



# Module 2: Open Access Infrastructure

## Topics/ Units

- Open access infrastructure - Introduction
- Open Access Repositories
- Open Journals
- **More About Open Approaches**

Thursday 30<sup>th</sup> May 2024

**Session 8**

# UNIT OBJECTIVES

## Objectives of Scholarly Communication

This unit briefly discusses alternative innovative approaches to openness that you as a library professional should be aware of besides open access journals and open access repositories.

"Open" encompasses the following open approaches:

- Open Access research literature,
- Open data,
- Open educational resources,
- Open Source software,
- Open infrastructure,
- Open Standards,
- Open development,
- Open education,
- Open Peer Review, Open research, & Open innovation.

# Learning Outcomes & Areas of Focus

## Learning Outcomes

After going through this topic the participants are expected to be able to:

- Explain terms related to open access and openness in education and research

## Area of Focus

- Open Educational Resources (OERs)
- Open Data
- Open Science
- Linked Open Data (LOD)
- Data (Digital) Curation
- Data Mining

## Open Educational Resources (OERs)

Open Educational Resources (OERs) are any type of educational materials that are in the public domain or introduced with an [open license by UNESCO](#),

## Open Data

Open Data is defined as research data (across different disciplines) that can be freely used, reused and redistributed by anyone – subject only, at most to the requirements to attribute and share-alike (OpenDefinition.org).

Open Data can be made available through an institutional repository or linked to a journal article published in an Open Access journal, and can take on various forms such as data sets, maps, charts/graphs, video clips, calculations, sound recordings and many more.

Types of Open Data: Geodata, Culture, Science, Financial, Statistics, Weather, Environmenta, Transport according to Open Knowledge Foundation -

<http://okfn.org/opendata/>

The Open Data Handbook, or visit a list of Open Data repositories listed by the Open Access Directory, <http://opendatahandbook.org/>

## Open Science

Open Knowledge Foundation Open Science Group <http://science.okfn.org/about-us/open-science-overview/> describes Open Science primarily as science that includes scientific knowledge that people are free to use, re-use and distribute without legal, technological or social restrictions.

They build tools, apps, datasets and guidelines to facilitate all aspects of open science.

The Open Knowledge Foundation movement is trying to make it easier to publish and communicate scientific knowledge.

A few Open Science projects include the Allen Brain Atlas <http://www.brain-map.org/>, Galaxy Zoo <http://www.galaxyzoo.org/> and The Encyclopaedia of Life <http://eol.org/>.

Organisations practising or promoting Open Science include amongst others the Open Knowledge Foundation <http://okfn.org/> and the Public Library of Science <http://www.plos.org/>.

## Linked Open Data (LOD)

- Linked Data is simply about using the Web to create typed links between data from different sources
- Linked Data refers to data published on the Web in such a way that it is machine-readable, its meaning is explicitly defined, it is linked to other external data sets, and can in turn be linked to from external data sets” (Bizer, Heath & Berners-Lee, 2009:104).  
<http://tomheath.com/papers/bizer-heath-berners-lee-ijswis-linked-data.pdf>

## Data Mining

- Data (Digital) curation - Digital Curation Centre- <http://www.dcc.ac.uk/digital-curation/what-digital-curation>
- Data Mining - knowledge discovery in databases - involves the process of discovering interesting and useful patterns and relationships in large volumes of data (Clifton, 2010 - <http://www.britannica.com/EBchecked/topic/1056150/data-mining>)

**Activity:** Review final unit questions – check progress pp. 92

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