



6th Annual Conference & Expo

**TRANSFORMATIONAL
TECHNOLOGY**
in HIGHER EDUCATION

MARCH 24 – 25, 2016

GRAND HYATT DENVER, CO

Transforming Academic Libraries for the New Millennium

From Book Warehouses to Technology-Centered Learning Commons



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Texas State University

March 25, 2016

9:00-9:40 am

Alkek Library Learning Commons 2015-2022

- Reconfiguration of Alkek Library From Book Warehouse to Learning Commons
- Large Academic Library (7 Fl.)
- Texas State University, 36,000 Students
- Carnegie Class Doctoral University (Higher Research Activity)
- Designated Emerging Research Institution (Texas)
- [Overview Video](#)



- Multi-Stakeholder IT Division Project
- Multi-Year 5-7, 3 Large Phases
- ~ 40 Million Total Budget

Learning Commons Phases/Timelines

- **Phase I:** Infrastructure Upgrade, Off-site Repository (2015-2017, ~5M, ~10M), **Underway**
- **Phase 2:** Mid-Term, Learning Commons, 2016-2018, ~15M, **Architectural Programming, Design Phase**
- **Phase 3** Long Term, Future Learning Commons, 10 M (2017-2022)

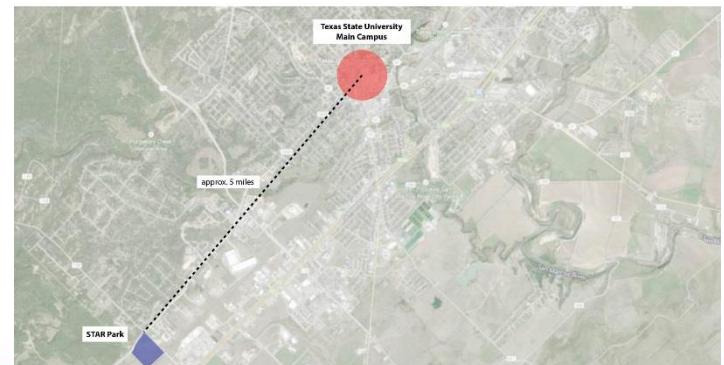
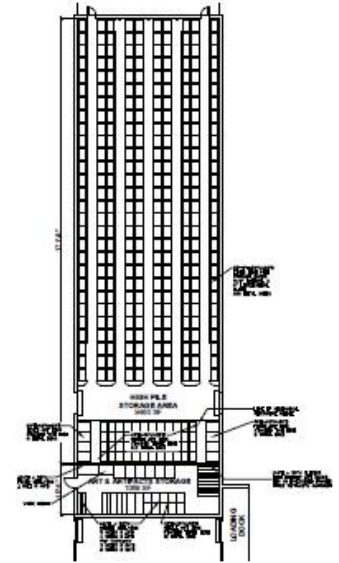


Offsite Repository

(Phase 1, 2015-2017)



An Architectural Space Program for the Texas State University at San Marcos
New Alkek Library Repository
Draft Document - March 2015



Alkek Library Learning Commons Phase I

Infrastructure Planning Principles

Technologies deployed in the library will change over time. Planning should reflect this by allocating appropriate space without necessarily establishing a *specific* technology for each space



Alkek Library Infrastructure Upgrade Planning Considerations 2016

- Planning associated with technologies should not be constrained based on **current** technology equipment or practices.
- Library planning should anticipate technologies we don't expect to see in the library, and in our current expectation, **more technology** is probably an underestimate.
- Upgrade should provide infrastructure *throughout* building **holistically**
- Technology-driven activities will continue to expand and will eventually dominate library use



Phase 1 High Data/Electrical Floors (F. 1-2)

Phase 2 Throughout Building

(Technological Reconfigurability)



- [Learning Commons Floor Video](#) (DIRRT)

Themed Moveable Centers



Large Emphasis on:

**Reconfigurability
Interdisciplinarity
Collaboration**

Library as Third Space



New Academic Library Learning CommonsTechnology (Possible Considerations)



Visualization Technologies

Wider definitions of computing & digital literacy



[Hunt Library NCSU](#) (video)
[Rice](#) (video, rationale, science)
[UT Austin](#) (video, humanities)
[Deloitte University](#) (video, business)
[University of Calgary](#)

Visualization Walls (VizWall)

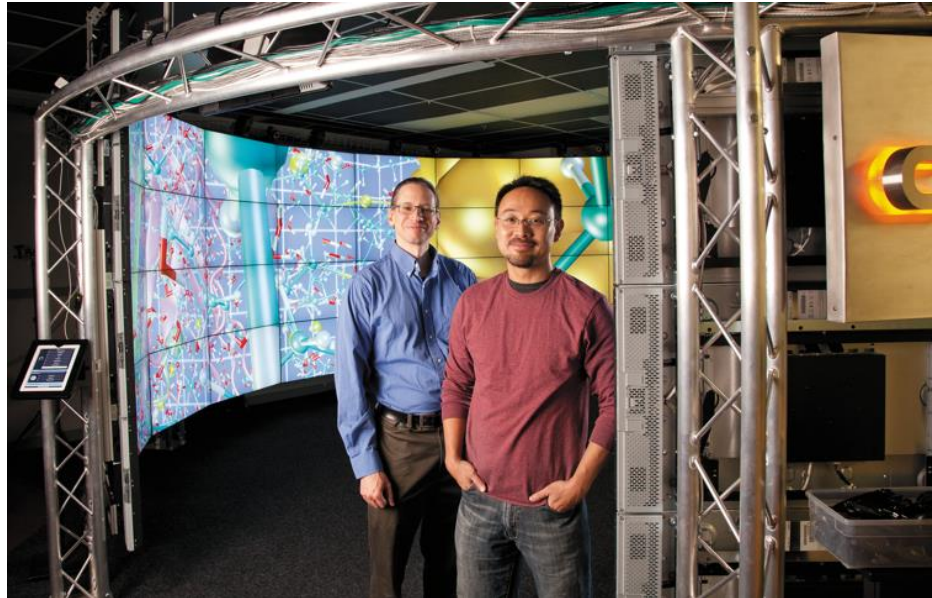


[Brown University Rockefeller Library](#) (article)



[NCSU Hunt Library](#)
(infrastructure link)

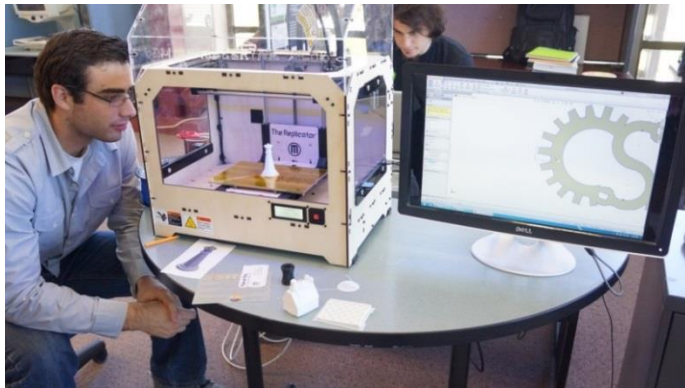
3D Immersive & Interactive Environments



[Microsoft Holo Len Lab](#) (video), [Site](#)
[University of Chicago CAVE](#) (article and video)

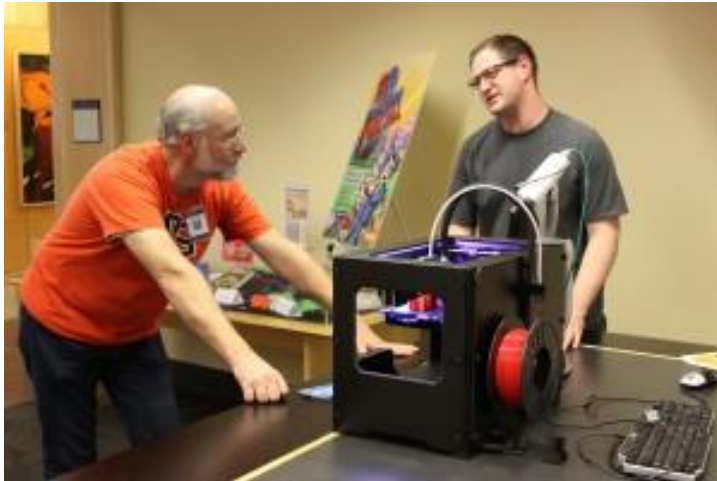
[John Hopkins Libraries Brody Learning Commons](#)
[Display Wall](#) (video)

Academic Library Maker Spaces



ACRL: [Academic Library Makerspaces](#) (article), [Video \(TedX\)](#)
[Library Makerspaces](#) (Resource List), [Examples](#)

Academic Makerspaces



[Oregon State University Valley Library](#) (article)



[University of Michigan 3D Lab](#) (example infrastructure)

Traditionally include 3-D printing, but can include other spaces to create content (e.g., large-format printing, physical computing, prototyping sandboxing)

Library Makerspaces (Considerations)



Fire codes/Ventilation/Internet
Connectivity/Expanded Electrical



[3D Printing Prototype Lab \(Video\)](#)
[Academic Purposes \(Video\)](#)

In House Library e-Presses University Publishing Infrastructures

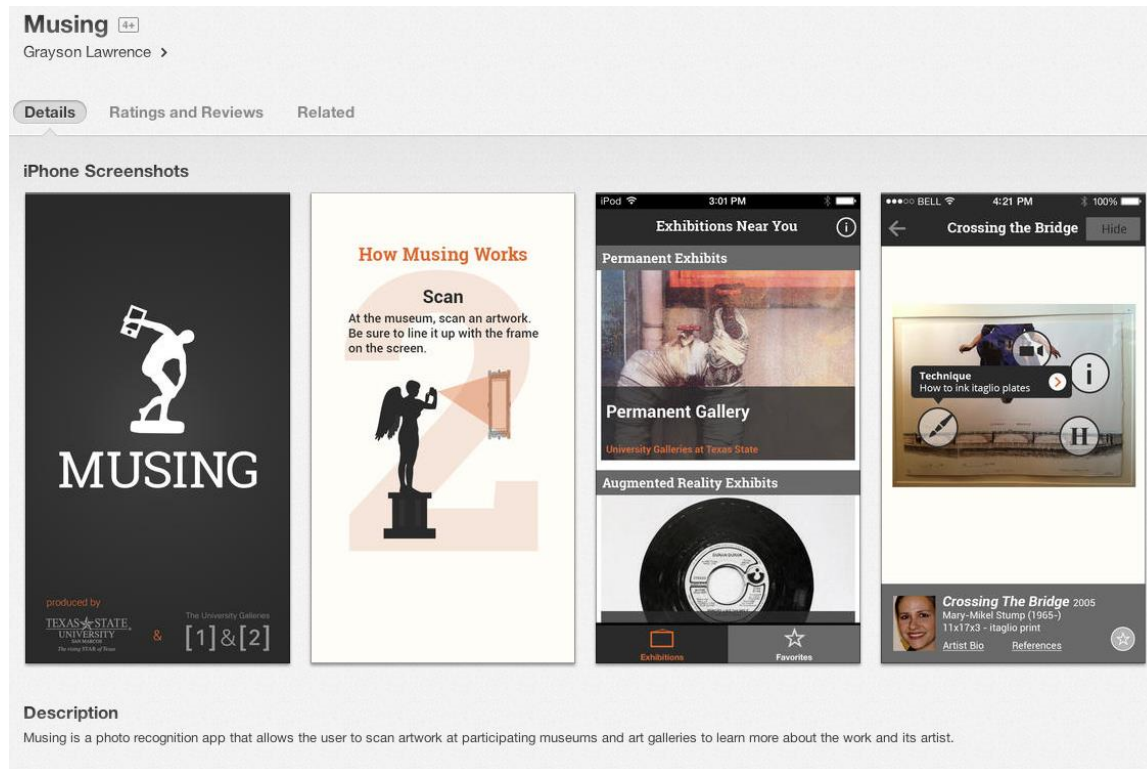


**E-Press
Editor**

- [Espresso Book Machine Animated Video](#), [Espresso Book Machine Video](#), [Site](#)

Interactive Museums: Wittliff Collections

Interactive displays, visual media displays, audio/podcast tours and electronic multimedia guides. Examples:



[MUSING: an iPhone app developed by Texas State](#) (Link)

Interactive Museum technologies



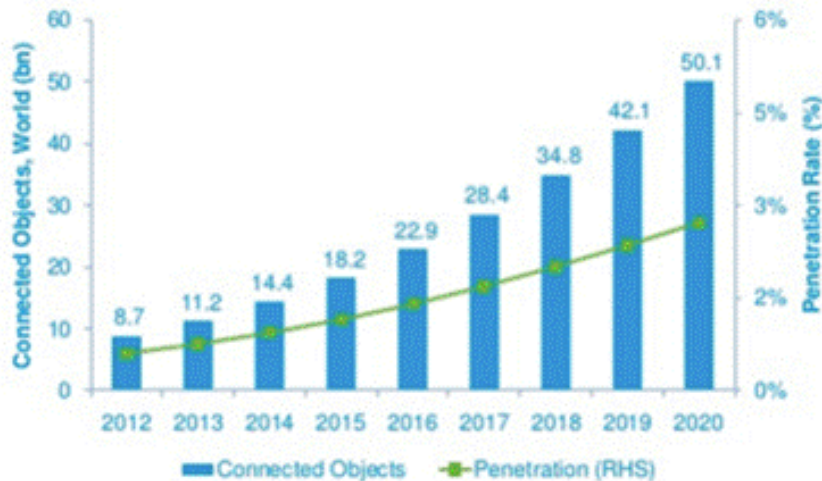
[Cleveland Museum of Art -
Collection Wall and more](#)
(video)

[Interactive Museum of
Sound, Haus der
Music, Vienna](#)
(video)



Internet of Things

Number of Connected Objects Expected to Reach 50bn by 2020



Penetration of connected objects in total 'things' expected to reach 2.7% in 2020 from 0.6% in 2012



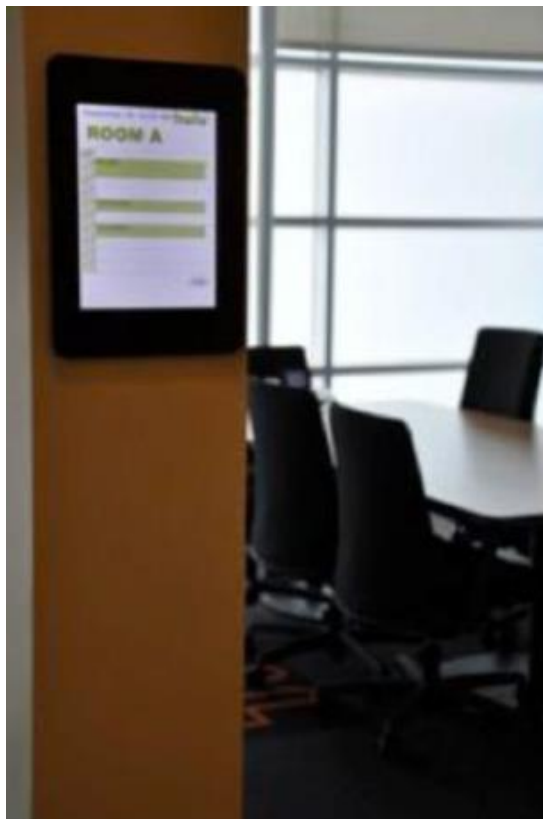
Things mapped to IP addresses/library/university spaces.
Wiring Library Spaces for IP address level connectivity.

RFID, Bookshelves, Digital Signage



Electrical/Connectivity Needs for Digital Signage,
RFID, Geo-locating,
smart scholarly spaces

Smart Rooms and Scheduling Software



Staff Work Spaces

Mobile, quickly (re)assembled



Wireless Connectivity, Hoteling, Moveable Walls, Electrical
[Workplace of the Future](#) (video), [Examples](#) (video), [Moveable Walls](#) (video),

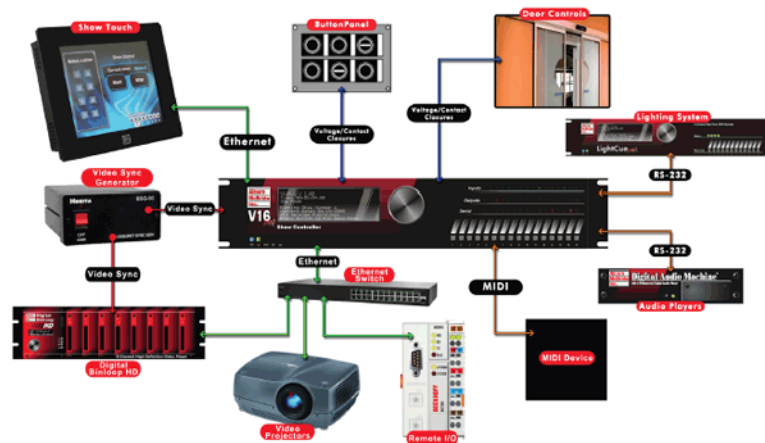
Imagineering Design Potential For Academic Library Spaces



[Hunt Library Video](#), Learning Space Design Playlist
Instant Theatres, [Learning Work Spaces](#) (video)
[Lighting Museums and Libraries](#) (lecture video)

Imagineering Academic Library Spaces

Show Controller Technology



[Learning Commons ODU](#) (Student video), cafes, computers and journal kiosks, lighting-narrative, [show controllers](#) (vendor website) in academic environments, Expanded electrical/connectivity/plumbing, [U Calgary Design Thinking](#)

Wayfinding Design

Smart Flooring/Tiles, Spaces, Library Cafes



Electrical Needs/Connectivity, Wireless & Higher Bandwidth
[Wayfinding Design](#), [Digital Carpet](#),
Plumbing for food & drink in the library, bathroom spaces

Expanded Building Security for Technology Rich Environments



Keyless Access Readers, Cameras, Other Security

Prototyping/Scaling/Phasing Future Trajectories



Learning Commons 10 M +
(Multi-Tiered, Many Labs, Visualization, Multimedia, 3D Printing, Makerspace, Traditional etc.)

Makerspace 1-2 M
(Physical/Digital Computing Space),
Lasercutter, 3D Printing, Arduino etc.

3D Printing Lab, 100-500 K
Multiple and Varying Capability, 3D
Printing Space, Scanners, Lab

3D Printer Prototype, 15-40K
3D Printer, 3D Scanner, Software, HR
Infrastructure

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Further Information, Presentations, Downloads

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Questions/Comments

