

Repository of Competences - Summary

Literacy is a wide concept viewed as a flexible set of knowledge, skills and attitudes that are closely linked to context and purpose. Competence Frameworks are:

- Sets of competences required to perform in a specific professional and/or life context, while
- Competences are described in taxonomies (e.g. the Bloom’s Taxonomy, EQF, LEVEL5)

Key-Competence concepts (literacies) related to Data Literacy may refer to:

1. Handling digital information formats in professional Higher Education contexts in general
 - ↳ Digital (Critical Thinking) Literacy
2. Data collection and Interpretation in Research, Development and Teaching in Higher Education
 - ↳ Data Processing Literacy
3. Specialist Data processing in Information Technology study fields
 - ↳ Data Management Literacy

Additionally, there are of course “generic” competences that are needed to “act out” these competences in situations where they are needed (so called “action fields”). These generic competences can be clustered in Social, Personal and Organisational Competences.

Eventually DATALIT also takes on board teaching, training and supporting competences to acquire data and digital literacy.

The DATALIT competence repository is a derived four field cluster based on different competence theories (e.g. Erpenbeck, Sauter 2014, REVEAL group 2016/2019) and the domain specific field competences. The latter have been described thoroughly in the DATALIT stocktaking phase. It consists of a set of the following sub-competences:

Competences related to Data Literacy	
Domain Specific (“Data”) Competences <ol style="list-style-type: none"> 1. Digital Literacy 2. Data Processing Literacy 3. Data Management Literacy 	Social Competences <ol style="list-style-type: none"> 1. Teamwork (Intercultural) 2. Communication 3. Leadership: Conflict resolution 4. Client orientation, <i>Mobilising others</i>
Organisational Competences <ol style="list-style-type: none"> 1. Project development 2. Resource Planning; <i>Mobilising resources</i> 3. Evaluation 4. Networking 5. Entrepreneurial Competences <i>Creating Idea and opportunities</i> 	Personal Competences <ol style="list-style-type: none"> 1. Creativity 2. Problem Solving 3. Critical (<i>Ethical and sustainable</i>) thinking 4. Flexibility <i>Coping with ambiguity, uncertainty and risk</i>

Fig. 1: The DATALIT Competence clusters

The derived DATALIT competence repository is a four-field cluster³ with 16 competences which can be listed as follows:

1. Data / Digital Literacy Competences
 - Digital Literacy (with additional sub-competences)
 - Data Processing (with additional sub-competences)
 - Data Management (with additional sub-competences)
2. Social Competences
 - Intercultural Communication
 - Communication
 - (Intercultural) Teamwork
3. Personal Competences
 - Flexibility/Adaptability

- Critical thinking
- Creativity
- Leadership
- 4. Organisational Competences
 - Project Management
 - Planning and Resource Management
 - Networking
 - Evaluating/Reflecting
 - Client Orientation
- 5. Competences related to mentoring and coaching
 - Planning COL for Data and Digital Literacy (DDL)
 - Delivering COL and Trainings for DDL
 - Validating DDL Competences

Sub-Competences related to Data and Digital Literacy

Digital Literacy:

Computer literacy	It is determined by the basic operational skills regarding computers and software applications
Internet literacy	This dimension relates to the ability of individuals to successfully function in Internet resources and networked environments
Media literacy	It is the ability to access, understand, critically evaluate, participate and create media content and communications in a variety of forms and contexts
Information literacy	Information literacy reflects the ability to identify, access, evaluate, manipulate and create information
Digital content creation literacy	To improve and integrate information and content into an existing body of knowledge while understanding how copyright and licences are to be applied. To know how to give understandable instructions for a computer system.
Data visualisation	To select data visualisation tools relevant to the audience expectations and abilities (i.e., academic, business, science, etc). To be able to deliver information using various graphic tool.

Data Management:

Sharing through digital technologies	To share data, information and digital content with others through appropriate digital technologies. To act as an intermediary, to know about referencing and attribution practices. (https://ec.europa.eu/jrc/en/digcomp/digital-competence-framework)
Identifying needs and technological responses	To assess needs and to identify, evaluate, select and use digital tools and possible technological responses to solve them. To adjust and customise digital environments to personal needs (e.g. accessibility) (https://ec.europa.eu/jrc/en/digcomp/digital-competence-framework).

Data Processing:

Reading/creating time trends and forecasts	the ability to implement data forecasting and modelling using data, to read and understand forecasts
Reading/creating data classification or rules	the ability to classify and systematize available raw data
Creating prediction models	the ability to create prediction models
Prediction models analyses	the ability to analyse prediction models