

Future-Proofing Library Spaces

Learn the essentials of making your
library environment future-friendly

An Infopeople Webinar
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Our Purpose



There's no question of whether technology impacts your library—the question is, how does it impact your library now, and how will it change in the future? What can you do at your library to keep up?

How will we do this?

Learn approaches to retrofitting – including
“Design Thinking” and Project Management

Hello!



- Who I am
- What I believe
- What I do

Get ready to **engage**

- Interactive (as possible)!
- Collaborative
- Conversational
- Safe to explore
- Type questions in chat box; we will discuss at the end of the presentation



Your Thought Collector



(And you can use your worksheet too!)

Poll: who is here?

- Public Librarians
- School Librarians
- Special Librarians
- Academic Librarians



Poll: who is here?

- Tiny Libraries
- Small Libraries
- Medium Libraries
- Large Libraries



Handout: **Session Worksheet**

Introducing Mobile Devices and Design Thinking

Let's start with a buzz-killing
acronym...

BYOD

What are mobile devices?



Some Images Courtesy of Demco Interiors

What about wearables?



This one talks directly to the Internet



So does this one...



The Internet of Things is here now!



While there are several key things
we can do to make our libraries
mobile friendly....

This is what we want to avoid:



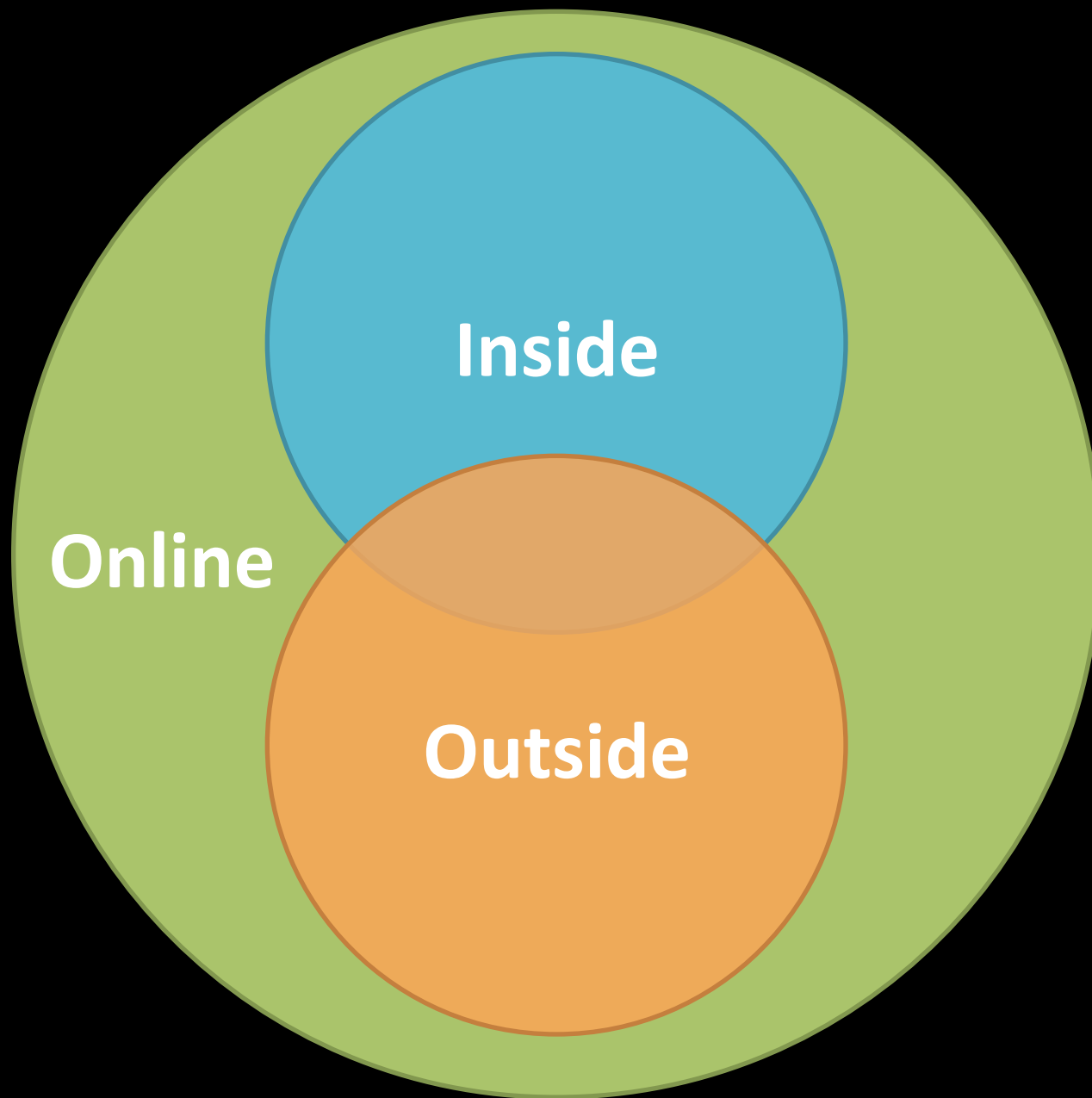
Photo credit: <https://www.flickr.com/photos/ishane/1082814771/sizes/m/in/photostream/>



We can do better!

How do we do better?
Let's consider what a library is
today...

Inside
Outside
Online



Form
follows
Function*

**ideally :0)*

Design Thinking

Design Thinking

A way to “tackle the unknown” by:

- Learn from People
- Find patterns
- Design Principles
- Make Tangible
- Iterate Relentlessly

<http://upload.wikimedia.org/wikipedia/commons/f/fd/DesignThinking.ogv>

Design Thinking is a **tool** to help us
keep pace with an **ever-changing**
world!

Discussion

(feel free to share in chat box)

- How is your library like the “**inside/outside/online**” diagram?
- How might you already be incorporating **design thinking** into what you do every day?





Inspiration and Assessment

Like beans and rice, bread and butter...





Inspiration: **what's possible today
& tomorrow?**

Inspiration: **your friends and
colleagues**



Inspiration: **everywhere!**

Hint: get outside of the echo chamber...

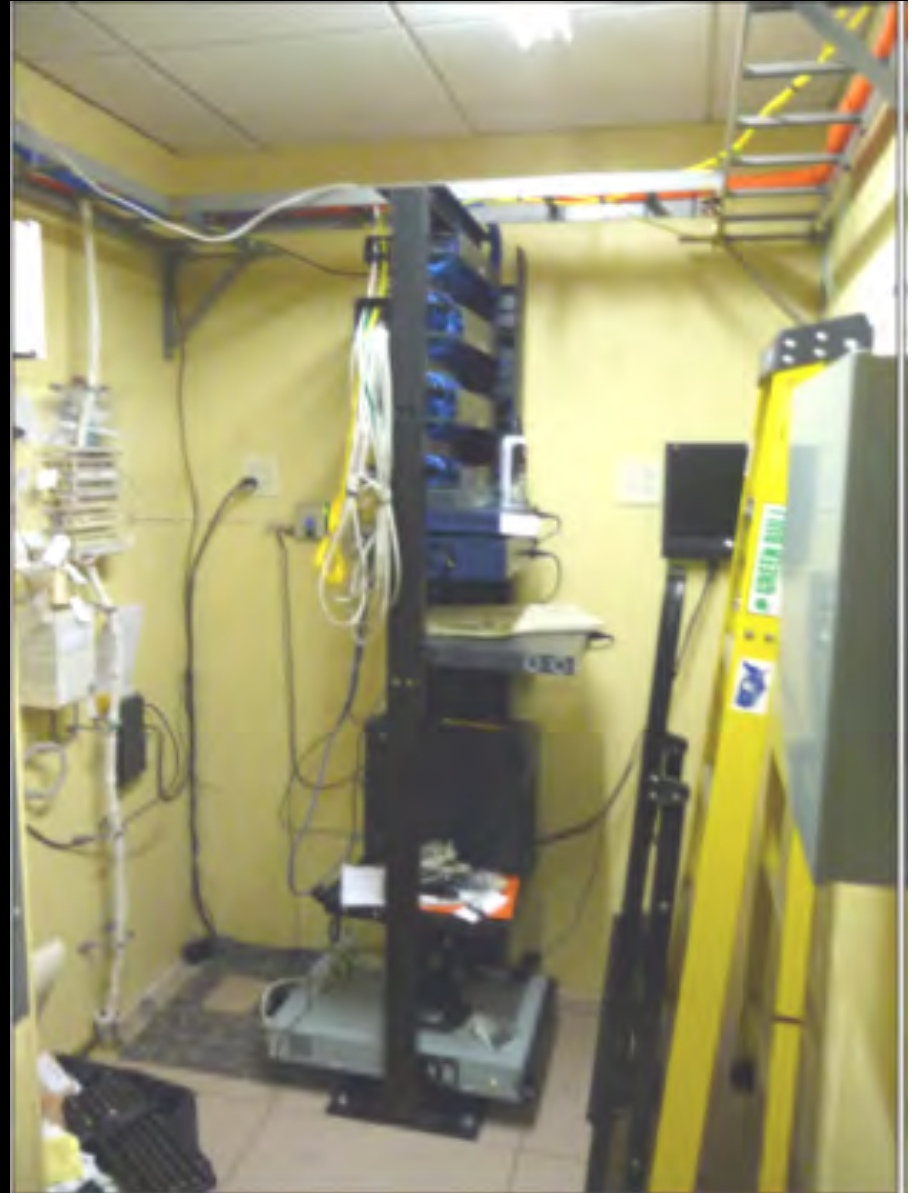


Activity: Don't forget to use your worksheet to grab inspiration!

Serving Mobile Users: First Things First

Assessing IT Infrastructure

Having a clear idea of the library's current capacity and capabilities also creates the perfect place to build from if improvements are needed.



IT Considerations

- Capacity of building power
- Internet connections
- Local area networks
- Future needs



The **power** circuits serving the building are one of the first things to look at, especially for older libraries.

Power Circuits

- Is power properly grounded?
- Are current circuits adequate or overloaded?
- Are there enough outlets (inside and outside the building)?
- Are there any power issues such as fluctuations or dimming lights?



Although mobile devices do not require large amounts of power to recharge, **having good power available is a prime consideration when serving the needs of mobile users.**

For later, after activity: Assess your
power!

This is mostly homework – but do you have any
obvious power problems?

Mobile devices need more than
power.

How is your Internet Connection?

What is “Broadband?”

It’s Fast!

broadband 

adjective | broad·band | \ˈbrɒd-,ˌbænd\


Definition of BROADBAND

- 1 : operating at, responsive to, or comprising a wide band of frequencies <a *broadband* radio antenna>
- 2 : of, relating to, or being a high-speed communications network and especially one in which a frequency range is divided into multiple independent channels for simultaneous transmission of signals (as voice, data, or video)

— **broadband** | *noun*



 g+1

 Tweet

What is “Broadband?”

It’s Fast!

- Broadband is the word used to, generally speaking, describe high-speed telecommunications and, more specifically, high-speed internet.
- In January the FCC determined that a **broadband connection is at least 25 Mb/sec**

The screenshot shows the ALA American Library Association website. The header includes the ALA logo and navigation links: ALA, ALA Connect, Contact ALA, Give ALA, Join/Renew, and Login. A search bar is located on the right. Below the header, a breadcrumb trail reads: You are at: ALA.org > ADVOCACY > Broadband & E-Rate > Broadband & Libraries. The main content area is titled 'Broadband & Libraries' and contains the following sections:

- Advocacy & Legislation**
 - Advocacy Events
 - Advocacy University
 - Federal Legislation
 - Legislative Action Center
 - Online Learning
 - Public Awareness for your library
 - State & Local Resources
- Issues**
 - Access
 - Broadband & E-Rate**
 - Broadband
 - ADSL & Libraries
 - E-rate and Universal Service
 - Network Neutrality
 - Copyright

The 'What is Broadband?' section defines broadband as the word used to generally speaking, describe high-speed telecommunications and, more specifically, high-speed internet.

The 'Why does it matter to libraries?' section explains that because of the increasing reliance upon and need for libraries to use broadband telecommunications services, ALA follows broadband deployment and build-out issues closely, focusing especially on accessibility, affordability and universal service concerns. In analyzing any particular broadband policy or legislative proposal, ALA asks several key questions including, but not limited to, the following:

- What is the impact of any proposal on accessibility to all communities?
- What is the impact on affordability of broadband services for libraries?
- What public interest provisions are included in any particular proposal?
- What is the impact on Universal Service and the E-rate program?
- Is there an impact on the "diversity of voices and ownership" issues?

ALA has raised these questions in regulatory venues, primarily the Federal Communications Commission (FCC), and during legislative proceedings with numerous Congressional offices. Public debate regarding broadband deployment is most likely to be before the FCC rather than Congress.

See also the [FCC web site](#).

Related

- [DTP Official Filings](#)
- [District Dispatch reports on the National Broadband Plan](#)
- [Why librarians should care about the National Broadband Plan](#)

Why is broadband desirable?
All those devices are hungry for a
network connection – and there
are more and more devices every
day...

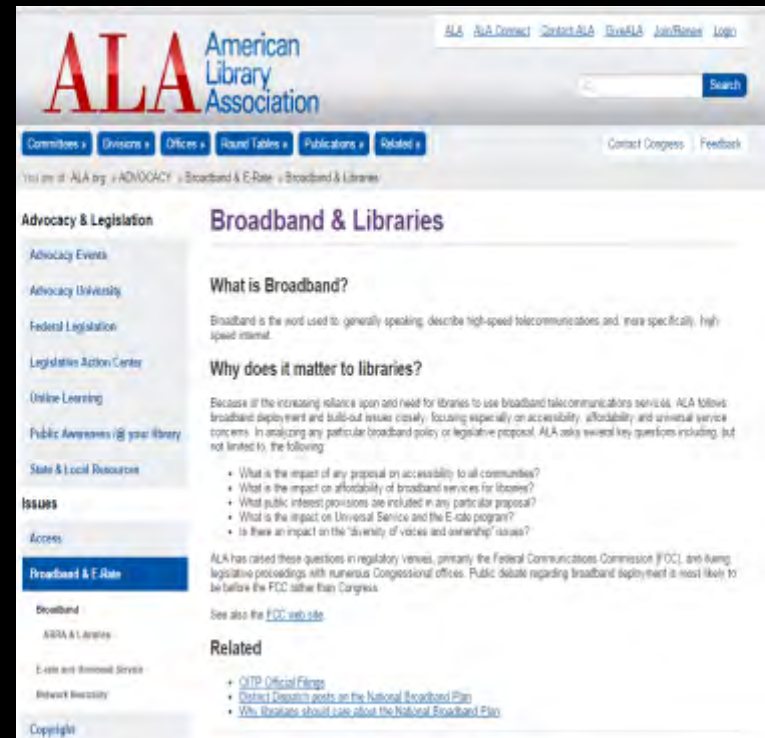
How can I choose the broadband speed for my library?

Two Key Factors:

- What is available in your area? (more on that in a bit)
- What can you afford? (and don't forget E-Rate!)

EDGE Formula Calculator:

[http://
impact.ischool.uw.edu/
calc.html](http://impact.ischool.uw.edu/calc.html)



How is speed measured? (And what do you mean by “big pipe” Internet?)

- Bits per second (bps) - sloooooow
- Kilobits per second (kbps) – dial up modem speed
- Megabits per second (Mbps) – “Broadband”
- Gigabits per second (Gbps) – Fast (think the Google Fiber projects in KC, Provo and Austin).



How can I check my **speed**?

<http://www.speakeasy.net/speedtest/>

<http://www.speedtest.net/>

The screenshot shows the MegaPath website's speed test interface. At the top, the MegaPath logo is visible with the tagline "DATA • VOICE • SECURITY". Below the logo, a navigation bar lists categories: DATA & NETWORKING, VOICE, SECURITY & MPLS, HOSTED IT, SOLUTIONS, PARTNERS, and ABOUT. The main heading is "SPEAKEASY SPEED TEST". Below this, it shows the date and time: "Thursday 26-Feb-2015, 02:30:08 PM" and the user's IP: "Your IP: 68.134.251.0". A "CHOOSE A LOCATION" section lists several cities: Seattle, WA; San Francisco, CA; Los Angeles, CA; Dallas, TX; Chicago, IL; Atlanta, GA; New York, NY; and Washington, DC. In the center, there is a promotional box for "Enterprise-Class Email HOSTED EXCHANGE" with the offer "Only \$5.95 + Free Email Migration" and a "Learn More >" link. Below the promotion, the "YOUR SPEED RESULTS:" are displayed: "61.15 Mbps" for "DOWNLOAD SPEED" and "22.84 Mbps" for "UPLOAD SPEED". At the bottom, there is a link to "LEARN MORE ABOUT YOUR BROADBAND SPEED".

The screenshot shows the Speedtest.net website's speed test interface. At the top, there are links for "ADVERTISE", "BECOME A HOST", "MY RESULTS", and "SUPPORT". The main heading is "Test Your Connectivity" with a subtitle "Free test to determine how quick your connection is. Check it out!". Below the heading, there is a large "BEGIN TEST" button. A map of the United States is shown with a green box highlighting the location "Estes Park, CO". At the bottom, the test results are displayed: "50.134.251.0" for "Current Cable" and "7.032.256.561" for "Test Your IP".


How much bandwidth (or speed) do
we need?



The answer is always “more.”



**MORE
MORE
MORE**

What is “Scalability,” and why does it matter?

scalable 

adjective | scal·able | \ˈskā-lə-bəl\   Tweet


: easy to make larger, more powerful, etc.

Beat your friends at SCRABBLE® with our official [Word Finder Tool](#) »

Full Definition of SCALABLE

1 : capable of being *scaled*

2 : capable of being easily expanded or upgraded on demand <a *scalable* computer network>

— scal·abil·i·ty  \ˈskā-lə-ˈbi-lə-tē\ *noun*



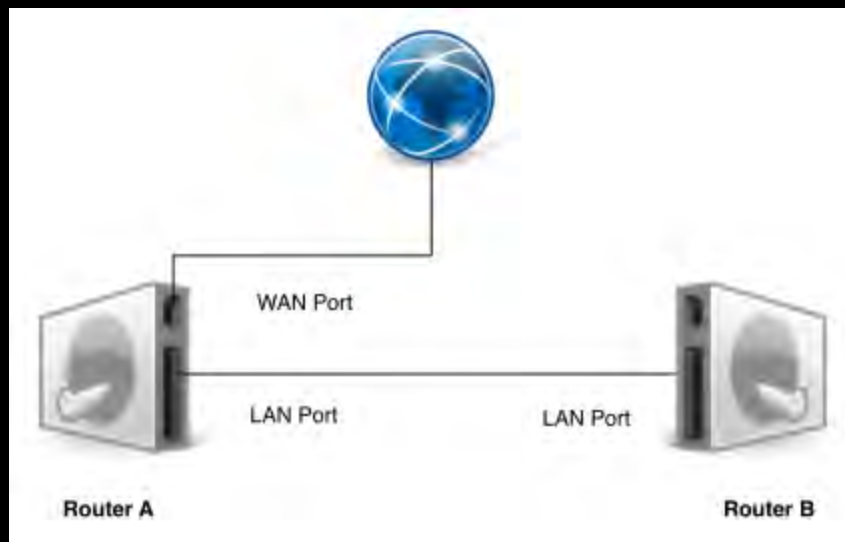
What about WiFi?

What about WiFi?



WiFi access points serve a limited number of users at one time.

What about WiFi?



Think “scalability” for mobile users--design for a WiFi network that can easily grow by simply adding inexpensive access points as demand increases.

Making User Spaces Mobile Friendly

Pop-Quiz: Which seats are the most popular in your library?

Typically the seats closest to a power outlet!

Remember—we want to avoid this:



<https://www.flickr.com/photos/ishane/1082814771/sizes/m/in/photostream/>

Making User Spaces Mobile Friendly



Making Spaces “device friendly”



Power to the Patrons!



Carson's rule for remodels or new construction:

“Any space we provide for a patron to sit, we should also provide safe and convenient access to a power outlet.”

Retrofitting power solutions

Visible surface-mounted power access points built into desks, tables and other furnishings.



Retrofitting power solutions

The lowly power strip – when selected or modified to match the aesthetics and mounted correctly -- can be an inexpensive approach.



USB Power



Charging Lockers



General Comfort

Design orientation: think like a mobile user.

Are we designing or modifying our spaces with patron comfort and convenience in mind, or just trying to fit the most people in the smallest space possible?

Solo Computing Spaces: places for solitary work



- Solo computing spaces – places for patron “stuff”
 - Books, purses, backpacks, food and drink (if you allow), etc.
 - Patrons have their own mobile devices! (space and power)

This is also a solo computing area



Solo Computing Spaces: Ideas



- Lounge chairs with swivel tablet arms or portable pull-up tables are nice options.
- Small portable tables are becoming the preferred option since users can adjust the table location to meet their needs, unlike swivel alternatives that attach directly to the chair.

Collaborative Computing Spaces



Let's move away from this when we can:



Collaborative Computing Spaces: Ideas



- Large surface areas for personal and shared “stuff”
- Patrons have their own mobile devices! (space and power)

Collaborative Computing Spaces: Meeting Rooms



Private meeting rooms at the University of Iowa library

Collaborative Computing Spaces: Meeting Rooms



Collaborative Computing Spaces: Meeting Rooms



*Meeting rooms at the University of Iowa library—
connection plate*

Collaborative Computing Spaces: Meeting Rooms



Meeting rooms at the University of Iowa library—digital room reservation

Homework/comments today:
what needs have you observed
from users of mobile technology in
your library?

Homework/comments for today:
How might you address those
needs in your library?

What if you're maxed-out?
What if you can't build?

Inspiration from Schools: Transition to the Learning Commons



Re-assess and Re-use

Assessment – challenges and opportunities

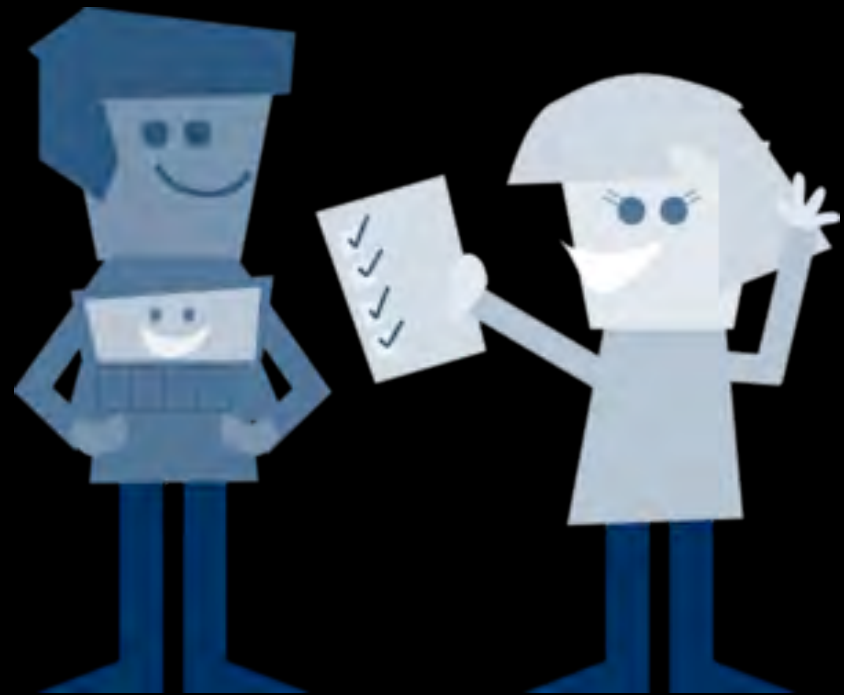
Assessment (different perspectives)

- Staff
- Patrons/Students
- Others



Assess different things

- Tech
- Power
- Physical Spaces
- Workflow
- Others



Assessment Criteria

- Who does this serve (many or few, well-served already or under-served)?
- How is it staffed? (are any trade-offs in staff time/effort worthwhile?)
- Is it easy to use or learn for staff and customers?
- **Advanced:** What is the Total Cost of Ownership (TCO)?
- **Advanced:** What is the Return on Investment (ROI)?

A graphic showing the Return on Investment (ROI) formula. It consists of a teal rounded rectangle containing a white rounded rectangle. Inside the white rectangle, the formula "ROI = Gain - Cost" is written in red, with a horizontal red line underneath "Gain - Cost" and the word "Cost" centered below the line.
$$\text{ROI} = \frac{\text{Gain} - \text{Cost}}{\text{Cost}}$$

Approaching Funding



- Be deliberate
- Use a design process
- Identify the primary objective

Approaching Staffing



- Regular access
- Learning
- Sharing opportunities

Take Home Activity:
Vision for Your Library

Resources: People, Places, Things

Resources: Energy, Good Will,
Stick-to-it-iveness

Activity:

Getting it done! Working through
a mini-project plan

Mini-Project Plan

- Vision/Impact
- A main objective (just one for today)
- A set of tasks
- A timeline or a deadline
- What you need to get the job done
 - Time
 - Money
 - Donations or grants
- How do we know we've been successful (hint: did we accomplish the objective?)

Vision/Impact

- What is your big picture?



A main Goal (just for today)

- Describe what you intend to accomplish (SMARTly)

SMART Goals



A set of tasks:

- How will you accomplish your Goal?



A timeline or deadline:

- How long with this take – or when should it be completed?



What do you need to get the job done?

- Time
- Money
- Donations or grants
- Other



How do we know we've been successful?

- Hint: did we accomplish the objective?

Are you done?

Hint: You're never done! :0)

What's Next?

- Going forward, one of the greatest emerging technology needs -- and one that applies to all areas of the library -- is coming from the further evolution of "BYOD" (Bring Your Own Device) where patrons and staff bring their own equipment to use with the library's wireless access. Today, BYOD generally refers to laptop computers, tablets, eReaders and other similar devices. But those are just the beginning.

The Internet of Things is here now!



Questions?

Thank You!



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