RESOURCE DESCRIPTION: UNLOCKING DEVELOPING TRENDS AND SMART TECHNOLOGIES

IGBIS WORKSHOP 2018

CENTURION LAKE HOTEL

16-17 AUGUST 2018

Metadata futures: embracing new horizons

- Embracing new horizons (what – where – when)
- Metadata futures (why)
- Embracing the future (how)

Embracing new horizons

- Semantic web (environment)
  - namespaces • linked data (triples) • URI's
- RDF (framework)
- LRM (theoretical model)
- ISBD, RDA (content standards)
- BibFrame, MARC, XML, etc (metadata schema)
- DDC, LCSH/LCC, LCNA, etc (vocabularies)
- Decomposition: descriptive records into separate linked data statements to form 'data sets'
- Highly theoretical, no complete practical situation to test (literature review)

Metadata futures
why is change inevitable?

- Quantity: (digital) information explosion
- Resource description is an expensive activity
- Duplication / reuse of records / sharing of data
- Flat, siloed (not interactive) MARC structure – need: decomposition of descriptive records into individual statements enriched by linked data (LD)
- Civilisation in need of sharing professional information organization skills (ia standards, structure, vocabularies) to avoid information overload and support precision & recall when searching for information

Metadata futures (continue)

- Are we, information organisation specialists, at a turning point where we need to consider if our professional fundamentals are changing, causing us to do things differently?

Metadata futures (continue)

Early indicators of possible change

- ‘informatorium’ as ideal library (Garfield, 1962, 1999)
- information organization (Taylor, 1994)
- ‘metadata’ in job titles (1990’s+)

Metadata futures (continue)

Informatorium

Garfield speculated on the ideal library of 2045, 100 years after WWII:

- Able to supply information instantaneously
- Will satisfy wide variety of information requirements
- Will cover a wide variety of subject fields
- Population will be highly intellectual, scientifically trained and thirsty for knowledge

Metadata futures (continue)

Information Organisation

Taylor stresses:

- Value of information organization principles as practiced by information organization specialists to also organize the Internet/online world, to the surprise of computer specialists
- Importance of how information organization specialists express themselves and the language by which they do that, because it affects how others view us and how we view ourselves

Metadata futures (continue)

Taylor …

- Adjustments in terminology:
  - Information organization vs bibliographic control
  - Information universe vs bibliographic universe
  - Find better word for:
    - Technical services
    - Cataloguing
    - Bibliographic
    - Library
    - etc

Metadata futures (continue)

Taylor …

- Question:
  - Is it possible that with everything stored in the computer, [information organization specialists] are not going to be needed much longer?
- Answer:
  - **That will be the case only if we do not quickly adapt our skills to the increasing need for organization of information in all parts of the information universe. An exploration of the world of information organization and what we do in it shows that not only is there still a need for persons to create the organization of information, but there's also a desperate need for people who are thoroughly grounded in the principles of information organization and to the design the enhanced and expanded access systems that will be needed to exploit the information universe**

Metadata futures (continue)
‘Metadata’ in job title

Competencies & skills of emerging new position

- 1990’s:

‘knowledge of automated cataloguing systems signaling a dependency of cataloguing on technology and the importance of technology related skills and knowledge on this profession’

Metadata futures (continue)

Competencies & skills of emerging new position

- 2008/9
  - MLS
  - Computer science / IT
  - AACR, LCSH/LCC, OCLC systems
  - MARC, DC, EAD, MODS, METS, TEI, XML, OAI-PMH, RDF
  - Soft skills: communication, teamwork, independency, flexibility, interpersonal & organization skills, project management

Metadata futures (continue)

Competencies & skills of emerging new position

- 2016

In description & access of information resources, the following is needed:

- AACR/RDA
- MARC, MODS, METS, BibFrame
- LCSH/LCC, DDC, LCNA, VIAF
- Semantic Web, LD

Metadata futures (continue)

Competencies & skills of emerging new position

- 2017

It was noted that more focus was on schemas and IT than standards, that job description is voluminous, and distribution of responsibilities was suggested:

- AACR/RDA
- MARC, MODS, METS, DC, BibFrame, XML, HTML, OAI-PMH
- LCSH/LCC, DDC, LCNA, VIAF and vocabularies for various specific subject fields
- Semantic Web, LD, URI, ISNI, RDF,
- OCLC systems
- CSS, MARCEdit, SQL, Dspace, ContentDM, scripting languages
- MLS qualification

Metadata futures (continue)

Continuing education (CE)

- New roles and responsibilities resulted in critical necessity for updating skills within financial and time constraints – a typical environment might consist of the following elements nowadays:
  - Professional & Semantic Web frameworks, standards & technologies
  - Various schemas
  - A number of vocabularies
  - Electronic / digital systems, eg OCLC systems, discovery layers, FRBRized catalogues, digital repositories/libraries
  - Data activities, eg metadata harvesting and genertion, data management

Metadata futures (continue)

Continuing education

- Barriers / challenges
  - No CE portal / where to find training opportunities
  - Lack of mentoring system/network
  - Institution-specific
    - Limited finances & time
    - Professionals not sure that employers will invest in new generation technologies
    - Training materials limited in coverage, organization and sequence
    - Content to deal with standards and technologies more, cheaper, systematic, accessible
    - Self-paced opportunities with follow-ups ensured is a necessity

Metadata futures (continue)

Philosophical turning point

- Look at our professional practice as one of Information Management (Bates, 2015; Detlor, 2009-2018) on various levels: personal, corporations, cultural institutions
- Definition: Information Management (IM) is the management of processes and sytems that create, acquire, organize, store, distribute & use information
- Information processes involved:
  - Creation
  - Acquisition
  - Organisation
  - Storage
  - Retrieval /discovery
  - Accessing / lending
  - Dissemination
  - Using

Metadata futures (continue)

Philosophical turning point

- Bates (2005-6), developed a theory about the fundamental forms of information from the life sciences field and aligned with the DIKW philosophy where she distinguishes 4 types of information:
  - Encoded (stored in DNA)
  - Neural-cultural (stored in brain and knowledge is carried forward to another generation)
  - Exosomatic (stored in permanent form outside the body – recorded: communicatory/memorial information preserved in durable form = heart if information management; embedded – found in artefacts, and is informative rather than communicative)
  - Trace (residue, find in deteriorated artefact & records, when people/civilisations are done with books & objects = dust-to-dust)

Metadata futures (continue)

Philosophical turning point

- Consequently, she listed 11 information disciplines: LIS, Archival Science, Museum Studies, Bibliography, Records management, Knowledge Management, Informatics, Information Systems, Document & Genre Theory, Social Studies if Information
- Each discipline shows 7 facets, overlapping with 4/5 characteristics of a profession:
  - 'information' is the phenomenon being investigated, with aspects for theory/practice, education/training, service/function
  - Technique & technology, ia discovery systems, resource description, accessibility
  - Information provision institutions, including archives, museums, 'libraries, also business corporations, information bureaus,, visitor centres
  - Management and policy, referring to in-house organization practices, and the professional association

Have we arrived at a professional turning point?

Embracing the future

Embracing the future

- Familiarise ourselves with new concepts
- Get our hands dirty: experiment where possible
- Pause, rethink our future, consider the turning point
  - Who are we
  - What do we do
  - What will we be doing in the current hybrid working environment
- Prepare for discovery systems: provide quality data
- Identify special projects

Thank you