The Future of Academic Libraries A Symposium at The Open University Thursday, March 17, 2016

> The road ahead 5 Transforming Professional Competencies

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The road ahead 5

# Transforming professional competencies

Which are the key challenges in the wider organization and environmental context?

How are academic libraries evolving in response?

What are the implications for competency development?

### Outline

- Setting the scene
  - Trends and developments in the information field
- 21C service models
  - Roles and competencies for the digital network world
- New competency frameworks
  - Defining categories to help service transformation



### **General trends**

- Rapid development and convergence of digital technologies including new devices, formats, and standards
   → requires continuous learning for info pros and end users
- Massive growth in non-specialist interaction with information including content production, sharing, and tagging
  → requires more specialized work for info pros to add value
- Evolution of the network society as participatory culture including open systems, social media, and privacy issues
  → requires maker spaces/collaboratories, and capacity to engage with online communities and legal/ethical issues

"growth in depth, sophistication and complexity of library services" (Shumaker & Talley, 2009, p. 9)

### **Technology trends**

Advances in nature and application of cyberinfrastructure



Increasing capacity and functional comprehensiveness of cyberinfrastructure enable both depth and breadth approaches to discovery (NSF, 2003, p. 45)

### **Technology trends**

#### Demands human infrastructure to match technology infrastructure



Info pros expected to deliver more functionality at higher capacity with increasing technological capability available to information services (Corrall, 2005, p. 30)



# **Participatory culture**

"A participatory culture is a culture with relatively low barriers to artistic expression and civic engagement, strong support for creating and sharing one's creations, and some type of informal mentorship whereby what is known by the most experienced is passed along to novices.

A participatory culture is also one in which members believe their contributions matter, and feel some degree of social connection with one another (at the least they care what other people think about what they have created)."

(Jenkins et al., 2006, p. 3)

Phase One. Emergence (1985 - 1993)Phase Two. Waking up to the Web (1994 - 1998)Phase Three. **Push-button Publishing** (1999-2004)Phase Four. **Ubiquitous Connections** (2005 - 2011)(Delwiche & Jacobs

. Henderson, 2013, pp. 4-7)



# **Participatory librarianship**

"Participatory librarianship recasts library and library practice using the fundamental concept that knowledge is created through conversation. Libraries are in the knowledge business, therefore libraries are in the conversation business.

Participatory librarians approach their work as facilitators of conversation. Be it in practice, policies, programs and/or tools, participatory librarians seek to enrich, capture, store and disseminate the conversations of their communities"

(Information Institute of Syracuse & ALA Office for IT Policy, n.d.)

# Four methods of facilitation

- Access to artifacts of conversation (e.g., books, journal articles)
- Knowledge represented by instruction and evaluation of learning
- **Environment** (e.g., privacy and filtering policies)
- Motivation including marketing and outreach

(Lankes, 2010, p. 65)



# **Specific developments**

- Blurring of boundaries between established professions and emergence of hybrid/blended/third space professionals
  - Convergence, regrouping, and creation of micro-specialties
- Increasing specialization and multidisciplinary working means upskilling in core area and new knowledge of other domains
  - Preference for T-shaped or  $\pi$ -shaped over I-shaped people
- New thinking about library, archival, and personal collections
  - Inside-out, collective (or shared) collections, discoverability and stewardship at scale → the "inside-out" "living" library
- Promotion of new service models and mindsets for academic, public and special libraries and information organizations
  - Concept of space-as-service (physical/virtual) and moving beyond service-as-support to practitioner-as-partner





# **Blended librarianship**

"...an academic librarian who combines the traditional skill set of librarianship with the information technologist's hardware/software skills, and the instructional or educational designer's ability to apply technology appropriately in the teaching-learning process."

A blueprint for redefining the teaching and learning role of academic librarians (Bell & Shank, 2004, p. 273) T-shaped people



"They have a principal skill (the vertical leg of the T), but they are so empathetic, or understanding of users' needs or situation, they can branch out into other skills (the top of the T) and do them as well."

(Bell & Shank, 2007, pp. 9-10)



#### T-shaped, Pi-shaped, and Comb-shaped

"the knowledge economy requires all economic actors to develop a set of competences and dynamic capabilities to complete a 'T-shaped knowledge' configuration, which... includes both **vertical competences** (I-shaped competences) (i.e., technological, industrial specialization) and 'horizontal capabilities'. The latter expression refers to boundarycrossing capacities..., or capabilities that allow or strongly support connections/links of various kinds."

(Barile et al., 2015, pp. 1180-1181)







# Informationist

"At the most basic level, a research informationist can be defined as an embedded information professional who provides specialized services to researchers at their point of need, such as in a laboratory or clinical research setting. These specialized services may include a variety of activities spanning the research life cycle, including expert searching, data curation...and guidance on scholarly communications."

(Federer, 2014, p. 1)

#### Pi-shaped people

#### Defining attributes



- Formal training in both information science and a subject domain expertise
- Deep understanding of work culture (e.g., knowledge of research methods)
- In-context work as a team member or expert consultant
- Critical appraisal and literature synthesis and/or complex bioscience data analysis

(Rankin et al., 2008, p. 198)



### **Evolving academic library specialties**



"Professional autonomy gives way to a stress on collaboration, persuasion, and boundary crossing."

"The same factors that have created new specialties are actively reshaping existing roles."

Hybrid, blended, embedded roles are exciting and significant, but require continuous learning to develop knowledge and skills



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### Themes

- Data-intensive institutions
- Contextually-situated information work
- Solution developers (and not service providers)
- Cross-boundary interdisciplinary teamwork
- Collaboration, co-working, and partnership
- Communication and conversation
- Engagement centered (and not collections oriented)

# Implications

- Higher level technology skills essential for everyone
- Contextual understanding is a critical success factor
- Backroom tasks reinvented as frontline contributions
- Traditional specialties overlapping and coalescing
- Relationship management becomes a key competence
- Real-world experience fully integrated in curriculum
- Lifelong professional learning



### **Boundary-spanning roles and skills**

Family of data scientist roles

- Data analyst
- Data archivist
- Data engineer
- Data journalist
- Data librarian
- Data steward/curator

(Lyon & Brenner, 2015)

A specialist profession or a profession of specialists? (Salo, 2015) Key core skills for a participatory culture (IMLS Salzburg Curriculum)

- Transformative social engagement
- Technology
- Management for participation
- Asset management
- Cultural skills
- Knowledge/learning/ innovation (Lankes et al., 2015)



**Information Culture & Data Stewardship** 

#### **Framing information service competencies**



(Corrall, 2005, p. 35)







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Terminology and frameworks Professional competencies Core competencies Foundational competencies **Functional** competencies Generic skills **Enabling competencies Typically 6-8 categories** broken down into 30+ elements → 12+ categories and c.100 elements



### **Introducing threshold competences**

"A core concept is a conceptual 'building block' that progresses understanding of the subject...but it does not necessarily lead to a qualitatively different view of subject matter."

"A threshold concept... represents a transformed way of understanding, or interpreting, or viewing something without which the learner cannot progress."

(Meyer & Land, 2003, pp. 1, 4)

A **core competence** is a defining attribute that forms the essential and unique foundation of a specific professional field

A **threshold competence** is a transforming attribute that enables the effective application of a core competence in the field, and which is essential for the core competence to be used to full effect

A threshold competence is not unique to the field, but combines with core competences to form unique and distinctive capabilities



### **Elaborating the concept**

Characteristics of threshold concepts and threshold competences

Meyer and Land (2003) identify five likely characteristics of a threshold concept as:

- a) Transformative
- b) Irreversible
- c) Integrative
- d) Bounded
- e) Troublesome

Candidates for threshold competences in academic libraries

Contemporary service models suggest three key areas where enhanced capabilities are important and urgent:

- Technological fluency
- Relationship building
- Reflective practice

Professional preparation and continuing education programs need to focus on key capabilities



#### **Selected References**

- Barile, S., Saviano, M., & Simone, C. (2015). Service economy, knowledge, and the need for T-shaped innovators. *World Wide Web, 18*(4), 1177-1197.
- Bell, S. J., & Shank, J. D. (2007). *Academic librarianship by design: A blended librarian's guide to the tools and techniques.* Chicago, IL: ALA.
- Cox, A., & Corrall, S. (2013). Evolving academic library specialties. *JASIST, 64*(8), 1526-1542.
- Delwiche, A., & Jacobs Henderson, J. (Eds.) (2013). *The participatory culture handbook.* New York: Routledge.
- Federer, L. (2014). *Exploring new roles for librarians: The research informationist*. San Rafael, CA: Morgan & Claypool.
- Lankes, R. D. (2010). Innovators wanted: No experience necessary. In S. Walter & K. Williams (Eds.), *The expert library: Staffing, sustaining, and advancing the academic library in the 21st century* (pp. 52-75). Chicago, IL: ACRL.
- Meyer, J., & Land, R. (2003). *Threshold concepts and troublesome knowledge: Linkages to ways of thinking and practising within the disciplines.* U. of Edinburgh.
- Moore, G. (2012). Your core competencies should set you apart. *Information Outlook*, *16*(1), 18-19.
- Rankin, J. A., Grefsheim, S. F., & Canto, C. C. (2008). The emerging informationist specialty: A systematic review of the literature. *JMLA*, *96*(3), 194-206.
- Salo, D. (2015). A specialist profession, or a profession of specialists? New York: LJ.

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Thank you for listening Questions? Concerns? Challenges?

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