

**TraininG towards a society of data-saVvy inforMation  
prOfessionals to enable open leadership INnovation**



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**Concept and Development of an  
Information Literacy Curriculum Widget**

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# Setting the Scene

- Information literacy, the access to and use of knowledge are becoming a precondition for individuals to
  - actively take part in social, economic, cultural and political life in societies
- Information Literacy = fundamental competence
  - Similar to reading, writing and calculating
- Information Literacy = „survival skill in the information age”

- How can we raise the learners competence level of each competence to the expert level?
  - Concept of a widget
  - Implementation in a newly developed search platform that provides automatic learning guidance
  - Supporting three modules of the DigComp 2.1. framework.

- Micro Learning
  - „Micro-learning refers originally to taking short-term-focused learning activities on small learning content units“ (Kovachev et al, 2011)
- Reflective Learning
  - ... is the conscious re-evaluation of past experiences with the goal to learn from them.
- User Models
  - ... are models that computer systems have about their users.

- RQ1: How does the interplay between micro learning and reflective learning need to be designed in order to effectively support the accommodation and assimilation of the learning content?
- RQ2: How should the reflective prompts be formulated so that they are strongly related to the micro learning content and that they can be understood, are perceived as appropriate w.r.t. the users expertise, and lead to reflection?

**MOVING** Search Explore Communities Learning Contacts MOOC My page Sign out

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**Filter by**

Remove Filters

- Legislator
- Year of Publication
- Author / Contributor
- Video Concept
- Content Type
- Dataset Collection
- Language
- Publisher / Event
- Subject Area
- License

Simple search ?

Research information literacy

Simple search Advanced search

Results **2944893** Concept Graph uRank Tag cloud Top properties Trend Analysis

Search results per page: 10 Sort by: Date Relevance

**Literacy**  
Cavanagh, M. M. Published 1993-01-01

**Literacy**  
Peterson, A. Published 2014-05-16

**Abstract**  
Notes saved on bones To read them I drove not to distraction but to the edges of thing

**Back to basics:The role of reading in preparing young people for the Information Society**  
Eyre, G. Published 2003-01-01

**Abstract**  
Eyre, G. (2003). Back to basics: The role of reading in preparing young people for the Information Society. Reference Services Review. 31(3) pp.219-226. RAE2008Raises discussion about the important role of reading in society, and examines its place in the acquisition of information capabilities among young people. Gives examples of why information literacy is crucial and the importance of reading skills in achieving information literacy. Concludes that further research is needed.Peer reviewe

Interacting through digital technologies

Are you wondering what technological possibilities there are to communicate and exchange content online? Then take a look at this now!

Learn more!

My progress in interacting through digital technologies

33%

0% 100%

Recommended documents

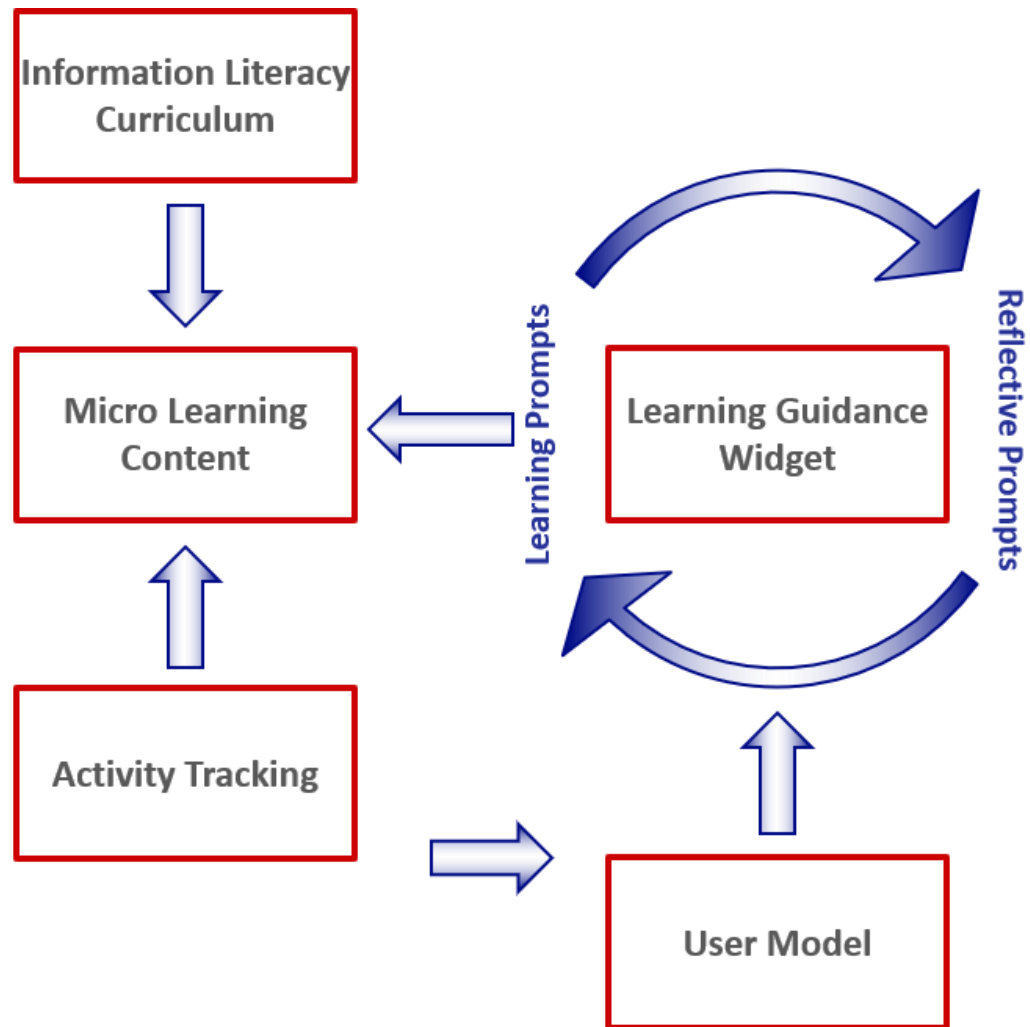
**BOZP portal - eLearning module**  
Martin, N. 2016 [More](#)

**Using Moodle to provide added valu...**  
Mushi, D. R. 2013 [More](#)

**Aplicación de analíticas a experienc...**  
López, P. J. G. 2014

# Widget – Concept and Development





<b>LEARNING MODULE</b>	<b>SUB-COMPETENCES</b>	<b>LEARNING GOALS</b>
Searching for information in digital environments	Browsing, searching and filtering data, information and digital content	To articulate information needs, turn a (research) question into a search strategy; To search and access data, information and content; To create and update personal search strategies;
	Evaluating data, information and digital content	To analyse, compare and critically evaluate the credibility and reliability of sources and the data, information and content;
	Managing data, information and digital content	To organise, store, retrieve and process data, information, and content;

- Questionnaire to initiate the widget
- Knowledge is stored in the user model

## Information & Data Literacy

When you think of your ability to search, evaluate and organise data and information on the internet, which of the following statements best describes your behaviour?

A) Information search and discovery (search, browse, filter information):

- I have no experience.
- I can look for information online using a search engine.
- I can use different search engines to find information. I use some filters when searching (e.g. searching only images, videos, maps).
- I can use advanced search strategies (e.g. using search operators) to find reliable information on the internet. I can use web feeds (like RSS) to be updated with content I am interested in.

B) Evaluating data, information and digital content:

- I have no experience.
- I know not all online information is reliable.
- I compare different sources to assess the reliability of the information I find.
- I can assess the validity and credibility of information using a range of criteria.

C) Managing data, information and digital content:

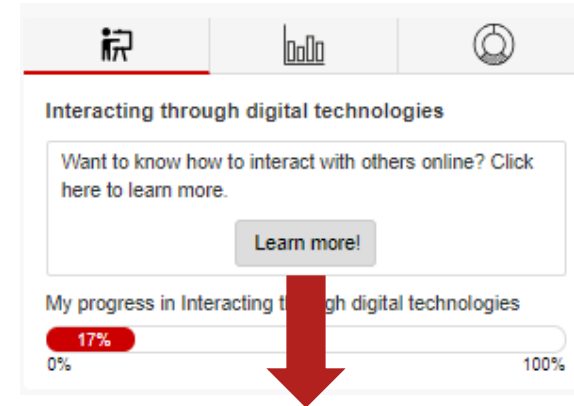
- I have no experience.
- I can save or store files or content (e.g. text, pictures, music, videos, web pages) and retrieve them once saved or stored. I keep information and files in a number of different physical supports (hard drive, USB stick, memory card).
- I classify the information in a methodical way using files and folders to locate these easier. I do backups of information or files I have stored.
- I can save information found on the internet in different formats including bookmarks and tags. I can use cloud information storage services. I am aware of new advances in information search, storage and retrieval.

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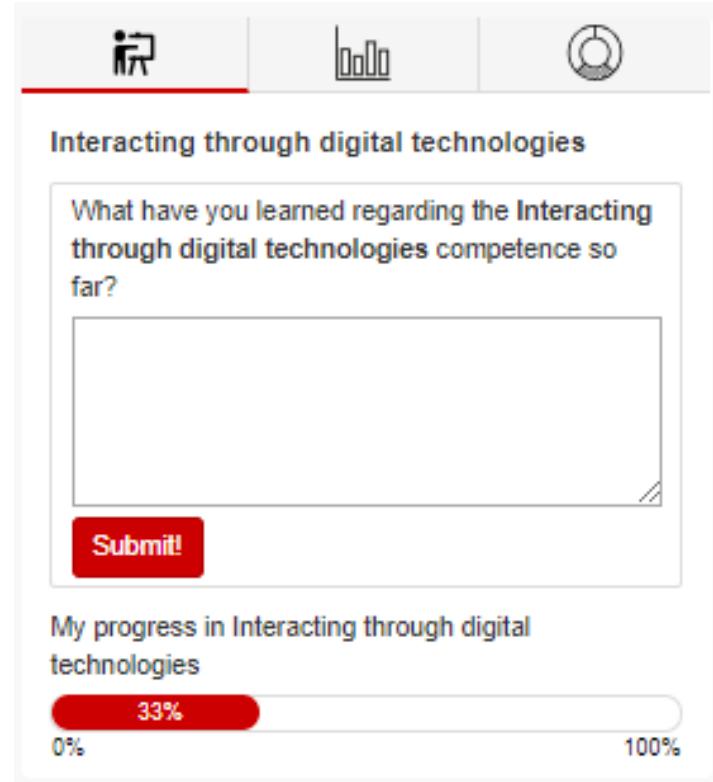
Next

Skip the survey

- Presents a prompt for being guided to the learning environment.
- Prompt and content suggested depend on the status of the curriculum.
- Presents the current learning status of the current module.

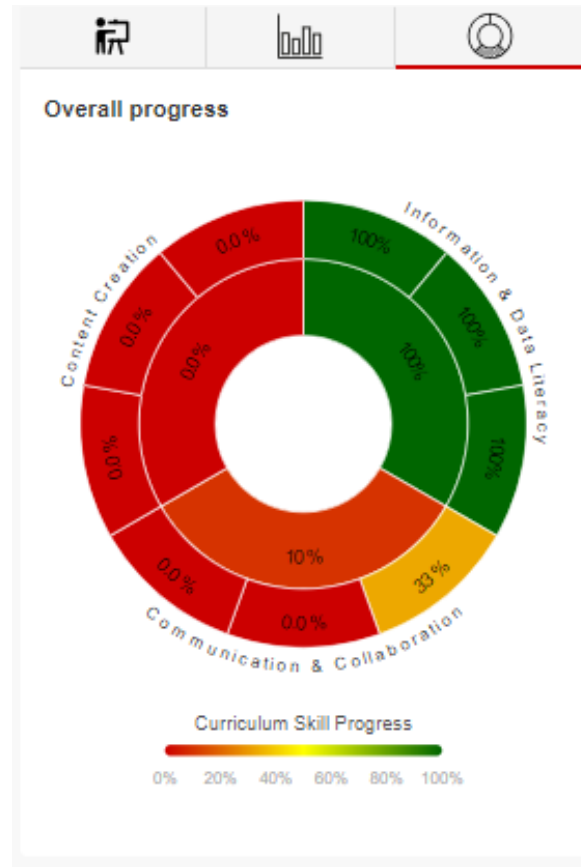


- Presents a prompt for reflecting about the previously learned module content.
- Prompts are implemented on three levels, depending on the user's experience and knowledge of the platform.



The screenshot displays a user interface with three navigation icons at the top: a person icon, a bar chart icon, and a circular icon. Below the icons, the text "Interacting through digital technologies" is displayed. A text input field contains the prompt: "What have you learned regarding the Interacting through digital technologies competence so far?". Below the input field is a red "Submit!" button. At the bottom, a progress bar shows "My progress in Interacting through digital technologies" with a red bar indicating 33% completion, ranging from 0% to 100%.

- Overall visualisation of the learning progress w.r.t. the curriculum



Learning Progress of 3 modules

# Discussion & Conclusion

- **Advantages:**
  - Content is transferred using small bits and pieces
  - Automatically guiding learner through curriculum
    - Learner will cover all topics
    - Takes away workload w.r.t. what to learn next
  - Overall learning progress motivates to continue
- **Challenges**
  - Reflective learning is an intrinsic process that cannot be enforced
  - Timing of reflection
  - Content of prompts need to be carefully considered



- Goal: provide learners a clear benefit
  - Relate reflective prompt to micro learning content
  - Formulate reflective questions on different levels to improve self-reflection
    - Low-level reflective questions
      - „How did the learning content help you to improve your filtering information skills?“
    - Medium level reflective questions
      - „Which activities you performed on the platform helped you to understand/apply the filtering information competence?“
    - High-level reflective questions
      - „Did the acquirement of the filtering information skills improve your work performance? And if yes, how?“

- Provision of an automatic learning guidance in form of a widget
- Combination of micro learning and reflective learning
- Implementation in a search platform
  
- Next steps
  - Experimental studies to evaluate the widget
  - Implement the widget in some other projects

# Project consortium and funding agency



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Thank you for your attention!

Any questions?