention based on dialogic argumentation and reflective activities, students develop their ability to construct more counterarguments and use more evidence, primarily to support their own position but also to undermine opposing positions. There is also evidence that after students' engagement in an argumentation-based program, they showed advances in their epistemological understanding.

In recent studies, we examined whether engagement in argumentation can facilitate reconciliation of divergent claims on controversial issues. To examine this question, we asked participants to engage in argumentation on a controversial topic for which they didn't hold strong beliefs or emotions and examined transfer to a local controversial topic. Students discussed a controversial topic which had some similarity with the local controversial topic but was "neutral" for students given that it was about another country far away from their own, and this issue didn't affect them personally. The topic was

"What should happen with young people who were brought to the USA as children and are now living there illegally? Should they leave the USA or stay in the USA?"

Results showed that **students exhibited gains in their argumentation skills in constructing evidence-based arguments and using evidence to support their position and critique the opposing position.** Notably, these gains transferred from the intervention to a new controversial issue relevant to participants' own country. We also observed gains when we asked participants to read and think aloud while reading historical accounts, before and after their engagement in the intervention. Participants, after engaging in dialogic argumentation, made more evaluative comments when reading than they did before their engagement in the intervention.

In another study, we examined whether engagement in argumentation can support multiple-text comprehension. Our hypothesis was based on the idea that reconciliation is both dispositional and strategic, as well as epistemologically based. It was also based on the idea that *construction* and *evaluation* of arguments constitute facets of argumentative reasoning; therefore, gains developed in construction of arguments would be expected to transfer to the evaluation of arguments.

Comparing the **multiple-text comprehension skills of primary school students** who engaged in an argumentative-based method with a control group who engaged in the business-as-usual school curriculum, we found that the experimental group showed progress in both argument skill and multiple-text integration skill from initial to final assessment, whereas the control group showed no improvements.

These findings show that **investing in promoting individuals' reasoning skills and epistemic beliefs is promising for discerning fake news and conspiracy theories**, and we should invest more in finding effective ways to promote these skills.



UNIT 10 – STRATEGIC STORYTELLING FOR COUNTERING EXTREMISM

Lecturers: Sara Wilford, PI and COO of SMIDGE project, Associate Professor, DMU

Jason Lee, Head of School Deputy Deam Director of Strategic Partnership LMS, Professor at DMU

LESSON 1 – INTRODUCTION TO STRATEGIC STORYTELLING AND EXTREMISMS

Hello, I am Jason Lee. And I will take you through this SMIDGE unit on strategic story telling for countering extremism. So, this unit has a number of different components and for the ones I am taking you through these will be the: Introduction to Strategic Storytelling and Extremism,

The principles of Strategic Storytelling, The Techniques for Crafting Effective Counter Narratives.

And, so, these are the 3 areas I am focusing on right. So, in terms of an introduction to strategic storytelling, there are previously considered to be those at risk, so those at risk from extremism.

The different definitions of extremism will be different to your organization and to your country, so we will not be getting into definitions of extremism in this unit. But in the past when people were constructing stories to do with focusing on strategic story telling it was to do with those at risk. But today we think about this in the context of a broader audience, so we think about this in terms of the audience – everybody in terms of storytelling. So how can you involve your audience? There is a reference there to Carthy 2021 which is a report and I will bring you the references towards the end of this video.

So, getting back into the introduction to strategic storytelling, there is no set way for this. The best way is for your team to look at the areas that you are concerned with. What areas of extremism are an issue for your organization? What do you want to tackle?

And the best way to do this is to simplify. Take just maybe a few themes, so, areas around extremism connected to immigration, for example, conspiracy connected to climate change, for example, conspiracy connected to antivax issues, for example. Take the issue and see what genre is important for your issue. So, for example if this is a very sensitive issue, you might want to take a genre that is useful for that, so that would be a more realistic genre in terms of melodrama for example. You might want to take realism, otherwise you might want to be a bit more imaginative. Think about how you can engage your audience, we will come on to different devices connected to storytelling in a minute. I would argue, personally, that the difference is good, as well. One way of doing this is splicing together two different genres. In creative work we often argue this is the way to make original work.

There is a lot of material out there, particularly of course on the internet, in the social media environment, so how are you going to attract your audience to stay with your output, your story? And you can do this by blending two genres so think about your genre, your specific mode and the form also equals the content. So, moving on what are the key areas for storytelling? Some of the key areas for storytelling are the following: relatable characters. Have you constructed characters that are believable that people watching your video can conceive of these existing in real life? Or are these too fantastic? So, you can workshop these within your team. Construct relatable personas; build it up. think of age, think of gender, think of the profession, think of the locale, think of their upbringing. There is something in screenwriting and drama called storytelling where you put someone in the hot seat. You take someone and they play the part of your character, and you ask them different questions about their character and that helps to build up the character. So, after character. Secondly compelling plots. So what plots are you going to choose, what storylines, what twists?

Also, of course, we want crafted dialogue so to think about the tension and conflict as well. Drama is all about conflict so what is conflict? And, most importantly I would argue you need subtext; so first, there is the story then there is the story behind the story. So, what is the story behind your story? And of course, make sure you edit this well. So, I have given an example here from a book that I wrote called *The Psychology of Screenwriting* which breaks some of this down but also has a kind of checklist very straight forward, so in this example now we are going to show you a clip from a film that we made called *Family Tea*, so hopefully you are going to enjoy this.

[Example of Family Tea video]

So, *Family Tea*, a story about the woman in the middle Mary who is a nurse, and she feels that she has been passed over for promotion in her job working in a hospital, she thinks it is due to immigration, but the problem is that has joined some online communities that believe in some quite fantastical conspiracy theories. So, in this short film we made, which is only six to seven minutes long, it causes conflict between her husband and her son. As I said before, good story telling is about conflict so think about that. The subtext here is the son actually lives in a different country and he is coming back to the UK and the son thinks that mother will think that his own partner is an immigrant and their grandson or granddaughter so that is the issue here and it is an interesting issue to focus on, to raise the issue to make people just thinking again, that is all you want to do you, you do not want to preach and I will keep making that point. So, again, I just want to repeat that, the key areas of storytelling, relatable characters, compelling plots, crafted dialogue, tension and conflict, and subtext, and think about editing and you can see this in *Family Tea*.

[STILL OF FILM]

That is just another still from another one of the productions that we produced, so that is another production that we produced.

LESSON 2 – PRINCIPLES OF STRATEGIC STORYTELLING FOR COUNTERING EXTREMISMS

And so yes, moving on to the Principles of Storytelling there are a number of principles of storytelling, and this is important to counter extremism.

And so, the principles of storytelling in terms of counter extremism – make everything relatable, everything that you are doing, make it relatable to your audience, so each scene relates to the others; it is a bit like a doll that you get, with a doll inside the other doll and you can leave a kind of hanging point, a twist at the end of each scene, that leads into the next scene.

And you can see how in this context – the medium is the message.

So, if you are making short videos for something like Tik Tok, or something like Facebook then you might not have your videos very long but of course people watch YouTube as well where they are sometimes 15 minutes long, so think about that in terms of the medium and the message. And that will relate to your structure and that will relate to your plot as well and your story and then think about how you make everything relatable.

So, your goal here, your principle-goal is – is do not become fixed on undermining the story of the extremist message – that is not going to work.

Tell a story and do not just contradict the messages that you are given, so do not just do that and do consider the differences between your audiences and your own values, the values of the creators, so your audience done any research on this?

Have you done quantitative research? Do you know your audience, qualitative research? Maybe interview a few people who you might be hoping to reach by your video and that is what will make this interesting and then you can use that work to feed into the development process.

The development process might take some time, but that is okay because it gives you time to make mistakes and maybe get even more creative and then you can invite the target audience to be part of the design of this so that is always another point.

LESSON 3 – TECHNIQUES FOR CRAFTING EFFECTIVE COUNTER-NARRATIVES

And then finally, the technique, so the technique for this is interesting, as well.

So, try and think about the technique. So, the technique for this. We used, as I said drama before, for a video we made about immigration and conspiracy which was interesting.

And then we also used comedy when we were thinking about climate change, we invented a quiz show where we had the host who was a conspiracy theorist, and it was the audience that was challenging the host. They were the ones correcting the host and so it created comedy and then it created engagement, and this directly came from our user group and working with our user group who were saying, yes, a lot of what do when they look at videos online is for comedy and entertainment. So, we used that genre for this purpose.

So, what are the other techniques for crafting effective counternarratives.

I have said, initially, you have got to think about – your audience does not think about the same way as you, perhaps; no one thinks in the same way.

But the problem is it's sometimes when we think, ok we want others to believe the same way. So, the argument is here – never preach, never set out to preach, or say “this is the way it is”.

You can still be hard hitting, or maybe you can invent a character that does a bit of that and see how it works. Get them to improvise. play around with it, get some actors to play with your dialogue, see how it works, that is always good.

But my central point here also is – create empathy. Create characters your audiences are going to relate to. If we think about the greatest stories of all time, there are always characters that people relate to. These are stories from myths, from all sorts of different cultures, to do with literature to do with film. It is cross cultural. These kinds of characters that go on a journey seem to be suffering and they seem to have some kind of arc, some kind of revelation, it does not have to be major, it is just they are taking time to think about what happened to them.

And ultimate argument within creative writing is always show do not tell, if you have got a visual medium, show this through images do not tell do not preach again and do not be afraid to edit – if in doubt leave it out, if in doubt cut it. You can cut dialogue to the bare bone and it will still work image works better obviously than loads and loads and loads of dialogue and add some human interest, as well use interesting stories, stories that you know, stories that people have told you, we all have anecdotes we can use and create what can be called an open frame to your story, keep it open.

So, what are the key take aways from this session here.

The key learning outcomes you can argue.

The key learning outcomes are to make sure you know your audience, involve your audience in the research in the first place in the development; ask your audience what appeals to you, and do a survey. What are the genres that most appeal to your audience, your demographic, break it down a bit you know what genres they do like do they like thrillers do they like comedy do they like slapstick what type of comedy even within that genre there are different types of comedy.

Create an environment for your medium and by that I mean your medium is a short two-minute Facebook video – what is the subject, who are the characters, have you got a voice over, what are the key images at the beginning and at the end and that book-ends it, which is a good way of doing it. And the subtle way of doing it is better, subtle approaches work better for content, so decide on the format, the medium and the genre decide on these things before you get going and try not to impose what could be called the correct viewpoint and show rather than tell.

So hopefully you have got all those points, and I am going to bring up some references now for you to go through. I mentioned Carthy at the beginning, which is a report that is funded by the European Commission, on lessons learnt from alternative narratives.

At the start here is a reference to a book on practice-based research which is what this is and then I have got some references to my own work in areas such as the psychology of screenwriting in areas such as neo-Nazism and film, and areas such as comedy in film and there is a reference to a paper which is on this SMIDGE project overall.

LESSON 4 – CHALLENGES AND ETHICAL CONSIDERATIONS

Hello and welcome to Unit 4 ethics. My name is Doctor Sara Wilford, and I am an ethics specialist.

When we're thinking about storytelling, and the production of counter-narratives to misinformation and extremism, it is important to make sure that ethics informs everything that you do.

This means that when you are involving a number of different individuals, from different backgrounds, you need to consider the ethical issues that may arise and should be considered.

Firstly, you should make sure that you gain informed consent for any activity. This means that you should provide all participants with information about what you are doing, what their involvement will be, and how you will protect their personal information, including opinions that were gathered in the process of research and at interviews. You should ensure that you are complying with general data protection regulations (GDPR). Under GDR, all personal data about anybody who's performing or involved in any way need to be kept safe and secure, with limited access, and you should only collect those details that you need for the purposes of the task that you're doing. In addition, it is the responsibility of the data controller to ensure that any processing of that information is done fairly and legally, and where possible personally identifying information should be anonymized or pseudonymized. You will find resources at the end of this presentation that provide details of the requirements of GDPR. It is important to advise you of the right to withdraw at any time from the activities, which means you must delete all the data that you've gained from that person's involvement, and all the personal information that you have.

In such a controversial area such as misinformation and disinformation online, it is also important to recognize that bias is in everyone, and the potential for stigma is high for those involved. Therefore, one's own biases should be considered throughout the process to avoid compromising the outcomes you are trying to achieve. No one is immune to conscious or unconscious bias. When doing research ahead of creating the story, make sure that you have all the up-to-date information, statistics and facts at your disposal so that you have a clear picture of what is really going on. Do not rely on social media sources and newspapers as they are often biased or based on opinion. Real facts from legitimate sources such as government statistics and academic journals are your way of ensuring that you have done due diligence and are not yourself the subject of misinformation. Whilst it may seem obvious, it is important that everyone should be treated with respect and from a place of empathy and understanding. It is important to recognize that people with different opinions may have strong beliefs. Whether or not you feel strongly, it is vital that you approach them from a position of respect and empathy for that person. In this way, you are less likely to have conflict and more likely to gain

their trust and they are more likely to be honest and open. It is also very important to fully understand your audience. Who are they? Who are you targeting? Understanding your demographic will mean that you'll be able to tailor your work more directly to the people that you are trying to influence.

People who have been convinced of the truth of conspiracy theory or misinformation will often strongly believe that these things are true, and whilst you are creating counter narratives to counter this, you do need to appreciate that their beliefs may well be earnestly felt. There are several important things you can do to ensure that when engaging with storytelling, your efforts can be effective. Key to this is to avoid stereotypes and generalizations about people's opinions and about who they are. For example, with young people, we know that they are growing and developing their career and their place in the world, and we know that their education includes digital skills, we also know that they tend to be the target of advertisers and the media, and they use social media such as Instagram and Tik Tok for many, many things, socializing, meet-ups, advice and news. They tend to be digital natives with their culture very much embedded within an online world, however. Digital literacy does not mean they know it all. No young people are the same. Middle-aged people may already be established in their career and understand their place in the world. They may have been educated many years ago and used very little technology. They have often self-taught their digital skills with little or no formal computing education, often at work or through trial and error. This can often mean that they consider themselves to be quite tech savvy. They are likely to use social media, but it tends to be more locally focused. Middle-aged people are more likely to use Facebook, whereas younger people are more likely to use Instagram or TikTok. Avoid generalizations. Many middle-aged people are highly skilled and technologically adept. Not all middle-aged people are the same. Older people, those who are post-retirement are often quite active in the younger elderly, but this may be significantly reduced as people become older. They will have been educated many, many years ago and will certainly not have had any form of digital part in their education. This means that older people tend to have a low use of digital services and a low use of social media. So, when you're looking at targeting much older people, you do need to think about how they will access what you have created. Some are highly active and tech savvy, whilst others will need basic guidelines that older people are not the same. These are all generalizations to some extent and whilst there are good starting points, each group has unique individuals and the demographic you are targeting should be extensively researched to ensure that your content is aimed appropriately and effectively. There are several key points that ensure that you can undertake ethical storytelling that will provide effective content. Focus on the demographic. What music, fashion, entertainment and social history are relevant to your group? One size does not fit it all. Avoid making assumptions. Stereotypes can be damaging education and awareness levels will vary across all demographics. One of the most problematic is assuming that middle-aged and older people do not understand technology. This is not only often false, but can lead to narratives that appear patronizing, thereby failing to engage with this group. Characters and plot must be relatable. Make it real life, avoid extremes, but introduce an element of conflict to encourage discussion and reflexivity. Again, make sure that they are a good fit for the people you are targeting. Avoid being aggressive and hyperbole. This is particularly important when dealing with sensitive issues. Some issues may be traumatizing for those involved, and for viewers, so be careful about how you portray certain situations and certain events. This is where involving the target groups in co-creation activities can help to mitigate such concerns. It is also important to have a full understanding of what messages you are trying to get across. Subtlety is powerful and can be more effective than direct statements. When we consider the counter narrative drama "A family tea" You can see that the SMIDGE project created a counter narrative that was informed by extensive research, and which was co-created with the target audience. In the Smidge project, this is the middle-aged population which is often overlooked in research and the media. The idea behind the script and the story was to encourage empathy for the protagonist and to understand their point of view, whilst highlighting the dangers of misinformation and conspiracy theory, and how it can impact people's everyday lives. In this way, the film aims to counter the misinformation that she

is subject to, offer an alternative viewpoint, but not to preach, and not to patronize. The Key learning outcomes from this unit therefore are:

Comply with GDPR and gain informed consent: know your audience by doing your research both on the topic and the target group. Co creation is more likely to lead to engagement and buy-in e open to feedback and review from all stakeholders Make the content relatable to the core demographic that you are aiming at. Don't contradict the messages or ridicule the ideas, as people think they are true, and your aim is to persuade change in people's behavior and thinking. Criticizing and demonizing people won't change their view. Critically, you come to this discussion with your own biases, and your own views. It is essential to acknowledge that these may be different from the people that you are engaging with. This doesn't mean that you are right, and they are wrong. So do not impose your own views on those people that you are working with and acknowledge that you do have biases and that this can color and skew the way that you create your counter narratives. Avoid preaching and berating people do not like to feel that they are being told off. People do not want to feel that they've been censured, that they're doing something wrong, that they are bad people. This will cause people to disengage. The best idea is to engage with empathy and care. One size does not fit all, and your storytelling should reflect this.



UNIT 11 – TOOLS AND STRATEGIES FOR STORYTELLERS

Lecturer: Giovanni Ziccardi, professor of Legal Informatics, Founder and Director of the post Doc course in Legal Informatics and in Computer Crimes and Digital Investigation, UNIMI

LESSON 1 – OSINT FOR FACT CHECKING: AN INTRODUCTION

In this short video, we'll explore how OSINT – Open-Source Intelligence – is a powerful ally in the fight against disinformation. Whether you're a journalist, researcher, or just a curious citizen, OSINT can help you uncover the truth behind the noise. OSINT refers to information that is publicly available – not hacked, leaked, or secret. It includes social media posts, news articles, satellite imagery, public records, and much more. The key is how we collect, verify, and connect these pieces of information to check facts or debunk misleading claims. Open-Source Intelligence, commonly referred to as OSINT, is the practice of collecting, analyzing, and interpreting information from publicly accessible sources to produce actionable insights. Unlike classified or covert intelligence, OSINT draws solely from data that is legally and ethically obtainable—available without breaching any privacy laws or security protocols. These sources are vast and diverse, encompassing everything from news reports, academic publications, government databases, and legal records, to social media posts, satellite imagery, online forums, and even metadata embedded in digital files. What distinguishes OSINT is not the information itself, but how it is systematically gathered, cross-referenced, and contextualized to construct an informed understanding of a particular event, individual, network, or narrative. Originally rooted in military and intelligence communities, OSINT has in recent years been adopted widely across journalism, cybersecurity, law enforcement, human rights work, and fact-checking. In the context of combating disinformation, OSINT is a vital methodology. It enables investigators to verify claims, trace the origin of viral content, detect coordinated inauthentic behavior, and challenge misleading narratives using transparent, replicable methods. Importantly, OSINT is not just a set of tools, it is a mindset. It demands critical thinking, ethical responsibility, and rigorous attention to context. Because while information may be open, its interpretation is never neutral. Analysts must remain aware of cognitive biases, source credibility, and the potential impact of their findings, particularly when they involve real people or politically sensitive issues. In essence, OSINT transforms the chaotic noise of the Internet into meaningful signals. It empowers individuals and institutions to navigate the digital landscape with greater clarity, transparency, and accountability, making it one of the most powerful instruments in the modern fight against misinformation and manipulation. Disinformation thrives on manipulation and half-truths. With OSINT, we can trace sources, verify timelines, geolocate images, and cross-reference narratives. It gives us a framework to test claims instead of trusting them. There are many sources of open data. Some key types include:

- Textual: news, blogs, forums, legal documents.
- Multimedia: photos and videos.
- Geospatial: satellite maps, weather data.
- Social media: Twitter, Facebook, TikTok.

With great tools comes great responsibility. Just because data is public doesn't mean it should be used carelessly. Always respect privacy, verify sources, and avoid making accusations without solid



evidence. OSINT is more than a toolkit – it’s a mindset. Stay curious, stay skeptical, and remember verifying facts isn’t about proving someone wrong, it’s about getting it right.

LESSON 2 – MASTERING SEARCH ENGINES

In this video we’re going to unlock the full potential of search engines – tools we use daily, but often, not deeply enough. Most people only scratch the surface when using Google or Bing. Fact checkers know that advanced search techniques can uncover far more relevant, reliable, and hidden information. Here are some essential search operators:

- “quotes” for exact phrases
- site: to limit results to a specific domain
- filetype: to find PDFs or documents
- intitle: for keywords in titles
- minus (-) to exclude terms Using combinations of these can refine your search dramatically.

Google isn’t the only player. Try DuckDuckGo for privacy, Yandex for image search, or Ecosia for sustainable browsing. Even Reddit, Twitter, or TikTok search can reveal valuable context if used strategically. Always check when a source was published. Google’s “Tools” function lets you narrow results by date. And the cached version or the Wayback Machine can help recover deleted or altered pages. Mastering search engines makes you faster and smarter in your research.

LESSON 3 – SOCMINT AND DOXING

In this video we’re looking at **SOCMINT** – Social Media Intelligence – and how it intersects with privacy, ethics, and doxing. SOCMINT is the practice of gathering intelligence from public social media platforms – think posts, profiles, hashtags, comments, even metadata. It’s a key part of OSINT, especially for tracking disinformation campaigns or verifying eyewitness content.

How it helps fact checkers

- Identify original sources of viral posts.
- Analyze networks or hashtags to spot coordinated activity.
- Cross-reference profiles to spot fake accounts.

Tools like **TweetDeck**, **WhoPostedWhat**, or **CrowdTangle** can be very helpful.

Doxing means publishing personal information about someone without their consent – often maliciously. Even if the info is public, sharing it widely can **endanger lives**.

As a fact-checker or storyteller, it’s crucial to avoid this. Focus on the **content**, not the private individual behind it – unless it’s in clear public interest and done responsibly. Before publishing anything you’ve found through SOCMINT, ask:

- Is this information verified?
- Is it relevant to the public interest?

- Could it put someone at risk?

SOCMINT can be powerful – but only if handled ethically.

LESSON 4 – REVERSE IMAGING, EXIF EXTRACTION & DETECTING DEEPPAKES

In this video we will talk about images and videos – perhaps the most convincing tools for disinformation, but also the easiest to investigate if you know how. If you see a photo online, don't take it at face value. Use **reverse image search** with tools like:

- Google Images
- TinEye
- Yandex (especially good with faces and Eastern sources)

These tools can help you find the **original source**, **first appearance**, and **context** of a visual.

EXIF data: the hidden metadata

Images often contain metadata – known as **EXIF** – that can show when and where a photo was taken, with what device, and more. Tools like **Exiftool** can extract this. Be cautious though – metadata can be stripped or faked.

Manipulation and deepfake detection

Photos can be photoshopped. Videos can be AI-generated. To check authenticity:

- Use tools for error level analysis.
- Use tools for keyframe extraction and video verification.
- Use tools to detect deepfakes.

And always check for visual inconsistencies: lighting, shadows, reflections, motion blur.

No tool works in isolation. Use multiple checks. For example, match weather data or local landmarks in the image with satellite maps. Does the video background match real-world maps? Images and videos can lie – but you've got the tools to call them out. Stay sharp, stay curious, and thank you for joining this journey through fact-checking in the digital age.



UNIT 12 – DATA JOURNALISM FOR NEWS VERIFICATION

Lecturer: Orinaldo Gjergji, OBCT and EDJNET

LESSON 1 - DATA JOURNALISM: INTRODUCTION

Hello, I am Orlando Gjergji and I've been working as a data analyst and as a data journalist for the past few years.

And I'm here to talk with you about a few things related to data journalism.

Starting from the main thing, what is data journalism and what why? Recently we have had a lot of production of so-called data journalism in the information sphere.

Especially considering that we have from the past a lot of examples of journalism and information that used numbers and that has been always relying on numbers, like all the economic journalistic production or the electoral journalistic production things, for instance, of when an article is written talking about how the economy is faring or who won the last election by what percentage or maps of which area a party got more vote than others.

Well, the main difference between data journalism and the so-called journalism with number is that theoretically data journalism should entail an original analysis of a raw set of data, which is also used to craft a narrative.

And it is getting more and more relevant nowadays for a few different reasons.

The main one is that a lot of data is being produced and, and a lot of data is being shared openly.

So, access to this information is much, much greater than it was in the past.

And on second note also that the skills that are required to do data journalism are more and more present in the people who work in information.

And I'm talking here, for instance, about some knowledge of basic statistics or visual design or the sort of things.

And finally, also because of the means, the main way to do data analysis is now available to everyone, because our personal computers now are able to do analysis that in the past would have been too complex or too difficult.

And when it comes to it, let's say, more informative dimension, usually data journalism relies on data visualization, which can be defined as a subtle art.

And science.

And science, combining elements from statistics and mathematics, graphic design and visual art.

It is, as it seems it is, a very complex activity.

LESSON 2 - THE DATA JOURNALISM WORKFLOW

And indeed, in the, let's say, workflow or what can be a data journalist investigation or a data piece, different sets of skills are required, and different professionals usually are involved in this sort of investigation.

We need a data analyst, somebody who has the skills to understand the data, analyze it and through the analysis produce new knowledge.

Then journalists, of course, can narrativize this data and then can craft a story around it, also to connect the dots and find something compelling to tell an audience that it's also newsworthy.

And then of course, when it comes to the representation of the data and of the story designers are needed so people know how information could be put together graphically for it to be more



immediate and for it to be communicated more effectively for the public to understand it immediately, let's say.

And given that usually also data journalism is done by online journalism rather than print journalists, for how much it is possible to have data journalism print, you usually also need a web designer, someone that can put the data, the visualization, the insights in a website, and create the way in which the data story is read by the public and the way in which it's disseminated.

It is of course, a very complex endeavor, as I said, and it also is a very different way, let's say, of intending what a source is journalistically, because the data set can be intended as a source itself, but as every other source, it might be problematic, it might not be reliable, and there might be issues with it.

Some issues can arise from the fact, from the Internet complexity of maybe doing a data analysis.

So, there might be mistakes in the analysis, and this is something that of course should be avoided.

And something we tend to do in data journalism when it comes to complex investigation, is to share the methodology that we use, is to share the code that we use to analyze the data so that the analysis can be, say, falsified, to give other people the opportunity to spot mistakes that have been made, or also just to give some hints or suggestion on how the analysis could have done better or how something could be complemented and added.

There are also other issues that are more related to the veridicity of the data itself, because of course, not all data sets are the same.

To make an example, some data sets are produced by the National Institute of Statistics or research centers or by a scientific publication.

And I would say that that data, if it has been collected properly, the definition is appropriate.

It is a reliable data set.

And usually, these sources also share in a lot of detail the methodology that they use to produce this data so that we can take that as a reliable set of data.

Some other times data, though, is also produced by non-governmental organization or by institutes that have maybe a vested interest because their mission is to, let's say, have some social change, some political change.

And so, they produce these data sets and use these data sets for campaigning.

And so maybe it might be more difficult to use this data or to justify it, or at least they can be used, but it needs to be clarified because there might not be neutrality from the source of the data set with the information that the data itself conveys.

And there are these good practices that we can put together to craft narratives from data and to make sense of reality and help our readers to understand better dynamics.

LESSON 3 - CHALLENGES IN DATA JOURNALISM

There are, of course, these challenges that can be avoided, for instance, these challenges that can be avoided with the example that I said earlier, and also by making choices that communicatively work and that also, let's say, make justice to the data and don't try to mislead or to bend the data to what we would like to say, even if the data doesn't really say that thing.

But of course, there are, I think, these misconceptions to some extent that if something comes back by some data, then it's true, because there is data showing that we have quantitative num.

We have quantitative measurements; we have numbers that say exactly how something is.

And that is true to an extent, because if the data was collected properly and there are no mistakes in it, we have facts, so we know the temperature of a given day, or we know how many people got sick in a month, and all these sorts of things.

But the effect and the truth can be different.

And given that we are talking about how to use data into communication in the public sphere, in journalism, I would like to stress that even when data is reliable and we're sure about the correctness

of the data, doing journalism, communicating is still about making choices, crafting a narrative, deciding what is important, how things are culturally linked, and then create again a narrative that can help the reader make sense of reality and what we're talking about.

And to give you an example on how extreme the communicative choices can be and how deeply that can change the general direction of the narrative, I want to show you this visualization that has been published now 15 to 20 years ago by the South China Morning Post.

And this infographic tells the story of how many people have been wounded or died during the Iraq war.

And it is clear what is the claim that the author wanted to do, which is implying that the war in Iraq has such a high cost in human life and human suffering that it is unsustainable.

This is a bar plot, as you can see, with just one small caveat, which is that the X axis has been put on top rather than on the bottom, so that the bars are falling and they give the impression of blood falling. But this is not the only narrative that can be crafted with this data.

And I would say this is not the only narrative that can be crafted with this data visualization.

Because, for instance, if we try to Use the same data and the same visualization with two small differences, which is having the bar plots not in red anymore, but in light blue, and not having the X axis on top, but on the bottom like it normally would be.

The frame is completely different.

And what the authors might say is that the deaths are on the decline and that all in all, the war in Iraq is sustainable. For a match, there is a cost, but it is a cost that might make sense to pay.

And then the arguments follow from that, but then, as you can see, putting them next to another with the same set of data, with the same visualization, with just two small changes in how that visualization has been crafted, we can try to argument for two positions that are incompatible with one another.

And this has nothing to do with the data. It has everything to do with the communication choices that are made. Knowing that we never communicate in a void, that we know or we think we know who our readers are. And, when we communicate, we can try to inform.

But a lot of the time people who communicate also try to convince others to change their mind or to support a certain idea, or to go against another. And this is something that has been more and more used, especially in the latest years by politics and by any other organization that tries to again shape the behavior and the credences of people. It is something that, for instance, has been used by QAnon, the conspiracy theory. QAnon has, as some researchers said, a very big thing for information design. They really, really strive to create very complex visualization, very complex infographics to explain how things really work and what the causal links are and what are the patterns.

These are very complex visualizations which seem compelling and for much the linkages per se don't make sense. They try to pry and try to rely on something that we as humans always do. We tend to perceive meaningful connections or patterns in unrelated or random data, objects, ideas, even when such factors don't exist. It's called apophenia. And it's something that we do because it is our way to make sense of reality, to find the patterns which we can understand and which can help us make sense of what's around us, our reality, our life, our society, and how the world works.

LESSON 4 - ETHICAL AND LEGAL CONSIDERATIONS

So, this can, and it is used also in ways that are misleading and say, that are not ethical. On a communication level. There are many ways in which a data visualization can be shaped to mislead the reader, even if the data is correct with some, let's say, small changes in A data visualization, someone is able to completely, let's say, change the meaning of the data. There are different ways of doing that. It is something that has been done quite extensively by all sides, I would say, during the COVID 19 pandemic. And I am referring especially to the second wave. I live in Italy and I know this for sure for Italy, but also for other European countries, that in 2021, during the so called second wave, the people, the political forces that were advocating for more strict measure in order to preserve public health,

because the number of people who contracted COVID 19 who were hospitalized was too high, were opposed to other political groups or interest groups that actually instead wanted to open up more the economy, because they would have rather prioritized the economy, business and the freedom, let's say, of people to live their life in the way they want. They were advocating these two points of view which couldn't find a common ground because they were at the antipode. And they were doing that stemming from the same data, data points that were shared at the time by the institutes of national health, by hospitals, by doctors, by ministers of health and these sorts of things. And so, this also brings to some ways in which communication around the pandemic has been made. There are, for instance, a lot of examples of visualization that try to make it look like the number of cases per day was higher or smaller than it was. Using the same data, for instance, by distorting the Y axis. And so, if I am making the Y axis start not from zero, but from a higher number, it might look like the number of cases over time increased, but by a little. Whilst on the other hand, it is also possible to truncate the axis and to make it look like the number of cases fell way more than it did. Another thing that has been done, and I'm showing you this example which I think it's really interesting, is taking a visualization that is actually good and then using it, making it a few, a few correction or let's say a few changes to communicate something that the visualization itself is not really conveying, but it helps, let's say, the person or the people who decided to do that in order to advocate for something.

So, for instance, in this visualization from the financial task, which shows us country by country, how coronavirus case trajectories compare, it is a proper data visualization. It is very compelling, it is very informative, and it tells us a lot of information. And by adding these two circles that try to cluster countries that don't use masks or are not used to wear masks in their everyday life. Like for instance European countries against countries like Hong Kong, Singapore, Japan and South Korea that have.

In which the population tends to wear face masks. And had that before the COVID 19 pandemic also started. The number of cases is lower. And for how much this might seem like it makes sense. And to some extent it makes sense. That is not something that the data is saying and that is not something that the visualization is conveying visually. It is something that has been added to that that makes sense. It seems like a pattern that we recognize and for us is logical and it is something that we find compelling. But it is not, that is not something that was within the visualization. And this is using correlation to try to infer causation. Just by the fact that two variables in this case are correlated to each other, it doesn't mean that one causes the other.

There might be another reason for which if one decreases, the other increases, or if one increases, the other decreases. And trying to, let's say, infer causal link, even when it's not there, it is not proper, and it is misleading, and it is done quite often. Another very common mistake. And again, the COVID 19 pandemic is not normalizing the data and so making comparisons that again seem logical seem good, but they are not. Because for instance, if we compare the number of cases between two different regions, we cannot use the absolute numbers, but we need to know what the number of cases is, usually every 100,000 inhabitants or percentage of the population. Because of course it might be that one region is much more populated than the other. And so of course it will have more cases. And this is again something that has been done a lot during the pandemic, which didn't help clarity and truth in a way within the communication. And there were organizations and political parties that had an interest in pushing the narrative towards a direction that they wanted, and they preferred. And other issues that come with communicating with data and ways in which communicating with data can be misleading, can be, for instance, cherry picking data. And this happens often when we're talking about time series. So, when we're dealing with time series, for instance, the smaller the amount of time that we are considering in our visualization that we're plotting in our visualization, the stronger or stark some change will look. If we try to widen up, if we try to look at how the trend is in a bigger amount of time, we might see that there are differences or even that the conclusion might be completely different from the ones that we have from a short time window. And again, this is something that has been done, that is being done. And especially this is something that is done within the economy. So, for instance, we can see that after a certain politician has been elected and went to power, the stock market went upwards or downwards.

And if we plot this visualization, looking only a few months, that might seem like, given that we have this new party in power, the economy is doing better or is doing worse. But if you widen up and look in this example I'm showing you, for instance, how the economy has been faring in the last 10 years, we might actually reconsider our claim or our conclusion or soften it, because maybe we can realize that these changes that seem so important at that point were actually something that was part of a context or something that was already happening. And so, it is not something that is linked to, for instance, for example, the election of a certain politician. And yeah, another way in which visualization can lie is going against conventions. Because when we look at the map, when we look at the chart, we have, like, certain ideas of how our chart should be, because we have seen some in our life. And so, we try to use the experience that we must renew. And to make another example, when we're plotting a map in which we are showing, I don't know, the incidence, the magnitude of a certain event of a certain variable, we tend to think that lighter color means lowers and darker color means higher, which is the way in which we tend to represent the data.

And if we flip this and make a darker color for values closer to zero and lighter colors for values closer to the highest values that we have, the visualization, it is formally correct. But by going against the conventions and making it such that if people approach this visualization without really taking the time to study it in detail, because they don't have the time, or because it just appears in their feed, it might be possible to communicate something, again, that is misleading and not truthful. Let's say, communication techniques are quite well known by people who craft data visualization, or at least they should. And it is something that the readers should be aware of. Because one of the reasons why it is, in my opinion, quite complex to communicate with data is that a lot of readers perceive data or quantitative information as more reliable. And to some extent it can be more reliable.

Again, it can be proved false if the data has not been treated correctly and we're giving information based on facts, if the data we're using has been collected properly and we're sure about the veridicity of it. Yet at the same time, given that we are still in the field of communication, all the choices that are made by the people who take part in an investigation or just make a data visualization because they want to make a post on social media, need to be scrutinized.

And there is a new set of skills that will have to be developed, that it is being developed by the population which we can call data literacy, which is the ability not to, of course, analyze data, work with it, or even make data visualizations, but the ability to understand how data works, how visualizations work, how communicating with numbers and with statistics can work, and how miscommunication can happen with these techniques, with data visualization and with statistics, it is something that probably it is going to be not that big of a problem in the future, because schools of any level are in these days, in these years, having courses or these skills are being taught to some extent for other generations though, which are not in education and which shape the way in which they intend word and information, the way in which they're approaching with information when there was not much statistical information and data and visualization going through that might instead need to be a bit more careful about it.

And usually these, let's say, distortions that are made when communicating with data, with charts and with visualization are not that difficult to spot. But of course, someone needs to know what to look for. And once people know what to look for, it's quite easy to spot when someone is trying to shape our opinions and to nudge us or push us towards a certain point of view rather than trying to depict what the truth is according to the data. So, this is something that is going to be of pressing importance in the future because more and more data visualization is used by political parties also in their electoral campaigning, and it is used in propaganda, and it is used because it seems to be more compelling than other types of communication. But as part of the public, we need to scrutinize it and to be sure that the people who are trying to say as how things are actually doing that, being truthful, being ethical, and respecting what are the basics of communicating with data and with statistics, which should be about informing how things are, rather than bending numbers to push for a point of view and let's say, misleading the readers, lying using a mechanism, using a visualization that seems so compelling that, you know, it's backed by data. And so, it must be true.

5. General Data Protection Framework: Guiding Principles

Personal data collected for the SMIDGE Platform will be handled appropriately and securely, as specified in the D1.5 DMP and DPIA Report. The SMIDGE Platform leader (FVM) will be responsible for the necessary technical infrastructure in the SMIDGE Platform and for all the personal data of users that will be collected. FVM will follow [Article 32](#) of the General Data Protection Regulation (GDPR) and comply with the data protection laws of the states where the data is collected.

FVM will oversee technical and organizational measures for data security and ensure a secure storage system for the data collected in the SMIDGE Platform. It will be defined who can access and analyze the raw data, when and under what circumstances. The following points will guide the best practices for information security and data storage:

- Data backup: including frequency and reliability
- Data security measures: physical security, software updates, antivirus protection
- Data deletion: including data deletion
- Data migration: conversion of data files from older to newer formats
- Data upgrade: transferring data from one storage tool to another.

The SMIDGE Platform will implement secure HTTPS encryption to transmit data, ensuring that sensitive information remains encrypted and inaccessible to unauthorized parties. Personal details associated with subscriptions will be securely stored and handled in compliance with the GDPR. Additionally, all subscriptions require verification through a confirmation email.

All raw data collected will be stored on secure, encrypted servers with the individual partners involved in data collection in the work package complying with the relevant procedures at their institution. Data will be anonymized before sharing with relevant partners. Data that cannot be sufficiently anonymized will be shared on a secure server.

The SMIDGE project will operate in accordance with FVM policies regarding Data Protection, IT Security, Records Management, and Cloud Computing. The backbone of the SMIDGE Platform ethics framework is composed of the [GDPR 2016/679 of the European Parliament and of the Council of 27 April 2016](#) on the protection of natural persons regarding the processing of personal data and on the free movement of such data and the [Italian Legislative decree 196/2003 “Data Protection Law”](#); [the Charter of Fundamental Rights of the European Union](#), the [European Convention on Human Rights](#) and [the Gender Equality Strategy 2020-2025](#).



6. Copy-right and Open resources

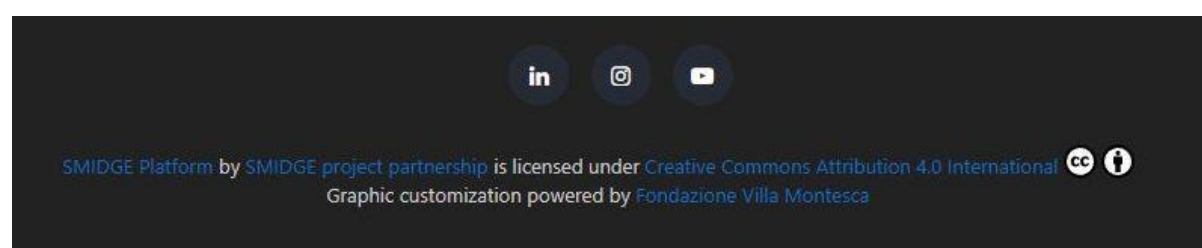
All content published on the SMIDGE Platform, including texts, images, videos, and educational materials, will be protected by copyright laws and will be the property of FVM or the respective authors. Users of the platform will be required to respect copyright laws and will not be permitted to copy, distribute, modify, or use the content without express permission.

Fondazione Villa Montesca will promote the use of open resources and the sharing of educational materials, and the content of the SMIDGE Platform will be available for users to use for personal, research, and educational purposes. As such, some content on the platform may be released under the [Creative Commons Attribution International \(CC BY 4.0\) license](#), or a similar license that may replace it in the future. This license will allow re-users to share, adapt, modify, and build upon the data for any purpose, provided appropriate credit is given, a link to the license is included, and any changes made are indicated. License details will be clearly indicated in the data repository and in each data file where possible. However, commercial use or unauthorized distribution of the content will not be permitted without the written consent of FVM or the copyright holders.

Educational materials and resources released under open licenses will be clearly indicated and will be available for reuse according to the specified license terms. Users will be encouraged to use, adapt, and share these resources in compliance with the license terms.

Users will be responsible for ensuring that any content they upload to the platform does not infringe on the copyright of third parties. If users have any doubts regarding copyright, they will be advised to contact FVM for clarification.

Any violation of copyright laws will be taken seriously and may result in the suspension or termination of the offending user's account, as well as potential legal action.



Disclaimer about copyright displayed on the SMIDGE MOOC Platform





ANNEXES

ANNEX 1. Guidelines and technical requirements for video-lessons production

Herewith following the guidelines that have been sent to teaching experts and lecturers, both internally to the SMIDGE consortium and externally recruited, to realize the video recording of the SMIDGE MOOC Units.

REQUIREMENTS FOR THE PREPARATION OF THE LESSONS.

The Video lesson is realized by the teaching expert/lecturer. The video lesson is estimated to last **from 10 to 20 minutes** (depending on the extension of the topic).

The author must:

1- **Create a text-based script.**

FVM requires the teaching expert/lecturer to divide the lesson into 4 sub-topics

- **Select from 10 to 20 key words and/or key concepts that will be used to create the visuals of the lesson.**

NOTE: A video lesson **lasting from 10 to 20 minutes**, requires **from 1200 to 2400 words**.

2- **Record a Video**

NOTE: The teaching expert/lecturer may also read the text that has been drafted in writing (the script), but care must be taken to ensure that the reading does not appear too unnatural, which could reduce the fluidity of the video. If the video is produced with the support of the FVM staff, guidance can be provided in this regard. In any case, the FVM team is available to ensure the best possible outcome for the video.

3- **Select further readings materials**

The teaching expert/lecturer must select and send to FVM four additional deepening materials (e.g. research papers, additional videos, case studies, in-depth materials) to enrich the learning offer of the Unit. Particular attention should be paid to copyright issues, extensively discussed later in the present document.

Examples of the contents to be sent by the teaching expert/lecturer to produce the video lessons properly are available at the following link:

https://drive.google.com/drive/folders/1Q5Im6-8UfZ8Z_cEL7jUHqV5Er0hyp9pm?usp=sharing

Within this folder are available both an example of video-lesson to be produced by the teaching expert/lecturer and the related script, with key words/key concepts clearly identified.

REQUIREMENTS FOR THE PRODUCTION OF THE VIDEO LESSON. The teaching expert/lecturer has two possibilities to record the video lesson:



1. **Recording of the video lesson with the support of a professional video editing team**: this option requires professional technical support (e.g. external experts) for the correct setting of the environment.
2. **Recording of the video lesson via ZOOM platform with the technical support of FVM experts (ENCOURAGED)**: the FVM can support the teaching expert/lecturer, during a previously scheduled Zoom meeting, for a correct recording of the video lesson. Our technicians will help the teaching expert/lecturer in correcting the lightening, the audio setting and the video setting of the lesson thus guaranteeing that the outcome responds to the minimum standards fixed for the SMIDGE Platform contents. Particularly, attention should be paid to:
 - a **proper lighting of the room and the face of the author**, to avoid reflections and/or blemishes
 - **background neutrality**, which must not be distorted, distracting and/or additional elements that are inconsistent with a proper learning environment
 - **cleaning the audio track**, to avoid distorting audio, such as echo, volume modulation and/or auditory distractions (e.g. ringing cellphones, voice over, background noise and so on).

TECHNICAL REQUIREMENTS OF THE VIDEO LESSON. In the case of the teaching expert/lecturer who chooses to record the video on their own with a professional camera, there are certain technical requirements that should be respected to ensure the SMIDGE Platform contents match the quality standards. Particularly:

- The **aspect ratio of the video is 16:9**. This format has become standard because it fits well with panoramic vision and makes the image more like human vision. This format is also at the basis of the high-definition standard.
- The **resolution of the video is 1920x1080** (also known as “1080p” or “Full HD”)
- The **format of the video is the .mp4 file**.
- **use of a direct microphone**. NOTE: Ambient microphones, webcam microphones and other amplification tools are not considered acceptable

Please, consider that the videos that do not match these requirements are not acceptable

HOW TO HAVE ACCESS TO THE SMIDGE PLATFORM. Each potential user who wants to enroll in the SMIDGE Platform, should fill in the registration form provided by the Platform. The registration is available only after having agreed on the Terms of Use and the Honour Code. The form that should be filled in to enroll in the SMIDGE Platform requires:

- Name and surname of the user
- Nationality of the user
- Email address of the user
- Age range of the user
- Profession of the user (security analyst OR journalist OR “other”)

The system also asks prospective users to create their username and password.

New account

Username ⓘ

The password must have at least 8 characters, at least 1 digit(s), at least 1 lower case letter(s), at least 1 upper case letter(s), at least 1 special character(s) such as %, -, or #

Password ⓘ

Email address ⓘ

Email (again) ⓘ

First name ⓘ

Last name ⓘ

▼ **Other Information**

Gender ⓘ

Age Range ⓘ

Country ⓘ

Professional Profile ⓘ

Choose...

[Create my new account](#) [Cancel](#)

Procedure for enrolling in the SMIDGE MOOC Platform

Once the system receives the form duly filled in, it will send back to the user a confirmation email with the link and the provisional credentials to enter the SMIDGE Platform. Slightly after the first access to the SMIDGE Platform, the user is asked to change their credentials to secure private access to the learning contents.

ANNEX 2. Agreement of transfer of rights and repository by lecturers/teaching experts

Author	
Title of the work	
Co-authors (if more than one)	
Type of work	Video/Podcast/
Exceptional circumstances	
Embargo	☐ No embargo ☐ 6 months ☐ 12 months N. A
Key Words	

Fondazione Hallgarten-Franchetti Centro Studi Villa Montesca (Foundation) is committed to conserving and disseminating the work created within and because of Foundation efforts. For this purpose, the Foundation offers an institutional repository. Its purpose is to make the work created at the Foundation available to the scientific community, with the objective of increasing the visibility of the work, conserving and preserving the intellectual production of the Foundation, increasing the impact of scientific production available on the internet and providing access to information for free.

This agreement regulates the rights over the work that the Author assigns to the Foundation, in accordance with the terms that are regulated therein. Thus, by means of this document, the Author gives consent for the work to be deposited in the Institutional Repository of Foundation, all under the following

CONDITIONS

I. Authority and Integrity

The Author declares that the work is original and that they have the power to grant the rights contained in this document, thus being fully pledged to issue this consent.

The Author also declares that the work does not infringe, as far as they know, the rights of any other person or entity, be it industrial, property, know how or any other property. If the document contains materials of which the author does not have the copyright, they declare to have obtained unrestricted permission of the copyright from the owner to grant Fondazione Hallgarten-Franchetti Centro Studi Villa Montesca the required rights of this document. Material with rights that belong to third parties are clearly identified and recognized in the text or content of the document delivered.

If the document is based on work which has been sponsored or supported by an entity or organization other than Fondazione Hallgarten-Franchetti Centro Studi Villa Montesca, the Foundation assumes any right of revision of the obligations required by this contract or agreement.

Any mention in this document to the Author will be understood to cover the co-authors as well, if applicable, and without the need for them to be specifically mentioned, or that the plural should be used. The Author declares that they have the capacity to issue the consent on behalf all the authors of the work. The Author also guarantees that the authors are those that appear in the heading, exempting the Foundation for any consequence resulting from a claim filed by the authors and/or third parties on the rights over the work.

The Author accepts that the Foundation clearly identifies their name and that of the other co-authors, if applicable.

Transfer of intellectual property rights

The Author assigns, free of charge, the rights of transformation, reproduction and public communication of the work, not exclusive, worldwide and in any support to the Foundation during the term of this agreement. But not limited to, the Author authorizes the Foundation to:

Transform or adapt the work, either directly or through third parties, when this is considered necessary to change the format, image or appearance of the Internet or any other technology susceptible to Internet ascription, as well as to incorporate any other security system in the electronic format of the work. The author is entitled to supervise the adaptation so that the content or meaning of his work is not distorted.

Reproduce the work, in whole or in part, on a digital support for incorporation into an electronic database, including the right to store the work in servers for the purpose of preserving the format.

Public communication or the provision, in whole or in part, of the work, in the demanded format, through any channel or directed to any destination of the information that is subject to Internet ascription (for example, the mobile phone or other similar means).

In particular, the Author hereby irrevocably and unconditionally grants to the Foundation, its successors, and assigns, a worldwide, non-exclusive, royalty-free, perpetual, and transferable license to exercise the following rights with respect to the Publication Rights **in the SMIDGE Platform** and **the right to translate and publish excerpts or portions of the Work in other platforms with the sole scope of disseminating or giving visibility to the SMIDGE Platform.**

The ownership of the moral rights of intellectual property over the work belongs and will continue to belong to the Author. The Foundation acquires only the rights that specifically appear in this agreement.

The dissemination, whether total or partial, will be carried out by always stating the name and surname of the author of the work, the title, as well as the statement that the Foundation holds the corresponding specified use rights.

For the transfer of the rights established above to be effective, the Author will provide the Foundation with a complete copy of the work, in digital format, in accordance with the specifications that the Foundation indicates at the time.

The Author must immediately inform the Foundation of any error or incident of which they have knowledge in relation to the work, so that the Foundation can act accordingly. Likewise, the Author will inform the Foundation without delay of any infringement of the intellectual property rights.

The Author shall ensure the peaceful use and enjoyment of the rights assigned to the Foundation, making themselves available to clarify and resolve any incident that may arise. The Author, as guarantor of the authorship of the work, assumes any claim or liability, including compensation for damages, that could be exercised against the Foundation by third parties who were infringed on their rights for any actions arising from this agreement. If the Foundation was convicted for infringement of rights derived from the material object of this agreement, all responsibility will be assumed by the Author, from the first claim and this is irrespective of the rights of repetition and compensation.

Delivery and filing in repository

The Author must provide a complete copy of the Work, in digital format, to the Foundation in accordance with the specifications indicated by FVM in accordance with its procedures.

The Author accepts that the work referred to in this license be filed in the Institutional Repository of Fondazione Hallgarten-Franchetti Centro Studi Villa Montesca, without any commercial purpose, and with main purposes of scientific and teaching dissemination. In particular, the Author authorizes the Fondazione Hallgarten-Franchetti Centro Studi Villa Montesca to file a copy thereof in the aforementioned Repository with a Creative Commons Attribution-NonCommercial-NonDerivative 4.0 International License (CC BY-NC-ND 4.0) (<https://creativecommons.org/licenses/by-nc-nd/4.0/legalcode.en>), or license that can replace it in the future with similar scope and objectives.

The Author, in general, authorizes the Fondazione Hallgarten-Franchetti Centro Studi Villa Montesca to grant open access to the work, all with the scope and effects indicated above.

The Foundation undertakes to disseminate the work through the institutional repository. The Foundation will only make the work available to its users for private use and/or for research and educational purposes but does not guarantee or assume any responsibility for the way and way in which users make subsequent use of the work. The Foundation does not intend to censor or review the accuracy or adequacy of the work, nor is it obliged to do so, and consequently, the Author will be responsible for the content of said work.

Special clause for Articles

If the work consists of an Article, the Author guarantees that what is expressed in the “exceptional circumstances” section of the heading corresponds to a situation in which an open dissemination of the work may involve a contractual breach or the breach of commitments regarding intellectual or industrial property. Likewise, the Author guarantees that the period identified as “embargo” indicated in the heading corresponds to the period of exceptional delay in the publication of the article during the months referred to, counting from the evaluation and approval thereof. The Author is obliged to communicate any modification of the exceptional circumstances, as well as to

inform of new periods of embargo with sufficient advance, to avoid an unwanted dissemination of the work.

V. Use of Copyrighted Works

(a). - The use of copyrighted works is governed in Italy by Law 633/1941 (Copyright Law), which confer upon copyright holders the exclusive right to authorize or prohibit the reproduction of their works.

(b). - Notwithstanding this, certain exceptions and limitations are recognized, notably those enshrined in Article 70 and 70-ter of Law 633/1941.

(c). - In compliance with these regulations, the Foundation is permitted, for the purposes of non-commercial scientific research and education, to reproduce excerpts of copyrighted works to which it has lawfully obtained access.

This encompasses videos, text, music, illustrations, photographs, maps, and numerical data, subject to the following guidelines:

Text and Data Mining (TDM): in instances where the utilization involves TDM, copies must be retained and employed exclusively for scientific research purposes, with the implementation of appropriate security measures.

Audiovisual Works: excerpts from audiovisual works may be utilized provided that the project constitutes scientific research that exhibits originality, methodological rigor, and a knowledge-seeking objective. The utilization must be strictly functional to analysis and research, limited to what is necessary, and must not adversely impact the commercial exploitation of the original work. Lawful access and the implementation of adequate security measures are also mandatory.

Extent of Use: reproductions could be confined to the duration necessary for educational purposes and could adhere to the following limitations/Guidelines: **Videos:** up to 10% or 3 minutes (whichever is less); **Text:** up to 10% or 1000 words (whichever is less); specific limitations apply to poems; **Music:** up to 10% or 30 seconds (whichever is less); **Illustrations and Photographs:** up to 5 images per artist or photographer; for collective works, up to 10% or 15 images (whichever is less); **Maps:** unaltered reproduction with visible copyright and watermark; limitations on printing and publishing; **Numerical Data:** up to 10% or 2500 fields/entries (whichever is less)

Attribution: proper attribution, encompassing author, title, publisher, place, and date of publication (if available), must be furnished for all copyrighted works.

Integrity: modifications to copyrighted works are permissible solely if they serve specific educational objectives.

(d). - The utilization of freely available online resources is encouraged; however, attribution remains mandatory.

(e). - In the event of non-compliance with the guidelines stipulated in this Point V., the Foundation retains the right to decline the submission of the work or to remove it from the Institutional Repository.

(f). - The Author, by submitting the work, unequivocally acknowledges and accepts full and exclusive responsibility for any and all claims, actions, demands, liabilities, losses, damages, costs, and expenses, including but not limited to reasonable attorneys' fees, that may arise from or be asserted against the Foundation by any third party whose rights, whether they be intellectual property rights, privacy rights, or any other legally recognized rights, have been violated, infringed upon, or otherwise compromised in any manner whatsoever as a direct or indirect consequence of the Author's submission or the Foundation's subsequent use of the submitted work.

(g). - The Author further covenants and agrees to indemnify, defend, and hold harmless the Foundation, its officers, directors, employees, agents, and affiliates from and against any and all such claims, actions, demands, liabilities, losses, damages, costs, and expenses, regardless of the form of action or the theory of liability asserted. This indemnification obligation shall survive the termination of any agreement or relationship between the Author and the Foundation and shall remain in full force and effect in perpetuity.

Non-compliance

If the work was used in a way contrary to the provisions of this document, the Foundation undertakes to immediately take all necessary measures to cease use.

Without prejudice to any other applicable right, the Foundation may terminate this agreement, and/or agree to suspend the rights granted in compliance with the established obligations, if a third party prevails any right over all or part of the work, and the Author could not guarantee the peaceful exercise of the rights that are assigned to it under this agreement. These actions will in no case generate any responsibility for the Foundation against the Author.

Duration

This agreement will enter into force on the day of its signature and will have the maximum duration that the intellectual property regulatory law grants to use rights.

Transfer to third parties

The Author expressly authorizes the Foundation to assign, where appropriate, the rights in this agreement to the entities with which the Foundation establishes collaboration agreements to disseminate the outputs online.

Communication

For communications purposes, the contact details indicated in the heading by the Author will be used. The Author is obliged to keep the Foundation duly informed of any modification of their contact information. The contact details of the Foundation will be those that always appear as statutory address, for the attention of the "Library Service".

Governing law

In case of any discrepancy in the scope, interpretation and/or execution of this agreement, the parties submit to the jurisdiction of the Courts and Tribunals of Perugia and their hierarchical superiors, expressly waiving their jurisdiction, if it is different.

And in witness thereof, the Author signs this agreement drafted by the Fondazione Hallgarten-Franchetti Centro Studi Villa Montesca, in Città di Castello (Perugia), on the date specified in the heading.

Author

Id No. (DNI/NIE or equivalent):

Tel. / Email:

Date

Signature

ANNEX 3 - Terms of Use and Honor Code of the SMIDGE Platform

Montesca MOOC Honor Code

All users of learning materials hosted on the SMIDGE Montesca MOOC platform are expected to abide by the following standards to ensure the integrity of learning within the learning experiences. Learners are expected to familiarize themselves and comply with the Terms of Use for the SMIDGE Montesca MOOC platform.

Academic misconduct undermines the value of the SMIDGE Montesca MOOC credentials and devalues the authentic efforts of other learners. Learners who engage in misconduct are therefore subject to consequences as described below.

Academic misconduct is defined as any activity which circumvents, or attempts to circumvent, the learning experience provided by the course through violation of course learning policies or specific policies provided by the instructor or outlined by the syllabus, or misrepresentation of the authorship or conditions of completion of course activities. The following standards provide clarification of the most common types of academic misconduct, but the list is not exhaustive. Other behavior may constitute academic misconduct in a particular course or across the SMIDGE Montesca platform.

Definitions

Work within a SMIDGE Montesca MOOC activity - all activities on the platform including logins and all course activities is subject to these policies. Work includes but is not limited to exams, quizzes, peer review activities, assessments, discussion board contributions, guided projects, and labs. Furthermore, activities outside the platform that pertain to coursework on the platform are also covered by these policies.

Unauthorized - activities that violate SMIDGE Montesca MOOC's Terms of Use, course or platform policies, activities which are illegal, or those activities which violate academic standards or standards of integrity that a learner on the platform should be expected to know are considered to be unauthorized.

Violations

1.Plagiarism: Plagiarism is when you copy or reproduce words, ideas, or any other materials from another source without giving credit to the original author. Plagiarism also includes the practice of employing or allowing another person to alter or revise your work and then submitting the work as your own. Learners may discuss assessments among themselves, or with an instructor or tutor, but all assessment submissions must be original works done independently by the learner. This includes work paraphrased, translated or otherwise modified using automated means. Plagiarism can also include self-plagiarism, where a learner submits the same work that they have already submitted for another assessment or module, where this is not disclosed and permitted.

2.Use of Unauthorized Materials: using or consulting unauthorized materials (including electronic materials and generative AI tools including, but not limited to, ChatGPT or similar software or applications) or using unauthorized equipment or devices on any work within a Montesca MOOC activity, unless expressly permitted.

3.Unauthorized collaboration: working together with any person on any activity unless expressly permitted.

4.Contract cheating: paying, trading, or otherwise getting another person to create work for submission to the SMIDGE course or for work within the MOOC activity.

5.Impersonation: completing work within any activity (including but not limited to assessments and learning activities) when logged in as another user or having another user complete work within an activity when logged in as you.

6.Unauthorized sharing of resources: making any information about or solutions to homework, quizzes, exams, projects, and other assessments available to anyone else (except to the extent an assessment explicitly permits sharing solutions).

7.Fraud: any misrepresentation about the authorship or the conditions under which work within the activities was performed not otherwise specified or falsifying any evidence in support of any mitigating circumstances claim.

8.Other: any other behavior that confers an unfair advantage to you or someone else or any activity that attempts to dishonestly improve your results or improve or harm the results of others in the performance of work within the MOOC activity.