Fostering open education in Information Literacy using a taxonomy

LIBER 2021 - Libraries and Open Knowledge: from vision to implementation

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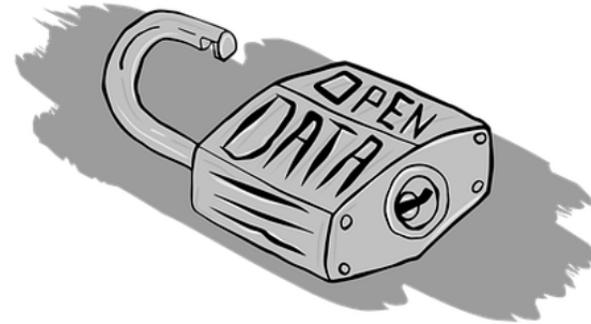HAN University of Applied Sciences, Nijmegen
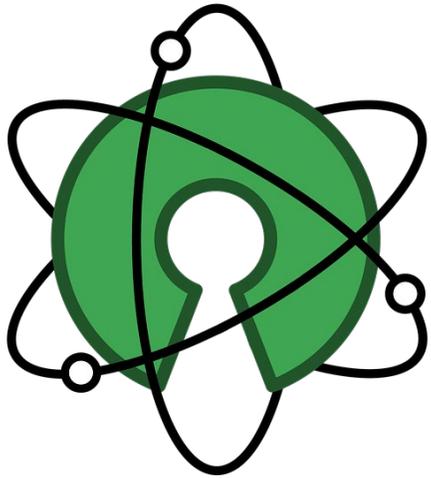
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PROGRAM

- Introduction: open education & Information Literacy

- Development and use of an IL taxonomy

- Digital badges

OPENING UP KNOWLEDGE IN THE NETHERLANDS
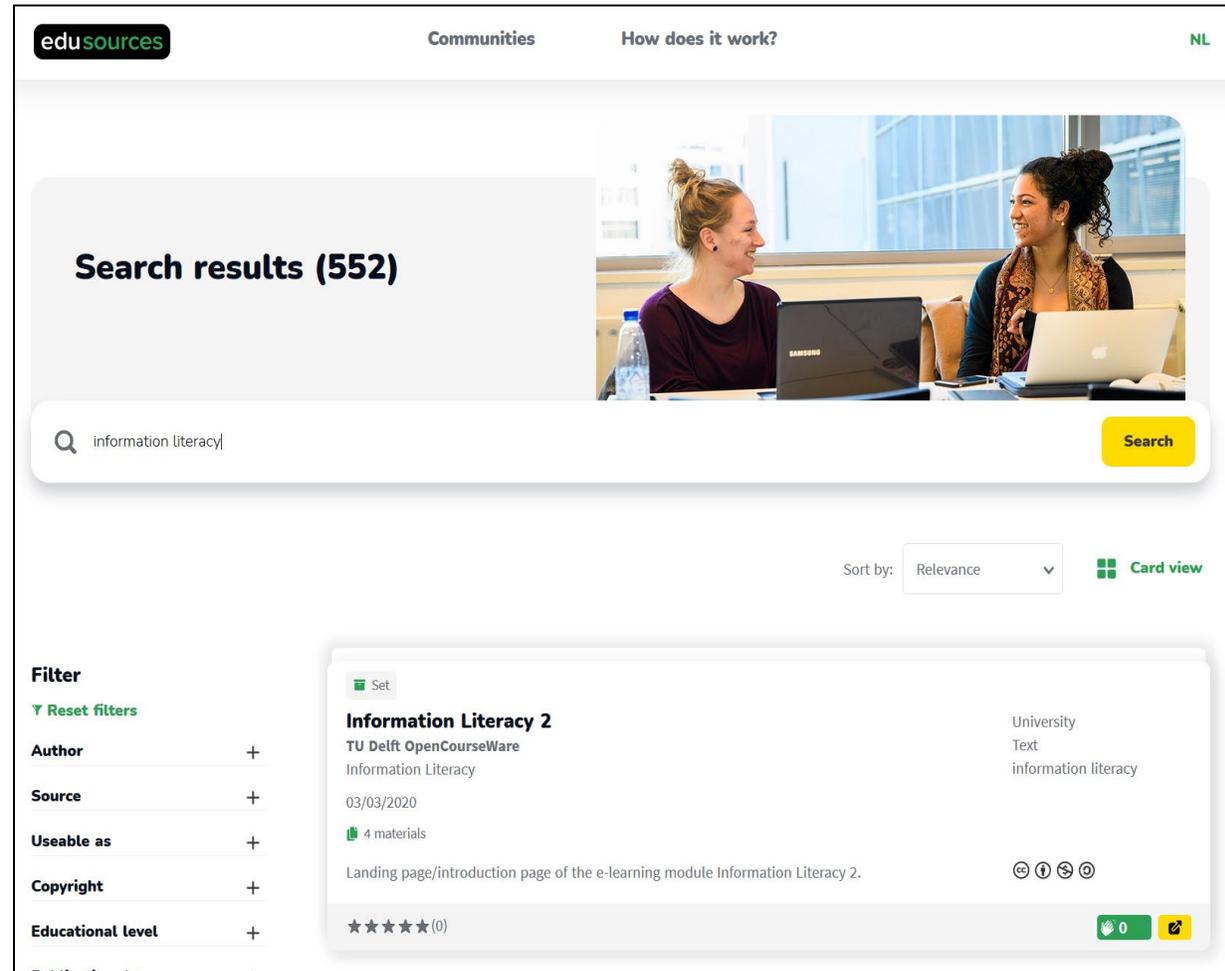
HOW TO FOSTER OPEN EDUCATION

1. Creating awareness on different levels & policy

2. Offering support / professionalization (e.g., lecturers)

3. Offering a good infrastructure for sharing and reusing

SHARING IL EDUCATIONAL MATERIALS IN EDUSOURCES

- Nationwide project – higher education libraries

- In cooperation with SURF *)

- More than 400 materials entered

*) SURF is the collaborative organisation for ICT *in Dutch education and research*

SHARING IL EDUCATIONAL MATERIALS IN EDUSOURCES

- Encourage reuse (efficiency)

- Improve the quality of IL materials

- Increasing the availability of IL materials (quantity)

DEVELOPMENT AND USE OF AN IL TAXONOMY

FINDABILITY OF EDUCATIONAL MATERIALS

- Combination of free keywords and taxonomy

  = controlled vocabulary in a hierarchical structure over a certain subject or concept

- To improve the findability: easier to enter a sub-topic

- Information Literacy: No suitable taxonomy still available until now

TAXONOMY

1. Set goal and plan

Steps based on:

van Aalten, J., van der Linden, M., Sieverts, E., & Becker, P. (2017). *Maak het vindbaar: op schijven, sites en SharePoint* (pp. 1-332). Udoc.

Straits Knowledge (2012). *How to build a taxonomy*. Opgevraagd 20 april 2016 van: http://www.greenchameleon.com/gc/guides/

Source: https://pixabay.com/nl/illustrations/richting-afstand-besluit-doel-2320124/

TAXONOMY

2. Collecting concepts – analysis of content

- **Comparison of IL-standards**
- Wordcloud

TAXONOMY

2. Collecting concepts – analysis of content

- Comparison of IL-standards
- **Wordcloud**

TAXONOMY

3. Analyse facets en groups

- Cardsorting (matching keywords & main facets)
- Cardsorting (matching keywords & sub facets)

Card placed in a facet (% of respondents who placed a card in a particular facet)

Card Name	Informatiebehoefte	Onderscheid in Informatiebronnen	Evaluatie resultaten	Citeren en refereren	Informatiebronnen ter oriëntatie	Selectie passende zoeksystemen	Evaluatie process	Auteursrecht	Zoeksystemen ter oriëntatie	Selectie Zoektermen	Zoekmanagement	Creatie van informatie	Onderwerpspecificatie	Zoekmethoden	Resultatenmanagement	Publicatie	Onderzoeksvraag	Zoektechnieken	Synthese van informatie	Term past nergens in
aanhalingstekens	0	0	0	0	0	0	0	0	0	8	0	0	0	8	0	0	0	83	0	0
abstracts	0	20	20	0	20	0	0	0	0	0	0	0	0	13	7	0	13	7	0	
open access	0	31	0	6	0	0	0	31	0	0	0	0	0	31	0	0	0	0	0	
achtergrondinformatie	7	14	0	7	64	0	0	0	0	0	0	0	7	0	0	0	0	0	0	
actualiteit	0	8	46	0	31	0	0	0	0	0	0	0	0	0	0	0	0	0	15	
alerts	9	0	0	0	0	0	0	0	0	27	0	0	27	18	0	0	0	18		
altmetrics	0	0	17	8	0	0	8	0	0	0	0	8	0	8	33	0	0	17		
antoniemen	7	0	0	0	0	0	0	0	0	64	0	0	7	7	0	0	0	14	0	
afbakening	7	0	0	0	0	0	0	0	0	14	0	43	0	0	0	21	7	0	7	
afbeeldingen	0	39	0	6	17	0	0	11	0	0	0	6	0	0	0	6	0	6	0	11
APA	0	0	0	85	0	0	0	0	0	0	0	0	0	0	8	8	0	0	0	
artikelen	0	50	0	0	25	0	0	0	0	0	0	6	0	0	6	6	0	0	0	6
asterisk	0	0	0	0	0	0	0	0	8	0	0	0	8	0	0	0	83	0	0	
auteursrecht	0	0	0	8	0	0	0	92	0	0	0	0	0	0	0	0	0	0	0	
autoriteit	0	8	69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23		
betrouwbaarheid	0	12	59	0	6	6	6	6	0	0	0	6	0	0	0	0	0	0	0	
bibliografie	0	31	0	46	15	0	0	0	0	0	0	0	0	0	0	0	0	0	8	
bibliotheekcatalogi	0	20	0	0	7	27	0	0	33	13	0	0	0	0	0	0	0	0	0	
bibliotheken	7	20	0	0	33	0	0	0	20	0	0	0	0	0	0	0	0	0	20	
boeken	0	50	0	0	25	6	0	0	6	0	0	6	0	0	6	0	0	0	0	
Booelaanse operatoren	0	0	0	0	0	0	0	0	8	0	0	0	17	0	0	0	75	0	0	
bouwsteenmethode	0	0	0	0	0	0	0	0	0	8	0	0	0	85	0	0	0	8	0	0

	0-20
	20-40
	40-60
	60-80
	80-100

TAXONOMY

4. Process results – final taxonomy
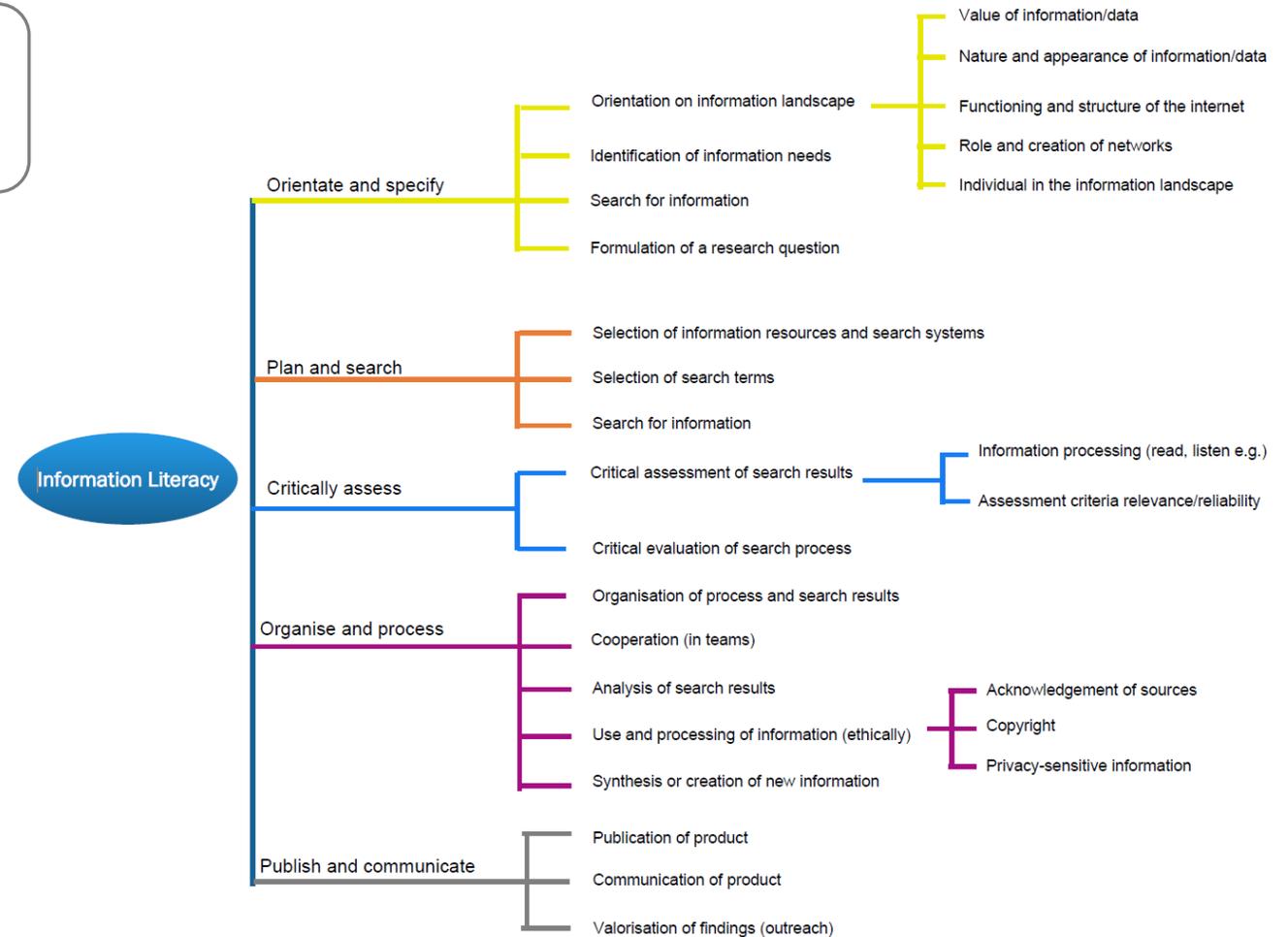
TAXONOMY

5. Preparation taxonomy for inclusion in repository

- Relations – definitions - synonyms

! linked data; it can also be included in other platforms

	A	B	C	D	E	F
1	code 1	**Competence group**	code2	**Core concept**	code3	**Partial concept**
2	older	**(informative)**	skos:notation	**(informative)**	skos:broade	**(informative)**
3	1.0	**Orientate and specify**	1.1	Orientation on information landscape	1.1.1	Value of information/data
4	1.0		1.2	Identification of information needs	1.1.2	Nature and appearance of infor
5	1.0		1.3	Search for information	1.1.3	Functioning and structure of the
6	1.0		1.4	Formulation of a research question	1.1.4	Role and creation of networks
7	1.0		2.1	Selection of information resources and search systems	1.1.5	Individual in the information lan
8	1.0		2.2	Selecteren zoektermen		
9	1.0		2.3	Search for information		

	A	B	C	D	E	F
1	**Code1**	**Skills**	**Description**	**URI**	**UUID**	**numbering**
2	skos:notation	skos:prefLabel	skos:definition	skos:identifier	(informatief)	skos:hiddenlabel
3	1.0	**Orientate and specify**	**Orientation:** Gaining insight into and exploring the possibilities of a subject. You do this by collecting broad information and it helps to formulate a good (research question). Specify: Defining the requirements that the changed or new information provision must meet. (Source: https://labyrinth.rienkjonker.nl/lexicon/terminologie)	https://purl.edustandaard.nl/concept/2b1ad07f-d8b0-49ab-b4d2-eecf319f4001	2b1ad07f-d8b0-49ab-b4d2-eecf319f400:ov_01	
		Plan and search	**Planning:** You can devise strategies for locating information and data. (Source: https://www.sconul.ac.uk/sites/default/files/docum ents/researchlens.pdf) **Search** [gather information in context]: You can find information and data and know how to access it. (Source: https://www.sconul.ac.uk/sites/default/files/docum	https://purl.edustandaard.nl/concept/598b9817-a153-400e-8710-78acadf70cbe		

TAXONOMY

6. Taxonomy (via Kennisnet) in Sharekit

VAKVOCABULAIRE

Surfsharekit

Informatievaardigheid vocabulaire 2020 - Organiseren en verwerken ✕

Informatievaardigheid vocabulaire 2020 - Orienteren en specificeren ✕

Informatievaardigheid vocabulaire 2020 - Plannen en zoeken ✕

Informatievaardigheid vocabulaire 2020 - Kritisch beoordelen ✕

✕ ⌄   ⓘ

Vaktherapie vocabulaire 2020 - Ethiek

Vaktherapie vocabulaire 2020 - Onderzoek

Educational level
University of applied science

Professional vocabulary
Informatievaardigheid vocabulaire 2020
Orienteren en specificeren
Plannen en zoeken

File type
Text

Training PubMed

Edusources

Author

Team PubMed

Quality

0   0   2

Publisher

Information Literacy

More information: https://www.surf.nl/en/professional-vocabulary-roadmap-for-oer

COLLECTION AND PUBLICATION

New Information literacy material
- by institution itself or institutions by joint creation
- quality model IL as a checklist when designing

Submit to Workgroup Information Literacy
- check if material is already present in search portal
- quality check by the institution(s)
- delivery via the digital mailbox on the website https://www.shb-online.nl/onderwijs/information-literacy/onderwijsmaterialen/

Enter in SURF Sharekit
- quality control by working group
- add metadata

Publish in Edusources

Step-by-step plan for the publication of information literacy learning materials on SURF Search Portal: Edusources

FOLLOW UP?

- Follow-up project in the Netherlands

  o Expansion of topics
  o Focus on reuse
  o Automatic keyword assignment through AI based on the taxonomy
  o Connecting institutional repositories

- Sharing Information literacy Educational materials in Europa (UK, Ireland, Scotland, Germany, Austria, France, the Netherlands)

- Use taxonomy to develop digital badges for IL

Source: https://pixabay.com/nl/illustrations/de-weg-start-begin-voornemen-plant-368719/

DIGITAL BADGES

WHAT IS A BADGE IN EDUCATION?

Draft definition by EU Commission (August 2020) :

"A micro-credential is a recognised proof of the learning outcomes that a learner has achieved following a short learning experience, according to transparent standards and requirements and upon assessment.

The proof is contained in a certified document that lists the name of the holder, the achieved learning outcomes, the assessment method, the awarding body and, where applicable, the qualifications framework level and the credits gained. Micro-credentials are owned by the learner, are shareable, portable and may be combined into larger credentials or qualifications."

The 'certified document' can take various forms, including a digital **badge**

Micro-credentials open up education to all; provide opportunities for life-long learning
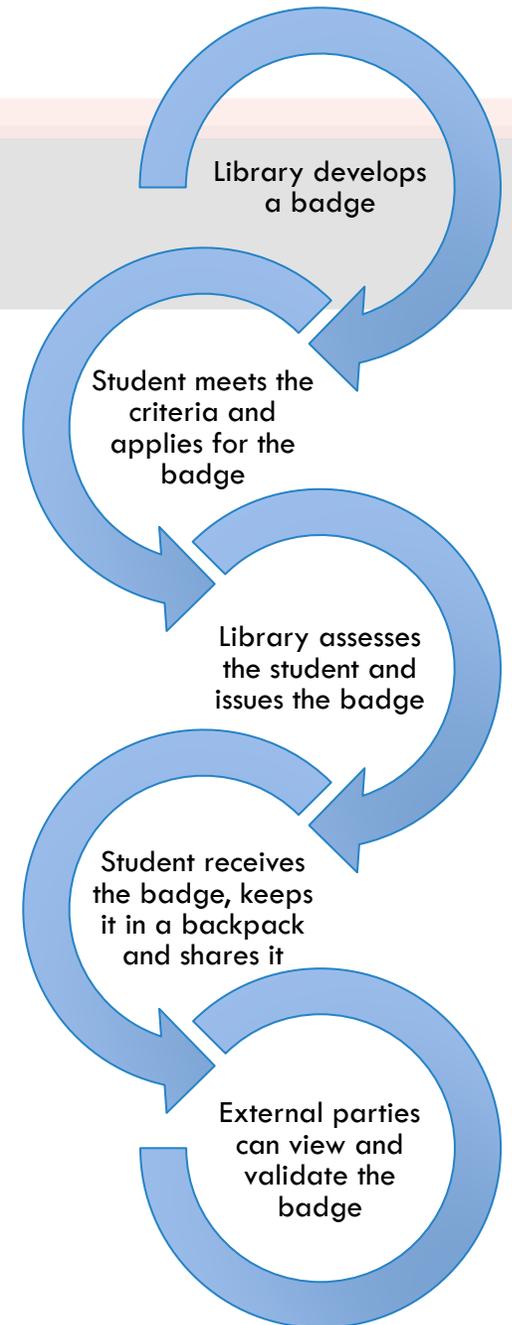
DIGITAL BADGES AND INFORMATION LITERACY

Libraries (in higher education) can develop and issue badges for IL training

> *Examples / Links*
> - *PennState University Libraries*
> - *ACRL Digital Badges Interest Group*
> - *Wageningen University & Research - Library*

- Reward for extracurricular learning
- Gamification
- Badges help to communicate in a transparent way which training courses you offer
- Students might learn more consciously and effective

Library develops a badge

Student meets the criteria and applies for the badge

Library assesses the student and issues the badge

Student receives the badge, keeps it in a backpack and shares it

External parties can view and validate the badge

EXAMPLE: DEVELOPMENT OF IL BADGES AT WUR LIBRARY

1. Based on the SCONUL framework , WUR Library defined a matrix with six competency areas and corresponding **learning outcomes**

2. The six competency areas in the matrix were merged into three **badges** (Orientation, The Search, and The Results)

3. One reaches the **levels** 1, 2 and 3 before getting the overarching badge
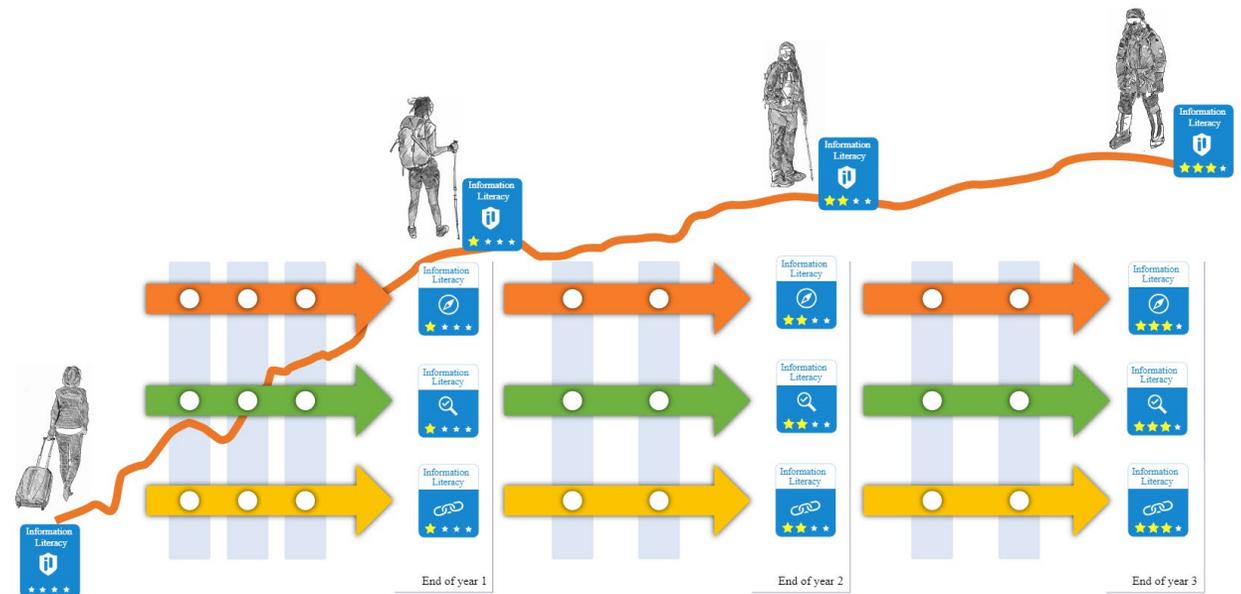
The Information Literacy learning trajectory at Wageningen University with Edubadges, within the bachelor cycle (adapted from a drawing of Edo-Jan Meijer, CC BY-NC-SA)
More info: https://www.wur.nl/en/Library/Students/IL/Pilot-Information-Literacy-Edubadges.htm

CROSS-INSTITUTIONAL IL BADGES?

- Working group IL: explore the development of cross-institutional open badges for IL

- 6 (applied) universities in NL

- The IL taxonomy provides a controlled vocabulary and structure which helps to
  - Discuss and align on learning outcomes across the institutions
  - Cluster learning outcomes in badges and levels
  - Share and find newly created learning materials in Edusources
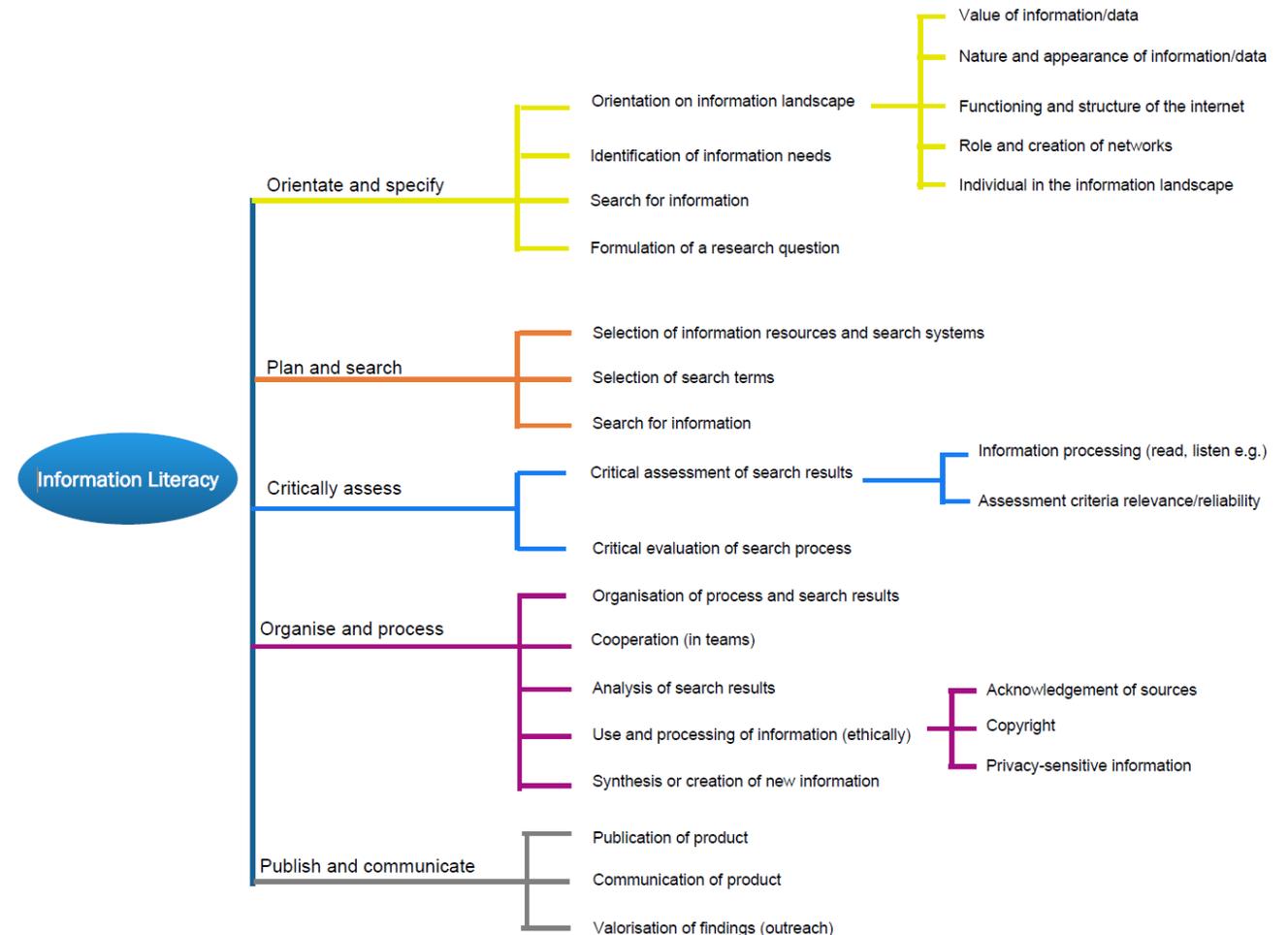
CROSS-INSTITUTIONAL IL BADGES?

So far:
- Learning outcomes: difficult to completely align
- Mandate: libraries are not in charge of policies on badges in their institution; uncertain implementation

Possible mindsets:
- Working group IL as endorser or even provider of IL badges, instead of developing cross-institutional badges at institutions?
- Working group IL helping institutions to develop their own IL badges and share the associated learning materials in Edusources using the taxonomy?

Source: https://pixabay.com/nl/photos/wandelaar-backpacker-backpacken-1149877/

MORE INFORMATION

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