Taking Staff into the 4th IR. Rethinking the roles and skills of Librarians

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INTRODUCTION

- WHAT AFFECTS THE CHANGING ROLES (TIPS)?
- TECHNOLOGY IMPACT ON CHANGING ROLES.
- INNOVATION AND IMPACT ON CHANGING ROLES.
- PEOPLE IMPACTED BY CHANGING ROLES.
- SYSTEMS IMPACT ON CHANGING ROLES.
WHAT AFFECTS THE CHANGING ROLES
TECHNOLOGY
TECHNOLOGY AFFECTING THE ROLES

Library

Big Data

AI

IOT

Block Chain
TECHNOLOGY ADVANCES

REPOSITORIES
Advances in cloud technology

ROBOTS
Advances in artificial intelligence

5G
Advances in mobile internet

MACHINE LEARNING
Increasing availability of big data

SOFTWARE & HARDWARE
Increasing adoption of new technology
PEOPLE
PEOPLE & THE LIBRARY ROLES

- Have a Strategic vision aligned with 4IR
- Managing transformation to support emerging roles
- Changing the structure to meet the 4IR demand.
- Ensure that the right mix of skills and talent are in place.
- Broaden the space to allow more collaboration.
- Establish new association and alliance.
- Push for the development of open API’s to promote best practice
- Identify key roles and stakeholders,
- Establish incentive structure to encourage key players to work towards the same goal.
EMERGING ROLES

- Metadata /Cataloguing
- Online publishing designers
- Digital service librarian
- Digital Archivist
- Data engineering
- Data Curation
- Data Perseveration
- Scholarly communication librarian.
- Innovative Systems administration
- IT Management
- GIS
- E-Science
- AI and Machine learning Specialist
- User Experience and Human machine Interaction designers
INNOVATION
INNOVATION DRIVERS

The Web

AI
BIG DATA
IOT

Machine Learning
Robotics

4IR

Body gadgets

Quantum computing
INNOVATION DRIVEN SKILLS

- Analytical thinking and innovation,
- Active learning and learning strategies creativity,
- Originality and initiative
- Technology design and programming,
- Critical thinking and analysis,
- Complex problem-solving,
- Leadership and social influence,
- Emotional intelligence,
- Reasoning, problem-solving and ideation,
- Systems analysis and evaluation
SYSTEMS THINKING

- To have a holistic approach to analysis

- How system's constituent parts interrelate.

- How systems work over time and within the context of larger systems.

- Paying attention to feedback as an essential component of system thinking.

- Understanding how to use computer simulation and a variety of diagrams and graphs to model, illustrate, and predict system behaviour.
Emerging Library roles are part of a System.

Library Systems roles are embedded in the Technology.

Library roles are interconnected.

The Library roles complement the Technological Systems.
Thank you