


FaktaBaari **EDU**

The FactBarEDU project brings together fact-checking experts, journalists, media specialists and pedagogues to create Digital Information Literacy tools:

- to support teachers in dealing with social media issues in the classroom context ;
- to empower students with critical thinking and digital information literacy skills to resist mis- and disinformation, and
- to activate citizens to verify their social media content

www.faktabaari.fi

We all struggle with evaluating information



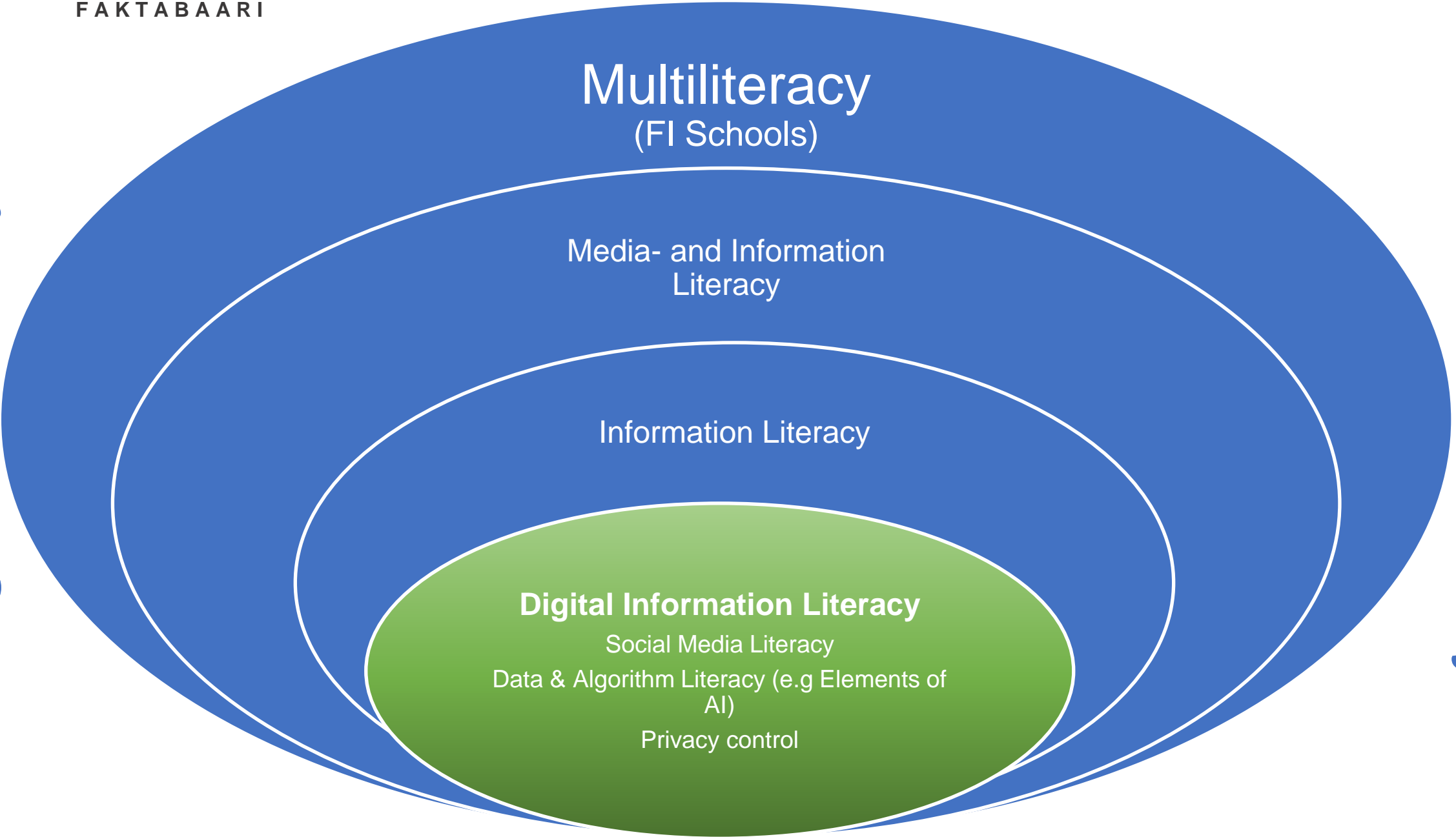
“A common assumption is that students are digital natives immersed in digital technology, young people pick up the skills necessary to use today’s technology in a fluid and informed manner.

Evidence suggests otherwise. Young people and adults struggle with evaluating information”

Osborne, J., Pimentel, D., Alberts, B., Allchin, D., Barzilai, S., Bergstrom, C., Coffey, J., Donovan, B., Kivinen, K., Kozyreva, A., & Wineburg, S. (2022). *Science Education in an Age of Misinformation*. Stanford University, Stanford, CA.

Digital Literacy

Critical Literacy



Multiliteracy
(FI Schools)

Media- and Information
Literacy

Information Literacy


Digital Information Literacy

Social Media Literacy


Data & Algorithm Literacy (e.g Elements of
AI)

Privacy control

Digital Information Literacy DIL



Digital information literacy is the ability to access, manage, understand, integrate, communicate, evaluate, create, and disseminate information safely and appropriately through digital technologies.

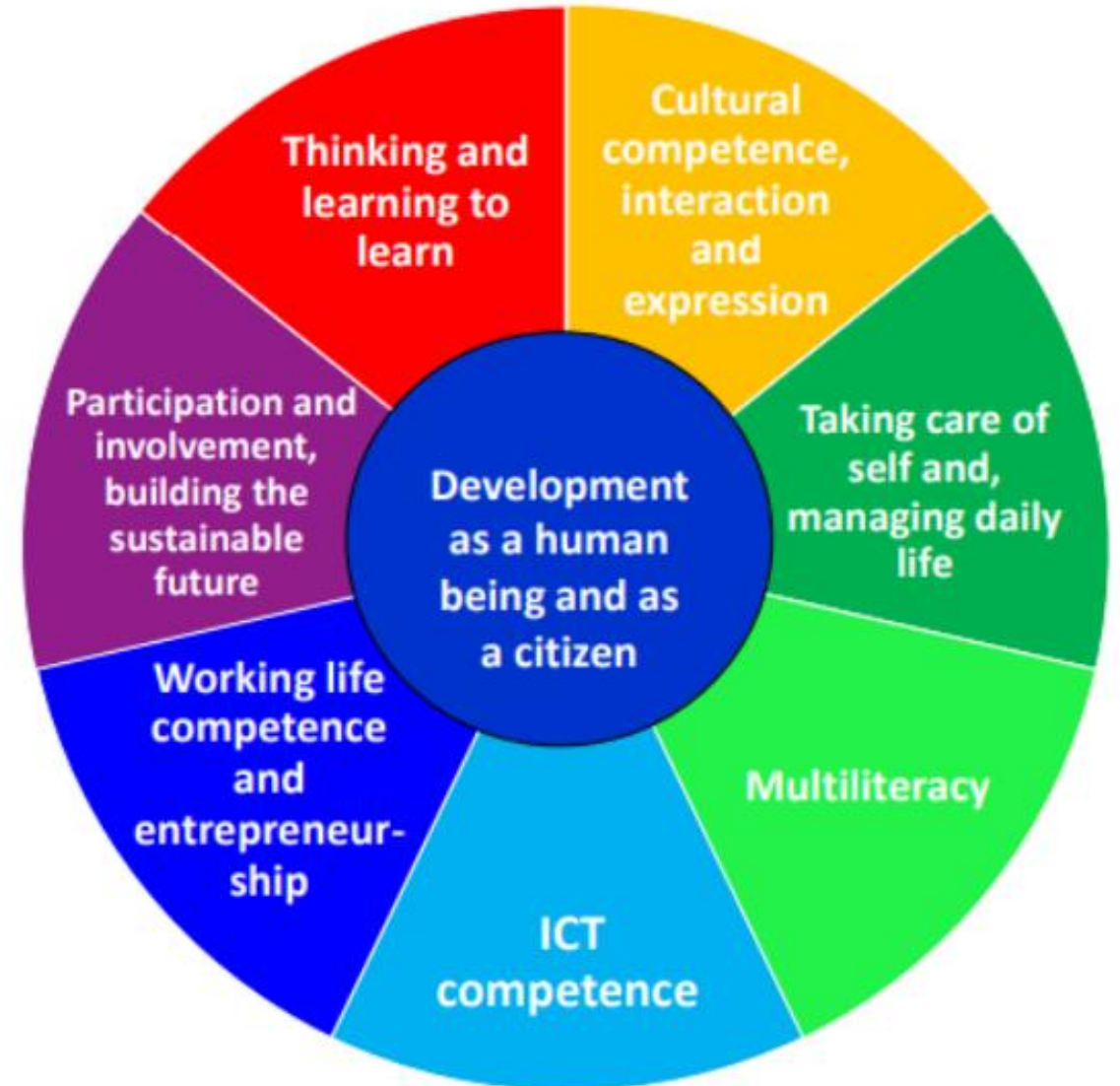
- It includes competences that are variously referred to as information literacy and media literacy, computer, and ICT literacy but also an ability to understand the functioning the digital information landscape at large.
 - Digital Information Literacy involves a dimension of active and civic engagement with the digital world and promotes active citizenship.
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Multiliteracy & Finnish core curriculum

Multiliteracy is one of the transversal cross-curricula education areas of Finnish curriculum.

- Multiliteracy means abilities to obtain, combine, modify, produce, present and evaluate information in different modes, in different contexts and situations, and by using various tools.
- The pupils need multiliteracy in order to interpret the world around them and to perceive its cultural diversity.
- Multiliteracy supports the development of critical thinking and learning skills.

(NCC 2016, p. 22)



Learning outcomes - New Literacies: Information management

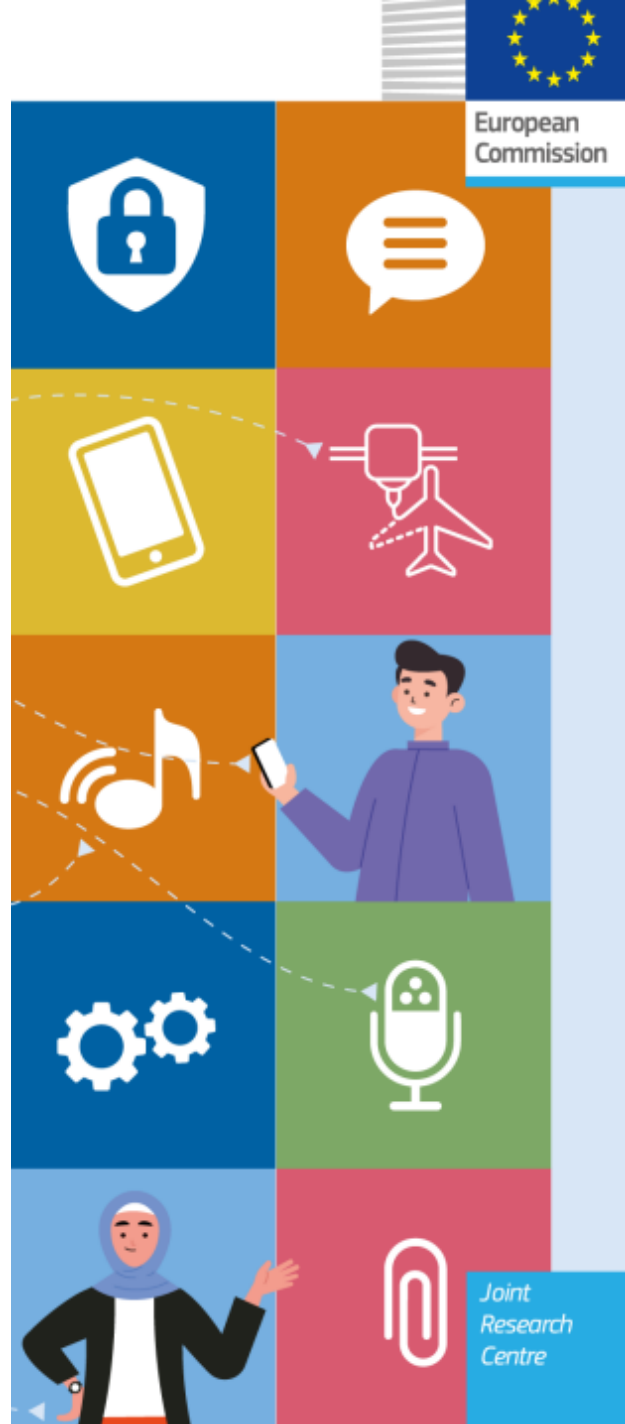
Information management	Examples of learning outcomes
Early education	Children familiarise themselves with the basic use of a browser . Children conduct image and sound searches
Primary 1-2	The pupil independently searches for information on issues and phenomena he or she is interested in.
	The pupil practises explaining in their own words the information he or she has searched for.
	With guidance, the pupil is able to evaluate the reliability of the information
Primary 3-6	The pupil is interested in processing and presenting information.
	the pupil is able to evaluate the reliability of the information. The pupils practises justifying his or her evaluation.
	With guidance, the pupil is able to organise, classify and present information
Secondary 7-9	The pupil is able to assess the reliability of information and justify his or her evaluation
	The pupil is able to explain that the interpretation may change along with new sources and methods of examinations.
	The pupil is able to obtain, process and present information based on research

The Digital Competence Framework for Citizens – DigComp 2.2.

The EU has set ambitious targets for at least 80% of the population to have basic digital skills by 2030.

- DigComp 2.2. provides a common understanding of which are the key areas of digital competence.
- Examples of Digital Information Literacy competences have been added as part of digital competence framework.

<https://publications.jrc.ec.europa.eu/repository/handle/JRC128415>



DigComp 2.2

The Digital Competence Framework for Citizens

With new examples of knowledge, skills and attitudes

Riina Vuorikari
Stefano Kluzer
Yves Punie

DigComp 2.2. Information and Data Literacy

	EXAMPLES OF KNOWLEDGE, SKILLS AND ATTITUDES
Knowledge	<ul style="list-style-type: none"> • Aware that online environments contain all types of information and content including misinformation and disinformation, and even if a topic is widely reported it does not necessarily mean it is accurate • Understands the difference between disinformation (false information with the intent to deceive people) and misinformation (false information regardless of intent to deceive or mislead people)
Skills	<ul style="list-style-type: none"> • Knows how to analyse and critically evaluate search results and social media activity streams, to identify their origins, to distinguish fact-reporting from opinion, and to determine whether outputs are truthful or have other limitations (e.g. economic, political, religious interests). • Knows how to find the author or the source of the information, to verify whether it is credible (e.g. an expert or authority in a relevant discipline).
Attitudes	<ul style="list-style-type: none"> • Inclined to ask critical questions in order to evaluate the quality of online information, and concerned about purposes behind spreading and amplifying disinformation. • Willing to fact-check a piece of information and assess its accuracy, reliability and authority, while preferring primary sources over secondary sources of information where possible.



DIMENSION 1 • COMPETENCE AREA

1. INFORMATION AND DATA LITERACY

DIMENSION 2 • COMPETENCE

1.2 EVALUATING DATA, INFORMATION AND DIGITAL CONTENT

To analyse, compare and critically evaluate the credibility and reliability of sources of data, information and digital content. To analyse, interpret and critically evaluate the data, information and digital content.

Good subject knowledge needed

- Falsified claims may distort scientific results. To assess them, you need not only digital information literacy skills, but also basic knowledge of the scientific subject.
- With a good knowledge of the subject, we can better assess the credibility of claims.
- In practice, this means that in a school environment, teachers of all subjects need to support their students in identifying disinformation related to their subject.
- If students are well informed about a particular subject, it is more difficult for them to be misled. Understanding climate change is a good example.

Science Education in an Age of Misinformation




https://sciedandmisinfo.sites.stanford.edu/sites/g/files/sbiybj25316/files/media/file/science_education_in_an_age_of_misinformation.pdf


Faktabaari DIL guide (in progress)

1. Understanding the difference between online and offline environments.
2. Information search competences and “traffic rules” of the online environment
3. Information disorder definitions
4. Promoting new online literacy techniques (pre-bunking, strategic ignorance, lateral reading etc.)
5. What can we learn from journalists and fact-checkers? Ethics of journalism.
6. Science > opinion – how to identify reliable sources and experts?
7. Algorithm awareness - challenges posed by artificial intelligence
8. Verifying the accuracy of images, videos & subtitles
9. Digital footprint - how to manage your privacy on social media?
Digital power.
10. Active citizenship & democracy - voter literacy.






What can we learn from fact-checkers?



Osborne, J., Pimentel, D., Alberts, B., Allchin, D., Barzilai, S., Bergstrom, C., Coffey, J., Donovan, B., Kivinen, K., Kozyreva, A., & Wineburg, S. (2022). Science Education in an Age of Misinformation. Stanford University, Stanford, CA.

The key questions?



Studies show that expert fact-checkers begin by taking their bearings. They refrain from asking ‘should this information be believed?’ Rather, they begin by asking the much more fundamental question of ‘is this source credible?’ and..

- 1) Who is the source?
- 2) How do they know this? and
- 3) What are they trying to sell me?

Lateral reading

Fact-checkers use lateral reading to search information. Instead of opening a suggested link and exploring each hit in depth, they laterally check the background of the information.

This is done by opening new windows in the browser, looking for answers to at least the following questions:

- Who is behind the information?
- What is the evidence behind the information?
- What do other sources say?

Lateral reading

The reader checks the background of the online information (author's credibility, facts, statistics, sources, etc.) on various sites and sources before reading the text at hand.

Strategic ignorance

- In the online environment, advertisers, corporations, lobbyists, clickbait sites, conspiracy theorists, hostile groups and foreign governments are working overtime to capture our online attention (Wineburg & McGrew, 2019).
- The attention span of any information seeker is limited and search engines often find a huge number of hits. We don't have the time or the energy to analyse all the results to find the information that matters to us.
- It is therefore wise to focus our limited attention on the essential information. To do that, you need the skill of strategic ignoring.
- We need to learn the skill of ignoring large numbers of search results that do not meet our information needs and are not worth reading.

Prebunking

Prebunking is the process of exposing lies, the methods of spreading them or their sources before they strike.

- Good prebunking relates to people's concerns and their own experiences.
- Prebunking is empowering: it's about building trust rather than correcting misinformation after the fact.

There are three main types of prebunks ([First Draft, 2021](#)):

1. fact-based: correcting a specific false claim or narrative
 2. logic-based: explaining tactics used to manipulate
 3. source-based: pointing out bad sources of information
- Research has shown that the logic-based approach has far-reach benefits. If you teach people to recognize tactics, they can spot them more often than individual claims.
 - (see <https://firstdraftnews.org/articles/a-guide-to-prebunking-a-promising-way-to-inoculate-against-misinformation/>)

Facts4All – Schools tackling disinformation

- F4A Open Online Course (MOOC) empowers primary and secondary teachers to develop and implement effective whole-school approaches to foster critical thinking and tackle online disinformation through intergenerational collaboration and community engagement.
- The course is targeted at primary and secondary school teachers of any subject.
- Other educational professionals and stakeholders, such as heads of schools, school support staff, and policy makers with an interest in this topic are welcome to join.



3 take-aways

1. It is important to analyse, compare and critically evaluate the quality of online information to tackle disinformation.
2. Digital information literacy skills should be taught in the schools starting from early age linked to all the subjects.
3. Digital literacy skills promote active citizenship & democracy

References

FAKTABARI

Debunking handbook: <https://www.climatechangecommunication.org/debunking-handbook-2020/>

Eurostat (2021) Evaluating data, information and digital content- statistics

https://ec.europa.eu/eurostat/databrowser/view/ISOC_SK_EDIC_I21/bookmark/bar?lang=en&bookmarkId=ac1c74e0-8919-423f-bb6b-036b844868dd

Facts4All MOOC (2022). Schools tackling disinformation. European Schoolnet Academy. <https://www.europeanschoolnetacademy.eu/courses/course-v1:Facts4All+TacklingDisinformation+2022/about>

Faktabaari materials, www.Faktabaari.fi

Finnish National Core Curriculum (2016) <https://www.oph.fi/en/statistics-and-publications/publications/new-national-core-curriculum-basic-education-focus-school>

New Literacies (2021) Media literacy competence descriptions

https://docs.google.com/spreadsheets/d/1NJUVjMcPq5StRlxb0Y2_bFh6CD8RjhRX0WSoNB3oszo/edit#gid=1807680698

News literacies programme (2021) [https://okm.fi/en/new-literacies-](https://okm.fi/en/new-literacies-programme#:~:text=The%20New%20Literacies%20Programme%20aims,primary%20and%20lower%20secondary%20education)

[programme#:~:text=The%20New%20Literacies%20Programme%20aims,primary%20and%20lower%20secondary%20education](https://okm.fi/en/new-literacies-programme#:~:text=The%20New%20Literacies%20Programme%20aims,primary%20and%20lower%20secondary%20education)

Osborne, J., Pimentel, D., Alberts, B., Allchin, D., Barzilai, S., Bergstrom, C., Coffey, J., Donovan, B., Kivinen, K., Kozyreva, A., & Wineburg, S. (2022). Science Education in an Age of Misinformation. Stanford University, Stanford, CA.

https://sciedandmisinfo.sites.stanford.edu/sites/g/files/sbiyb25316/files/media/file/science_education_in_an_age_of_misinformation.pdf

Wineburg S, McGrew S. Lateral Reading and the Nature of Expertise: Reading Less and Learning More When Evaluating Digital Information. *Teachers College Record*. 2019;121(11):1-40.

Vuorikari, R., Kluzer, S. and Punie, Y.(2022), DigComp 2.2: The Digital Competence Framework for Citizens - With new examples of knowledge, skills and attitudes, EUR 31006 EN, Publications Office of the European Union, Luxembourg, *forthcoming*, ISBN 978-92₁₈76-48882-8, doi:10.2760/115376, JRC128415. <https://publications.jrc.ec.europa.eu/repository/handle/JRC128415>