

Media and information literacy in the digital society

Anita Has-Tokarz

Department of Informatology, Bibliology, and Media Education
Institute of Social Communication and Media Science
Maria Curie-Skłodowska University in Lublin

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Problem map

Competencies form an integrated system that determines one's orientation in the digital environment.

I. Media and information environment

- *information overload*

II. Competency path

reading → media → IL → digital → AI

III. Media and information literacy

ML; IL and the tradition of libraries

IV. Competency integration

media literacy and IL → MIL

V. Digital environment

- uberization, AI, DigComp 2.2

VI. Competency synergy

- *transliteracy*, EMIC model

VII. User context

- Alpha & Beta generations

VIII. Institutional context

- libraries, *digital citizenship*

Human in an environment of information overload

The key challenge is not access to information, but the ability to navigate this overload.

**Shift in focus:
access → selection → interpretation → orientation**

Paradigm shift

- information scarcity → information overload
- information as a common resource
- acceleration and overproduction of content
- *information overload*

Characteristics of the environment

- multiplicity of sources and formats
- variable reliability of information
- dynamic and unstable environment

Cognitive consequences



Impact on the user

- fragmentation of attention (***task switching***)
- superficial information processing (**in the F-pattern model**)
- difficulty in assessing the reliability of messages
- decision overload (***decision fatigue***)



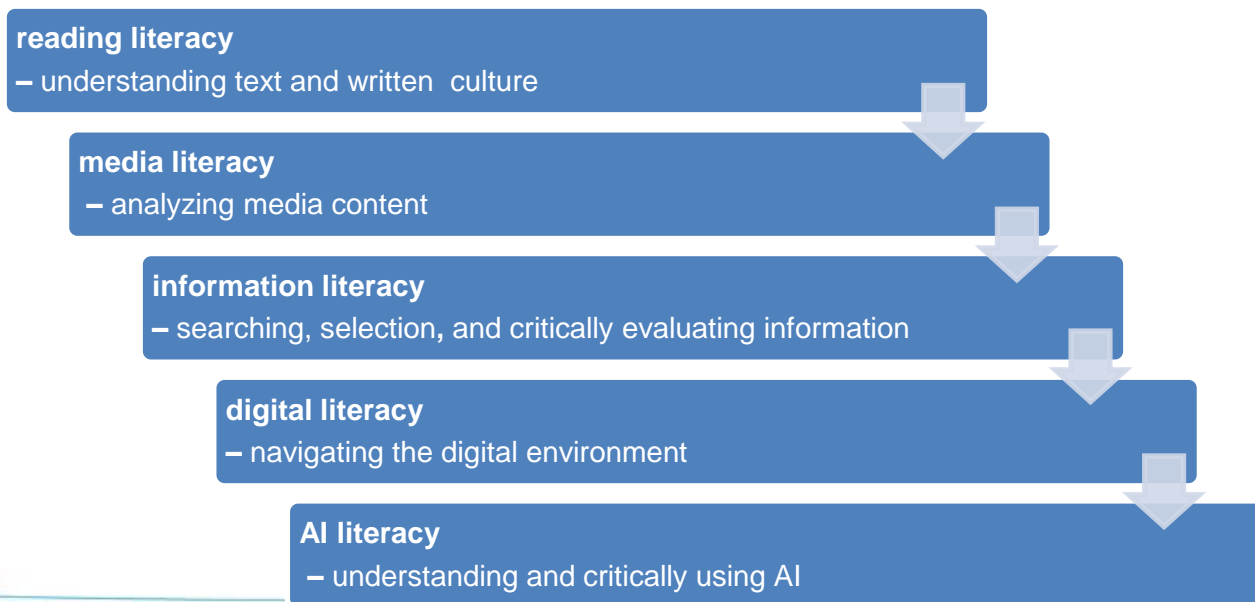
Kluczowe pytanie:

What competencies enable a person to maintain orientation in an environment of information overload?

Evolution of competencies in the long-term perspective

Hypothesis: Competencies develop in response to changes in the communication environment.

Competency development path:



Reading literacy - the foundation of the competency system

Reading competencies

- understanding and interpretation of text
- analytical and abstract thinking
- linear information processing
- building knowledge through reading

Cognitive significance

- concentration
- argumentation
- deep processing of content (**deep reading**)

Institutional context

- libraries as an environment for the development of reading culture

Reading literacy – definition

Reading literacy, or **reading comprehension**, is not only the ability to decode letters, but also the capacity to understand, use, evaluate, and engage with written texts in order to achieve one's own goals, develop knowledge, and participate in social life. It is a dynamic skill developed throughout life (OECD/ *How does PISA define and measure reading literacy?*).

Key aspects:

1. Understanding and reflection
2. Evaluation and critical thinking
3. Context and use
4. Navigation within texts

Reading competencies in the classical approach

Reading competencies (also referred to as **instrumental dispositions for reading** or **reading readiness**) are a set of knowledge and skills that enable an individual to effectively use books and other reading materials [J. Andrzejewska, *Bibliotekarstwo szkolne: teoria i praktyka*, 1996].

They are part of the broader concept of reading culture and include:

- **the ability to use a library** and behave appropriately within it
- **the use of book information tools** (catalogs, bibliographies, databases)
- **the ability to use books** and other materials in the reading process

Media literacy

Genesis

- 1960s – 1980s
- Marshall McLuhan – “the medium is the message”
- John Culkin – media literacy
- Len Masterman – critical analysis

Key assumptions

- Media are not neutral
- Media shape meanings and social reality

Importance

- Critical thinking
- Conscious reception of messages
- Understanding the construction of information

Key elements of *media literacy*

Media literacy (media competencies, media education) is the ability to consciously and critically use media, including accessing, analyzing, evaluating, and creating content in various formats. It enables individuals to distinguish facts from opinions, navigate the online environment safely, and counter misinformation, making it a key competence in modern society.

Key elements of media literacy (the so-called 5 pillars):

Access: The ability to find and use media and technologies.

Analyze: Understanding how media content is created and what impact it has on the audience.

Evaluate: Critically verifying the reliability, intent, and bias of information sources.

Create: Producing one's own media content in an ethical and responsible manner.

Act: Using media consciously for dialogue, social participation, and personal safety (e.g., avoiding cyberbullying).

Information literacy

Genesis

- 1974 – Paul Zurkowski
- 1989 – American Library Association (definition)

Institutionalization

- **Alexandria Proclamation (2005)**
- **IFLA Guidelines (2006)**

Information literacy (IL)

- identifying information needs
- searching for information
- assessing the reliability of sources
- using information

Key assumptions

- Information as a resource that requires interpretation
- Navigating an information overload

Information literacy – from a competency to a foundation of the knowledge society

Broadening the meaning

IL as:

- a condition for *lifelong learning*
- a competency for participation in the knowledge society
- an element of active citizenship
- the role of libraries in the development of information competencies



Key shift

IL → from a technical skill to both **cultural and social competence**

International documents - institutionalization of competencies

Key documents



- **Alexandria Proclamation (2005)**

IL as a fundamental human right



- **IFLA Guidelines on Information Literacy (2006)**

libraries as educators



- **IFLA/UNESCO Public Library Manifesto (2022)**

access to information and *lifelong learning*



- **IFLA/UNESCO School Library Manifesto (2025)**

the role of school libraries in developing information competencies, supporting learning, and preparing for life in the digital society

Importance: formalization of the role of libraries; recognition of competencies as an element of public policies; linking IL with democracy and citizenship

Media and Information Literacy (MIL) – a model of integrated competencies

Genesis

- the early 21st century

 **2011 – *MIL Curriculum for Teachers***

Starting point

- Convergence of competencies:
 - *information literacy*
 - *media literacy*

Dimensions

MIL includes: cognitive, critical, communicative, and social dimensions

Importance

- integration of competencies
- orientation in a complex communication environment
- a foundation for conscious participation

Media and Information Literacy - definition

- **MiL** is a set of skills that enables the conscious, critical, and effective use of media and information.
- **Media literacy** refers to the ability to analyze, evaluate, and create media messages (press, radio, television, internet, etc.).
- **Information literacy** refers to the ability to search for, evaluate, organize, and use information from various sources in an ethical and effective manner.

What do these competencies mean in practice?

1. **Critical evaluation** (distinguishing reliable information from fake news)
2. **Conscious use** (understanding how media influence our opinions and behavior)
3. **Content creation** (the ability to safely and creatively produce one's own content, e.g. on social media)
4. **Media and information security** (protection against harmful content; protection of privacy and personal data)

Digital literacy and AI literacy

Digital literacy

- using digital tools
- online communication and collaboration
- creating digital content
- managing information and data
- digital security



DigComp 2.2

AI literacy

- understanding how AI systems work
- critically evaluating generated content
- conscious use of tools



Key observation:

Competencies do not replace one another; they accumulate and interact.

Competency synergy – an integrative approach

Competencies as a system

Interaction of competencies:

- cognitive
- information-related
- media
- digital
- technological



Concept in the literature

transliteracy → the ability to function in different communication environments:

- textual
- media
- digital
- networked
- algorithmic

Importance: transitioning between media; combining form of communication; cognitive flexibility

EMIC model – media, information, and digital education

EMIC as an integrated model

Education:

- media
- information
- digital

Competency dimensions:

- cognitive (understanding)
- critical (evaluation)
- technological (tools)
- ethical (responsibility)
- participatory (creation and engagement)

Function of the model:

- integration of competencies
- navigating the information environment
- support for digital citizenship



Conclusion:

EMIC conceptualizes competencies as a cognitive and social infrastructure

Generation Alpha and Beta – a new environment of socialization

Characteristics

Alpha (born after 2010) are the first true “digital natives,” raised in a technology-saturated environment, with an intuitive approach to digital devices and a high ability to adapt to new technologies.



Beta - the emerging generation (born between 2025 and 2040) will be even more immersed in a world of AI, automation, and personalized education.

Key observation:

the information environment = the environment of life

Generation Alpha and Beta – characteristics

- **Generation glass** - named after the touch-based, glass interfaces of mobile devices, which are / will be a fundamental communication tool for them.
- Generations use / will use increasingly complex communication pathways between humans and machines. Currently, the screen (and keyboard) is the main channel of interaction; in newer devices designed for these generations, this role is being taken over by voice, gestures, and facial expressions, considered more natural interfaces.
- Representatives of these generations want to communicate with machines, which drives the development of voice assistants such as Alexa, Siri, or Cortana.
- In **Generation Beta**, the use of **augmented reality (AR)** and **virtual reality (VR)** will develop even further.
- The experiences of these generations include relationships with artificial intelligence (AI); the Internet of Things will expand, particularly the **Internet of Toys**.

Information and cognitive practices of Generation Alpha

Environment

- rapid content consumption
- multiple sources, attention switching
- *scroll culture*

Forms of communication

- dominance of images and video
- short-form content
- fragmented, non-linear text

Role of the user

- recipients as co-creators
- participatory culture
- commenting, sharing, remixing

Cognitive consequences:

- fragmentation of attention
- reduced attention span
- difficulties in assessing credibility



Question: Are the ways of thinking and learning changing?

New book formats for Generation Alpha – new tools in education?

- **The traditional (analog) book**, whose medium is printed paper with a finite surface and volume, **has limited persuasive power for representatives of this generation.**
- Tablets, e-readers, and other mobile devices are now becoming physical carriers of electronic publications, such as audiobooks, e-books, and book applications for mobile devices, as well as hybrid formats (i.e. traditional books containing QR codes or links that provide access to additional, diverse online resources) and convergent formats (i.e. those connected with accompanying online projects).
- Technologies such as **augmented reality (AR)** also offer significant opportunities in this area.



Challenges for competency-based education

Key challenges

- developing critical thinking
- integrating different types of competencies
- counteracting superficiality
- building *information resilience*



The role of EMIC

- integration of competencies
- development of interpretation and evaluation skills
- preparation for conscious participation

Conclusion: Generation Alpha requires a holistic approach to competencies.

Digital Kids and Digital Kids Mobile - digital playgrounds

- The international project „**Digital Kids - playgrounds in digital spaces**”, implemented since 2021 by the Goethe-Institut in Warsaw.
- As part of the project, in six selected libraries serving children and teenagers (Gniezno, Koźlenice, Szczecin, Redzikowo, Murów, Olsztyn), interactive playrooms have been created since the beginning of 2021. These spaces are equipped with sensory toys and computer hardware, along with components tailored to the target group, such as applications, gaming offerings and VR games, as well as specialized software used on desktop computers, consoles, or mobile devices.



Libraries as competencies environment

Tradition

Libraries as:

- institutions of access to knowledge
- spaces for reading and media education
- mediators of information

The evolution of functions:

- reading literacy → information literacy
- media and digital literacy
- continuity of competency development

Contemporary role:

- Competency-based education
- Supporting users in the digital environment
- Counteracting digital exclusion

New approaches:


- ***third space*** - a space for interaction and learning
- ***Library 2.0*** - participation and co-creation
- library as a ***learning hub***

Libraries vs. digital citizenship

New perspective:

Libraries as:

- Local competency centers
- spaces for digital education (*the concept of the digital atelier vs. the sensory library*)
- places for building community

 **Conclusion: Libraries co-create the foundations of conscious digital citizenship.**

Civic competencies:

- critical thinking
- information responsibility
- participation in public life (*public sphere*)

Digital citizenship

- conscious use of information
- ethical participation in digital culture
- responsible use of technology

Competencies in the digital society - a synthetic overview

1. The evolution of competencies

reading literacy → information literacy → media literacy → digital literacy → AI literacy

→ development is **cumulative** in nature

2. Transformation of the environment

information overload; uberization of communication; algorithmization of access; hybridity of content

→ the environment requires new forms of **cognitive orientation**

3. Competency integration

competencies interact; the user operates across multiple orders simultaneously; the importance of a systemic approach is increasing

→ **competency synergy (EMIC)**



Media, information, and digital competencies form an integrated system that determines human functioning in the information environment.

Competencies as a resource and infrastructure of the information society: a summary

Competencies as a resource:

- a condition for cognitive orientation in information overload
- a tool for critical thinking and assessing credibility
- a foundation for understanding and interpreting messages
- a basis for participation in communication and culture

Competencies as infrastructure:

- support individual functioning in the digital environment
- enable conscious social participation
- condition digital citizenship and agency
- stabilize orientation in a complex information ecosystem

Role of institutions:

- libraries as competency environments (*learning hubs*)
- spaces for media, information, and digital education (*EMIC*)
- support for users in the selection and interpretation of information
- reduction of the digital divide
- strengthening a culture of critical thinking and trust in media and information

**THANK YOU FOR YOUR
ATTENTION**

DR HAB. ANITA HAS-TOKARZ, PROF. UMCS