



1

What We'll Cover

- Why do we adopt emerging technologies at the library?
- What are the elements of a memorable tech experience?
- How can we manage our costs?
- How can we effectively communicate the value of the library?
- Your questions!

2

Technology Has Long Been Part of the Library Experience

- Desktop. 1980s
- Internet. 1990s
- Mobile. 2000s
- Cloud 2000s
- Screenless. 2010s
- AI-powered. 2020s

Library Patrons Trying Out Computers

If you have ever used one, a computer was once considered a luxury. At the turn of the century, many people were skeptical of the technology. It was not until the late 1980s and early 1990s that computers became a part of the library experience.

But, like many other technologies, computers have to go through a process of being accepted by the library community. In the early 1990s, libraries began to offer computer classes to patrons.

These classes were often held in the library's computer lab. They were designed to help patrons learn the basics of using a computer.



Kathleen Deert, an employee at the Mastic-Moriches-Shirley Library, explaining computer

3

Current Emerging Technologies

- Virtual Reality
- Augmented Reality
- 3D Printing
- Internet of Things/smart devices.
- Artificial intelligence



4

What do we like about money?



5

Money is Awesome!

- More possible entry points.
- More room for error.
- Less need for cost offsets.



6

What do we like about technology?

7

Technology Word Association

- Convenience.
- Speed/productivity.
- Novelty.



8

What Role Do Libraries Play in Emerging Technologies?

- We are the great equalizers!
- Mission alignment.
- We help our communities navigate disruption.



9

Working under financial constraints.

10

Cost Concerns

- New tech can be expensive.
- New tech is often unproven.
- Emerging technologies can be quickly outmoded!



11

When Do We Invest in a Technology?

- Prohibitively expensive for individual, but organizationally affordable!
- Expensive is a relative term!
- Shelf-life factors into determining expense!



12

Working with a Limited Budget

- Eliminate options that are “too expensive” from plans.
- Determine if cost offsets are necessary.
- Identify low-cost and free alternatives
 - Open source.
 - Options for non-profits.
 - Repurposed equipment.



13

Leverage Non-Profit Status

- 501c3 can be helpful—talk to your Friends!
- TechSoup: technology product philanthropy.
- Many software companies often discounted or free software to schools, libraries.
- Money saved in library operations can translate to patron-facing services.



techsoup



14

Think Mobile!

- iOS (2017), Android (2018) are augmented reality platforms.
- Great for spatial data.
- Easy to repurpose or multipurpose.
- 85% smartphone ownership = BYOD potential.
- Generative AI + VR is imminent!



15

Mobile, App-Based 3D Scanning



16

Inexpensive Augmented Reality Options



17

AR-Powered Search Results



18

Thinking creatively.

19

When You're Broke, You Need to Be Imaginative!

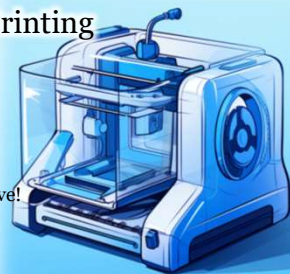
- Identify inexpensive entry points for emerging technologies.
- Identify new efficiencies for existing services.
- How can reimagining/redesigning a program save money?



20

Ex: Reimagining 3D Printing

- 3D printing is costly!
 - Printer.
 - Filament.
 - Maintenance kits.
- 3D design can be quite inexpensive!
 - Free software.
 - Existing IT infrastructure.
 - Same proof of concept.
 - Option to print...in 2D!



21

2D Printing To Manage Costs!



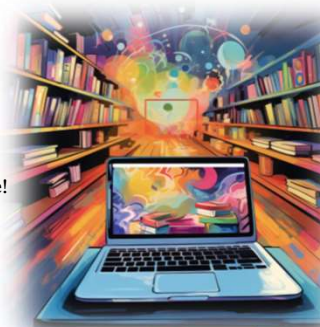
22

Create convenience where you can.

23

Virtualization as a Convenient Option

- Notary services.
- Digital library cards.
- Text/chat/email.
- Programs—where it makes sense!



24

Improving Your IT Infrastructure

- Expanded Wi-Fi.
- Charging stations.
- Zoom-friendly spaces.
- Telehealth options.



25

Differentiating ourselves from big tech.

26

The Power of the 1 on 1 Tech Appointment

- Why not the genius bar?
- Service personalization.
- We're not selling anything.
- Community trust.
- We respect user privacy!



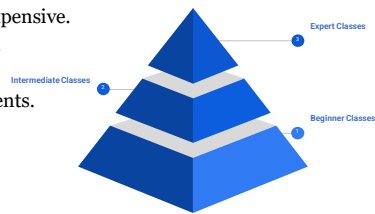
27

Communicating value.

28

Incrementalism

- Less ambitious = less expensive.
- Manage costs over time.
- Make better bets.
- Let users drive investments.



29

Limited Shelf-Life: High Return on Investment!

- Batch photo scanners.
- VHS, Betamax conversion.
- CDs, Vinyl.
- Organizationally inexpensive.



30

If You're Charging, You Need to Deliver Savings

- Fine free, fee free?
- Compare to consumer alternatives.
- Old school: fax, copy, print.
- New school: 3d printing.
- Easier to decrease offsets than increase them!



31

The Library of the Digital Era is a Small Business Engine!

- We are a worksite.
 - Wi-Fi.
 - Interview spaces.
 - Training location.
- The new computer literacy.
 - Collaborative work environments.
 - Social media marketing.



32

There's value, and there's values!

33

We Value Our Staff!

“If we don’t see work, we start to doubt the necessity of that work and the people who perform it.”

-Rachel Ivy Clark, “[Work Made Visible](#)”.

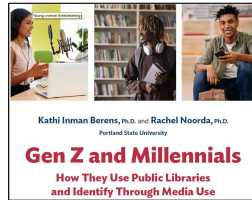
- We’re a service industry that undercounts services!
- Syracuse University’s [TrueValue Calculator](#).
- Communicating the availability & true cost of digital collections.



34

Gen Z and Millennials: How They Use Public Libraries and Identify Through Media Use

- Love browsing physical shelves at library—but attention is focused on social media environments. Digital collection opportunity!
- Searching for community.
- May have outdated or inaccurate view of library.
- Values-driven decisions.
 - Social good, environmentalism, privacy.



35

Sustainability and Technology

- Repair cafes.
- E-waste events.
 - The new shredding day!
- Library of Things.
 - Thermal imaging.
 - Air quality detectors.
 - Blood pressure monitors.



36

What is our most popular technology class? What can we learn from this?

37



38

AI Has All the Necessary Components for a Memorable Tech Experience

- Disruptive tech that we can help navigate.
- Novelty factor.
- Lots of inexpensive entry points.
- Potential for efficiencies.
- Library can differentiate itself from big tech.



39

Demystifying AI for Our Communities

- Introducing them to popular tools.
- Teaching ethical concerns.
- Privacy implications.
- Safe experimentation.
- Critical access as “free” options recede.



40

Talking to stakeholders.

41

Data vs Stories

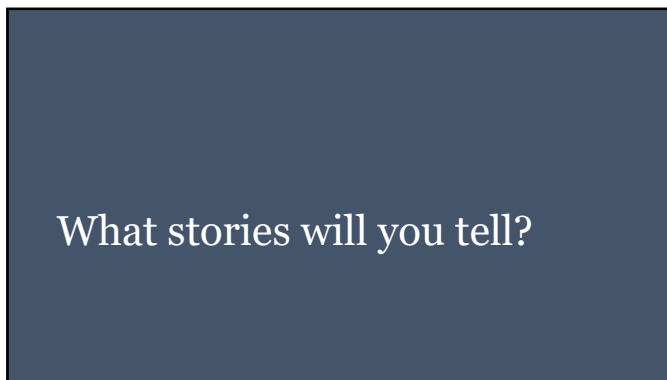
- Data can help drive organizational decision-making.
 - “We completed twenty-five 3D prints last month.”
- Stories can help drive support.
 - The case of the custom pasta shaper.



42



43



44

Nick Tanzi
the-digital-librarian.com
nicktanzi@gmail.com

 @techie_lib
 amazon.com/author/nicktanzi
 linkedin.com/in/nicktanzi

45
