Global Use of Robotics and AI in LIS Environments

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INFO 287

Hyperlinked Libraries

Origins

- ❑ The first anthropomorphic automata was mentioned around 100 CE (Dixon, 2004).

- ❑ AI systems first suggested in libraries in 1990 (Tella & Ajani, 2022).

- ❑ Many mechanical figures created in China around 380 BCE (Dixon, 2004).

- ❑ Evidence exists that automa existed during in the lifetime of Aristotle (Dixon, 2004).

- ❑ In 1807 Napoleon lost in chess to an automated player, with the assistance of another individual (Dixon, 2004)

- ❑ In 1939, at New York's World's Fair a geared, and motored, man and his dog were displayed (Dixon, 2004)

- ❑ Disneyland first showed an "audio-animatronic" Abraham Lincoln in 1964 (Dixon, 2004).

- ❑ In 2002, the world's largest robot exhibition happened in Yokohama, Japan with 90 robots (Dixon, 2004)

- ❑ AI for libraries was first suggested in 1990 (Tella & Ajani, 2022)

Terminologies

Artificial Intelligence (AI) -

"the simulation of human intelligence processes by computer systems – the controller" (Tella, A. & Ajani, Y. 2022)

Robot – The controller, combined with the sensors and mechanical parts ((Tella, A. & Ajani, Y. 2022)

Humanoid Robots – An integration between the

parts of a robot and AI. They are known as "social robots".

(Tella & Ajani, 2022)
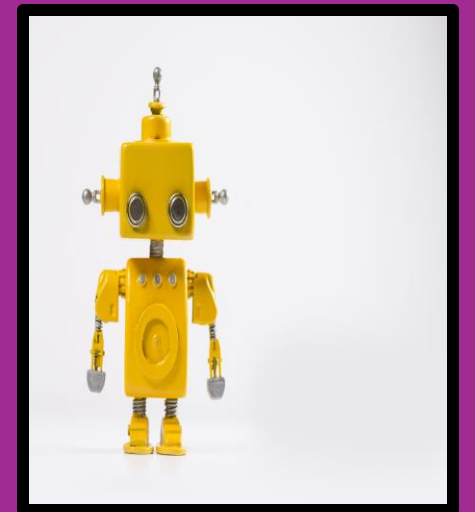
Related Applications in an LIS Environments

- They can translate various languages of immigrants, refugees, and visitors.

- They can act as couriers with the circulation of library materials, such as in the National Library of Australia. (Black, 2018)
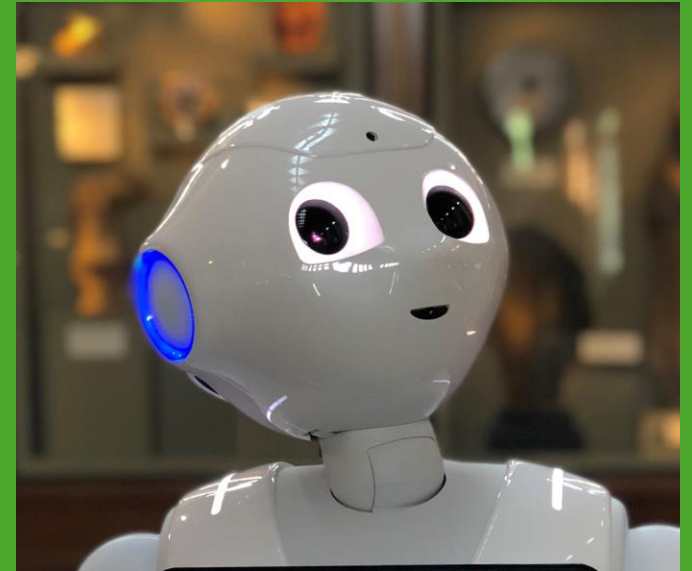
(Smithsonian, April 2018)

Related Applications in an LIS Environments (Continued)

- They (humanoid robots) can interact with patrons, giving basic information about the library (hours, basic reference, account inquiries, as in Roanoke County, VA) (WSLS 10, 2018).

(WSLS 10. 2018)

Related Applications in an LIS Environments (Continued)

- AI can assist in storytimes and other STEM

  programs, as in the National Library Board,

  Singapore. (Nolan, 2022).

- Robots can act as couriers in circulating library

  materials (Black, 2018).


Public Library SG, 2023)

Related Applications in an LIS Environments (Continued)

- Robots can make sure that library materials are in their correct location.

  ([Blakemore, 2016](#))

- Robots can assist in circulating and delivering materials ([Black, 2018](#)).

- Robots, and other AI, can answer simple reference questions and give patrons basic information about the library.

- Robots can teach STEM and social skills in library programs ([Tella & Ajani, 2022](#))

What can we learn (services, trends, or models)? International concepts

- Consult and work with a robotics company for staff training and troubleshooting.

- Get library users involved with the introduction and improvement of AI and robotics in libraries (Nolan, 2022)

- Libraries must be aware of the data that AI and machine learning collects, uses, and stores about people who use this technology (Griffey, 2019)

- Look at other countries and culture for how

  They implement robotics and AI.
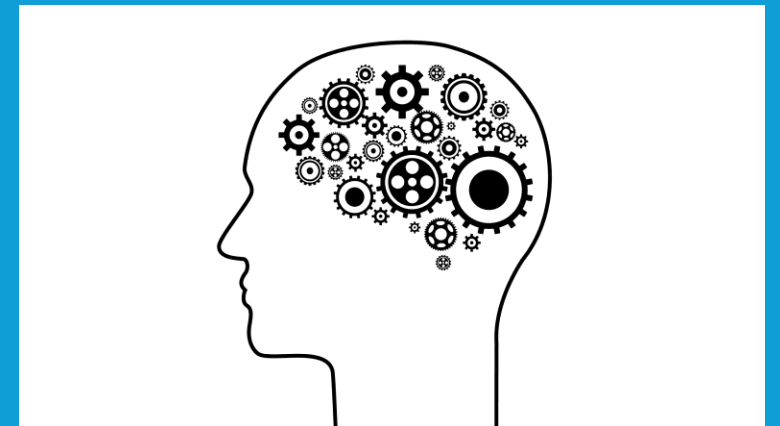
Links to Course Concepts and Sources

- Meeting library users where they are at (both digitally and in a library's physical space, eliminate barriers.

- Planning services, and introducing materials in the library, involves including user's needs, wants, and involvement.

- Be aware of the fast pace of changing technology, and be aware of the time in planning, in introducing these services.

- Listen in the act of planning.

- Close the digital divide in a technologically advancing world (Williams 2021).

(Stephens, 2006)

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