

Learning and Teaching Package 4

Critical Digital and Media Literacy for Democratic Citizenship Education

Foundations for teacher educators, primary and secondary school teachers.

Teacher Academy Project
DEMOCRATIC CITIZENSHIP EDUCATION
Co-funded by the European Union

LTP 4 aims to move beyond basic digital skills by fostering students' critical understanding of how digital media shape society, power relations, and democratic life. It seeks to equip young people with the ability to analyze media systems, including algorithms, data practices, and issues of representation, while reflecting on how these influence identity, participation, and inclusion. At the same time, the LTP promotes agency by encouraging students to act as informed, responsible, and engaged citizens who can question biases, challenge inequalities, and contribute to more equitable digital environments. Ultimately, it supports the development of critical thinking, democratic values, and futures-oriented competences necessary for meaningful participation in an evolving digital society.

Democratic Citizenship Education Goals of LTP 4:



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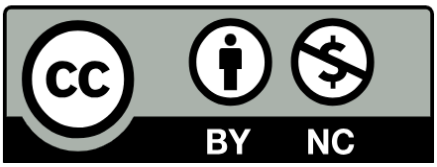
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Cover image was created with ChatGPT prompted by a metaphor of Streetlight Effect and staying in a discourse bubble to highlight the importance of "criticality".

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1. Critical Digital & Media Literacy; why it matters now?

"A 'post-truth democracy' [...] would no longer be a democracy."
— Jürgen Habermas
"...Truth is not born nor is it to be found inside the head of an individual person, it is born between people collectively searching for truth, in the process of their dialogic interaction."
— Bakhtin M.M.

Democracy is rarely neat, certain, or uncontested. It is built on dialogue, disagreement, compromise, and the ongoing negotiation of competing values, interests, and perspectives. In today's digitally mediated world, these democratic processes unfold within complex information ecosystems shaped by platforms, algorithms, artificial intelligence, and networked communication. Digital infrastructures *have changed how citizens think and interact* (Hintz et al., 2019), bringing in a world where digital technology and media is not any more separate, virtual, 'other' to a 'natural' human and social life (Jandrić et al., 2018). Citizens' lives are increasingly becoming data points possible to collect, analyze, and act on, which has implications for society and social life (Örtegren, 2023). However, citizens are also *active subjects* who can shape human-socio-technical relations within them, and even have a potential *to reconstruct the built world for sustainable human and planetary growth* (Vallor, 2024), *and for a democratic society*.

Critical Digital & Media Literacy (CDML) has an important role to play. It encourages not only to critically analyze (digital) media, platforms, and technologies, but also to understand ourselves as active, informed, and empowered participants in democratic society. It recognizes that knowledge, and meaning are not merely consumed or produced by individuals, but are developed *collectively through dialogue, inquiry, reflection, and engagement with diverse perspectives.* CDML therefore aims to equip citizens with capacities to participate critically and constructively in digitally mediated public life, to question assumptions and power relations, to evaluate competing claims, and to contribute to the collaborative creation of more just, inclusive, and democratic societies.

For education, it means that it should move beyond teaching the safe and responsible use of technology and extend to:

- **Examining how** (digital) media shape knowledge, identities, relationships, and civic participation.
- **Understanding who** designs, owns, governs, and profits from digital platforms and media systems.
- **Recognizing how** algorithms and platform architectures influence what people see, think, and do.
- **Identifying and dealing with** bias, misinformation, disinformation, stereotypes, and unequal power relations embedded in (digital) environments.
- **Exploring** the ethical, social, political, and environmental implications of digital technologies.
- **Developing agency** to challenge harmful practices and advocate for more equitable, inclusive, and democratic digital futures.
- **Creating media and digital content** contributing constructively to democratic culture and social justice.

Thus, **the key aim of this LTP** is to encourage active participation through media literacy and develop critical thinking among young people, to enable them to question biases, recognize unfair or exploitative practices, and imagine how technologies and media could be designed and used in more equitable ways.
Looking at digital media *through a critical lens* also helps make hidden processes visible. Students can begin to understand how media, algorithms, data shape *what, and how*, we see, influence our behaviour, and often reinforce existing inequalities. This kind of understanding is an important first step if we want young people to be able to challenge and improve these systems. While analysing the media messages and reflecting on why we interpret media the way we do and why others may decipher or convey information differently can develop compassion and confidence to collaborate and communicate across differences.

In essence, CDML hopes to equip young people with the knowledge and critical perspective they need to navigate - and shape - digital societies in informed and democratic ways. In today's media-saturated world, an important aim of CDML is to develop habits of critical thinking and consistent practice in asking questions and in reflecting on one's own meaning-making in a dialogical way.

In short, CDML aims to help think critically with and about the information technology and media that surround us. CMDL aims to foster:

Digital citizenship - the capacity to participate actively, continuously and responsibly in communities online and offline, through competent and positive engagement with digital technologies (by creating, working, sharing, socialising, investigating, playing, communicating and learning)[1];

Algorithmic citizenship - the ability to understand, question, respond to, and shape algorithmic systems and forms of automated decision-making that increasingly mediate social, economic, cultural, and political life.

Cyber citizenship - the capacity to act ethically, safely, securely, and collaboratively in digital environments while understanding cybersecurity, digital rights, responsibilities, and the collective dimensions of digital resilience.

AI citizenship - the ability to critically evaluate, and use artificial intelligence systems, recognising both their opportunities and their implications for democracy, fairness, and human rights.

Contributing to **critical democratic citizenship in digital societies** - the capacity to analyse how power operates through media, platforms, technologies, and infrastructures, and to advocate for more inclusive, equitable, transparent, and democratic digital futures.

[1] https://www.coe.int/en/web/education/digital-citizenship-education#{%22271421625%22:[0]}

2. What do we mean by CDML?

"The least initial deviation from the truth is multiplied later a thousandfold."
— Aristotle

Critical digital media education represents a vital democratic intervention in an era characterized by information overload, data surveillance and algorithmic curation, and platform-mediated public discourse. Critical digital media literacy is a result of a process of critical digital media education that serves three interconnected functions:

(1) developing citizens' capacity to critically evaluate information and resist media manipulation,
(2) fostering active civic participation through media production,
(3) revealing and reconstructing hidden power structures that shape media ecosystems.

Importantly, there has been **a paradigm shift** from protectionist approaches focused on media effects to empowerment-oriented frameworks that position citizens as active creators and critical consumers of media (Kellner & Share, 2019).

CDML as "multiple literacies"

CDML can be truly considered as "multiple literacies" (Kellner 1998), and indeed a **dynamically-evolving concept** because of its responsiveness to societal change. In the European context, it emphasizes **a multidimensional approach combining technical competence, critical evaluation, creative production, and civic participation.**

We have grown our definition of media literacy on that of the European Commission's Media Literacy Expert Group:

"Media literacy" is an umbrella expression that includes all the technical, cognitive, social, civic and creative capacities that **allow a citizen to access, have a critical understanding of the media and interacting with it.** These capacities allow the citizen to participate in the economic, social and cultural aspects of society as well as to play an active role in the democratic process."

We extend this definition to include
1) critical perspective;
2) insights from the relevant frameworks;
3) related concepts that illustrate the multidimensional nature of CDML.

These are discussed next.

What would *CRITICAL* refer to in CDML?

"The smart way to keep people passive and obedient is to strictly limit the spectrum of acceptable opinion, but allow very lively debate within that spectrum …That gives people the sense that there's free thinking going on, while all the time the presuppositions of the system are being reinforced by the limits put on the range of the debate."

— Noam Chomsky

Critical pedagogy provides a foundational theoretical framework for European approaches to media literacy, emphasizing education as **a tool for empowerment, social justice, and democratic participation**. Drawing on the work of Paulo Freire and other critical theorists - such as Mellado-Moreno & Burgos (2025), this perspective positions media literacy as **enabling** young people to "read the world" critically, questioning power relations, recognizing ideological dimensions of media messages, and developing agency as active citizens rather than passive consumers.



Critical pedagogy has been adapted to digital contexts, emphasizing the need for critical digital media literacy that goes beyond functional and technical skills to address questions of digital equity, data surveillance, algorithmic bias, power and ideology, critical societal aspects, and the political economy of digital platforms. Thus, CDML focuses on the interplay between technology, power, and equity, and is seen as a civic act.

The *empowerment perspective* emphasizes media literacy as a tool for marginalized groups to challenge dominant narratives, create counter-hegemonic content, and participate more fully in public discourse. There is also an argument not to focus only on individual skill development but include the discussion on systemic barriers to participation or challenging existing power structures.

Therefore, what will we understand by "*critical*" digital media literacy?

For CDML, *critical* primarily means

- *analytical* (ability to analyze and evaluate),
- *ideological* (awareness of power relations and bias),
- *productive and empowering* (ability to create, communicate and influence),
- *envisioning critical ambitions and alternatives*.

What Frameworks enrich the understanding of CDML in TAP-DCE?

European frameworks such as Digital Citizenship Education, DiGComp3.0, the UNESCO Media and Information Literacy, EU Regulatory Framework for Media Literacy, and Council of Europe Recommendations grounded in human rights principles and democratic values provide structural competence models.

Framework Digital Citizenship Education

The Council of Europe's framework Digital Citizenship Education explicitly connects media literacy to broader competences for democratic culture[2]. The Framework has three 10 key dimensions[3]:

Being online	Well-being online	Rights online
Access and inclusion Learning and creativity Media and information literacy	Ethics and empathy Health and well-being E-presence and communications	Active participation Rights and responsibilities Privacy and security Consumer awareness



Being online

Access and inclusion refers to overcoming different forms of the digital divide and opening digital spaces to minorities and different opinions.

Learning and creativity concerns the willingness to learn and the attitude towards learning through digital environments throughout life, and the capacity to develop and express different forms of creativity with different tools in different contexts.

Media and information literacy refers to the ability to interpret, critically understand and express creativity through digital media.



Well-being online

[2] See Learning and Teaching Package 1 for more details

[3] The following text and images are based on the Council of Europe introduction to the 10 digital domains that can be found here: https://www.coe.int/en/web/digital-citizenship-education/digital-citizenship-and-digital-citizenship-education

Ethics and empathy covers ethical behaviour in online interactions and the ability to recognise and understand the feelings and perspectives of others.
Health and well-being includes awareness of the issues and the opportunities that can affect wellness in a digitally rich world. Digital citizens inhabit both virtual and real spaces. For this reason, the basic skills of digital competence are not sufficient. Individuals also require a set of attitudes, skills, values and knowledge that render them more aware of issues of health and well-being.
E-presence and communications addresses the development of personal and interpersonal qualities that help digital citizens in building and maintaining online profiles of themselves and online interactions that are positive, coherent and consistent.
 **Rights online**
Active participation refers to the competences that citizens need to be fully aware of how they interact within the digital environments they inhabit in order to make responsible decisions, while participating actively and positively in the democratic cultures in which they live.
Rights and responsibilities concerns awareness and understanding of rights and responsibilities in the online world.
Privacy and security covers two different concepts: privacy concerns mainly the personal protection of one's own and others' online information, while security is related to one's own awareness of online actions and behaviour.
Consumer awareness starts from acknowledgement of the fact that in the digital world, including on social media or other virtual social spaces, being digital citizens means also being users – being consumers. Consumer activism can push businesses to align themselves with core values such as environmentally friendly business practices or support of the local economy.

Furthermore, Artificial Intelligence (AI) has become a widely used tool in our everyday life, including for learning, personalised assistance, and entertainment. Therefore, young people must be able to understand how AI works, its societal impact, and how to use it ethically.

AILit Framework

The AILit Framework is useful here representing four domains and within those different ways in which learners interact with AI[4].



Engaging with AI as a foundational domain, sets the basis for learners to think critically about the role of AI in daily life. These situations require learners to first recognize AI's presence, then evaluate the accuracy and relevance of AI outputs. Learners must develop a fundamental understanding of AI's technical foundations in order to critically analyze its capabilities and limitations.



Creating with AI consists of collaborating with an AI system in a creative or problem-solving process. It involves guiding and refining AI output through prompts and feedback, while ensuring the content remains fair and appropriate. It also involves ethical considerations related to content ownership, attribution, and the responsible use of existing materials.



Managing AI requires intentionally choosing how AI can support and enhance human work. This includes assigning structured tasks to AI, such as organizing information, so humans can focus on areas requiring creativity, empathy, and judgment. AI systems can simulate a variety of roles, acting as an analyst, debate partner, or career guide. Learners who manage AI's actions learn to delegate tasks thoughtfully, guide AI outputs with clear instructions, and assess whether AI's role aligns with their goals and values. This domain helps learners build agency, ensuring that AI works for them and that its use remains *ethical and human-centered*.



Shaping AI empowers learners to understand how AI works and connect it to its social and ethical impacts by shaping how AI systems function. Through hands-on exploration in an education context, students examine how data, design choices, and model behavior influence the fairness, usefulness, and impact of AI systems. The goal is not to develop commercial products or put them into service, but to build the confidence and capacity to *shape AI for human good by understanding the principles underpinning the design of AI from an early age.*

[4] The following text and images are based on the introduction to key competences of AI Literacy Framework for Primary and Secondary Education that can be found here https://ailiteracyframework.org/

DigComp 3.0

Also, DigComp 3.0 provides an important foundation by defining the knowledge, skills, and attitudes needed to **participate effectively, critically, and responsibly in digital societies**. DigComp3.0 present five core competence areas, presented in a diagram below:



Figure 1Five core competence areas of DigComp3.0, JRC eleboration, full version can be found https://joint-research-centre.ec.europa.eu/projects-and-activities/education-and-training/digital-transformation-education/digital-competence-framework-digcomp/digcomp-3

Importantly, DigComp 3.0 embodies the values of the European Declaration on Digital Rights and Principles for the Digital Decade (European Commission, 2023) which promotes **a human-centric vision of the digital transformation** and include the following themes:



Figure 2 Image representing the European Declaration on Digital Rights, Source: https://digital-strategy.ec.europa.eu/en/factpages/digital-rights-and-principles

Different Approaches to CDML

A comparison of different approaches to Critical Digital Media Literacy in its relation to Democratic Citizenship Education reveals several critical points for reflection.

Approach	Description	Typical strategies	Key sources
Critical and creative media literacy	Emphasizes analysis of media power, ideology, and the political economy of ICTs, combining technical production skills with critique of media structures. Enables informed critique of persuasive messaging and media ownership, helping citizens resist manipulation and contest narratives in online spaces **Creative** production and communicative skills in the digital culture	• Source Triangulation Tasks, • Framing Analysis Protocols • Visual and multimodal analysis • Propaganda Technique Identification • Counter-Storytelling Projects	Kellner, D., & Share, J. (2019).
Active Participatory media competency	Communicative and participative skills, learning to interact and participate in public life Treats digital media literacy as a **core civic competency for participatory democracy,** linking sharing, remixing, and online organizing to democratic engagement. Facilitates collective action by **teaching how to use platforms for advocacy, deliberation, and civic mobilization**	• Project-based and campaigns, • Service-learning projects • social media simulations, • civic media portfolios	Sánchez Vera, F. (2025).
Algorithmic and AI literacy	Focuses on understanding algorithmic mediation, platform affordances, and the social effects of automated systems, including	• Investigations of recommender effects, • ethnographies of platform use, • platform testing labs	Ehret, C. (2024). De Vries, M. (2023)

	affective/sociomaterial dynamics. Builds **algorithmic awareness** so citizens can interpret, contest, and negotiate visibility, recommendation, and moderation regimes that shape public discourse		
Postcolonial and justice-oriented citizenship	Centres on historicized critiques of democracy and curriculum that foreground power, exclusion, and practices of refusal; links literacy to decolonial aims and social justice. Addresses structural inequities by foregrounding marginalized perspectives and orienting civic participation toward redistribution, recognition, and collective refusal of oppressive systems.	• Community-linked curricula, • participatory action projects, • curriculum that foregrounds marginalized perspectives	Maglasang, E., & Galigao, R. (2025).
Postdigital lens	Reconceptualizing media literacy and citizenship education **by foregrounding the inseparability of digital technologies from social, material, and ethical relations**; the co-constitution of human and technological agency. The pedagogical strategies share connection to **authentic contexts and audiences**, emphasis on student agency and voice, and attention to power relations and social justice	• Action projects aimed at the integration of reflection and action for social transformation; • inquiry-based projects that combine research, critical analysis, and multimodal production, developing both technical skills and critical consciousness • pedagogies combine media analysis with production tasks; • Dialogic and collaborative methods: multilingual media	E. Örtegren, et al. (2024) P. Jandrić (2019)

		analysis, collaborative production projects, and reflective dialogues about representation and power	

The following reflective questions can help you detect similarities and differences among the above different conceptual frameworks.

1. Critical and Creative Media Literacy

- Whose voices, perspectives, and interests are represented in the media and resources used in my classroom?
- How do I support young people in questioning media ownership, power structures, and persuasive techniques?
- Do students have opportunities not only to analyse media but also to create alternative narratives and express their own perspectives?
- Are learners equipped to evaluate information based on evidence, credibility, and context?

2. Active Participatory Media Competency

- Do learning activities connect media literacy to real-world civic issues and democratic participation?
- How are students encouraged to use digital media for dialogue, advocacy, community engagement, or collective action?
- Do learners experience themselves as citizens who can influence their communities rather than simply consumers of information?
- What opportunities exist for meaningful participation beyond the classroom?

3. Algorithmic and AI Literacy

- How do algorithms and AI systems shape what students see, know, and believe?

- How can students investigate the influence of recommender systems, personalization, and platform design on public discourse?
- Do students critically examine issues of bias, fairness, transparency, and accountability in AI systems?
- How can students move from understanding algorithmic systems to imagining and shaping more equitable alternatives?

4. Postcolonial and Justice-Oriented Citizenship

- How do learning activities address historical and contemporary inequalities in media, technology, and society?
- Are students encouraged to engage with diverse perspectives and experiences, particularly those that challenge dominant narratives?

5. Postdigital Perspectives

- How do I create opportunities for dialogue, collaboration, and collective knowledge-building?
- How do I engage students in critically examining the relationships between technology, power, democracy, and human flourishing?

3. The Big Picture of CDML in TAP-DCE

"The method of democracy is to bring conflicts out into the open where their special claims can be seen and appraised, where they can be discussed and judged".
John Dewey

Drawing on John Dewey's stance, we see democratic education not as the transmission of fixed political knowledge, but **as a process through which young people develop political judgement, self-positioning, participation, deliberation, and democratic agency in relation to real social conflicts and lived experiences.**



This approach frames **CDML as critical social inquiry.** Democracy as a "lived practice" is especially important here. It suggests that democratic learning happens not only through formal lessons but through everyday interactions, including digital interactions.
Young people learn **democratic habits** when they:

- negotiate disagreements (online),
- encounter different viewpoints,
- participate in (online) communities,
- respond to information manipulation,
- manage conflict,
- reflect on emotional reactions of (digital) media,
- or decide whether to amplify certain content.

LTP 4 will therefore aim to help connect young people's digital lives to broader social and political realities, understand media as part of systems of power, reflect how emotions are central to present (digital) media environments; and create opportunities for young people to analyze, question, interpret, and reflect on how media systems operate and how they affect democratic life, and to empower them for a meaningful democratic participation in the (post)-digital world.

The Mindmap below attempts to capture this and presents the concepts related to CDML, and illustrates the complexity and the multidimensional nature of CDML for democratic citizenship education based on multiple definitions, and frameworks presented above.

This mind map presents **Critical Digital Media Literacy (CDML) for Democratic Citizenship Education (DCE) as a holistic framework** that brings together different forms of literacy, citizenship, and participation needed for democratic life in digitally mediated societies.

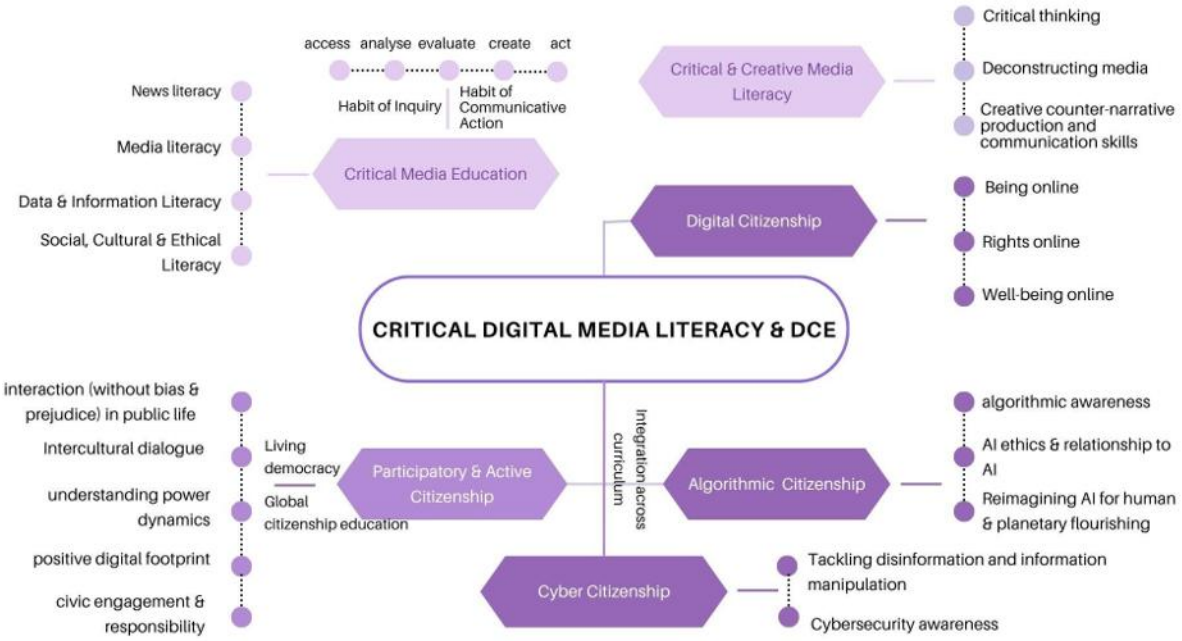


Figure 3 The Mindmap is created for TAP-DCE project by LTP 4 authors

The upper part of the framework illustrates the different literacies that contribute to media literacy, including news literacy, media literacy, data and information literacy, and social, cultural, and ethical literacy. Central to these literacies are **the habit of inquiry and the habit of communicative action** (rooted in Jürgen Habermas's *Theory of Communicative Action*), which emphasize the development of critical digital media literacy skills necessary for meaningful democratic participation.

The habit of inquiry includes the ability to access, analyse, and evaluate media and information:

> **Access** refers not only to opportunities to use media and technologies, but also to the cognitive and practical abilities required to engage with them effectively.
>
> **Analysis and evaluation** involve the ability to understand, interpret, question, and assess media content, information sources, and the broader social, political, and economic conditions in which media operate. These competencies support critical thinking, informed judgement, and personal autonomy.

The habit of communicative action encompasses the ability to create and act. Creating involves producing and sharing multimodal messages through different media, drawing on creative, technical, social, and communicative competencies. Inspired by Jürgen Habermas's theory of communicative action, this dimension places **dialogue, mutual understanding, deliberation, and democratic participation** at the centre of social life. Acting refers to the capacity to participate meaningfully and responsibly in democratic processes and public life within the (post) digital world.

The mindmap further integrates concepts of Digital Citizenship, Participatory and Active Citizenship, Algorithmic Citizenship, and Cyber Citizenship; and should help progress across **media analysis - digital participation - algorithmic awareness - democratic action**.

Critical and Creative Media Literacy strengthens critical thinking, media deconstruction, and the creation of alternative narratives and forms of expression.

Digital Citizenship focuses on responsible and meaningful participation online, including digital rights, well-being, and engagement in (digital) communities.

Algorithmic Citizenship equips learners to understand how algorithms and AI shape information, decision-making, and public life, while encouraging ethical reflection and human-centred approaches to technology.

Cyber Citizenship promotes cybersecurity awareness and resilience against misinformation, manipulation, and online harms.

These dimensions **are underpinned by Participatory and Active Citizenship**, which emphasizes democratic engagement, intercultural dialogue, understanding power relations, and contributing positively to society both online and offline.

Together, these dimensions should support young people in understanding their rights and responsibilities online, engaging in civic and democratic life, recognising how algorithms and AI shape information and participation, and developing resilience against misinformation, manipulation, and cybersecurity risks.

The LTP 4 framework will try to capture this complexity, and show ways to achieve the objectives of CDML. It is intended to be enacted through **a whole-school approach**, where students learn democracy by experiencing, or living through, it in practice, and through **cross-curricular integration**, where critical digital media literacy is embedded across subjects and learning experiences.

4. LTP 4 Themes and Methodologies: What to Expect?

"When you delude yourself into thinking that you see something, you assume that everyone else sees the same thing as you."
George Orwell

Democracy depends on citizens' ability to engage with different perspectives, question assumptions, and deliberate about issues – that is on discussion and dialogue. George Orwell warned us that when people can't imagine that another perspective might exist, dialogue ends.
Yet contemporary digital environments often contribute to it. At a time when misinformation, disinformation, emotional manipulation, and algorithmically amplified content increasingly shape public discourse, democratic participation requires more than access to information. It requires the ability to investigate claims critically, understand how media and technologies influence perception, engage respectfully with diverse viewpoints, reflect on one's own assumptions, and contribute constructively to collective meaning-making.

The methodologies presented in this section are designed to support these capacities. Here we describe the key foundations for LTP 4 development in terms of its objectives, and related methods. These are grouped around the concepts identified in the mindmap. The section is not meant to be a complete compendium for these highly complex issues. **This is a place to start exploration**.

For this, we suggest four bigger themes for LTP 4 activities.

Theme 1. Understanding and Acting as a Citizen in a Digital Society: Digital Citizenship for Democratic Life

This theme explores what it means to live, learn, communicate, and participate in increasingly digital societies. We will examine how digital technologies shape our identities, relationships, opportunities, rights, responsibilities, wellbeing, and participation in democratic life. Through critical reflection and active engagement, students develop the knowledge, skills, values, and attitudes needed to navigate digital environments safely, ethically, responsibly, and inclusively.

The theme encourages young people to understand themselves not only as users of technology but also as active digital citizens who can contribute positively to (online) communities and democratic societies. It addresses issues such as digital identity, online behaviour, participation, inclusion, digital rights, responsibilities, wellbeing, and the impact of digital meida on everyday life.

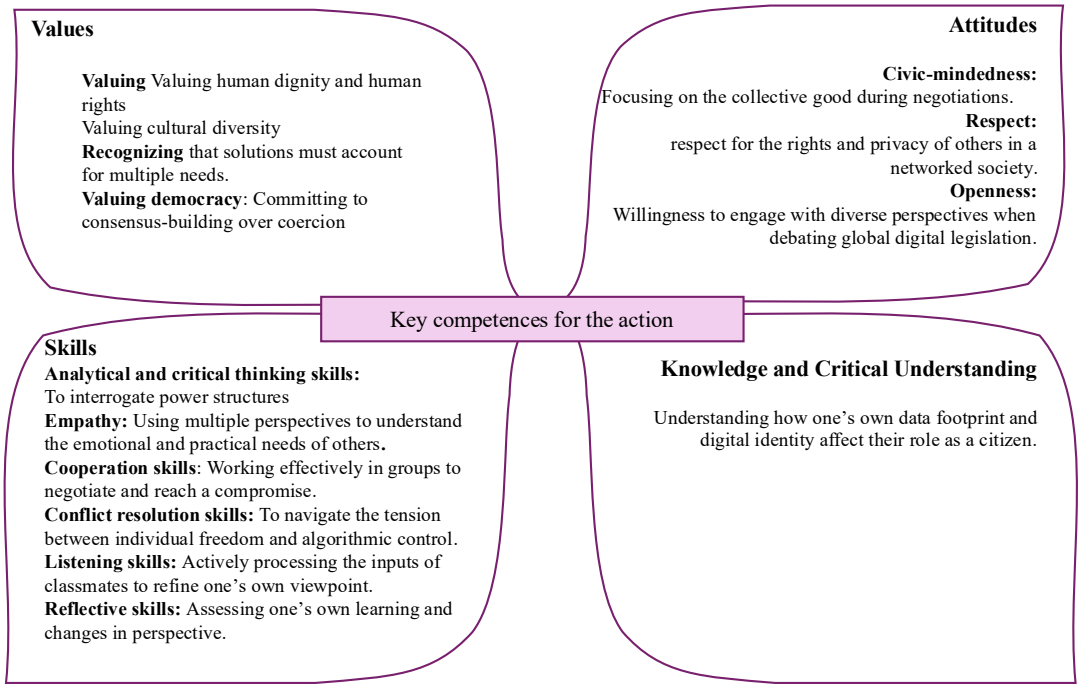
Key questions

What does it mean to be a citizen in a digital democratic society?
What rights and responsibilities do we have online?
How are our cultures and identities influenced by digital media? How digital media shape everyday life and democratic participation?

Related Frameworks

DigComp 3.0, Digital Citizenship Education.

Key competences in relation to RFCDC



Useful links:

https://www.webwise.ie/download/33224/ - A learning path for 9 -12 year olds to become smart digital citizens. Help pupils explore the concept of digital citizenship across 10 themes in the DigiTown activity book, based on DCE Framework

Methodological Steps

Title	Data Journalism: Debating about controversial issues and finding a compromise

Description	Engaging in debates about controversial issues ('Issues which arouse strong feelings and divide opinion in communities and society') and searching for a compromise around media-related issues serves as an active-learning methodology. This approach engages students in understanding the current concercs, and directly confront real-world digital dilemmas - such as the ethics of banning social media for young people, handy regulations at school etc. By researching conflicting perspectives, analysing problems with data and using logical reasoning to draw conclusions, defending specific viewpoints, and ultimately working to negotiate a shared compromise, young people move past polarized, "black-and-white" thinking.
Objectives	➢ **Participation:** negotiation skills. ➢ **Analysis:** analysing and interpreting data. ➢ **Reflection:** reflecting on personal standpoints and how we compromise with others ➢ **Developing a knowledge base** on notions of rights and responsibilities, protection, freedom, justice, respect; ➢ **Understanding purpose, process and outcomes;** hypothesising
Title	**Challenge-based learning: e.g. Design Future Social Media Apps**
Description	Envisioning and designing future social media apps with features that prevent democracy challenges such as bullying and racism, creating logos and visual layouts to illustrate their speculative solutions and sharing them through collaborative presentation and discussion.
Objective	➢ Develop imagination and futures thinking. ➢ Envision tools that reduce youth concerns about social media, like racism, misinformation, and bullying online. ➢ Strengthen visual communication and design skills. ➢ Build creative agency by proposing future-oriented solutions.
Title	**Role-Play**
Description	Online communication can be challenging because students cannot see the immediate physical reaction of the person they are texting. **Empathy games and role-play** in the form interactive, perspective-taking simulations designed to teach students how to recognize, understand, and value the emotions, backgrounds, and perspectives of others.

Objectives	➢ Understanding and expressing feelings and reactions and learning to control them; ➢ using language forms to favorise social interactions; ➢ experimenting with social rules.
Title	**Investigation through critical inquiry and evidence-based reflection**
Description	Engaging students in investigations through critical inquiry and evidence-based reflection serves as an active-learning methodology for democratic digital citizenship education. This approach encourages young people to explore complex digital and societal issues by formulating questions, gathering and analysing evidence, examining multiple perspectives, and reflecting on their own experiences, assumptions, and practices. Students investigate authentic and relevant topics - such as healthy digital habits, AI use, algorithmic influence, surveillance capitalism, online participation, digital wellbeing, misinformation, privacy, or platform power - through research, dialogue, observation, and collaborative analysis. By engaging with diverse sources, experiences, and viewpoints, learners develop the capacity to move beyond simplistic or polarised interpretations and towards nuanced, evidence-informed understanding.
Objectives	➢ **Inquiry:** formulating meaningful questions about digital, social, ethical, or democratic issues. ➢ **Analysis**: collecting, comparing, interpreting, and evaluating evidence from multiple sources and perspectives. ➢ **Critical thinking:** creating options, analysing (identifying advantages and disadvantages of possible solutions), and evaluating options (deciding on an option) ➢ **Reflection:** reflecting on personal experiences, behaviours, values, and positions in relation to digital environments and societal challenges. ➢ **Participation:** engaging in collaborative discussion, dialogue, and shared meaning-making around complex issues. ➢ **Decision-making and agency**: identifying, evaluating, and proposing informed responses, strategies, or actions related to digital and societal challenges. ➢ **Developing a knowledge based** on notions of rights and responsibilities, wellbeing, privacy, participation, power,

justice, autonomy, transparency, and democratic accountability.

- **Understanding purpose, process, and outcomes**

Theme 2. Algorithmic Citizenship: Mediating Algorithmic & AI Systems, Building Ability and Confidence

We live in an algorithmically mediated information environment. Every news feed, search result, health tip, political post, and social connection a young person encounters online is filtered, ranked, and amplified - or suppressed - by algorithmic and AI systems. These systems are not neutral: they are designed to serve commercial, political, and platform-specific interests, and they operate largely invisibly.

Without the ability to understand and critically interrogate these algorithmic and AI systems citizens cannot fulfil the basic conditions for democratic participation. Drawing from the work of the EU *AlgoWatch* Project, 2023-25, TAP-DCE defines this as learners' capacity work that goes beyond simple awareness to encompass users' knowledge, understanding, and active strategies for engaging with algorithms and AI systems in the field of media, culture and education. This framing positions Algo/AI literacy as a civic necessity servicing as it does a dimension of what it means to be a free and informed citizen in the digital age.

Related Frameworks

Three conceptual frameworks underpin this work:
DigComp 2.2 (European Digital Competence Framework) is the most explicit of these. Much of the work of the AlgoWatch project is described as aligned to DigComp 2.2, which is the EU's benchmark framework for digital competence across five areas (information literacy, communication, content creation, safety, and problem-solving). AlgoWatch maps its 24 algo/AI literacy micro-competences onto this structure.

UNESCO's *Media and Information Literacy* (MIL) framework is the other major underpinning of the work of the AlgoWatch Project. AlgoWatch positions itself firmly within the MIL tradition, which defines media literacy as encompassing access, evaluation, creation, and civic action simultaneously - making it inherently about democratic participation rather than just technical skill.

The *EU AI Act (2024)* is the third framework from which the *AlgoWatch* project proceeded. This is more regulatory than pedagogical and is seen as what gives algo/AI literacy its civic urgency - particularly the provision outlining citizens' rights regarding automated decision-making.

Key Competences in relation to RFCDC



Additionally, the AlgoWatch Project authored its own MIL Competence framework around three epistemological pillars drawn from educational philosophy:

- Knowing — declarative knowledge about how algorithms and AI work
- Knowing-how — procedural skills for analysis, verification, and control
- Knowing-how-to-be — dispositional values, ethics, and civic orientations

These echo the seminal work of Gilbert Ryle and later competence-based education theorists such as Franz E. Weinert, though AlgoWatch does not explicitly name that line of development in its materials.

In sum, the *AlgoWatch MIL Competence Framework* organises 24 algo/AI micro-competences across three educational pillars. The first, *Knowing*, addresses declarative understanding - what algorithms are, how recommendation, predictive, and generative AI systems function, and what drives them. The second, *Knowing-How*, atriculates the procedural skills citizens need to act critically in algorithmically mediated environments: recognising AI-generated content, combating filter bubbles, assessing source reliability, and adjusting platform settings to limit algorithmic influence. The third, *Knowing-How-to-Be*, puts forward the values and civic dispositions that give the other two pillars their democratic purpose - ethical sensitivity, critical awareness of the attention economy, willingness to resist manipulation, and readiness to act as an informed citizen under the EU AI Act. Developed by *Savoir Devenir* for the *AlgoWatch Project*, the framework is fully aligned with DigComp 2.2 but extends aspects of it, and is directed at learners aged 13 and above.

Key questions

- Why do different people see different information online?
- How do algorithms shape what we know and believe?
- How can young people use AI responsibly and think critically about AI and its answers?

Reference links:

The EU Creative Europe Programme (CREA) *AlgoWatch* Project, 2023-25: https://algowatch.eu/

The *AlgoWatch Project MIL Competence Framework* (v1): https://algowatch.eu/wp-content/uploads/2024/10/Competence-Framework-Algowatch-ENGLISH.pdf

The *UNESCO MIL Framework*:
A: UNESCO MIL (2008) framework enhanced and published as https://unesdoc.unesco.org/ark:/48223/pf0000224655
B: A subsequent full-review and update was undertaken by Grizzle et al 2021; THINK CRITICALLY, CLICK WISELY!

Methodological Steps

Title	**Collaborative Learning**
Description	The students work in groups and get a set of questions and cases about the mechanism and influence of algorithms. The main aim is to understand and to reflect on how algorithms impact their personal lives. To increase the engagement a few quiz questions are added to the activity. The activity includes the investigation of algorithmic influence on different personas.
Objectives	➢ **Understand how algorithms work** Students explore the basic mechanisms behind algorithms and how they influence the information, content, and recommendations people receive online. ➢ **Reflect on personal impact** Students discuss how algorithms affect their own daily lives, choices, habits, and online experiences. ➢ **Analyse different perspectives** Students investigate how algorithmic influence may affect different personas in different ways, depending on their interests, behaviour, age, or vulnerabilities. ➢ **Develop collaborative learning skills** Students work in groups to discuss cases, compare ideas, and build a shared understanding of algorithmic influence. ➢ **Strengthen critical thinking**

	Students question why certain content is shown to users and reflect on possible risks such as filter bubbles, bias, manipulation, or over-personalisation. ➢ **Promote responsible digital behaviour** Students identify ways to become more aware, careful, and responsible when interacting with algorithm-driven platforms.
Title	**Design Thinking**
Description	The students follow the steps of the Design Thinking Methodology to create an awareness campaign, explaining how algorithms can promote fake news or extreme content. The final output is a presentation with do and don't about internet actions.
Objectives	➢ **Understand algorithmic influence** Students explain how algorithms can shape what people see online and how this may increase exposure to fake news or extreme content. ➢ **Recognise risks of online behaviour** Students identify how likes, shares, clicks, and searches can leave data traces and influence future content recommendations. ➢ **Develop critical thinking skills** Students analyse online content more carefully and question why certain posts, videos, or messages are shown to them**.** ➢ **Apply Design Thinking** Students use the steps of Design Thinking to empathise, define a problem, generate ideas, prototype, and present a solution. ➢ **Create an awareness campaign** Students design a clear and engaging campaign to inform others about responsible online actions. ➢ **Promote responsible digital citizenship** Students formulate practical do's and don'ts for safer, more thoughtful, and more respectful internet use.
Title	**Game-based learning**
Description	Game-based learning can serve as an engaging active-learning methodology for algorithmic citizenship education because it encourages students to experience, rather than only discuss, how algorithmic systems shape their access to information, opportunities, visibility, choices and participation in society. Through a structured game, students encounter challenges related to different types of algorithms, algorithmic bias, filter bubbles, data profiling, privacy, automated decision-making, misinformation and disinformation, transparency and accountability**.** The game environment makes abstract and often invisible algorithmic processes more concrete and comprehensible. In this algorithmic citizenship escape room, students need to solve a series of puzzles or missions. Each puzzle represents a democratic challenge connected to algorithms: identifying biased data, escaping

	an information bubble, questioning an automated decision, detecting manipulation or protecting personal data. The methodology supports students' declarative understanding of what algorithms are, how recommendation, predictive and generative AI systems function. At the same time, it develops the procedural skills they need to act critically in algorithmically mediated environments, such as recognising AI-generated content, combating filter bubbles, evaluating the reliability of sources and adjusting platform settings to limit unwanted algorithmic influence. Finally, it emphasises the values and civic dispositions that give these competences their democratic purpose, in particular ethical sensitivity, critical awareness of the attention economy, willingness to resist manipulation, concern for fairness and transparency, and readiness to act as informed citizens in line with emerging regulatory frameworks such as the EU AI Act.
Objectives	➢ **Developing understanding** of algorithms and key concepts related to algorithmic citizenship, including algorithmic bias, recommendation systems, predictive AI, generative AI, attention economy, privacy, accountability, fairness, digital rights, and democratic participation. ➢ I**dentifying and analysing** algorithmic challenges such as algorithmic black box and lack of transparency, filter bubbles, data profiling and manipulation. ➢ **Critical thinking** about the assumption that algorithms are neutral and examining how they are designed by people, trained on data, shaped by economic and political interests, and capable of reinforcing power imbalances or inequalities. ➢ **Democratic values:** connecting algorithmic systems with democratic principles such as fairness, equality, transparency, accountability, privacy, autonomy, participation, human dignity, and the right to explanation or appeal. ➢ **Ethical sensitivity:** recognising the ethical implications of algorithmic systems, especially when they affect citizens' rights, wellbeing, opportunities, representation, and participation in democratic life. ➢ **Reflection:** reflecting on personal digital habits, data traces, online choices, exposure to algorithmic influence, vulnerability to manipulation, and responsibility as a digital citizen.
Title	**5E Learning Model**
Description	The 5E inquiry-based learning model guides students through a structured process of questioning, exploration, explanation, application and reflection. It encourages students to investigate how algorithmic systems shape democratic citizenship. The 5E learning model consists of 5 phases: **Engage, Explore, Explain, Elaborate and Evaluate** and encourages students to examine authentic digital and democratic issues related to algorithms.

	The methodology begins by engaging students with a real-life situation or provocative question, such as: "Why do different people see different information online? Can algorithms be unfair? Who is responsible when an automated decision harms a citizen?" Students then explore evidence, examples, datasets, platform practices, media content or personal digital experiences in order to identify patterns, formulate questions and develop initial explanations. During the five phases of learning, students construct a deeper understanding of what algorithms are, how recommendation, predictive and generative AI systems function, and how these systems are shaped. They develop skills needed to act critically in algorithmically mediated environments.
Objectives	➢ **Engage:** stimulating curiosity and prior knowledge with a real-life situation or an algorithmic dilemma that reveals how digital systems can influence citizens' perceptions, choices, rights or participation. ➢ **Explore:** investigating algorithms through observation, comparison, experimentation or analysis of authentic examples, so they can identify patterns, uncertainties and questions. ➢ **Explain:** constructing evidence-based explanations of how algorithmic systems operate and how they connect to democratic issues such as fairness, autonomy, privacy, transparency and accountability. ➢ **Elaborate:** applying new learning and own experiences to new civic contexts by analysing unfamiliar algorithmic challenges and proposing responsible responses or improvements. ➢ **Evaluate:** assessing their own learning, reasoning and civic position by reflecting on how their understanding of algorithms, digital power and democratic responsibility has developed through the inquiry process.

Theme 3: CyberSense and Cyber Citizenship: Navigating Digital Risks and Resilience

Cyber citizenship represents the vital intersection of media literacy, digital citizenship, and cybersecurity awareness. It involves the knowledge, skills, and ethical responsibilities required to participate safely and meaningfully in contemporary civil society. Unlike narrower readings of digital literacy which may focus on technical proficiency, cyber citizenship addresses **the weaponization of social media and the systemic challenges represented by information disorder.**

Ciber citizenship positions the individual as a central agent in both their personal and the wider collective security of society, shifting the focus from purely technical or regulatory fixes to building *human-centered* resilience against coordinated online threats and manipulation. Within the TAP-DCE project we refer to this capability as *cybersense*.

Cyber citizenship is about understanding digital norms, respecting others online, managing a positive digital footprint, and protecting personal information. It is a foundational pillar of democracy and for the EU *Democracy Shield* (EDS). EDS is a recent EU initiative which seeks to protect democratic processes from disinformation and foreign information manipulation and interference (FIMI). While the EDS includes legal responses and protections like the Digital Services Act, empowering citizens is regarded as the most effective long-term strategy for tackling information threats. Cyber citizenship builds **societal resilience by equipping people with the critical thinking skills needed to shrug off attacks, a strategy described as *deterrence by denial*.** This approach is particularly valuable for democratic resilience because it is non-partisan and respects freedom of expression while protecting the information ecosystem from those who seek to delegitimize democratic institutions and spread distrust.

Key objective of this theme is to **develop competences to tackle media manipulation, develop critical consciousness and critical thinking for teaching about misinformation and disinformation.**

Tackling media manipulation has become a major priority at the EU level because digitally mediated falsehoods increasingly threaten democratic participation, social cohesion, and trust in public institutions. Tackling mis- and disinformation. For instance, according to EAVI's "Future of Europe" initiative, disinformation fuels Euroscepticism, propaganda, and hate speech by spreading distorted narratives about European institutions and policies. In the (post)digital contexts, disinformation campaigns are further amplified by algorithmic systems, social media platforms, and AI-generated content, creating risks for elections, public trust, and democratic deliberation across Europe.

The capabilities and confidence of cyber citizenship can be organised around **three pillars.** These are drawn from the core principles and practices of the *DigComp* and

UNESCO MIL environments as consolidated and enhanced by the EU AlgoWatch Project, 2023-25:

- **Knowing** (Propositional): Understanding the mechanics of the digital environment, including how algorithms and AI rank and amplify content, and distinguishing between misinformation, disinformation, and mal-information.
- **Knowing-How** (Procedural): Practical skills for lateral reading to verify sources, identifying AI-generated content, adjusting platform privacy settings, and maintaining digital security through complex passwords and malware protection.
- **Knowing-How-to-Be** (Dispositional): Cultivating ethical sensitivity, civic responsibility, and a willingness to resist manipulation to protect the diversity and pluralism of democratic systems and society.

Key questions:

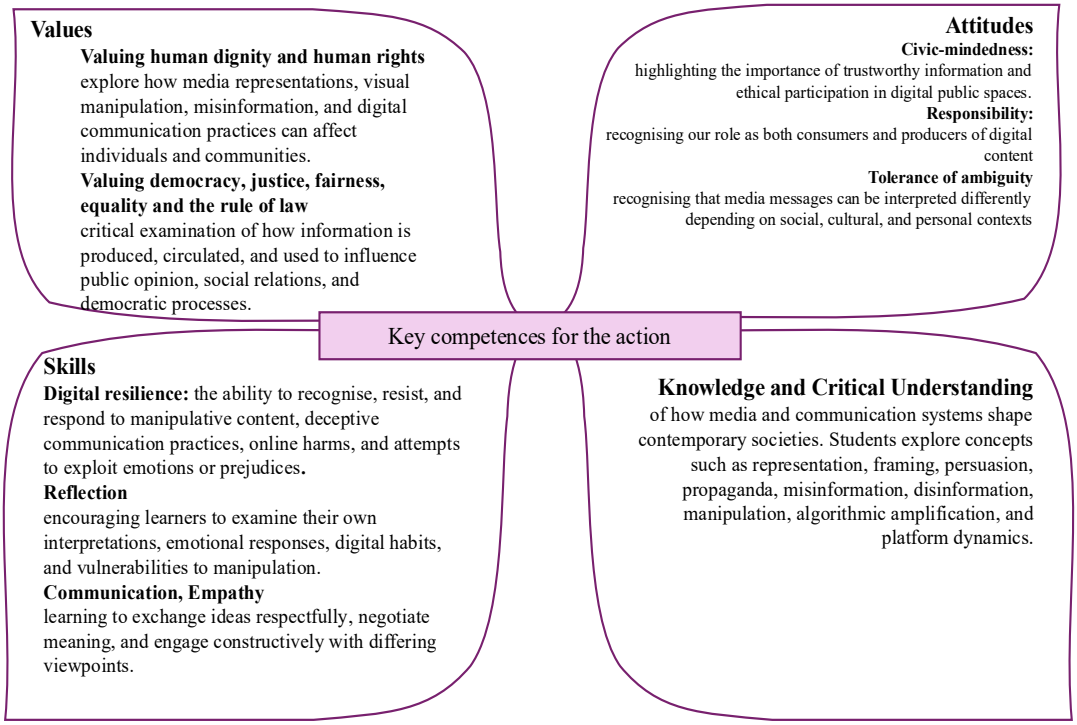
- How can young people recognise manipulation and misinformation?
- How do young people protect their privacy and digital identity?
- What responsibilities do we share for safer digital spaces?

Related Frameworks

A number of key conceptual and regulatory frameworks underpin the development of cybersense, cyber citizenship and cybersecurity in relation to European democracy:

- **DigComp 3.0 (European Digital Competence Framework):** The EU's benchmark for digital skills across information literacy, online safety, and problem-solving.
- **UNESCO Media and Information Literacy (MIL):** A framework defining media and information literacy as a tool for *civic action* and democratic participation rather than just technical skill.
- **European Democracy Action Plan (EDAP):** An EU level plan and related initiative that focuses on citizen engagement and education for democratic participation and countering disinformation to ensure free and fair elections.
- The **EU Digital Services Act (DSA):** Legislation that complements educational efforts to ensure safe and meaningful online ecosystems by holding platforms and their providers accountable for content moderation and transparency.

Key competencies in relation to RFCDC



Reference links:

The Cyber Citizenship Initiative (New America & Cyber Florida):
https://www.newamerica.org/education-policy/reports/teaching-cyber-citizenship/

CYBER CITIZENCybersecurity for everyday life
Cyber Citizen | Euroopan union in laajuinen kyberturvallisuushanke

The EU Creative Europe Programme (CREA) *AlgoWatch* Project MIL Competence Framework: https://algowatch.eu/wp-content/uploads/2024/10/Competence-Framework-Algowatch-ENGLISH.pdf

UNESCO Media and Information Literacy Framework:
https://unesdoc.unesco.org/ark:/48223/pf0000224655

EU DigComp 3.0 The European Digital Competence Framework for Citizens:
https://publications.jrc.ec.europa.eu/repository/handle/JRC144121

Methodological Steps

Title	**Interpreting Images and Constructivist Media Decoding**
Description	In today's media-saturated world, we need to teach our students **the habits of critical thinking** needed for their academic, career and civic lives. They need consistent practice in asking the right questions and in reflecting on their own meaning-making. Media Decoding Approach integrates materials and methodologies that support students in analysing and decoding misleading images and question critically online resources. **Students examine how images communicate messages, evoke emotions, shape perceptions, reinforce stereotypes, influence behaviours, and construct representations of reality.** Through collaborative interpretation, comparison of perspectives, and contextual analysis, learners recognise that media meanings are not fixed or neutral but are actively produced through choices related to framing, editing, symbolism, aesthetics, algorithms, and audience interpretation. The methodology draws on constructivist learning principles by positioning students as active meaning-makers who question visual narratives, identify implicit assumptions and biases, and reflect on how their own experiences, identities, and cultural contexts shape interpretation. By decoding visual media critically and reflectively, students strengthen their visual literacy, analytical thinking, and democratic awareness in increasingly image-saturated digital environments.
An example	**a lesson plan and an infographics to support media decoding** https://eavi.eu/lesson-plan-identifying-misleading-images-in-the-media/
Objectives	➢ **Interpretation:** analysing how images and visual media communicate meanings, emotions, values, and ideologies. ➢ **Critical thinking:** interrogating representations, stereotypes, framing techniques, omissions, and power relations embedded in visual media. ➢ **Analysis:** examining how visual elements—such as composition, colour, perspective, editing, captions, filters, symbolism, and algorithms—shape audience interpretation. ➢ **Reflection**: reflecting on personal interpretations, emotional responses, cultural assumptions, and the influence of prior experiences on meaning-making. ➢ **Participation:** engaging in collaborative discussion and negotiation of multiple interpretations and viewpoints.

	➢ **Developing a knowledge base** on notions of representation, visual rhetoric, manipulation, identity, propaganda, authenticity, persuasion, bias, and media construction.
Title	**Newspaper theatre | Theatre of the Oppressed**
Description	Newspaper Theatre is an activist, performance-based method designed **to unmask media manipulation by turning everyday news into theatrical scenes.** Created by Brazilian theatre director Augusto Boal as part of the Theatre of the Oppressed, this technique treats the daily news not as absolute truth, but as a script written by people with specific biases, motives, and political agendas. In a classroom setting, students take actual news articles, broadcasts, or social media feeds and use specific performance techniques to visually strip away bias, reveal hidden agendas, and expose structural manipulation. By physically staging the news, students shift from passive consumers of media to active, critical decoders of digital information.
Toolkit	https://www.salto-youth.net/downloads/toolbox_tool_download-file-2598/Newspaper%20Theatre_Manual_compressed.pdf
Objectives	➢ **Participation**: engaging actively in dialogue, collaborative performance, and democratic meaning-making processes. ➢ **Critical thinking:** interrogating media narratives, stereotypes, inequalities, exclusions, and power relations represented in news and digital media. ➢ **Analysis**: examining how language, framing, representation, and media structures shape public perception and social realities. ➢ **Reflection:** reflecting on personal experiences, emotions, social positions, and responses to injustice, conflict, or exclusion. ➢ **Empathy and perspective-taking**: exploring diverse viewpoints, lived experiences, and social dynamics through role-play and performance.
Title	**Digital Games**
Description	The approach of digital games to tackle media manipulation relies on interactive simulation, role reversal, and experiential learning. Instead of passively consuming warnings about disinformation, users learn by directly engaging with the mechanics of manipulation. For instance, games like *Bad News*, *Fake it to make it*, and *Harmony Square* put players in the role of the manipulator to experience how fake news is manufactured, monetized, and spread to cause chaos.

Examples of Games	https://www.fakeittomakeitgame.com/ - a game about fake news https://www.getbadnews.com/en learning the power of bad news https://www.harmonysquare.game/en/play reliability of information
Objectives	➢ **Inquiry**: exploring how digital information ecosystems, media manipulation, and platform dynamics operate through interactive experiences. ➢ **Critical thinking:** interrogating strategies of persuasion, emotional manipulation, misinformation, disinformation, and algorithmic amplification represented in games and simulations. ➢ **Analysis:** examining how game mechanics, narratives, incentives, and decision-making processes model real-world digital and democratic challenges. ➢ **Reflection:** reflecting on personal reactions, decision-making, vulnerabilities, and ethical considerations encountered during gameplay.

Theme 4. Active Citizenship for Democracy: Participating, Deliberating and Taking Action through Media Production

This theme focuses on the capacity to participate actively, continuously, and responsibly in communities online and offline. It involves using digital technologies to seek opportunities for empowerment, and explores democratic participation, civic engagement, dialogue, activism, collective action, and social change. Young people develop the skills and dispositions needed to participate actively in democratic life both online and offline.

In digitalized "immigration societies," engaged citizenship allows individuals-including non-voters like youth ("Young Citizens") - to experience political self-efficacy and participate in democratic processes across traditional borders.

Key questions:

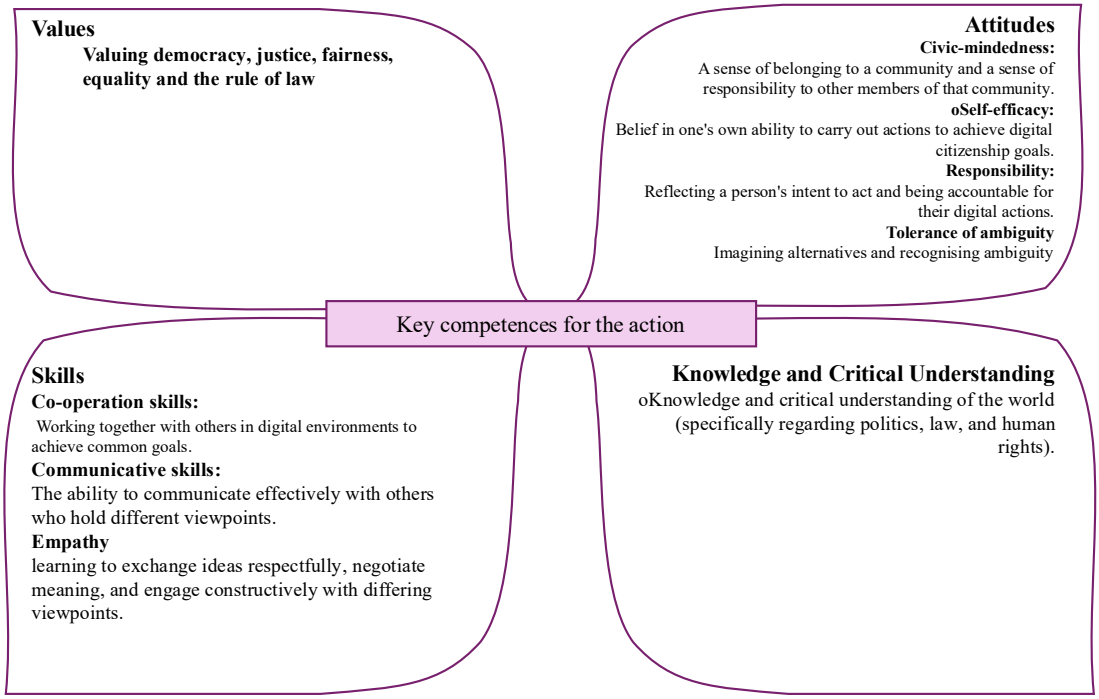
?

How can young people influence society?
How can digital media support democratic participation?
How do we engage constructively with disagreement and diversity?

Related Frameworks

DigComp 3.0, AILit.

Key competences



Methodological Steps

Title	**Creative Media Production as participatory digital citizenship practice**
Description	Engaging students in creative media production - such as podcasting, audio storytelling, video essays, blogging, or digital campaigns - positions young people not only as critical consumers of media, but also as responsible producers who actively construct meaning, shape narratives, and participate in public discourse. Through the process of planning, researching, scripting, recording, editing, and publishing media content, students explore how information is framed, how narratives are constructed, and how audiences are influenced across digital platforms. Podcasting, in particular, provides an accessible and dialogical format for exploring complex issues such as identity, digital wellbeing, misinformation, social justice, or civic participation, while developing voice, agency, and communicative competence.
Some powerful examples	https://window-youth.eu/ - a project that aims to empower disadvantaged youth through trainings on hard skills, soft skills and media literacy to use podcasts as a tool in their local contexts in order to increase their civic engagement and political participation.

Objectives	➢ **Participation:** actively engaging in collaborative media production and contributing to shared public communication outputs. ➢ **Communication:** developing clear, structured, and audience-aware expression through audio, visual, or multimodal formats. ➢ **Critical thinking:** interrogating how media narratives are constructed, whose voices are represented, and how meaning is shaped through production choices. ➢ **Analysis:** researching topics, evaluating sources, and structuring coherent arguments or narratives for public dissemination. ➢ **Reflection:** reflecting on personal voice, identity, ethical responsibilities, and the impact of one's own media production. ➢ **Developing a knowledge base** on notions of media production, representation, authorship, persuasion, public discourse, digital storytelling, and platform dynamics. ➢ **Making sense of complex topics through connecting them to real life** ➢ **Understanding purpose, process, and outcomes:** planning and evaluating how media content may influence audiences, shape perceptions, and contribute to civic and democratic conversations. ➢ **Ethical awareness:** considering issues such as consent, privacy, accuracy, bias, intellectual property, and respectful representation in media creation. ➢ **Collaboration:** working in teams to negotiate roles, decisions, editorial direction, and shared responsibility for outputs. ➢ **Agency and voice:** developing confidence in expressing informed perspectives and contributing meaningfully to digital public spheres through self-produced media.
Title	**Photovoice, and Grounding in Personal Experiences**
Description	Youth capture and discuss images that illustrate their chosen topic, fostering critical reflection, empathy, and dialogue.
Objectives	➢ Use images to analyse social issues and inequalities. ➢ Build empathy by sharing personal perspectives. ➢ Strengthen creative and critical interpretation skills.
Title	**Digital Storytelling and Counter-Storytelling**
Description	Storytelling has always been one of the most powerful tools humans use to connect with one another. Storytelling is important because it speaks to our emotions. A story can transport us into another person's perspective, helping us feel empathy and understanding.

	Digital storytelling is the practice of using digital tools - such as images, video, audio, text, and interactive media - to tell stories in new and engaging ways. One of the most powerful applications of digital storytelling is its potential for activism and civic engagement. By harnessing personal narratives, storytellers can shed light on social injustices, raise awareness of pressing issues, and inspire collective action. Counter-storytelling uses that emotional resonance to perform a civic act: it "talks back" to stereotypes and provides a platform for those usually excluded from the public sphere. In democratic citizenship education, this is not just about personal expression; it is about **epistemic justice**. By creating media that reflects their own complex realities, students act as "civic authors".
Example	https://eavi.eu/guides-toolkits/
Objectives	➢ **Narrative competence:** developing the ability to construct coherent, meaningful, and engaging digital stories across multiple media formats. ➢ **Critical thinking:** interrogating dominant narratives, stereotypes, omissions, and power relations in media representations. ➢ **Analysis:** examining how language, imagery, structure, and platform dynamics shape meaning and influence audience perception. ➢ **Reflection:** reflecting on personal identity, lived experience, values, and positionality in relation to broader social narratives. ➢ **Participation:** engaging in dialogue and sharing stories within a collaborative, respectful, and democratic learning environment. ➢ **Developing a knowledge base** on related topics ➢ **Agency and voice:** empowering learners to express perspectives that challenge dominant or marginalising narratives in digital spaces. ➢ **Ethical awareness:** considering issues of consent, privacy, cultural sensitivity, and responsible representation when creating and sharing stories. ➢ **Empathy and perspective-taking**: engaging with diverse lived experiences through storytelling and counter-narrative construction
Title	**Futures Workshop and Futures Thinking – What if?**
Description	The futures approach encourages students to imagine, question, and discuss possible, probable, and desirable digital futures. In CDML, it helps learners reflect on how technologies such as AI, platforms, or data systems may shape democracy, participation, and everyday life. The approach supports critical thinking by

	shifting attention from passive adaptation to the idea that digital futures can be shaped collectively and politically. Through structured foresight activities—such as scenario building, trend analysis, speculative design, and "what if" narratives—students critically examine emerging developments including artificial intelligence, platform governance, surveillance technologies, misinformation ecosystems, climate-tech intersections, and evolving forms of digital participation. They explore how technological, social, political, and ethical factors interact to shape future societies.
What is Futures Thinking and why is it important?	https://www.dpmc.govt.nz/our-programmes/policy-project/policy-tools/futures-thinking
Objectives	➢ **Futures thinking:** exploring possible, probable, and desirable futures related to digital societies and civic life. ➢ **Critical thinking**: interrogating current technological and social trends and their potential long-term implications for democracy, rights, and participation. ➢ **Analysis**: identifying drivers of change (technological, economic, political, cultural) and assessing their interactions and consequences. ➢ **Reflection**: reflecting on personal values, fears, hopes, and assumptions about the future of digital life and society. ➢ **Participation:** collaboratively constructing shared scenarios, narratives, and visions of alternative futures. ➢ **Imagination and creativity:** generating speculative scenarios, designs, and narratives that challenge dominant assumptions and open alternative possibilities. ➢ **Decision-making and agency:** evaluating choices in shaping preferable futures and identifying pathways for action in the present. ➢ **Ethical and democratic awareness:** considering how future technologies may affect rights, inclusion, justice, autonomy, and collective responsibility.

5. Challenges and Prerequisites for developing CDML for DCE

"No problem can be solved by the same consciousness that created it. We need to see the world anew."
- Albert Einstein

Democracy has always been a work in progress. Today, it unfolds in digital environments shaped by platforms, algorithms, artificial intelligence, data economies, and global networks of communication. Young people grow up in a world where information is abundant, attention is contested, and technological systems increasingly influence what they see, know, believe, and do.

Developing Critical Digital Media Literacy is therefore not simply about teaching students how to use technology safely or effectively. It is about creating opportunities for young people to question, investigate, dialogue, participate, and imagine alternatives. It is about helping young people become active citizens who can navigate complexity, recognise manipulation, engage with diverse perspectives, and contribute to democratic life.

Yet this work takes place within a landscape marked by significant tensions. Commercial interests increasingly shape educational technologies and digital infrastructures. Misinformation and disinformation challenge shared understandings of reality. Surveillance-based business models turn everyday digital activities into sources of data extraction. Algorithmic systems can reproduce inequalities and biases, while narratives of technological inevitability can discourage citizens from questioning how technologies are designed and governed.

However, these challenges should not lead to pessimism. Rather, they remind us that critical digital media literacy is not only a set of skills but also should be a means for democracy, that can be supported at different levels:

The Classroom: Creating Spaces for Inquiry and Dialogue

CDML begins with curiosity. Students need opportunities to ask difficult questions, investigate competing claims, analyse media critically, and reflect on their own assumptions and experiences. Rather than presenting knowledge as fixed and uncontested, educators can cultivate habits of inquiry and communicative action that encourage learners to explore how media and technologies shape society.

Classrooms can become spaces where:

- ✓ questioning is valued as much as answering;

- ✓ multiple perspectives are explored respectfully;
- ✓ evidence is examined critically;
- ✓ creativity and media production complement media analysis;
- ✓ students learn not only to consume information, but also to participate in public dialogue.

The School: Building a Democratic Digital Culture

CDML flourishes when it extends beyond individual lessons and becomes part of the culture of the school. A whole-school approach recognises that democratic citizenship is learned not only through curriculum content but also through everyday experiences of participation, inclusion, and shared decision-making.

Schools can support CDML by:

- ✓ embedding digital citizenship across subjects;
- ✓ promoting ethical and human-centred uses of technology;
- ✓ encouraging student voice and participation in decision-making;
- ✓ creating opportunities for collaborative inquiry and project-based learning;
- ✓ using open educational resources and inclusive digital practices;
- ✓ supporting professional learning communities where educators learn from one another.

The Community: Connecting Learning with Democratic Life

Critical digital media literacy is most meaningful when connected to authentic social issues and community contexts.

Communities can contribute by:

- ✓ creating opportunities for civic engagement and dialogue;
- ✓ supporting local and global digital activism around issues that matter to young people;
- ✓ strengthening media and information ecosystems based on trust and transparency;

- ✓ promoting intergenerational conversations about technology, democracy, and social change.

Developing Critical Digital Media Literacy is ultimately about strengthening the democratic capacity of individuals and communities. It requires us to place human dignity, human rights, critical inquiry, dialogue, and participation at the centre of digital education.

The goal is not to prepare young people merely to adapt to technological change, but to empower them to question it, shape it, and imagine more democratic, equitable, and sustainable digital futures. In an age of uncertainty, complexity, and rapid transformation, CDML offers a pathway towards informed judgement, collective responsibility, and hopeful democratic action.

6. Glossary

AI Literacy

AI literacy refers to the knowledge, skills, and attitudes that enable individuals to understand, navigate, and critically evaluate AI-generated outputs and human–AI interaction. It includes a conceptual understanding of what AI is (and is not), awareness of its application contexts, and the ability to engage with AI systems in a selective, ethical, and responsible manner.

Algorithmic Citizenship

Algorithmic citizenship refers to the shifting terrain in which citizens are governed, represented, and become agents within algorithmically mediated infrastructures. It frames algorithms as sites of civic contestation and constitutional concern, where rights, duties, and participation are reconfigured through automated decision-making and platform governance. It also points to more fluid or deterritorialized forms of citizenship that create opportunities for digital activism and new forms of democratic participation across supranational spaces.

Algorithms as Cultural Agents

Within the context of CDML, algorithms can be understood as operative cultural agents that structure knowledge hierarchies and symbolic power. They are not neutral tools, but hidden processes that shape visibility, relevance, and behavior, often reproducing or intensifying existing inequalities. Democratic education should therefore address algorithms through critical mediation frameworks that make these processes visible and contestable.

Bias (Digital and Algorithmic)

Bias refers to a systematic deviation from a neutral or fair state. In digital contexts, this includes subjective human bias, data bias, algorithmic bias, and developer bias. Within CDML, it is particularly important to recognize how such biases are embedded in training data, design decisions, and computational systems, potentially leading to epistemic injustice and the exclusion of diverse cultural perspectives.

Critical Digital Media Literacy (CDML)

Critical digital media literacy connects critical media analysis with digital and algorithmic environments, emphasizing both technical production skills and the critical interrogation of power structures within information and communication technologies (ICT). It combines the ability to read, produce, and challenge mediated meaning with a broader strategy of uncovering the political, social, and ideological conditions that shape digital media systems. In this sense, CDML serves as a framework for analyzing

how structures such as race, gender, and class operate within globally disseminated digital platforms.

Cyber Citizenship

The vital intersection of media literacy, digital citizenship, and cybersecurity awareness. It represents the critical thinking, ethical sensitivity, and procedural skills required for individuals and collectives to navigate complex algorithmically mediated environments and recognize deliberate online threats. Ultimately, it refers to the human-centered resilience and civic capability needed to participate safely and meaningfully in 21st-century civil society while resisting manipulation and information disorder.

Datafication

Datafication describes the process by which increasingly diverse aspects of everyday life, social behavior, and personal experience are transformed into digital data. This development is often closely tied to surveillance, platform economies, and profit-oriented forms of governance. As a result, democratic citizenship education requires citizens to critically reflect on data ownership, control, and the political implications of data-driven societies.

Democratic Citizenship Education (DCE) within CDML

Within the framework of CDML, democratic citizenship education extends beyond the idea of merely using technology responsibly. Instead, it seeks to empower learners to understand, question, and actively shape digital media environments for democratic purposes. This includes fostering political literacy, civic agency, and the critical capacity to engage with digital infrastructures, institutions, and public discourse.

Digital Citizenship

Digital citizenship is the capacity to participate actively, responsibly, and continuously in communities at local, national, and global levels through competent and positive engagement with digital technologies. A digital citizen is able to exercise and defend digital rights while navigating online and offline spaces as interconnected dimensions of social and political life.

Digital Citizenship Education (DigCE)

Digital citizenship education refers to the educational process of enabling individuals to participate actively and responsibly in online and offline communities through competent engagement with digital technologies. It can be understood as a lifelong learning process aimed at promoting democratic participation, protecting human rights, and safeguarding human dignity in a digital age.

Digital Exclusion

Digital exclusion refers to the marginalization of individuals or groups who lack sufficient access to, or capacity to use, information and communication technologies. This exclusion can significantly limit economic, social, cultural, and political participation, thereby reinforcing broader patterns of inequality and democratic disadvantage.

Disinformation and Misinformation

Disinformation refers to false or misleading information that is intentionally created and disseminated in order to deceive. Misinformation, by contrast, refers to false or inaccurate information that is shared without deliberate intent to mislead. Distinguishing between the two is essential for critical media analysis and democratic participation in digital publics.

Engaged Citizenship

Engaged citizenship describes active and participatory forms of civic involvement that go beyond conventional institutional participation and increasingly include digital and networked practices. It is grounded in the ideal of a strong democracy sustained by informed, interested, and civically organized citizens. Within CDML, engaged citizenship requires analytical competencies that make participation reflective, informed, and capable of contesting dominant structures.

Filter Bubble

A filter bubble describes a form of informational enclosure primarily produced by ranking and recommendation algorithms on digital platforms. Through personalized curation, users are exposed to selected information without necessarily choosing this limitation themselves. As a result, certain perspectives may be amplified while opposing views, rebuttals, or alternative interpretations are systematically reduced.

Media Literacy

The ability to access, analyze, evaluate, create, and act using all forms of communication. Media literacy education is the ongoing development of habits of inquiry and skills of expression necessary for people to be critical thinkers, thoughtful and effective communicators, and informed and responsible members of society.

Post-Truth

Circumstances in which objective facts are less influential in shaping public opinion than appeals to emotion and personal belief (OED, 2016, Oxford University Press).

Technological Determinism

Technological determinism refers to the assumption that technological development follows an inevitable logic to which individuals and societies must simply adapt. In critical educational contexts, this view is problematic because it obscures the social,

political, and economic choices that shape technological systems. CDML therefore challenges deterministic perspectives by emphasizing that digital transformation is a contested and governable social process.

The Frankfurt Triangle

The Frankfurt Triangle is an interdisciplinary framework for understanding the digital world through three interconnected perspectives. The technological-medial perspective focuses on how digital systems function and how media technologies operate. The societal-cultural perspective examines power relations, economic interests, representation, and forms of digital capitalism. The interaction-oriented perspective explores how identity, subjectivity, and human action are shaped through interaction with digital systems. Together, these perspectives promote a balanced and non-deterministic understanding of digitality (Brinda, et al. 2020).

Young Citizens

The concept of young citizens challenges the idea that children and adolescents are merely “future citizens” in preparation for later political participation. Instead, it understands them as present political subjects and agents of change who already possess the right to participate in, interpret, and critically reflect on democratic life and social order.

References

Arthur, J., Davies, I., & Hahn, C. J. (2008). *The Sage Handbook of Education for Citizenship and Democracy*. Sage. https://ci.nii.ac.jp/ncid/BA87102659

Brinda, T. et al. (2020). Frankfurt-Dreieck zur Bildung in der digital vernetzten Welt. Ein interdisziplinäres Modell. In Knaus, T.,Merz, O. (Eds.) Schnittstellen und Interfaces. Digitaler Wandel in Bildungseinrichtungen.München: kopaed, 157-167. DOI: 10.25656/01:22117

Bignami, F., Calzada, I., Hanakata, N., & Tomasello, F. (2022), Data-Driven Citizenship Regimes in Contemporary Urban Scenarios: An Introduction. *Citizenship Studies* 27(2). DOI:10.1080/13621025.2022.2147262.

Boriati, D. (2025). Promoting AI Literacy in Contemporary Society. A Sociological Perspective, *Sociology Study*, doi: 10.17265/2159-5526/2025.03.001.

Casimir, J., 2014: *Food waste at the school level: A case study on a food waste reduction project within school restaurants in Uppsala, Sweden*. Master Thesis in Sustainable Development at Uppsala University, No. 199, 27 pp, 30 ECTS/hp URL: https://www.diva-portal.org/smash/get/diva2:742150/FULLTEXT01.pdf

Council of Europe. (2018, 2022). *Reference framework of competences for democratic culture*. Council of Europe.

Cosgrove, J., & Cachia, R. (2025). *DigComp 3.0: European Digital Competence Framework - Fifth Edition*. Publications Office of the European Union. https://data.europa.eu/doi/10.2760/0001149 (Verwendet für: Algorithmic Bias, Human-Centric Values und Open Educational Resources (OER))

Dalton, R. J. (2008). Citizenship Norms and the Expansion of Political Participation. *Political Studies*, 56(1), 76-98.

De Vries, M. (2023) Civic Action within Global Citizenship Education as an Antidote to Despair, *Policy and Practice: A Development Education Review*, Vol. 37, Autumn, pp. 28–55. https://www.developmenteducationreview.com/issue/issue-37/civic-action-within-global-citizenship-education-antidote-despair

Ehret, C. (2024). Critical literacies in algorithmic cultures. *Literacy*. https://doi.org/10.1111/lit.12363

Grizzle, A., Wilson, C., Tuazon, R., Cheung, C.K., Lau, J., Fischer, R., Gordon, D., Akyempong, K., Singh, J., Carr, P.R. and Stewart, K.N.(2021). *Media and information literate citizens: think critically, click wisely!* UNESCO. https://zuscholars.zu.ac.ae/cgi/viewcontent.cgi?article=5561&context=works

Hintz, A., Dencik, L., & Wahl-Jorgensen, K. (2019). Digital citizenship in a datafied society. Polity Press.Instefjord, E. J., & Munthe, E. (2017). Educating digitally competent teachers: A study for integration of professional digital competence in teacher education. Teaching and Teacher Education, 67, 37–45.https://doi.org/10.1016/j.tate.2017.05.016

Jandrić, P., Knox, J., Besley, T., Ryberg, T., Suoranta, J., & Hayes, S. (2018). Postdigital science and edu-cation. Educational Philosophy and Theory, 50(10), 893–899. https://doi.org/10.1080/00131857.2018.1454000

Kellner, D., & Share, J. (2019). *The critical media literacy guide: Engaging media and transforming education*. The Netherlands: Brill/Sense Publishers

Lauss, G., Mittnik, P., & Schmid-Heher, S. (2021). Misch dich ein! Unterrichtsbeispiele für politische Bildung ab der Sekundarstufe I. Zentrum für Politische Bildung.

Maglasang, E., & Galigao, R. (2025). Citizenship and Political Education: The role of schools in preparing students for civic engagement and democratic participation. *PANTAO International Journal of the Humanities and Social Sciences,* 4(3). https://doi.org/10.69651/pijhss0403288

Missomelius, P. (2025). The Relevance of the Frankfurt Triangle for Critical Media Literacy and Digital Citizenship. *Seminar.Net,* 21(1). https://doi.org/10.7577/seminar.6157

Mihailidis, P., & Thevenin, B. (2013). Media Literacy as a Core Competency for Engaged Citizenship in Participatory Democracy. *American Behavioral Scientist*, 57(11), 1611–1622. https://doi.org/10.1177/0002764213489015

Mellado-Moreno, P.C. & Burgos, C. (2025). Didactics in social studies for global citizenship education: dimensions and technological contexts. *Frontiers in Educatio*n 10:1514027. DOI: 10.3389/feduc.2025.1514027

Örtegren, A. (2024). Philosophical underpinnings of digital citizenship through a postdigital lens: Implications for teacher educators' professional digital competence. *Educ Inf Technol* 29, 4253–4285. https://doi.org/10.1007/s10639-023-11965-5

Vallor, S. (2024). *The AI Mirror: how to reclaim our humanity in an age of machine thinking*. Oxford University Press.

Zuboff, S.(2019). *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power*. New York: PublicAffairs.