Vliv současných IT trendů na budoucnost šedé literatury

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Impact of Current Information Technology Trends on the Future of Grey Literature

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Presentation at a glance

- IT progress
- Present state of information management
- Grey literature today
- Grey literature challenges
- Current information technology trends
- Information management relevant trends
- Impact on grey literature
- Conclusions

IT progress

- Tremendous development
- Boundary-pushing innovations
- Constant change
- Fast pace

Examples

- "Moore's law" the number of transistors in a dense integrated circuit has doubled approximately every 18 m.
- The processing power of computers from 1956 to 2015 increased 1 trillion-fold
- 1994 first mobile phone to feature software applications (IBM Simon); 2007 iPhone (first commercial smartphone to use finger input); 2010 the Samsung Galaxy S
- 1975-2008 one billion PCs sold; in 2013 alone 1 billion cell phones sold
- 89% of China's 668 million Internet users access the web from their mobile devices. Similar with other developing nations
- In January 2014, mobile phone Internet usage overtook PC Internet usage
- In January 2016, Google's AlphaGo crossed a major artificial intelligence threshold by besting human grandmaster Lee Sedol at the famously complex game of Go

Present state of information management

- Libraries and information centers disappearing
- Staff count and professional work decreasing; Evident skill gaps
- Budgets for library and information centers dropping
- External content price increasing, access to it more difficult
- High cost of new systems and applications
- Intellectual property management challenges
- External competition (e.g. Amazon, Google)
- Increased user demands (e.g. delivery speed, format, added value)
- Notion that everything is already on the web

Grey literature today

Grey literature stands for manifold document types produced on all levels of government, academics, business and industry in print and electronic formats that are protected by intellectual property rights, of sufficient quality to be collected and preserved by library holdings or institutional repositories, but not controlled by commercial publishers i.e., where publishing is not the primary activity of the producing body. *("Prague Definition" 2010)*

The diverse and heterogeneous body of material that is made public outside, and not subject to, traditional academic peer-review processes. (Adams *at al*. 2016)

Multiple shades of grey

Bibliographies	Rejected manuscripts	Publications from NGOs and consulting firms
Discussion papers	Un-submitted manuscripts	Videos
Newsletters	Conference abstracts	Wiki articles
PowerPoint presentations	Book chapters	Emails
Program evaluation reports	Personal correspondence	Blogs and social media
Technical notes	Newsletters	Data sets
Publications from governmental agencies	Informal communications	Committee reports
Reports to funding agencies	Census data	Working papers
Unpublished reports	Pre-prints	Company reports
Dissertations	Standards	Catalogues
Policy documents	Patents	Speeches
	Webinars	Reports on websites

Grey literature challenges

Concept
- Distinction from other forms; Diverse types of GL
- New electronic forms (e.g. blogs, Tweets or Facebook postings, webinars)

Processing
- Reliability; Missing key metadata elements
- Lack of bibliographic control and systematic collection

Sustainability
- Long-term preservation; No permanent location identifiers
- Financial sustainability

Usability
- Intellectual property issues
- Open access

How about the future?

- What are the current IT trends?
- What do IT and other trends tell us about tomorrow?
- What is the impact of current trends on the future of GL?

Current information technology trends – 2016

Gartner	Forbes	Forrester	Deloitte	Accenture
1. The device mesh 2. Ambient user experience 3. 3D printing materials 4. Information of everything 5. Advanced machine learning 6. Autonomous agents and things 7. Adaptive security architecture 8. Advanced system architecture 9. Mesh App and service architecture 10. Internet of things architecture and platforms *Gartner's top 10 strategic technology trends for 2016*	1. Connecting customers 2. Embracing millennials 3. Remote employee development and training 4. Strength based leadership 5. Add extra value to commodity products you sell 6. Corporate culture of customer service 7. Deliver results, not just solutions 8. Engage customers through fun and games 9. Integrate impartial content to support customer decisions 10. Develop "selling/solving" skills for non-salespeople *Top 10 Business Trends That Will Drive Success In 2016*	1. Smart connected world 2. Systems of insight 3. APIs as strategy 4. Digital CX limitations 5. Security and risk rethink 6. Hyper-connected hyper-adopters 7. Business tech acceleration 8. Infrastructure snowballs 9. Software as part of the brand 10. Workforce technology *The Top Technology Trends To Watch: 2016 To 2018* 1. From customer-aware to customer-led 2. From data-rich to insight-driven 3. From perfect to fast 4. From silos to connected *The Operating Model For Customer Obsession*	1. Right-speed IT 2. Augmented & virtual reality go to work 3. Internet of Things: From sensing to doing 4. Reimagining core systems 5. Autonomic platforms 6. Blockchain: Democratized trust 7. Industrialized analytics 8. Social impact of exponential technologies *Tech Trends 2016: Innovating in the digital era* 1. Organizational design 2. Leadership 3. Culture 4. Engagement 5. Learning 6. Design thinking 7. Changing skills of the HR organization 8. People analytics 9. Digital HR 10. Workforce management *Global Human Capital Trends 2016*	1. Intelligent automation 2. Liquid workforce 3. Platform economy 4. Predictable disruption 5. Digital trust *Technology Vision 2016 - People First: The primacy of people in a digital age*

Information management related trends

Technology

- Secure architecture
- Autonomous agents
- Machine learning (algorithms)
- Internet of things (from sensing to doing)
- Application Program Interface (API)
- 3D printing

Products/services

- Added value
- Deliver results, not just solutions
- Social impact
- Predictable disruption
- Digital trust
- Analytics

Customers

- Customer culture
- Connected world
- User experience
- Engage customers
- From data-rich to insight-driven

Employees

- New generation
- Liquid workforce
- Remote work
- Learning & training
- New skills (leadership, sales)
- From silos to connected

Impact on grey literature - Technology

Technology

- Secure architecture
- Autonomous agents
- Machine learning (algorithms)
- Internet of things (from sensing to doing)
- Application Program Interface (API)
- 3D printing

- More difficult access to GL
- Higher level of IT expertise required to access and process GL
- More dynamic docs – less GL
- New tech-driven forms
- Increased amount of big data

Impact on grey literature – Products/services

Products/services

- Added value
- Deliver results, not just solutions
- Social impact
- Predictable disruption
- Digital trust
- Analytics

- Available resources
- Competition with ‘big players’
- Lack of interest to make GL available
- Going beyond local repositories
- Intellectual property protection
- Disappearing e-archives, older materials

Impact on grey literature – Customers

Customers

- Customer culture
- Connected world
- User experience
- Engage customers
- From data-rich to insight-driven

- High expectations (comprehensiveness, relevance, aggregation, added value)
- Interconnectivity
- Top of the line finding tools
- Web 2.0 features (social networking, collaboration, user generated content)
- Tools to exploit big data
- Mobile addiction of the new generation
- Lack of training and understanding of GL

Impact on grey literature – Employees

Employees

- New generation
- Liquid workforce
- Remote work
- Learning & training
- New skills (leadership, sales)
- From silos to connected

- Lack of proper education
- Career development
- Frequent change of jobs and interests (lack of continuity and long-term planning)
- Changing technical requirements
- Business focus
- Culture of preservation missing
- Multitasking and rapid delivery

Conclusions

To increase use of GL

- Make the repositories open and freely accessible to the public
- Get a top performance technical solution (DB, search engine, tools)
- Provide full-text of documents and different record formats

To increase accessibility to GL and meet user needs

- Simplify the basic search interface and improve the advanced search
- Incorporate rich features but make them as discrete as possible
- Offer big data analysis tools

To increase GL visibility

- Incorporate GL with Google.com, Google Scholar and other search engines
- Invest in promotion
- Training, training, training…

I never think of the future - it comes soon enough!

Albert Einstein

Thank you!

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