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From smart to smarter libraries

Clara M. Chu
Director and Mortenson Distinguished Professor
Mortenson Center for International Library Programs
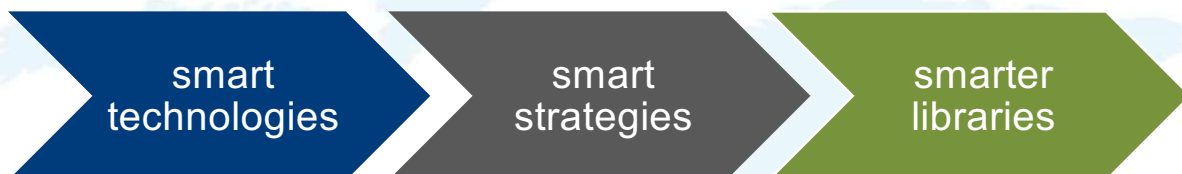University of Illinois at Urbana-Champaign Library

MIT Capstone Conference, University of Pretoria and the Carnegie Corporation of New York

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Overview

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Explore:

smart technologies → smart strategies → smarter libraries

…in order to:
1. understand different ways to consider the notion of "smart" in smarter libraries,
2. learn about smart technologies for libraries, and
3. be mindful of social traits such as inclusivity and equity in designing smarter libraries.

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Information Landscape

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1. Who creates the content? (any one)
2. What form does information take? (multimedia)
3. What senses engage information? (transliteracy)
4. Where do we access information? (anywhere)
5. Where are information products housed? (public/private/commercial, personal/institutional collections)
6. Who is accessing information? (diverse and globalized users)
7. How we access information? (analog, digital, mobile)
8. How do we engage with information? (social, networked, individual)

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Evolving Roles (e.g., Academic Library)

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	Historical	Emerging	Future
Collections	Just-in-case	Just-in-time	On demand, anytime
Space	Static, mostly for collections	Flexible, user-focused	Embedded in academic units, a collaborative space for Knowmads
User Experience	Unintentional	Experimentation with service design	Academic libraries as campus leaders in community engagement
Reference	In person, over the phone	Digital	Highly automated, mobile
Users	Students, faculty at their home institution	MOOCs, New majority learners, unaffiliated global learners	Community members, Knowmads
Skills	Master's of Library Science, subject specialists	Blended Librarians	Entrepreneurial Blended Librarians
Teaching & Learning	Assist students and faculty with research assignments, drop-in sessions by request	Embedded in colleges, departments, and courses	Blended Librarians
Demonstrating Value	Collection size	Expanding partnerships on campus, create evidence for invisible services	Learning analytics
Relationships with Faculty	Limited, based on research needs	Co-creative, joint research projects	Partnerships with unaffiliated research entrepreneurs

Source: https://educationfutures.com/blog/2012/03/the-future-of-academic-libraries-an-interview-with-steven-j-bell/

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Smart libraries (any type) – an *evolving* concept

- "Smart" libraries facilitate the integration of digital processes and informational feedback loops in the organizational infrastructure, whereby such integration is a desirable state for "smarter" institutions, i.e., more efficiently organized, resource-friendly, flexible, sustainable, green, and socially inclusive.*
- "smart" refers to efficiency due to the use of technologies and to an automatization of processes to facilitate the working and everyday environment.*

*Adapted from Freyberg, Linda. "Smart Libraries," July 2, 2018. http://elephantinthelab.org/smart-libraries/

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Smart and smarter libraries - Global and sustainable

- smart libraries deploy technologies that connect and monitor almost every object in our lives, smart phones/devices process real-time data to enhance our lives, communities and to better predict our future needs. Thus, a smart library is constantly assessing and ranking the needs of the local community so that relevant programs can be created, funded, evaluated, enhanced and sustained.
- "Smart libraries play a major role in the creation of networked and more sustainable communities."

Weston, Chip. "Smart Libraries: Community Development Through Innovation and Partnerships," *The Aspen Institute Dialogue on Public Libraries*. September 12, 2016.
http://www.libraryvision.org/smart_libraries_community_development_through_innovation_and_partnerships

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Academic Librarian 4
AL4 2016

Sustainable Academic Libraries: Now and Beyond
2-3 June 2016
A conference on the 25th Anniversary of HKUST

Co-organized by

Thematic areas

1. Sustainable environment
2. Sustainable resources
3. Sustainable technologies
4. Sustainable services

Source:: http://library.ust.hk/al4/

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Evolving → Smart

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1. environments	1. Smart spaces (open, flexible and self-monitored)
2. resources	2. Smart resources (e.g., https://www.lib.uci.edu/zot-smarter-uci-libraries, linked data)
3. technologies	3. Smart devices (e.g., voice computing)
4. services	4. Smart search (e.g., https://sppl.org/blogs/post/search-smarter/)
5. practices	5. Smart librarians
6. modes of engagement	6. Smart interactions, experiences

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1. Smart spaces (open, flexible and self-monitored)

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Image: Mark Herborth. "Hunt Library"
https://www.archdaily.com/354701/hunt-library-snohetta/515c8282b3fc4b2ba7000066-hunt-library-snohetta-photo

Smart library
https://www.leicestershire.gov.uk/sites/default/files/field/pdf/2018/7/5/What-is-a-Smart-Library.pdf

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2. Smart resources

Source: https://www.lib.uci.edu/zot-smarter-uci-libraries

www.library.illinois.e

3. Smart devices

Access Technology and Software (for people with disabilites)

↗ Dragon

Yahoo search (2014/9/17)

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Simple Augmented Reality and Libraries

Yahoo search (2014/9/17)

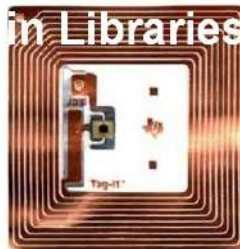www.library.illinois.edu/mortenson

Wearable Technology

Yahoo search (2014/9/17)

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Implanted technology

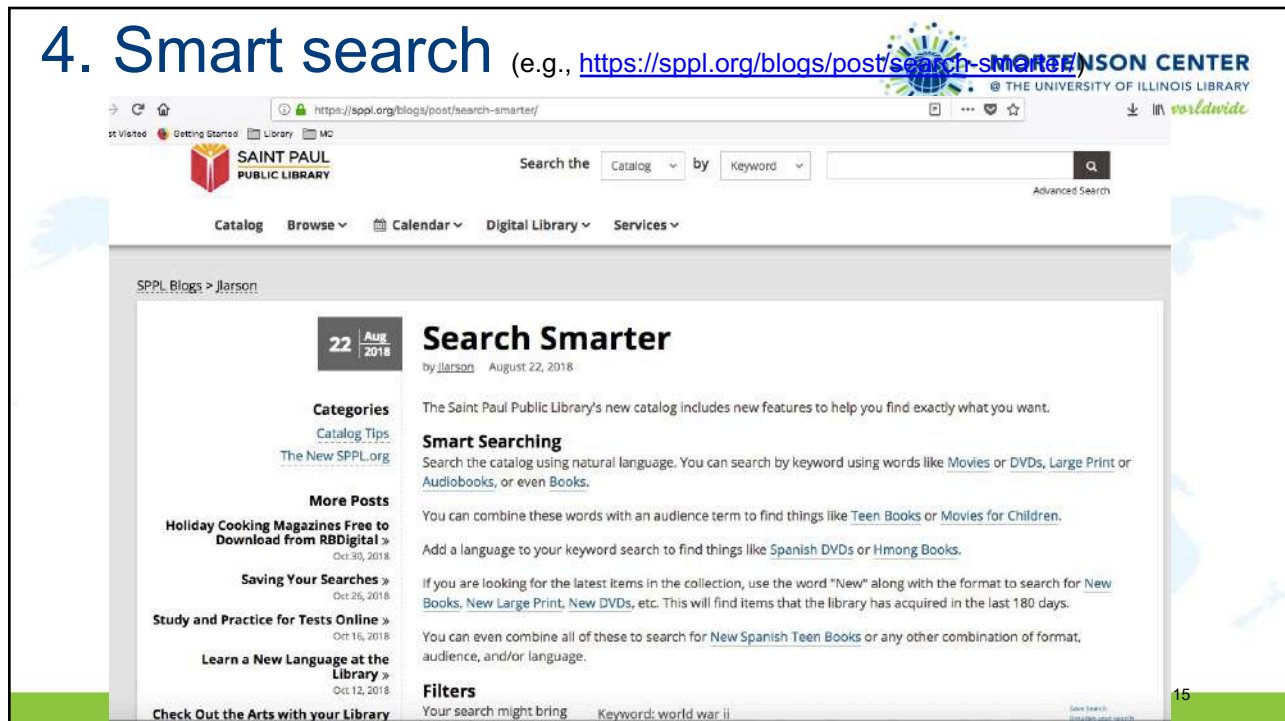RFID (Radio Frequency IDentification) technology in Libraries

…and in people, animals, etc.

http://www.systemslibrarian.co.za/images/Radio%20Frequency%20IDentification%20technology%20in%20Libraries.jpg

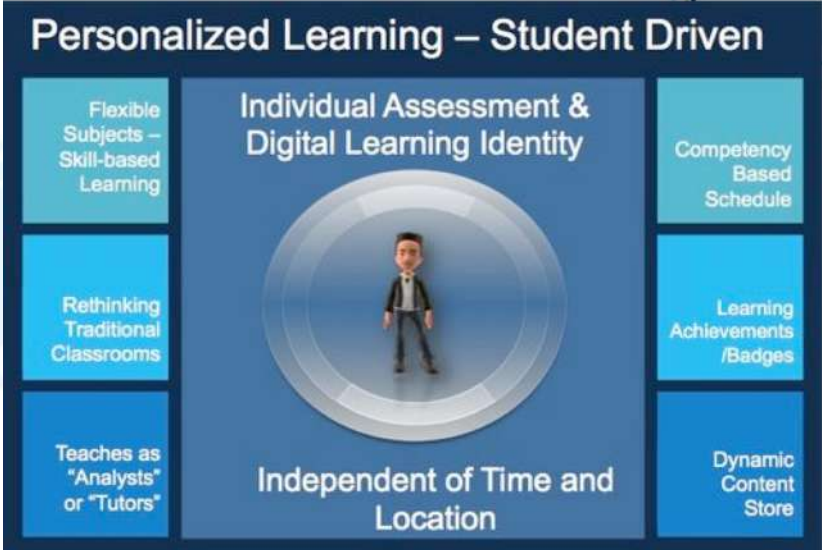www.library.illinois.edu/mortenson

4. Smart search (e.g., https://sppl.org/blogs/post/search-smarter/)

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worldwide

Being "smarter", not just smart

- consider human/critical intervention and context, NOT just intelligent based on digital, data-driven, technological solutions and advances

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- Intentional/strategic
- Innovative
- Collaborative
- Interdisciplinary
- Culturally-relevant
- Sustainable

- Interoperable
- Cost-effective
- Open
- Etc.

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Personalized Learning – Student Driven

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Flexible Subjects – Skill-based Learning

Individual Assessment & Digital Learning Identity

Competency Based Schedule

Rethinking Traditional Classrooms

Learning Achievements /Badges

Teaches as "Analysts" or "Tutors"

Independent of Time and Location

Dynamic Content Store

Blended learning classroom: http://www.abravenewclassroom.com/

Source: http://olliebray.typepad.com/olliebraycom/2011/12/reflections-from-microsoft-pil-global-forum-1-of-5-anthony-salcito-keynote-pilgf-msftpil-.html

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http://scaleup.ncsu.edu/wiki/pages/12m1C9c6/Massachusetts_Institute_of_Technology.html

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SCALE-UP

Student-Centered Active Learning Environment with Upside-down Pedagogies

Flipped classroom
(Aula invertida)

http://scaleup.ncsu.edu/wiki/pages/12m1C9c6/Massachu
setts_Institute_of_Technology.html

SCALE-UP
Student-Centered Active Learning Environment with Upside-down Pedagogies
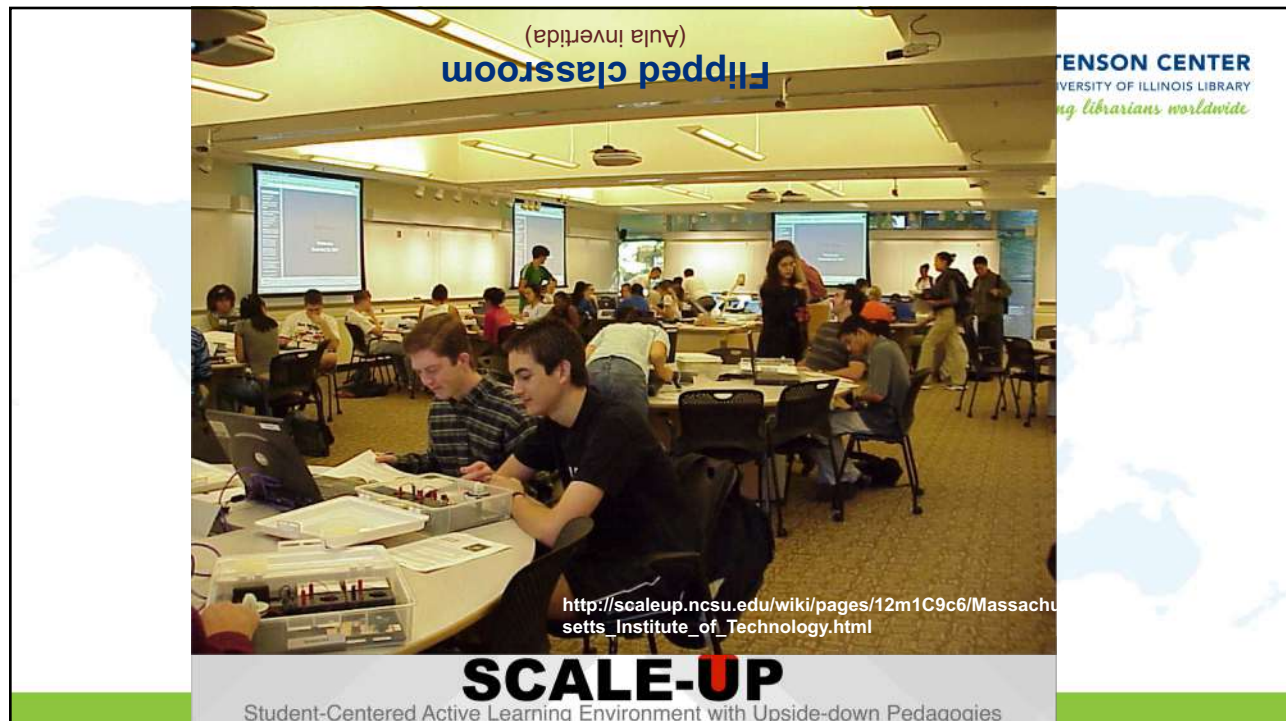
Personalized learning

- technology that helps professors differentiate instruction and think differently about the delivery of instructional content.
  - Libraries enable them to efficiently and effectively search, discover, and select the best sources to help students succeed in their courses
- Learning analytics enable content recommendations based on student outcomes, learning history or faculty preference
- Content can then be pushed to individuals or the appropriate course site via the learning management system (LMS)

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A knowmad is what I term a nomadic knowledge and innovation worker – that is, a creative, imaginative, and innovative person who can work with almost anybody, anytime, and anywhere. (adapted from Moravec, John. *Knowmad Society* (2013))

Source: https://educationfutures.com/knowmad/what/ ; Image: https://educationfutures.com/john/category/knowmad-society/

Definitions

"The internet of things (IoT) is a computing concept that describes the idea of **everyday physical objects** being connected to the internet and being **able to identify themselves to other devices**."

https://www.techopedia.com/definition/28247/internet-of-things-iot

Ambient Intelligence

No longer does the object relate just to its user, but it is now connected to surrounding objects and database data. When many objects act in unison, they are known as having **"ambient intelligence."**

Growing fast

According to analysis from Intel:
• 2 billion in 2006
• 15 billion in 2015
• 200 billion in 2020

There are already more connected things than people in the world!

2020: 26 smart objects for every human being

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IoT Device Categories

- Smart cars
- Wearables
- Smart appliances
- Smart buildings
- Smart homes
- Smart TVs
- Smart farming
- Smart health
- Smart city
- **Smart libraries**

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Whose desk is it?

Voice computing
- **Virtual assistant**
- **Virtual librarian**

https://heightslibrary.org/tag/alexa/

How do we develop smarter libraries in global context with diverse and underserved users in mind?

- **Social responsibility**
- **Sustainable development**

South Africa: 11 official languages

IMITAPO EYA WONKE UMUNTU — Zulu

IILAYIBRARI E-YA WONKE UMUTU — Xhosa

BIBLIOTEKE IS VIR ALMAL — Afrikaans

LIBRARIES ARE FOR EVERYONE — English

Images: https://hafuboti.com/2017/02/02/libraries-are-for-everyone/; https://hafuboti.com/2017/02/28/libraries-are-for-everyone-epic-rainbow/

IoT and Librarians: Ten Pledges

1. Integrate and be relevant to the larger ecosystem
2. Create efficiencies
3. Ensure safety (security and privacy)
4. Make life better for users
5. Reduce inequity
6. Enhance access to information, learning and creativity
7. Develop community, enhance connections
8. Teach digital literacy
9. Partner to enhance the library
10. Sustain the library

… to address social responsibility and sustainable development

1. Integrate and be relevant to the larger ecosystem

Source: https://internetofthingsagenda.techtarget.com/definition/smart-city
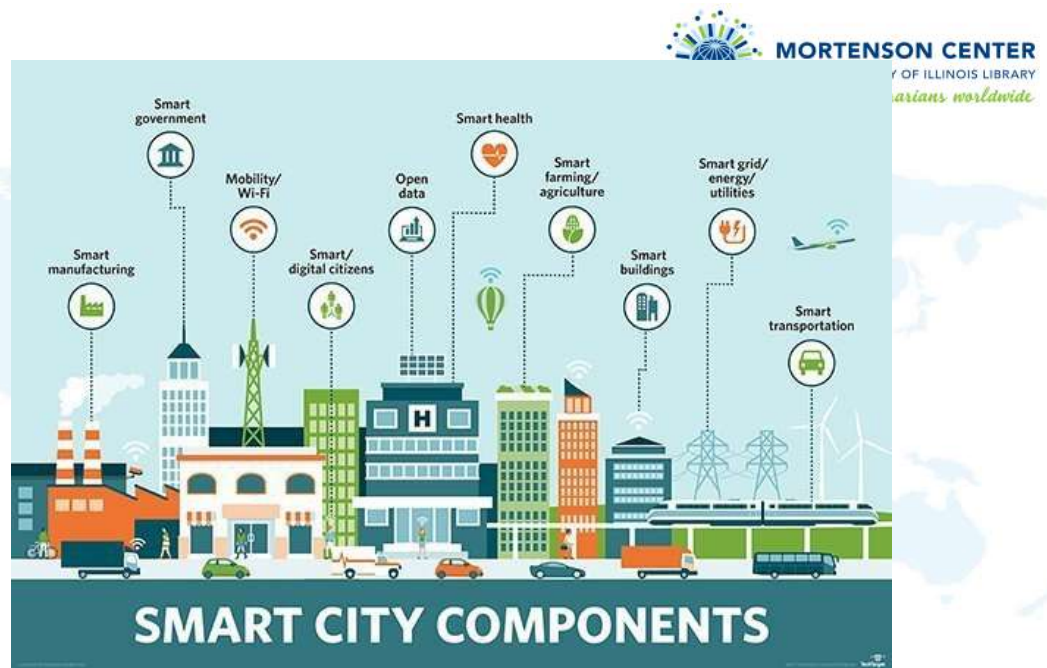
Smart Library Example

What is a smart library?
A library fitted with 'Smart Library' technology is able to be open to library users without being staffed. The technology enables remote control of library buildings, including automatic doors, lighting, self-service kiosks and public computers. This allows us to significantly extend library opening hours, so more people can use the library at times that is convenient for them.

Smart library
https://www.leicestershire.gov.uk/sites/default/files/field/pdf/2018/7/5/What-is-a-Smart-Library.pdf

Others: Loughborough (UK) https://www.loughboroughecho.net/news/local-news/locations-smart-libraries-revealed-14659294; Denmark https://janholmquist.net/2016/04/06/open-libraries-self-service-libraries-the-danish-way/; Ireland https://www.thejournal.ie/readme/staffless-libraries-ireland-2993352-Sep2016/; Express Library – King County (USA) http://librarianinblack.net/librarianinblack/stafflesslibrary/; https://www.bibliotheca.com/open-library/

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Smart Campus

Libraries?

Source: https://usmart.ece.utah.edu/smart-campus/

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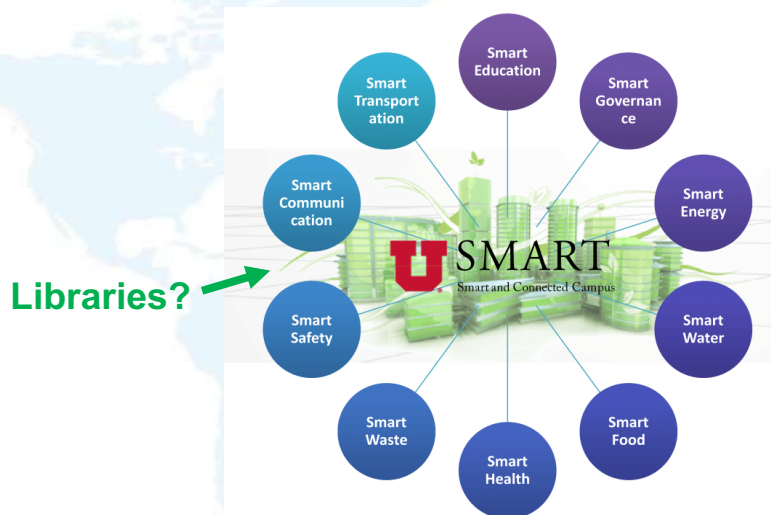
Libraries?

The National
March 4, 2019

Sheikh Mohammed bin Rashid announces Dh1.5bn 'new generation of UAE schools'

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▶ The academies will contain laboratories for robotics, artificial intelligence, health and the environment, as well as sports facilities

Sheikh Mohammed bin Rashid, Vice President and Ruler of Dubai, announces Dh1.5bn plan to build 'new generation of schools'. Courtesy Sheikh Mohammed bin Rashid Twitter

Sheikh Mohammed bin Rashid Al Maktoum is the Vice President and Prime Minister of the United Arab Emirates, and Ruler of the Emirate of Dubai.

Source: https://www.thenational.ae/uae/education/sheikh-mohammed-bin-rashid-announces-dh1-5bn-new-generation-of-uae-schools-1.832941

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2. Create efficiencies

Google Analytics for Your Building
Jason Griffey

MEASURE the FUTURE

http://measurethefuture.net/

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What libraries usually measure

Typical stats

– gate count
– circulation count
– # of reference Interactions
– # of classes taught
– website visits

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What we could measure

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- Number of visits

- What patrons browsed

- What parts of the library were busy during which parts of the day

- And more…

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Shows activity over time

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BETA FEATURES
▸ Attention measurement/ Heatmap
▸ People count
▸ Raw data available via JSON

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Portland Public Library
Heat mapping web use

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VONT Digital Marketing Blog: Deep Diving into the Digital World

Top Categories

Digital Marketing
Higher Education Digital Marketing
Healthcare Digital Marketing
Financial Digital Marketing
Behavior Change Digital Marketing
Food Industry Digital Marketing
Search Engine Marketing (SEM)
Search Engine Optimization (SEO)
Web Development
Social Media Marketing
Inbound Marketing
Content Marketing

Categories: Web Development

The Ins and Outs of Heat Mapping

Last Updated: July 24, 2017

https://blog.vontweb.com/blog/heat-mapping-ins-and-outs

Subscribe to Email Updates

Email Address

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3. Ensure safety (security and privacy)

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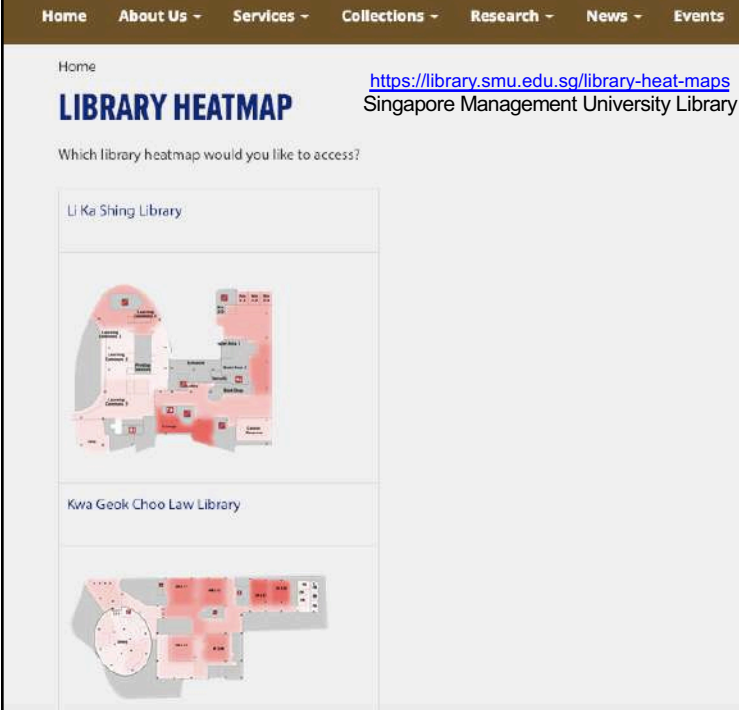
Privacy> **doesn't capture images of people**
No data sent to cloud.
Connect locally to the devices in your space
to download the data.

PRIVACY

▸ **No photo or video of patrons is saved**

▸ **All communication is secured**

▸ **Collapsing single-stat areas**

▸ **15 Minute reporting blocks**

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Home

LIBRARY HEATMAP

https://library.smu.edu.sg/library-heat-maps
Singapore Management University Library

Which library heatmap would you like to access?

Li Ka Shing Library

Kwa Geok Choo Law Library

Learn more:

- space occupancy by seat
https://intranet.birmingham.ac.uk/student/study-spaces/live-study-space.aspx
- Show number of seats and computer availble
https://www.ed.ac.uk/information-services/students/study-space/space-occupancy-monitoring-pilot
- The app development of a seat availability monitoring system
https://www.element14.com/community/community/stem-academy/stem-projects/blog/2017/06/08/study-hunt-library-seat-availability-live-monitoring-system

4. Make life better for users

Assessment of learning environments
Virginia Tech Libraries

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The Smart Commons:
An Experiment in Sensor-Based Space
Assessment of Learning Environments

Jonathan Bradley, Patrick Tomlin, and Brian Mathews*

- Jonathan Bradley is Web Learning Environments Application Developer
- Patrick Tomlin is Associate Director of Learning Environments
- Brian Mathews is Associate Dean for Learning

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Aiming to design more effective learning spaces
Virginia Tech Libraries

- Tracking the movement of furniture and whiteboards
- Understanding patterns of student work

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iBeacon

Source: http://www.fastcompany.com/3040451/elasticity/the-internet-of-things-plan-to-make-libraries-and-museums-awesomer
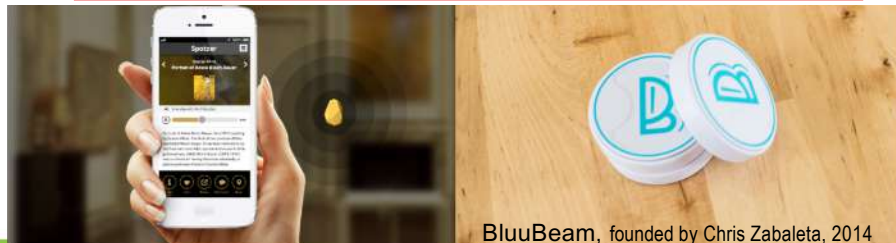
BluuBeam, founded by Chris Zabaleta, 2014

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Beacon Placement and Messaging

A. Philip Randolph Memorial Library

IBeacons Placement Plan

	Location	Range	Message
Beacon 1	Quiet Study	50'	Can't find information you need? Ask a Librarian is available 24/7. Visit bit.ly/askbmcclib.
Beacon 2	Stacks	50'	Remember, you can renew your books online at bit.ly/renewbooks.
Beacon 3	Photocopiers	20'	Scan for free! Ask about our free scanner at the Periodicals Desk, or download the free app CamScanner.
Beacon 4	Reference collection/ new books	50'	Free for checkout: laptops, iPads, eReaders, oh my! Get them at the Periodicals Desk.
Beacon 5	Study carrels	50'	Studying with friends or classmates? Get a group study room by stopping by the Periodicals Desk.
Beacon 6	Quiet zone/ periodicals	30'	Please respect one another. No eating or talking on your cellphones. Be mindful that the person near you is studying. Thank you!

iBeacon

Sources: https://blog.beaconstac.com/2017/12/6-ways-to-enhance-the-experience-at-a-library-with-beacon-technology/; http://www.infotoday.com/cilmag/dec15/Eng--Using-iBeacons-to-Engage-Library-Users.shtml   www.library.illinois.edu/mo

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Ideas

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wayfinding

item location

tours

Promotion (services, programs, exhibits, etc.)

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5. Reduce inequity

Academic Libraries - Equipment loans

Echo Dot

People with low literacy skills

Under-literate—Voice interfaces also work well for people with lower literary skills. In many parts of the world and in the US, smart phone penetration is limited in certain neighborhoods due to lower local literacy levels. There are numerous studies (such as this, this and this)that have proven how 3G and 4G connectivity correlate with local economic upliftment. For people that are unable to use mobile and web due to literacy hurdles, Voice UIs, can once again bridge the gap help level the playing field.

Elderly & Senior Citizens—As demographics are on the other s been able to leverage the value t

People with limited or no vision— people with vision anomalies that m

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6. Enhance access to information, learning and creativity

Libraries care about access for all

Helps people with disabilities

Kids are growing up with it

Kids as both peers & teachers

In this study researchers found that sometimes kids engaged with voice assistants as peers and other times as teachers. Kids believed that they could both learn from their digital assistants and also teach them. The study concluded that perhaps in the future, we could design voice computing so that kids are able to tinker with and program the agents, "and thus expand their perception of their own intelligence and different ways to develop it."[1]

ACM DIGITAL LIBRARY

"Hey Google is it OK if I eat you?": Initial Explorations in Child-Agent Interaction

Full Text: PDF   Get this Article

Authors:
Stefania Druga   Massachusetts Institute of Technology, Cambridge, MA, USA
Randi Williams   Massachusetts Institute of Technology, Cambridge, MA, USA
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2017 Article
Abstract

Bibliometrics
· Citation Count: 7
· Downloads (cumulative): 525
· Downloads (12 Months): 403
· Downloads (6 Weeks): 70

Published in:
· Proceeding
IDC '17 Proceedings of the 2017 Conference on Interaction Design and Children
Pages 595-600

Stanford, California, USA — June 27 - 30, 2017
ACM New York, NY, USA ©2017
table of contents ISBN: 978-1-4503-4921-5   doi>10.1145/3078072.3084330

Kids creating skills

April Hamilton Follow
Founder, Editor in Chief of lovemyecho.com.
Mar 30, 2017 · 5 min read

Why the Alexa Skills Kit is a Great Introduction To Coding For Kids

An interview with a 14 year-old coder who wrote an Alexa Skill that fetches status from the AWS services dashboard

CODING FOR KIDS
INTERVIEW WITH KIRA

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Alexa or Google Home could be part of an accessibility room *and for multilingual accessibility*

Use Alexa in the library

Alexa provides a new resource tool to the Missouri Valley Public Library

By Jesusa Christians, Reporter, reporter@missourivalleytimes.com Sep 14, 2016 ⚫ 0

MEET THE NEWEST
ADDITION TO THE
MODALE PUBLIC LIBRARY.

ALEXA!!!

Amazon Echo is a hands-free speaker you control with your voice. Echo connects to the Alexa Voice Service to play music, provide information, news, sports scores, weather, and more—instantly. All you have to do is ask.

Echo has seven microphones and beam forming technology so it can hear you from across the room—even while music is playing. Echo is also an expertly tuned speaker that can fill any room with 360° immersive sound. When you want to use Echo, just say the wake word "Alexa" and Echo responds instantly.

NEW TECHNOLOGY, NEW VISION

THE MODALE PUBLIC LIBRARY...

WE ARE NOT JUST

BOOKS!

The Daring Librarian (blog)

List of things the Alexa in the Echo can do in your Library:

• Get the Title or Author of a book (She knows Harry Potter & Hitch-hiker, may not know more obscure YA titles)
• Answer basic factual questions
• Spell and define words
• NPR News Flash (Customizable)
• Tells the time
• Weather forecast for your location
• Play Prime or purchased music & playlists
• Listen to audiobooks from Audible or Kindle Unlimited on your Amazon Echo

• **Teaches kids how to phrase a question - this has been fascinating!**

Skills - popular fiction lists

Skills - library events

Skills - library events

Google Action

A Google Action, developed specifically for Worthington Libraries, is now available in the Google Actions Directory. You can talk to Google Assistant on your Google Home smart speaker, or talk or type in the Google Assistant app on your device. To use the Action:

- Just say, "Hey Google, talk to Worthington Libraries."

You can search for library events at any of our locations. Sample questions:

- What's happening today?
- What's going on this week at Old Worthington Library?
- Are there any events for toddlers this weekend?

You can navigate through event details by saying "next," "previous" or "repeat."

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Skills - search the catalog

Toronto library unofficial
Pavol Zibrita

"Alexa, ask Toronto library fan for Harry Potter"

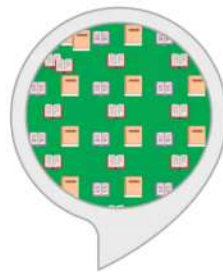"Alexa, ask Toronto library fan to look up BFG by Roald Dahl"

★★★★★ ▾ 1

Available instantly on your connected Alexa device.

Description
This skill is for searching the Toronto Public Library references, so it is easier for you to know if the title is currently available. Skill is in development and if requested, we would enhance it...
more

Houston Library
Chris

"Alexa, ask Houston Library to find Harry Potter."

"Alexa, ask Houston Library to tell me about Animal Farm."

Available instantly on your connected Alexa device.

Description
Quickly search the Houston Public Library for available books. When you find a book you like, you can send detailed information to the Alexa App. This skill automatically filters books that are on... more

Skills - search the catalog

7. Develop community, enhance connections

Societal benefits

The Societal Benefits of Smart Speakers

They may not open the pod bay doors, but they can get you to look up from your phone

People using it together

How often do you use the smart speaker with others in your household?
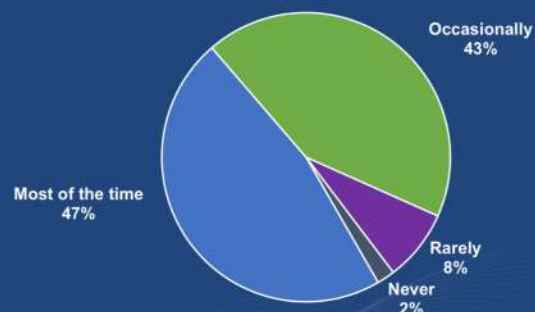
https://www.nationalpublicmedia.com/smart-audio-report/latest-report/ (Spring 2018)

People less often have face down in phones

Ask Alexa about library events

ASK ALEXA "WHAT'S HAPPENING AT THE POMPTON LAKES LIBRARY?"

AUGUST 22, 2017   ADMIN

"Alexa, Ask Burbio, what's happening AT the Pompton Lakes Library?"

Enable Burbio on
amazon alexa   burbio

We're excited to announce a new easy way to find out what's going on at the Pompton Lakes Library. Now you can just "Ask Alexa" and hear the answer on your Amazon Echo, Dot, or your iPhone via Alexa.. Just enable the Burbio skill now or click here to learn more.

After enabling the skill, you can "ask Burbio what's happening AT Pompton Lakes Library" to hear our upcoming events. Or say "Alexa, ask Burbio What's happening In Pompton Lakes tomorrow" to access Community events.

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Uses a service called Burbio

Any school, library, government or non-profit can also post their own calendar on Burbio for free and be able to share their events with their community through the Burbio Skill on Amazon Alexa.

For more information go to http://groups.burbio.com.
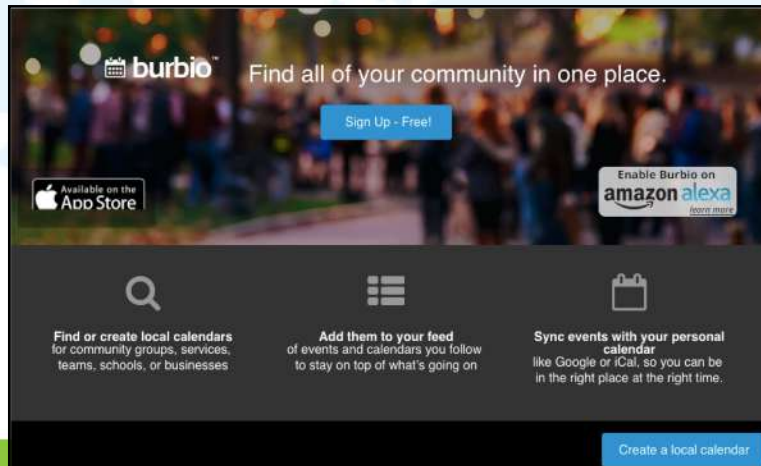
8. Teach digital literacy

Workshops for the public

Grande Prairie
PUBLIC LIBRARY
Serving Country Club Hills & Hazel Crest, IL.
3479 W. 183RD ST. • HAZEL CREST, IL • 60429

Mon-Thurs: 9am-9pm | Fri-Sat: 9am-5pm | Sun: 1pm-5pm

Amazon's Alexa

July 7, 2017 @ 10:25 am - 12:00 pm

« Exploring Job Websites   Mousercise »

Do you like voice activated digital assistants? Come see Amazon's Alexa in action.

www.library.illinois.edu/mortenson

Workshops for seniors

Tuscarawas County
Public Library System

Never Too Late to Learn: Tech for Seniors- Google Home vs. Amazon Echo - Main

View   **Repeats**

We'll compare and contrast these virtual assistants to see which is the best deal for your money.
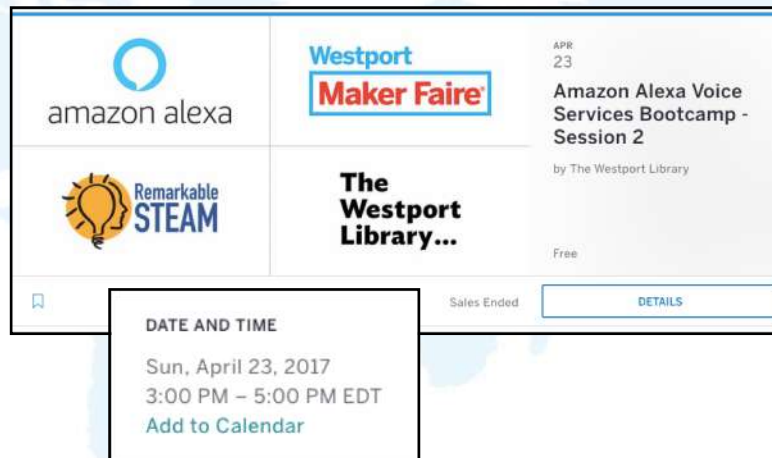
Registration begins 12/26.

Events & Programs--Ages:
Adults
Events & Programs--Locations:
Main Library

www.library.illinois.edu/mortenson

Westport Public Library
A bootcamp for creating Alexa skills

www.library.illinois.edu/mortenson

"Question device petting zoo"

Alexa, Siri, Cortana, Google Home, AR, AI, Machine Learning and the Special Librarian

5 minute read

Posted by *Stephen Abram* on 3/28/2018

Buy a device or three. It should cost under $200, and you can expense it as a program for the library to offer. How about a **Question Device Petting Zoo**: *"Getting to Know your Home Assistant as Your Home Assistant Knows You"*. Whoa— then host a discussion on the implications for your enterprise as business information and behaviours are uploaded to the cloud—and potentially tied to your employee identity. Now you see the business case!

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Skills - from library vendors

Demco® DiscoverLocal Now Works With Amazon Alexa™

Easier Than Typing, Tapping or Calling ...
Just Ask Alexa!

People use online searches, smartphones and voice controlled devices to discover things. Because Demco® DiscoverLocal makes library information visible in search engines, it also works with Amazon's Alexa ... all they have to do is ask about your library!

What can Alexa & Demco® DiscoverLocal do?

- Find information about library hours and services
- Place holds and renew items already checked out
- Discover events and register to attend
- Reserve study or meeting rooms

Watch Video

www.library.illinois.edu/mortenson

A Skill for Hoopla

LOS ANGELES
LOS ANGELES PUBLIC LIBRARY

Alexa, Meet hoopla!

Alexa, meet hoopla!

hoopla

ALEXA SUPPORT FOR HOOPLA. AVAILABLE NOW.

Requests must start with *Alexa, ask hoopla*... If not, Alexa will not know to get the information from hoopla, and will instead return results from Amazon.

Allowed Commands

Alexa, ask hoopla...

- ...how many items I can borrow.
- ...how many items I currently have borrowed.
- ...for my library's phone number.
- ...to list all titles I have borrowed.
- ...to list my music
- ...to list the music I currently have borrowed.
- ...to play my music.
- ...to list my audiobooks.
- ...to list the audiobooks I currently have borrowed.
- ...what is hoopla?

When listening to music, you can use *Alexa next* or *Alexa previous* to go to the next/previous tracks.

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A Skill for Hoopla

hoopla

When will hoopla for Alexa be available publicly?

It is live now. Search for "hoopla digital" in the Amazon Skills marketplace.

What formats are supported on Alexa?

Currently, Alexa supports hoopla audiobooks and music.

Alexa keeps playing titles from Amazon and not hoopla. What's going wrong?

Be sure to form your commands as "Alexa, ask hoopla…" Otherwise, it will try to find the title in your Amazon library.

Does my library have to enable Alexa support?

No, your library does not have to do anything to enable Alexa support.

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Academic Libraries - skills

IowaStateLibFacts
by Iowa State University Library
☆☆☆☆☆ 0
Free to Enable

"Alexa, ask Iowa State Library to tell me an art fact."

"Alexa, ask Io give

This skill will return facts about the Iowa State University Library. Alexa can be prompted for facts about library collections, art, library spaces, and library history.

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Academic Libraries - skills

California State U
San Bernardino

CSUSB News
by CSUSB

Rated: Guidance Suggested
☆☆☆☆☆ 0

Free to Enable

"Alexa, what's my Flash Briefing?" >

CSUSB News flash briefing provides CSUSB students, faculty, staff, and community members insightful information about what is happening at California State University, San Bernardino.

Brought to you by the Division of Information Technology Services, this skill curates up-to-date news items from various campus departments including: Strategic Communication, Athletics, Technology Support Center, and the John M. Pfau Library.

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Universities - skills

The Ohio State...
by The Ohio State University
★★★★★ 2
Free to Enable

The Ohio State Skill provides several services to students and non-students alike, including calendar dates, dining location hours, and athletics information.
You can currently experience all realms of the app without having to login or even be a student!
To learn more just tell Alexa, "ask Ohio State what it can do"

"Alexa, launch Ohio State" >

calendar dates, dining locations, athletics

OU Facts
by The University of Oklahoma
☆☆☆☆☆ 0
Free to Enable

This is a fun little fact app where you can ask Alexa for a random fact about OU. She might respond and tell you about how we rank number 1 in the nation among all public institutions in number of National Merit Scholars enrolled or any one of a number of facts.

Written by Jordan Wayne and the One University Development team at the University of Oklahoma.

"Alexa, ask OU Facts to tell me something about o.u." >

Univ. of Oklahoma facts

The next skill, OU Facts, delights users by providing an inventory of 87 interesting facts about the university delivered at random. For this skill, the team simply pulled interesting facts from the public affairs webpage, making them available through a simple voice query.

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9. Partner to enhance the library

Skills - from library vendors

Discovery Elsewhere: Using the EDS API in Mobile, Voice Searching, and Beyond
2:00p.m. – 2:45p.m., Salon 4, AT&T Executive Education & Conference Center

William H. Mischo, Acting Dean of Libraries and University Librarian; Head, Grainger Engineering Library Information Center from University of Illinois, Eric L Frierson MSI, Director of Field Engineering at EBSCO and Rob O'Connell, Director of Discovery and Access from Smith College will look at the integration of discovery and ways to leverage the *EBSCO Discovery Service* API within the learning management system, within a Bento environment, within a mobile interface, within Alexa or Google Home, or within the ILS interface of the library's choosing.

EBSCO Discovery Service

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Skills - from library vendors

Amazon Echo &
Google Home

YouTube

Alexa, ask my library for an overview of water shortages.

I found an overview of **water scarcity**. *Water scarcity is the lack of freshwater supplies for all users, including the environment, such that their needs are not fully met. Water stress is low availability of needed freshwater.* **Do you want me to keep reading?**

Alexa, ask my library for information about political gerrymandering.

There are **440 hits at your library** *for that topic including an Academic Journal titled Clearing the Political Thicket: Why Political Gerrymandering for Partisan Advantage is Unconstitutional.* **Would you like me to email you a link to this list of results?**

Alexa, ask my library for *books like* **the Maze Runner.**

You should read Incarceron *by Catherine Fisher. Although Incarceron is fantasy and Maze Runner is science fiction both fast-paced stories feature characters thrown together into constantly shifting, bleak worlds; a labyrinth in Maze Runner; a prison that is a living organism in Incarceron. Suspenseful and compelling reads.* **I have 11 more recommendations.** *Would you like to hear them?*

https://vimeo.com/274741619#t=3058s

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Skills - Library Thing

L   The LibraryThing Blog   Thingology

Monday, March 12th, 2018
Introducing the LibraryThing Alexa Skill

Introducing the LibraryThing Skill for the Amazon Echo, Dot and other Alexa devices. Take a look:

LibraryThing Alexa Skill

LibraryThing added Life After Life: A Novel

The LibraryThing Alexa Skill is a weird but easy way to add books to your LibraryThing account. Just stand in the foyer, with a bag of new books, or on top of a rickety bookshelf ladder in the attic, and say:

Alexa, tell LibraryThing to add [Book Title] by [author]

Students creating skills

INFORMATION TECHNOLOGY
The UNIVERSITY of OKLAHOMA

Home

09 NOVEMBER

Amazon Alexa Hack-A-Thon
Winners

Written by Savannah

Universities - hackathon

University of Oklahoma

More than 100 students participated in the IT department's first voice-powered hackathon. The four winning teams created skills focused on enhancing the student experience on campus.

The winning skills included:

- **yOU Travel**, created by Ricardo Palma Fraga, Chloe Harwood, David Mason, Modi Elisa, Omar Al-Khanbashi, and Shepherd Matsongoni: The skill aggregates all transportation methods on campus to make it easier for students to commute across the university.
- **VITA**, created by Elena Montes, Ariana Paz Pirela, Cody Standridge, Dragon Tran, and Maria Wolinski: The skill helps students learn more about the campus and even where to find free food!
- **EatQuick**, created by Chanyoon Zhu, Troy Smith, Bo Rao, Asia Grove, James Martindale, Eric Latimer, Sydney Spragu, and Zhen Hong: The skill that finds the closest food providers along with restaurant reviews and delivery times.
- **SoonerGuide**, created by JJ Brown, Will booker, Catherine Ha, Emily Black, and Stephanie Whitworth: The skill helps new students navigate their way around campus.

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Universities

BUSINESS INSIDER   TECH | FINANCE | POLITICS | STRATEGY | LIFE | ALL   PRIME | INTELLIGENCE

Amazon donated 1,600 Echo Dot smart speakers to ASU's new high-tech dorm for engineers

Matt Weinberger Aug. 17, 2017, 11:12 AM

But wait, there's more: Every single one of the 1,600 freshmen moving into Tooker House is getting an Echo Dot smart speaker, retail price $50, thanks to a one-time donation from Amazon. Notably, accepting the device isn't mandatory, and some students may elect not to take advantage of the offer.

One of 1,600 customized Amazon Echo Dot smart speakers, donated by Amazon to Arizona State University. Arizona State University

The devices also come equipped with an ASU "skill," built in collaboration with Amazon, which lets students quickly get information on the academic calendar and events on campus just by asking the Echo's Alexa digital assistant. It also sports the normal Alexa features, including setting alarms and playing music.

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Northeastern University

voicebot.ai

Northeastern University Expands Amazon Alexa Access to Public Spaces

BRET KINSELLA on September 4, 2018 at 11:18 am

Husky Helper Campus Locations

"The Echo Dots are mounted on walls in residence halls, classroom and administrative buildings, the Marino Center, and the Curry Student Center. The devices are roughly the size of drink coasters, and each is marked with an oversized red Northeastern N...The devices serve as a one-stop-shop for students who need information about information technology, housing, student affairs, financial aid, dining, athletics, the library, career services, student records, and Northeastern police."

www.library.illinois.edu/mortenson

PhD and post-doc students specializing in conversational AI

www.library.illinois.edu/mortenson

Universities - fellowships

2018-2019 Alexa Fellowship Universities
Graduate

www.library.illinois.edu/mortenson

10. Sustain the library
     a. sustainable environment
     b. sustainable resources
     c. sustainable technologies
     d. sustainable services

Small self-contained computer + camera

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developing librarians worldwide

ME*A*SURE the FUTURE

Jason Griffey
http://measurethefuture.net/

Some early test versions

www.library.illinois.edu/mortenson

Open source project
Hardware used

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MEASURE THE FUTURE BETA

HARDWARE STACK

▸ **Raspberry Pi 3 Model B**

▸ **Adafruit RPi Realtime Clock Module**

▸ **Logitech C525 Webcam**

▸ **3D printed case**

▸ **2.5 Amp USB Micro power supply**

Current beta version

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The path forward…

1. Experimentation – instill innovation and learning from trying
2. Collaboration – step out of the silo
3. Resident expertise – hone, hire or crowdsource it

Images: https://hafuboti.com/2017/02/02/libraries-are-for-everyone/; https://hafuboti.com/2017/02/28/libraries-are-for-everyone-epic-rainbow/

From smart to smarter libraries

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Thank you

- Clara M. Chu ~ cmchu@illinois.edu
- Selected IoT examples from Nicole Hennig

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