



# Digital University: Digital libraries and Open Access

# Digital University: An Introduction

The presentation explores the impact of digitalization on university systems. It comprises three sections:

- 1) Digital teaching and learning
- 2) Digital libraries and open access
- 3) Digital services

First, the presentation offers an overview of university digitalization both at international and national level; second, it illustrates the main trends and future perspectives. Finally, it proposes a set of indicators to measure digitalization and some key policy messages.

# Agenda

- Digital libraries and Open Access
  - Overview
  - Recent trends
  - Future perspectives

# Overview

# Open Access

## What is it?

According to the **Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities**, 22 October 2003:

- **Open access** as a comprehensive source of human knowledge and cultural heritage that has been approved by the scientific community
- **Open access contributions** include original scientific research results, raw data and metadata, source materials, digital representations of pictorial and graphical materials and scholarly multimedia material

# Open Access contribution

## Two conditions

1. The author(s) and right holder(s) of such contributions grant(s) to all users a free, irrevocable, worldwide, right of access to, and a license to copy, use, distribute, transmit and display the work publicly and to make and distribute derivative works, in any digital medium for any responsible purpose, subject to proper attribution of authorship (community standards, will continue to provide the mechanism for enforcement of proper attribution and responsible use of the published work, as they do now), as well as the right to make small numbers of printed copies for their personal use.

2. A complete version of the work and all supplemental materials, including a copy of the permission as stated above, in an appropriate standard electronic format is deposited (and thus published) in at least one online repository using suitable technical standards (such as the Open Archive definitions) that is supported and maintained by an academic institution, scholarly society, government agency, or other well-established organization that seeks to enable open access, unrestricted distribution, inter operability, and long-term archiving.

# Open Access: The international framework (1/3)

- **Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities**
  - Drafted by the Max Planck Gesellschaft
  - Goals
    - ✓ knowledge dissemination not only through the classical form but also and increasingly through the open access paradigm via the Internet
    - ✓ global and accessible representation of knowledge
  - At June 2018, 620 signatories (universities, research centers, libraries, museums ecc.)

# Open Access: The international framework (2/3)

## European Union

### ▪ Horizon 2020

- open access to scientific publications is an obligation
  - open access to research data, where opt-outs are possible, and research data management promoted through EU public funding
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- ✓ Communication *"Towards better access to scientific information: Boosting the benefits of public investments in research"*, 17.7.2012
  - ✓ Communication *"A Digital Single Market Strategy for Europe"*, 6.5.2015
  - ✓ Communication *"European Cloud Initiative - Building a competitive data and knowledge economy in Europe"*, 19.4.2016
  - ✓ Recommendation (EU) 2018/790 of 25 April 2018 *on access to and preservation of scientific information*



# Open Access: The international framework (3/3)

- **EUA (European University Association)**
  - Road map on open access to research publications, February 2016
  - Position statement on open science to EU institutions and national governments, October 2017
  - Open access 2016-2017 EUA survey results, February 2018

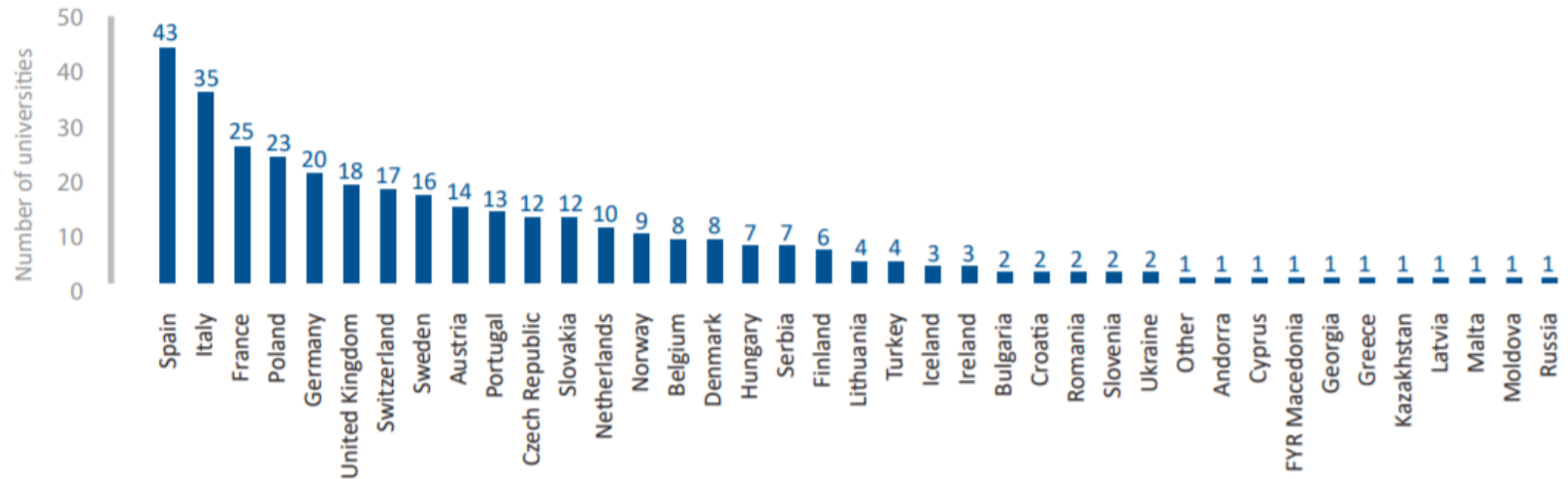
# Open Access: The national framework

- **71 Italian Universities** signed the **Berlin Declaration**
- In 2006, the **CRUI work group on *open access*** was established within the Library Commission
  - Guidelines issued for Universities
- **2014-2018 Road Map** launched by CRUI and University of Messina (41 Italian universities and research centers involved)
- Associazione italiana per la promozione della ricerca aperta (AISA)

# RECENT TRENDS

# Current trends: EUA Survey, *Open Access 2016-2017* (1/2)

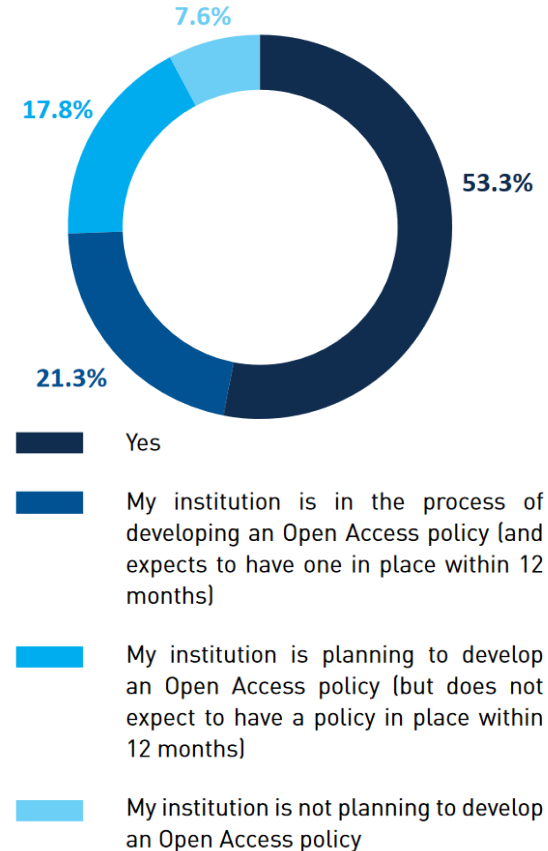
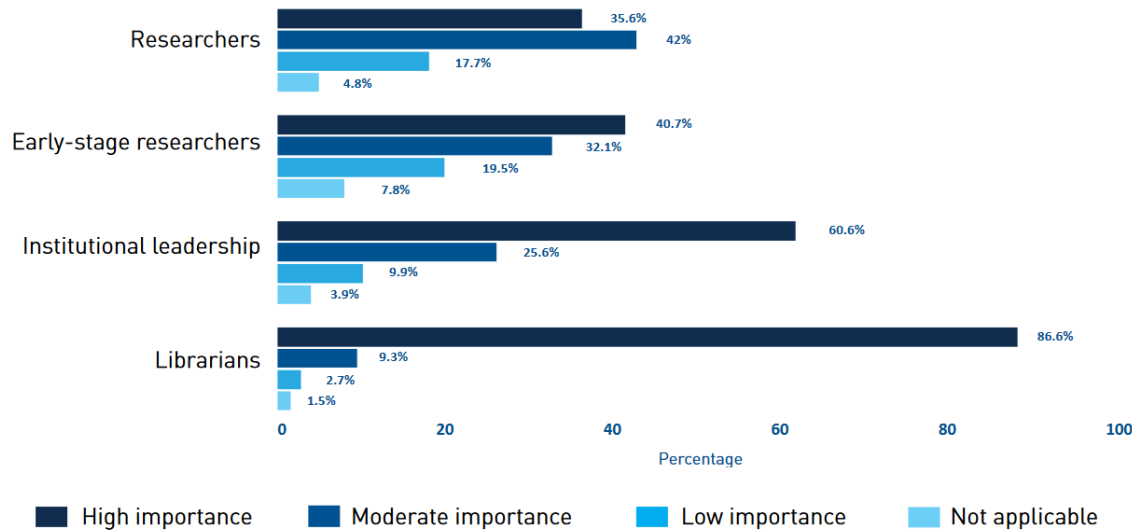
- February 2018
- 338 responses from Universities and HE institutions in 39 European Countries



# Current trends: EUA Survey, *Open Access 2016-2017 (2/2)*

## Institutional policy on open access to research publications

### The strategic importance of open access at the university



#### ➤ Focus on

- ✓ Open access to research publications
- ✓ Open access to research data
- ✓ Research data management

# Current trends: The Joint Research Centre Reports

- JRC IPTS Report (2015): *OpenCases: A catalogue of mini cases on open education in Europe*
- JRC IPTS Report (2016): *How are higher education institutions dealing with openness? A survey of practices, beliefs and strategies in five European countries OpenSurvey*
- JRC IPTS report (2016): *OpenCases: Case Studies on Openness in Education*

# Main limitations

- Policy oriented and theoretical policy messages
- Institutions mapped only through surveys and questionnaires
- Non exhaustive institutions mapping

# A step forward: An international measuring approach (1/2)

- Standard (ISO 11620:2008)
  - To assess libraries' performance (1999 first edition, reviewed in 2011)
- E-Metrics created by Association of Research Libraries (ARL)
  - Best practices and benchmarking (1999)
- International Federation of Library Associations and Institutions (IFLA)
  - Libraries assessment (2007)
- Library Performance Measurement and Quality Management System (EQUINOX8)
  - Libraries' performance and management (1998-2000 European Community, 4th Framework Programme)



# A step forward: An international measuring approach (2/2)

- The Library Index (BIX)
  - Benchmarking (1999 Bertelsmann Foundation and German Library Association)
- Management Information for the Electronic Library (MIEL)
  - Performance (1997)
- Higher Education Funding Council for England (HEFCE)
  - Measuring and assessing academic libraries' performance in UK (in the Nineties in collaboration with the Society of College, National and University Libraries-SCONUL)
- Library Performance Indicators and Library Management Models (PROLIB-PI)
  - Toolbox to measure performance and e-indicators which can be used with all kinds of libraries in Europe (1993 European Commission, European plan for libraries, 3rd Framework Programme)

# A step forward: A national measuring approach

- “La valutazione delle biblioteche universitarie”, Osservatorio per la Valutazione del Sistema Universitario, 1999
  - Set of indicators to measure academic libraries’ activity following some changes in their organisational structure
- Three collections of data by the Gruppo Interuniversitario per il Monitoraggio dei Sistemi Bibliotecari di Ateneo (GIM) in 2011
  - Example of a detailed measuring approach to digital resources in academic libraries. Some indicators were taken from the above-mentioned standards, others were created to explore measures within the Italian context

# Current projects at national level: The example of Magazzini digitali

- **Magazzini digitali/Depositolegale.it:** national coordinated service aimed at long-term preservation and access to digital resources



# FUTURE PERSPECTIVES

# A possible set of indicators: Number and cost of digital resources

- # E-books
- # Book chapters
- # Scientific articles
- # Scientific journals
- # Non academic journals/periodicals
- % Non academic electronic journals and periodicals out of the total number of non academic journals and periodicals
- % Scientific e-journals/ total number of scientific journals
- # Database
- # Personal computer for public use / seats in libraries
- Expenditure for subscription to full-text electronic resources
- Expenditure for electronic monograph accessible by library users
- Expenditure for electronic resources / bibliographic resources \* 100

# A possible set of indicators: Use of electronic resources

- # Access to database / possible users
- # Subscriptions (electronic)/ possible users
- # Minutes of waiting to access internet posts
- # Printed pages per month
- # Research session per resource per month
- # Information download per month per e-resource
- % Users for each tool/resource
- % Library staff per e-service out of the total library staff
- # Times users find documents of interest within a e-resource
- # Sessions using e-resources
- # E-resource queries
- # Request documents within library e-resources

# Key messages (1/2)

- Digital libraries and open access are crucial to university digitalization
- Mandatory policies linked to internal performance evaluation or external review procedures could accelerate the transition to open access research publications
- Need for monitoring mechanisms that allow institutions to assess their progress

# Key messages (2/2)

- Raising researcher awareness of open access and open research data is a crucial prerequisite for making data available
- Rethinking internal assessment practices, moving away from the impact factor, and providing incentives for researchers to engage in open science practices