UNICA Scholarly Communication webinar "Upskilling librarians to meet new library roles" November 12th 2020

Open Science skills in Danish research Libraries

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The project

- March 2018 May 2020
- 6 institutions
- 20 Project members













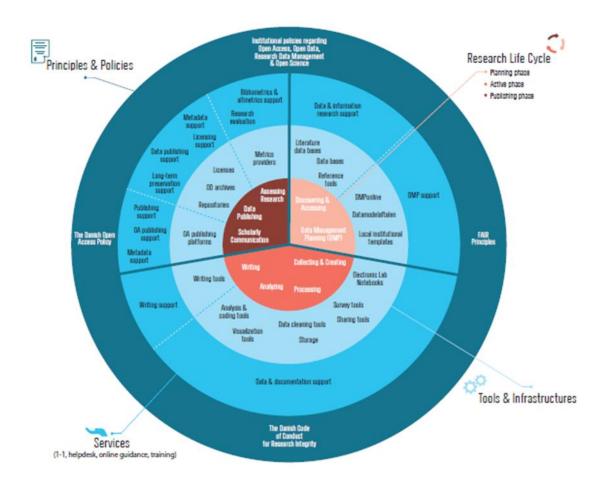


VIA University College



Open Research Ecosystem

- Open Research vs. Open Science
- 4 layers
 - "the core" = research life cycle
 - OS infrastructures
 - Library Services
 - "The Atmosphere" = policies and principles etc.
- Dynamic processes



Open Research Ecosystem: Research Life Cycle

Planning phase

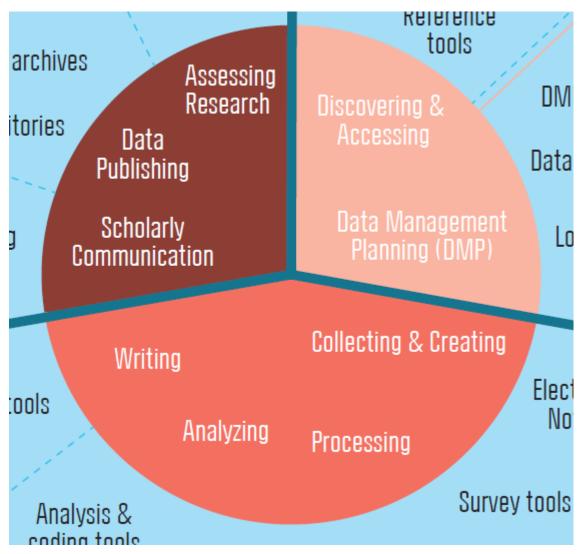
- Discovering & Accessing
- Data Management Planning

Active phase

- Collecting & Creating
- Processing
- Analyzing
- Writing

Publishing phase

- Scholarly Communication
- Publishing
- Assessing Research

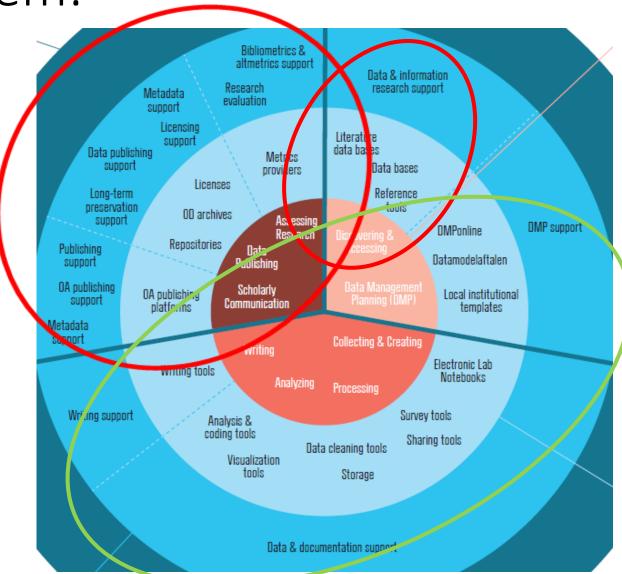


Open Research Ecosystem: Library Service

• The digital infrastructure determines the research work and support services in all phases.

 Some services in the libraries are extremely well developed, eg. information retrieval, publishing, archiving.

 Other services are under development, eg. DMP, data documentation, data publishing.



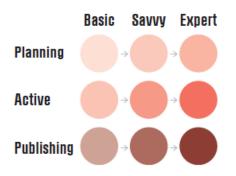
Project Deliverables

1. Competency Model

2. Inspirational Training Catalogue

3. Competency Development Program

Competency Model & Library Staff Profiles



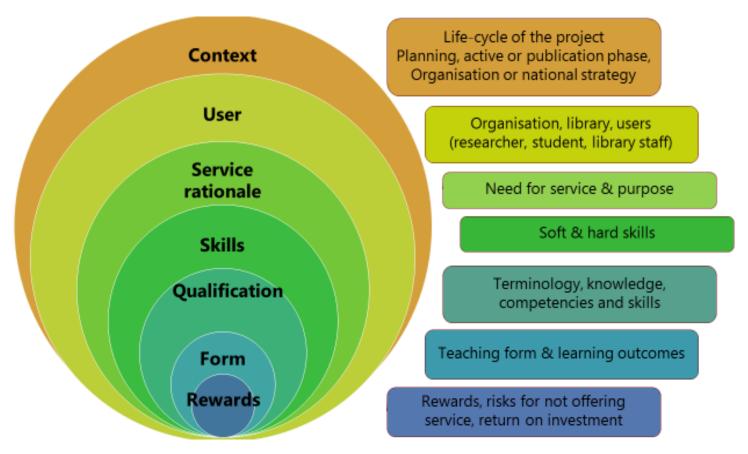
Competency & Development Catalogue



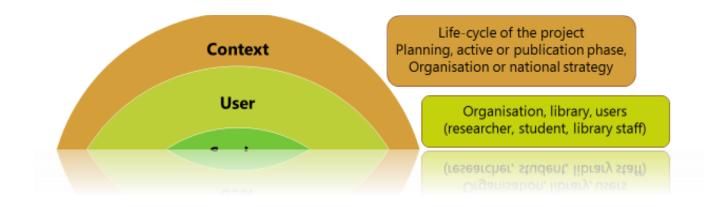




From services to competencies: A 7-step model

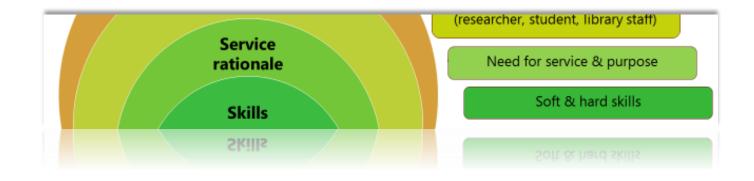


Enables a dialogue regarding the rationale for a service and the identification of skills and competencies in the context of use-case scenarios



Step 1: Define the context – this could be the university's overarching research strategy or a research group trying to satisfy a particular funding mandate. The context sets the parameters for the services, competencies and skills.

Step 2: The user – Identify who needs the service and why. Is the user an entire organization, a department or set of individuals with common characteristics? Each group has different needs, knowledge, skills and expectations to a service.



Step 3: The rationale for the service – based on knowledge of potential users of the service and their needs, define which activities the service should support, the extent the service intends to build up a capacity within the organization, support a process or provide technical skill support. How will all of the aforementioned inform the aim of the service?

Step 4: Skills – which hard and soft skills are required to support the activities described in step 3?

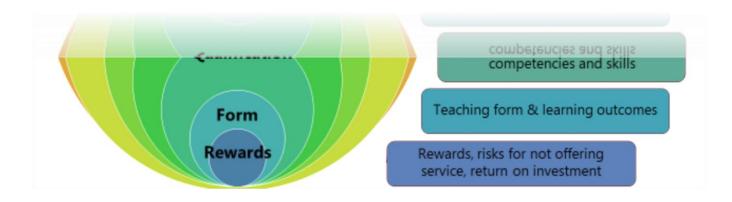
Step 5: Qualification framework -Link the skill requirements defined in step 4 to a verified qualification framework, not a "home-grown" one.

Step 5: Qualification framework (is this example we use the Danish Qualification Framework for lifelong learning: https://ufm.dk/en/education/recognition-and-transparency/transparency-tools/qualifications-frameworks?set_language=en&cl=en

Level (project model)	Knowledge	Skills	Competences
Basic	Basic knowledge on AGA H2020 and where to find information on it.	point to resources w.r.t. H2020 Data management policy, GDPR, ethics, copyright, Creative Commons etc.	Direct the researcher to Data management and local H2020 support services
Savvy	Knowledge about rights and requirements to publishing H2020 project data. Knowledge about challenges in publishing sensitive data and the benefits of meta-data descriptions. Identify potential issues that need expert guidance.	Teach in the practical application of licenses and PIDs in H2020 projects. Provide advice on Metadata Enrich a metadata template with H2020 metadata and PIDs.	Compare and provide guidance regarding different types of licenses (Creative Commons, MIT, GNU) and metadata standards. Guide the researchers in the expectations there are to FAIR In H2020 and other relevant research policies.
Expert	Knowledge on quality assurance of data regarding the FAIR principles and open standards in H2020, including domain specific metadata standards, ensuring compliance and relevant H2020, university and national policies. Kowledge of domain specific onthologies.	Guide the researcher's choice of data archive, repository etc. and questions regarding copyright, responsibilities and accountability when publishing data, PIDs and metadata. Teach the FAIR-principles(FAIR for machines, AI and the relation between PIDs, metadata and interoperability)	Council researchers during their research project. Use tools to manage data, including sensitive data, including how to pseudo-anonymize and anonymize data correctly. Collaborate with researchers to develop taxonomies and open linked data.

Step 6: Form – the appropriate form of service/teaching the skills and competencies described in step 5 can now be designed. Different forms of teaching have different strengths and limitations with regard to different subjects and the learning processes of different participants.

Step 7: Rewards – description of the profits the organization could gain from a potential service/ training programme and risks of NOT holding offering the service/training programme.



The Competency Model

- a matrix with 11 areas of competence and 3 levels of competence

Skills & Competencies:

- 1. Open Science Policies
- 2. Data Management Planning
- 3. Copyrights & Licenses
- 4. Data Retrieval & Data Collection
- 5. Data Storage
- 6. Data Processing
- 7. Open Reproducible Research
- 8. Data archiving and long-term storage
- 9. Data Publishing
- 10. Scholarly Communication
- 11. Open Access publishing

Qualifications framework:

- 1. Basic (KNOW)
- 2. Intermediate (SHOW)
- 3. Advanced/Expert (DO)

Indholdabeakrivelse		Kompetencemodel		
	Indh	Niveau 1: Basic (KNOW)	Niveau 2: Intermediate (SHOW)	Niveau 3: Advanced / Expert (DO)
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Want to know more?

 Open Science Skills in Danish Research Libraries (2020). Zenodo Communities https://zenodo.org/communities/os-skills-dk/

• Website: Open Science Skills for Danish Research Libraries or https://libguides.cbs.dk/c.php?g=676835&p=4822103