A European view on the next generation library: indispensable and vital to students, teachers and researchers

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The presentation

The next generation

- Libraries in education support
- Libraries in research support
- Open science and the role for libraries
Library is popular for study spaces.
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Photo by MoniqueKooijmans
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Next generation libraries in education:
not just a place to meet and study

“More so than ever the library is more than a place to meet and study – it is the embodiment of a broad set of services to support research. Space alone no longer defines the library: it needs to be valued both in its own right and as a complement to the new research environment.”

JISC/CNI Report

Report on a joint meeting “International advances in digital scholarship”, JISC UK and CNI, June 2016
Open education in Europe

Open Education is:

“aiming to widen access and participation to everyone by removing barriers and making learning accessible, abundant, and customisable for all.

It offers multiple ways of teaching and learning, building and sharing knowledge, as well as a variety of access routes to formal and non-formal education, bridging them.”

EU Commission

“We anticipate that the student *naturally adopts the idea of “open”* as they create and use available OERs, use open licensing, publish their research in Open Access articles, and is introduced to an Open Practice by creating or studying in formal and non-formal environments”.

In: Open education Initial Scoping Study, by Davor Orlic, Clive Young, Javiera Atena, UCL, August 2016
NL: open and personalized education

The Dutch government supports projects between 2015 – 2018

- Open and online education can
  - facilitate decision process of prospective students
  - drive innovation in education

- Open Educational Resources
  - can enhance students' success rates
  - can strengthen the quality of those resources
  - Sharing > higher quality > better education

Both offer a means to a **personalized approach**
Libraries in education support: creation – sharing - connections

- Teaching materials: access, metadata, indexing
- Advice on copyright fees and licenses
- Improve users’ information skills
- Support content creation and facilitate careful sharing of materials

But most of all:
connect (international?!?) infrastructures to facilitate choices of students at any time, at any place
Next generation libraries in research: transformation

MIT Libraries:
“We believe that the transformation—from libraries where knowledge is accessed individually through analog and digital means into ones where creation and access to knowledge are dynamically networked—will affect all aspects of the research library.”

The important issues

- Institutional Repositories and the connection to Open Access
- The uprise of university presses
- New components of scholarly communication
- Quantitative metrics
- Interoperability: internationally shared infrastructures

Institutional repositories: future role?

COAR (Confederation of Open Access Repositories) vision:
“To position distributed repositories as the foundation of a globally networked infrastructure for scholarly communication that is collectively managed by the scholarly community. This should have the potential to help transform the scholarly communication system by emphasizing the benefits of collective, open and distributed management, open content, uniform behaviors, real-time dissemination, and collective innovation.”

COAR Next Generation Repositories Working Group, February 2017
Institutional repositories: mixed feelings?

“The linkage between journal article open access and institutional repository agendas has been a mistake”.

“IR must be repositioned in the broader context of managing and preserving institutional community assets”.

Clifford A. Lynch
Director of the Coalition for Networked Information

In: Challenges for libraries in the coming years. College and Research Libraries February 2017
University press: library concern?

“The shift to the library serving as the agent of an author in terms of helping develop the digital work and make it available – through the university press or otherwise – is very strategic and significant.”

Interoperability on international scale

“As the complexities of the research environment grow, so too does the need for supporting infrastructures to enable researchers to operate effectively.”

“There is a common desire and need for consistent and open identifiers…. We need a commitment to global solutions and serious commitments to interoperability here”.

Libraries in Research Support

- From support in ‘access to knowledge’ to support in ‘creation of knowledge’
- New use of the old structures like IR
- Simplify life of researchers!
- Lead the way in curation of new (digital) manifestations of the scholarly communication
- **International collaboration is more important than ever!**
Next generation libraries: open science!

“Open science is a new approach to the scientific process based on cooperative work, coupled to new tools for collaboration, and new routes for knowledge diffusion through online digital technologies.

Open science entails a shift from the standard practice of publishing research results in scientific journals, towards sharing all available data and knowledge at the earliest stages of the research process. It requires a move from ‘publishing as fast as possible’ to ‘sharing knowledge as early as possible’

Open Science – the EU Approach
European Open Science Cloud

- A trusted, open environment for sharing scientific data
- Connecting across borders and scientific disciplines
- Improving science
- Linking data
- Connecting scientists globally
- Open and seamless services to analyse and reuse research data
- Long term and sustainable
European Open Science Cloud

The European Open Science Cloud initiative is taking up some of the urgent areas in the academic environment to make Open Science a success.

- new reward systems,
- the assessment of alt metrics,
- the conditions for FAIR open data.
- alternative Open Access business models
FAIR data

- Open data is about more than disclosure; it must be "fair"
- Findable
- Accessible
- Interoperable
- Reusable
To be findable:
F1. (meta)data are assigned a globally unique and persistent identifier
F2. data are described with rich metadata (defined by R1 below)
F3. metadata clearly and explicitly include the identifier of the data it describes
F4. (meta)data are registered or indexed in a searchable resource

To be Interoperable:
I1. (meta)data use a formal, accessible, shared, and broadly applicable language for knowledge representation.
I2. (meta)data use vocabularies that follow FAIR principles
I3. (meta)data include qualified references to other (meta)data

To be Accessible:
A1. (meta)data are retrievable by their identifier using a standardized communications protocol
A2. metadata are accessible, even when the data are no longer available

To be Reusable:
R1. meta(data) are richly described with a plurality of accurate and relevant attributes

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Dutch National Plan Open Science

January 2017

1) aim to publish 100% open access;
2) make possible the optimal reuse of research data > FAIR
3) develop matching evaluation and reward systems.
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100% open access in 2024
Gold Open Access
No additional budget
Universities negotiate

Sander Dekker
State Secretary for Education, Culture and Science
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Open Access in the Netherlands:

**Result**: substantial increase of Dutch authored OA publications.

publisher-deals-prepaid-open-access

Freedom of Information

2 requests based on Freedom of Information Act about the big deals

cost-of-publication-per-university

open-access-contracts
Conclusions

- **Libraries in education support**: creation – sharing – connections

- **Libraries in Research Support**: transformation from support in ‘access to knowledge’ to support in ‘creation of knowledge’

- **Libraries in Open Science**: develop the libraries’ role in data management, open science, metrics
  - Open science is dictating the research and education agenda and is therefore also dictating the developments towards next generation libraries

**DARE to take the lead and do it TOGETHER**
Thank you for your kind attention