

TRANSFORMER OF 21ST CENTURY LIBRARIES

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ARTIFICIAL INTELLIGENCE

- An intelligent agent that can take in the environment it is in and maximize a goal (Brent Barron, Director, Public Policy, Canadian Institute for Advanced Research)
- Automation will displace between 400 and 800 million jobs by 2030, requiring as many as 375 million people to switch job categories entirely (McKinsey Global Institute)
- Machines are becoming skilled at learning, speaking, recognizing patterns and making decisions . . . We will not spend hours on library computers researching a question when AI can do it for us in seconds. (Ben Johnson, Adult Services Manager, Council Bluffs Public Library, USA)
- AI technologies will be the most disruptive class of technologies over the next 10 years due to radical computational power, near-endless amounts of data and unprecedented advances in deep neural networks (Mike J. Walker, Research Director, Gartner)

AI ISSUES FOR SOCIETY

- Human bias in data and programming
- Black box for decision-making
- Privacy, consent and appropriate use of data
- Machines become more efficient for jobs with repetitive tasks based upon leveraging large amounts of data
- Humans transition to jobs that require judgment, emotional intelligence and artistic capabilities
- Need to balance economic benefits with social good

AI OPPORTUNITIES FOR LIBRARIES

• Libraries can:

- Leverage expertise in information literacy to help democratize AI technology by supporting AI literacy and transparency/understanding of AI algorithms
- Continue to be advocates for intellectual freedom, privacy and informed consent
- Support open source AI technology to balance out the prevailing proprietary technology of Apple, Microsoft, Google, Facebook . . .
- Help promote the balance between the economic benefit of AI and its impact on society
- Leverage their own data
- Not see their futures as being simply an information provider

QUESTIONS:

- 1. What might our role be in facilitating the conversations and decisions around the ethical use of AI in our communities and society at large?
- 2. How could libraries use AI to leverage our resources to create new information and provide AI-enhanced services?
- 3. What should library leaders do to prepare for an AI-enhanced workplace and have library staff become the robot masters instead of risk being replaced by robots?

READING LIST

- Advances in Artificial Intelligence. (2013). In *IFLA Trend Report* (4.3). Retrieved from www.trends.ifla.org/literature-review/advances-in-artificial-intelligence
- National Forum Paper: Artificial Intelligence and Intellectual Freedom, Key Policy Concerns for Canadian Libraries. *2018 CFLA-FCAB National Forum: May 2, 2018*. Retrieved from http://cfla-fcab.ca/wp-content/uploads/2018/07/CFLA- FCAB-2018-National-Forum-Paper-final.pdf
- Mogali, S. (2014, February 20). Artificial Intelligence and its Applications in Libraries. Paper presented at Bilingual International Conference on Information Technology, Yesterday, Today and Tomorrow, Delhi. Retrieved from https://www.researchgate.net/publication/287878456_Artificial_Intelligence_a nd_its_applications_in_Libraries
- Coleman, C.N. (2017, November 3). Artificial Intelligence and the Library of the Future, Revisited [blog post]. Digital Library Blog, Stanford University. Retrieved from http://library.stanford.edu/blogs/digital-library-blog/2017/11/artificial- intelligence-and-hot library-future-revisited FLA 2018, Kuala Lumpur