Libraries and Knowledge: From physical storage and retrieval to knowledge stewardship

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(under the influence of the Curtin Open Knowledge Initiative (COKI) team Cameron Neylon, Lucy Montgomery and John Hartley et al)

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About Libraries – Physical storage and retrieval

FOND MEMORIES

• Libraries were once places we went to (mostly physically), where people helped us to find and retrieve things – mostly written things that were physical.

• We and the people that helped us photocopied large quantities of things, (ensuring we did not violate copyrights).

• We generally felt a visit to the library was successful if we left carrying things we did not enter with.

• Libraries helped us and each other share those things.

• Library catalogues went online
About Libraries – Information access

TODAY’S REALITIES
• The library is online.
• The main physical things are devices to access information (and we are not supposed to leave with them).
• What we access is invisible but (paradoxically) of unimaginable quantities.
• The people that help us are largely invisible.
Knowledge Stewardship
Simple Knowledge Stewardship Framework

**SOURCES/ACCESS**
- literature
- education
- create/discover
- upgrade
- other stores (access)

**STORE/CURATE**

**OUTFLOWS/ACCESS**
- education
- communication
- collaboration
- other stores

KNOWLEDGE UNDER OUR CARE
What’s in the box?
Knowledge Stewardship Framework
(stocks, flows and transformations)

**Sources/Access**
- literature
- education
- create/discover
- upgrade
- other stores (access)

**Store/Curate**
- opening processes
  - P → R → I → V → A → T → E → (access)
  - C → P → U → B → L → I → C → S
- closing processes

**Outflows/Access**
- education
- communication
- collaboration
- other stores
Tensions in knowledge stewardship
Rewards of (and pressure upon us to) privatising knowledge?

Time frame: 13 years

<table>
<thead>
<tr>
<th>No of companies</th>
<th>Continuing</th>
<th>Exited</th>
<th>Closed</th>
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<tbody>
<tr>
<td>21</td>
<td>9</td>
<td>6</td>
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Curtin funds invested $6.1M

Exit income $11.4M

Portfolio asset value $9.6M

Total $21M IRR 20%

R&D income to Curtin from startups $20M

Third party funding (investments & grants) $101M

Sales $123M

Start up employees 150

First to market products 21

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Opening/closing dynamics
The connectivity of knowledge is strategically changing

SKA/MWA (radioastronomy)

Data Science & Pawsey super computing

Infrastructure
Capability

Mining & Minerals
Energy
Oil and Gas
Agriculture
Space
Defence
Health

Demand driven
Value delivery

Researcher driven
Excellence

Autonomous Systems
Productivity

Operations
Analytics
AI/ML
Robotics
Sensors
System, strategy and philosophical tensions in knowledge stewardship
One Institution: System, **strategy** and philosophical tensions

PRIVATE PUBLIC & COMMONS

SECURITY

Research Income

Accessibility and Accountability

Research Driven

Demand Driven

Human Capital

Research driven (grant)

Industry driven (contract)

1990 2000 2010 today 2020
Multiple Institutions: System, **strategy** and philosophical

How would you know if you (or others) were progressing?

1. Evidence of curation
2. Intent to provide access (be open)
3. Evidence of implementation of intent
4. Evidence of access/uptake
5. Evidence of reward
Changing roles and responsibilities for Modern Libraries

1. Which flows to be responsible for?
   (Is it feasible to remain alongside education and discovery?)
2. Which strategies to advocate

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Thank you
Make tomorrow better