The Open Movement:
What Libraries Can Do

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The Open Movement:
What Libraries Can Do

Contents

- 3 propositions

- Open trends and developments

- Open concepts, definitions, and terminology

- A typology and relational model of open approaches

- The case for convergence and integration

- Potential roles for libraries and librarians

- Proposed models for policies and strategies

Propositions

➢ Open is the **default *modus operandi*** for learning and research in the 21st century

➢ We need to move from siloed activities and atomistic policies to **coordinated efforts** and **integrated strategies**

➢ Librarians and other information specialists have **key roles** to play in advancing the open movement to the next level

Acknowledgment

o Based on ongoing research with Dr. Stephen Pinfield, Information School, University of Sheffield, UK

Importance and State of "Open"

- Open approaches are gathering momentum
  - Bottom-up initiatives led by researchers, librarians, educationalists, and technologists
  - Top-down drive by policy-makers and sponsors/funders
- Influences and instantiations are multifaceted
  - Social, technological, economic, political, etc.
- Multifarious movements at different stages
  - Typically pursued within separate specialist communities
  - Relatively few efforts to think and work holistically
- The open movement has potential to advance our missions
  - And enhance research, learning, knowledge exchange, and public engagement with science on a global scale

Open Trends and Developments

- Open science efforts evolving beyond content towards process (e.g., workflows) and infrastructure (e.g, systems)

- Developments with specific focus on humanities
  - Open Library of the Humanities

- Emergence of broader more holistic perspectives, framed by Boyer's (1990; 1996) model of scholarship
  - Discovery, Integration, Application, Teaching, Engagement

- Academic library initiatives with open linked data (GOKb), OERs/MOOCs/open textbooks, and text/data mining

- Public library roles in community access to open data

- Institutional policy development is not keeping pace with current thinking and desirable practice

Definition and Scope of Openness

- Interpretations of Open vary between and within different stakeholder and practitioner groups
  - especially in the commercial arena (e.g., Open Standards) and for emergent areas (e.g., Open Peer Review)
- Some transfer concepts/terms from existing practice
  - Gratis and Libre "sub-species" of Open Access derived from Open Source Software community (Suber, 2012)
- Others develop their own frameworks and meanings
  - 4 Rs of Open Educational Resources: Reuse, Revise, Remix, Redistribute (Wiley, 2010)
- Focus may be on content (product) and/or process

Open Access Concepts

Sub-Species of OA

(using terminology from the software community)

"Gratis OA is free of charge… Users must still seek permission to exceed fair use. Gratis OA removes price barriers but not permission barriers."

– significantly limits use and practical benefits

"Libre OA is free of charge and also free of some copyright and licensing restrictions … Libre OA removes price barriers and at least some permission barriers."

– may allow copying, reformatting and analysis for content/text mining

(Suber, 2012, pp. 65, 66)

Open Access Terminology

"Access – can be
open (free), restricted or paid;

with unrestricted or restricted usage rights;

quality controlled or not;

pre-print (pre-refereeing), post-print (post-refereeing),

or published version (with final copy editing and page layout);

immediate or delayed;

permanent or transient."

(Archambault et al., 2014, p. 4)

- ? Open Access
- ? Ideal Open Access
- ? Restricted Access
- ? Paid Access
- ? Restricted Open Access
- ? Green Open Access
- ? Gold Open Access
- ? Robin Hood Open Access or Rogue Open Access
- ? Delayed Open Access
- ? Transient Open Access

Open Educational Resources

4 Rs of Openness

- **Reuse**: the right to reuse the content in its unaltered/ verbatim form (e.g., make a backup copy of the content)

- **Revise**: the right to adapt, adjust, modify, or alter the content itself (e.g., translate the content into another language)

- **Remix**: the right to combine the original or revised content with other content to create something new (e.g., incorporate the content into a mashup)

- **Redistribute**: the right to share copies of the original content, the revisions, or the remixes with others (e.g., give a copy of the content to a friend)

(Wiley, 2010, p. 10)

Open: A Simple Overarching Definition

e-InfraNet

7 CAPACITIES

e-InfraNet:
'Open' as the Default Modus
Operandi for Research and
Higher Education

*European Network for co-ordination
of policies and programmes
on e-infrastructures (e-InfraNet)*

"Open means ensuring that there is little or no barrier to access for anyone who can, or wants to, contribute to a particular development or use its output."

(e-Infranet, 2013, p. 12, adapted from CETIS, former JISC-funded Center for Educational Technology and Interoperability Standards)

A Typology of Open (Corrall & Pinfield, 2014, p. 298)

Open Type	Open Domain
Open Content	Open access to research publications (OA) Open data Open educational resources, including open courseware and open textbooks Open bibliography/metadata Open source software
Open Process	Open development Open educational practices Open peer review Open research, including open literature review and open notebook science Open innovation
Open Infrastructure	Open standards Open systems

Open Types and Aims

- **Open Content** – making content of various sorts freely accessible and available for reuse
  - e.g., publications, theses, dissertations, datasets, metadata, learning objects, computer code

- **Open Process** – carrying out academic or business processes in the public arena
  - e.g., product/service innovation, software development, scientific work, peer review, pedagogical practices

- **Open Infrastructure** – creating an interoperable technical environment for education and research
  - e.g., standards, systems

High-Level Open Typology

(Corrall & Pinfield, 2014, p. 299)

Open Content

Open Process

Open Infrastructure
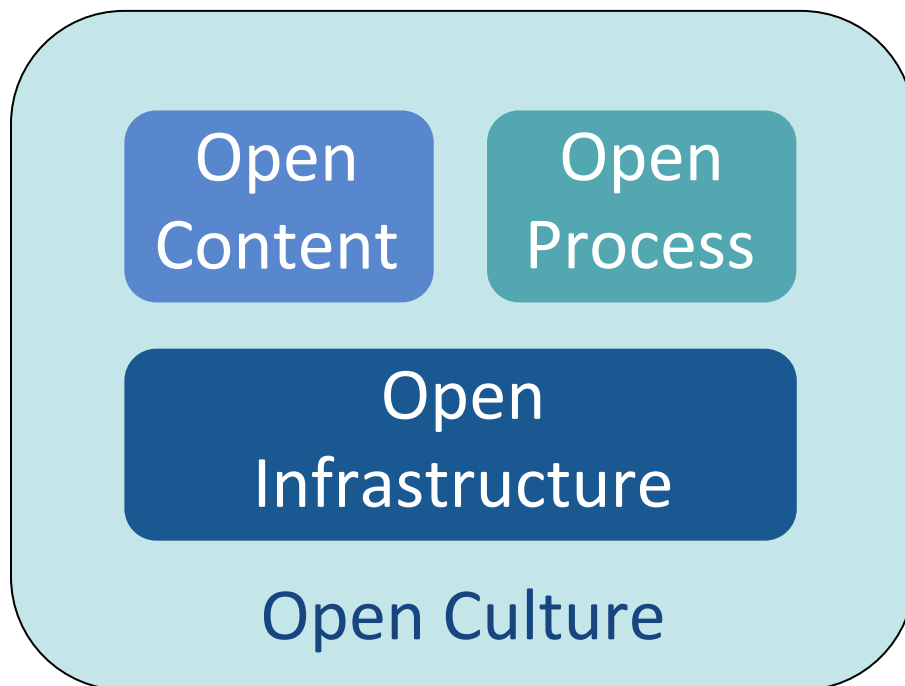
Open Culture

Open Culture

"As…access to content and infrastructural resources increases, the need for and use of 'open processes' becomes more evident.

Where 'open content' is used and produced in 'open processes' within an open infrastructural setting, **a culture of 'openness'** gradually emerges"

(e-Infranet, 2013, p.13)

Relationships and Culture

- Different open domains overlap, support each other, and stimulate new forms of openness
  - Open Data from research building on Open Access to publications and Open Source Software (e.g., EPrints)
  - Open Educational Resources using Open Source Systems leading to shared pedagogies and peer learning

    "share not just the content that MIT uses in teaching – the original OCW model – but also explicit information on how we teach at MIT...pedagogical statements from and interviews with participating faculty, links to exemplary teaching practices, showcases of educational innovations and other framing information "

    (Abelson, Miyagawa & Yue, 2012, p. 9)

An Evolving Model of Open
(Corrall & Pinfield, 2014, p. 301)

Policy interventions

Open Content

Open Process

Open Culture

Open Infrastructure

Policy interventions
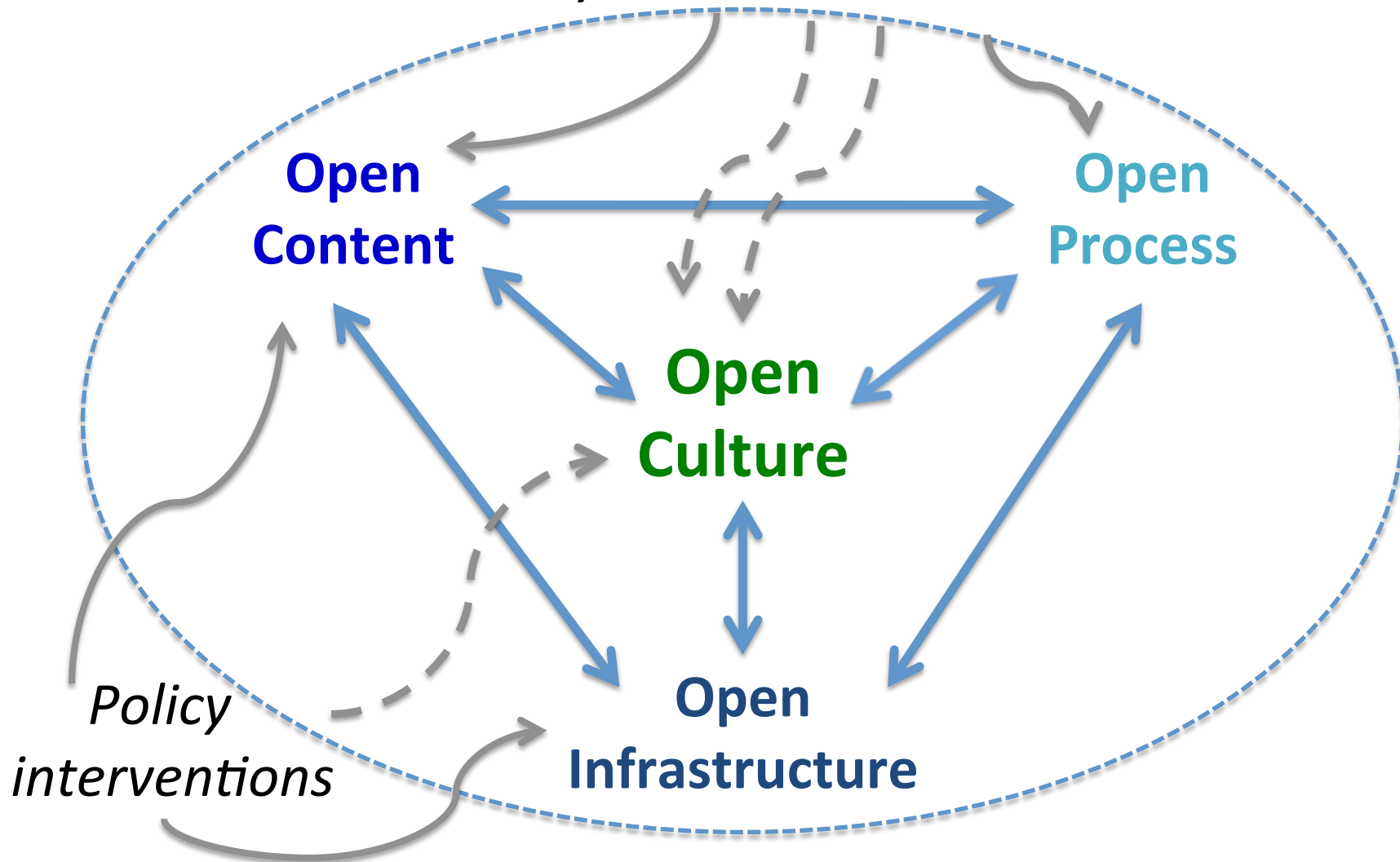
The Case for Convergence

Willinsky's (2005) arguments for the ("unacknowledged") "convergence" between OA and OSS extend to other domains

1. The different Open domains have a shared "commitment to the unrestricted exchange of information and ideas"
   – arguments framed around transparency, public good, and public accountability, resonating with policymakers

2. They are governed by common "economic principles"
   – the efficacy of free knowledge resources, an economy of recognition, and existence of "free-or-subscribe" models

3. They have shared characteristics (derived from 1 and 2)

+ The *de facto* interconnectedness between the Open domains is continuing to develop

Shared Characteristics and *de facto* Interconnectedness

Common Attributes

- Driven by the impulse of intellectual curiosity

- Supporting an economy of reputation building

- Facilitated by motivation for competitive sharing

Existing Synergies

- OSS and OA, e.g., EPrints and DSpace software

- Open data as the natural complement to open access for research publications

- General principle

"if content is open, the means with which to access and process it – manually and/or through machine processing – needs to be open as well" (e-InfraNet, 2013, p. 48)

Mutual Benefits, Natural Limits

Open approaches offer significant common **benefits** for institutions and individuals

- Visibility and impact

- Reuse

- Innovation and agility

- Cost effectiveness

- Quality enhancement

- Reputation and trust

(e-InfraNet, 2013; Read, 2011)

Opens have "natural" **limits**, which need to be identified and tested as part of the policy-making process

- Open access – limited to royalty-free literature

- Open data – limited by personal or commercial confidentiality

- OER – limited by selectivity

- OSS – limited by a strong mixed economy

Fragmentation vs. Integration

- Open domains at various stages of evolution
  - from ideas to maturity

- Promoted by diverse communities of practice
  - often with little or no connection between them

- Initiatives managed at different levels
  - institutional/consortial, national/international

- Open types have a shared theoretical foundation
  - commitment, principles

- Open domains face similar practical issues
  - IPR, business models, sustainability

- Libraries are especially well placed to exploit synergies
  - operationally, tactically, and strategically

Dependencies and synergies among open domains indicate the significance of **coordination** and **culture**

Open Challenges and Issues

"Repository development and implementation presents numerous challenges related to **intellectual property rights**, **data curation**, **long-term preservation**, **infrastructure development** and **interoperability**"

(Archambault et al., 2014, p. 6)

"Many mandates being promulgated at the moment run the risk of favouring a shift from BEPA to FEPA,* from *inaccessibility* to *inequality*"

(Archambault et al., 2014, p. 15)

*From Back End Paid Access to Front End Paid Access

WHAT Can Libraries Do To Advance the Open Agenda?

Potential Roles in Open Domains

Types	Open Content				Open Process				Open Infrastructure			
Domains	OA	OData	OER	OBib	OSS	OD	OEP	OPR	OSci	OI	OStd	OSys
Roles												
Use												
Educate												
Advocate												
Facilitate												
Mediate												
Collaborate												
Coordinate												
Integrate												
Lead												

How often do *you* perform the roles – Frequently? Occasionally? Rarely? Never?

Proposed Models for Policies and Strategies

Kipling's (1902) 6 Questions (also known as 5W1H)

Why? – Rationale

➢ external drivers, institutional missions, individual incentives

What? – Scope

➢ open types/domains, selection criteria, formats and standards

When? – Timing

➢ deposit, release, embargoes (publishers, sponsors/funders)

Where? – Venues

➢ institutional/community repositories, storage locus and access route

Who? – Players

➢ stakeholder responsibilities, governance arrangements

How? – Practicalities

➢ openness definitions, license conditions, operational procedures

Proposed Models for Policies and Strategies

Ackoff's (1970) 3 Principles: Interactive Planning

Participative – Stakeholder approach

➤ Everyone who could be affected by the plan should be directly involved or represented in the planning process

         – to build understanding and help implementation

Continuous – Real-time strategy

➤ Plans should be continuously revised in light of their performance, unexpected developments, and the latest information

         – to anticipate and respond to changes in the environment

Holistic – Middle-up-down planning

➤ Every part of a system and every level of it should be planned for simultaneously and interdependently

         – to co-ordinate and integrate multiple units and different levels

Question Time

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and handouts,
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