

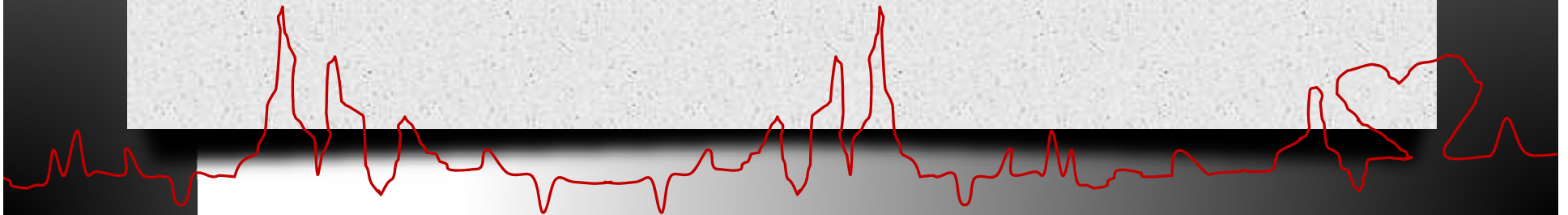
the University's Heart... with a Robotic Arm

Sharon L. Bostick, PhD
Dean of University Libraries

Robert A. Simmons, AIA, MPA
Assistant Vice Chancellor of Administration

University of Missouri-Kansas City (UMKC)

- Part of the University of Missouri System
- Two urban campuses
- 3 Libraries:
 - Miller Nichols Library
 - Music/Media Library
 - LaBudde Special Collections
 - Marr Sound Archives
 - Health Sciences Library
 - Dental Library



Miller Nichols Library

- 3 floors built in 1969
- 2 floors added in 1991
- Building was full by 1999
- Information Commons created in 2000
 - Set the tone for the type of public spaces needed for the future

Project Genesis

- Six years ago new plan for main library expansion and renovation
- Design focused on student learning
- Designed for innovation and collaboration and included traditional stack space
- Then...budget was cut

Project Genesis: Dilemma

- We needed to:
- Reduce size of the project and space for collections
- Determine where to put the books as print and electronic collections continued to grow
- Create collaborative learning spaces

Project Genesis: Solution

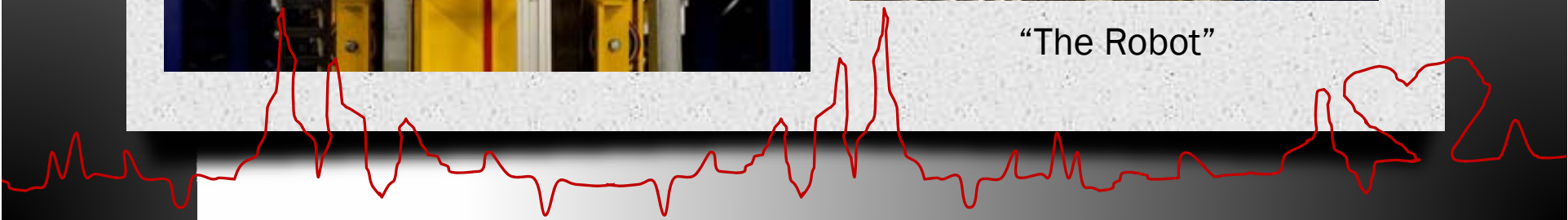
- Remote storage
 - Would require a two-day delivery time
- Alternative solutions
 - Robotic automated high density storage and retrieval system (ASRS)

Technology Creates New Path

- Selection of the robotic system which stores books and other items and retrieves them quickly using the online catalog
- This technology, “The Robot”, allowed us to move ahead to achieve our vision
- Strengthened the Libraries’ role in the Campus Master Plan



"The Robot"

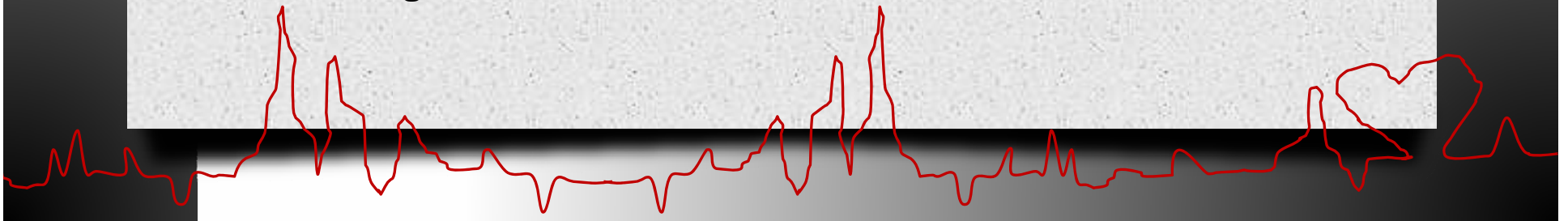




“Physical” Heart: Historical Centrality of University Libraries

“The emerging prominence of the library as a central building of special importance on campus can be traced in several ways – growth in acquisitions, improvements in methods of operation because of technological advances, and changes in attitudes toward planning and designing library buildings.”

Richard P. Dober. *Campus Planning*. Reinhold Pub. Corp.. New York. 1964. Page 85.



Historic Precedent: Low Library, Columbia University



“...the most beautiful building on campus,
clearly reflected by its symmetry and balance,
the triumph of the architect over the librarian.”

Wilson, Louis Round & Tauber, Maurice. *The University Library; Its Organization, Administration and Functions*. University of Chicago Press. Chicago. 1945.

Volker Campus
Development History

1933



UMKC Library History

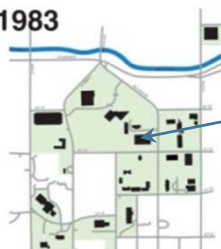
• 1933: Scofield Hall

1958



• 1936: Newcomb Hall

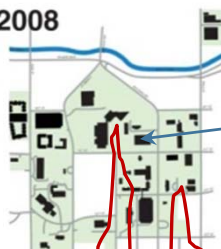
1983



1969: Miller Nichols Library

1991: Miller Nichols Library Addition

2008



2009: Miller Nichols Library "Robot" Addition and Renovations

Volker Campus Master Plan

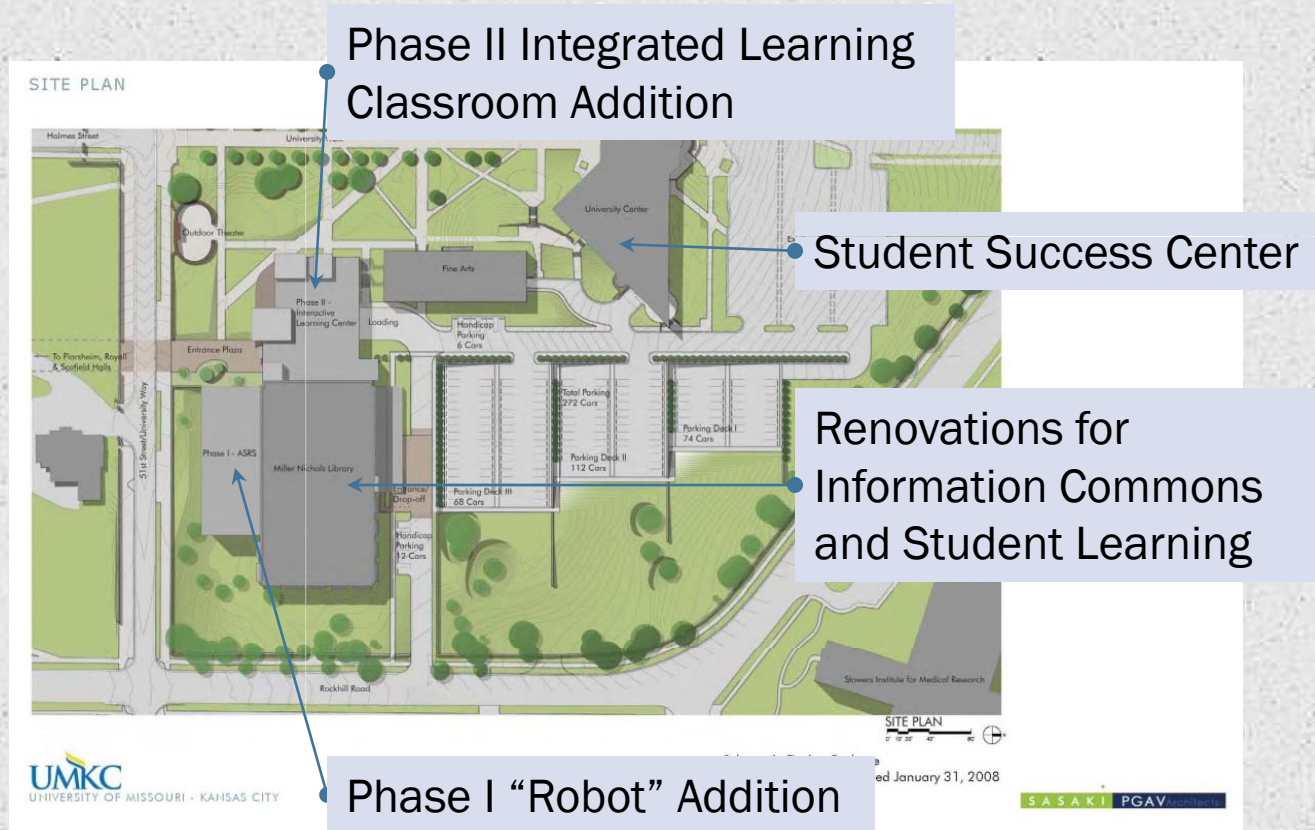


UMKC Miller Nichols Library Master Plan: From Vault to Beacon

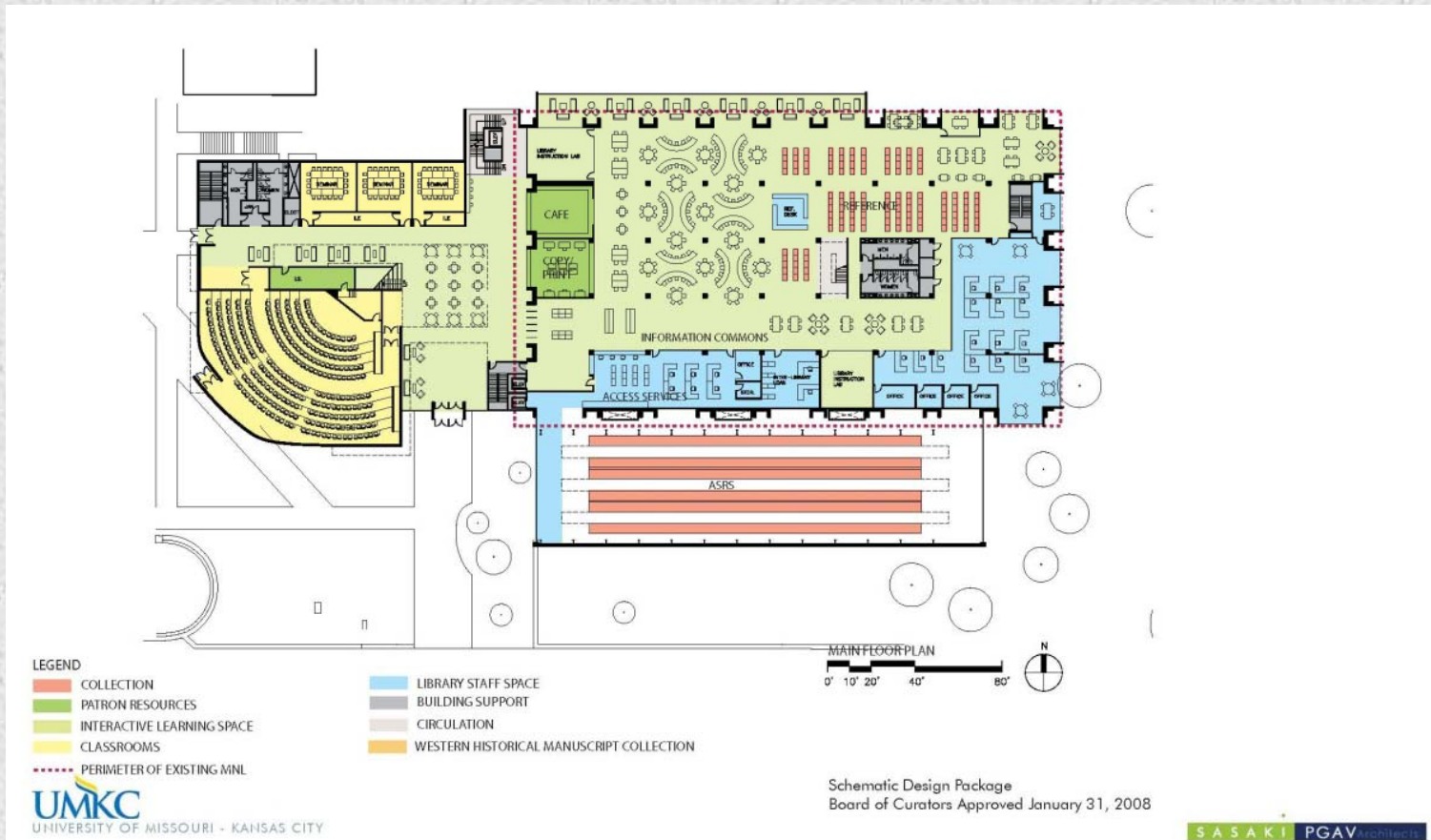


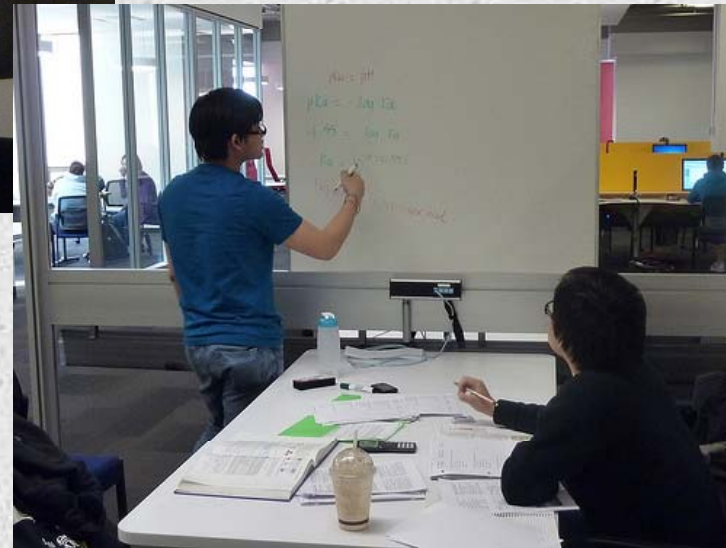
View of the Fully Renovated Miller Nichols Library from the North.

Integrated Learning and Student Success



Integrated Learning and Student Success





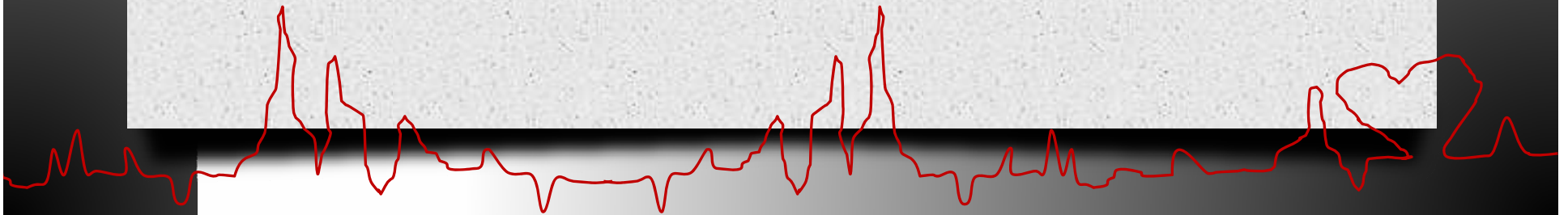
Technology Opportunity #1: Collaborative Learning Spaces

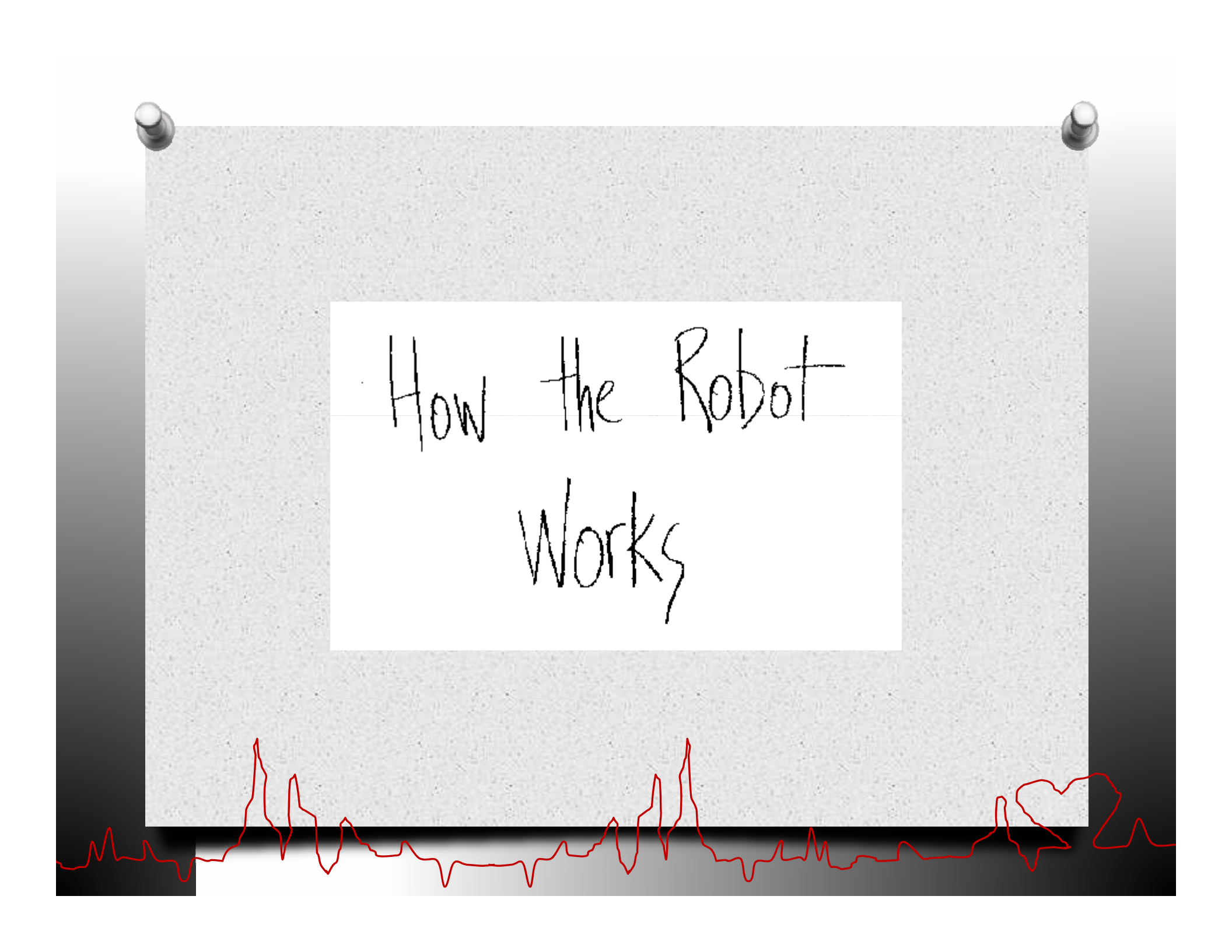


Technology Opportunity #2: Sustainability-
Robot Addition Storage Environment and Green Roof

Implementing the Robot

- Major collection decisions:
 - Most of the collection in Robot stored in bins
 - Special Collections and Sound Archives in a shelving solution, creating a hybrid system
 - Browsing collection on traditional shelves consisting of most recent acquisitions and high circulating items

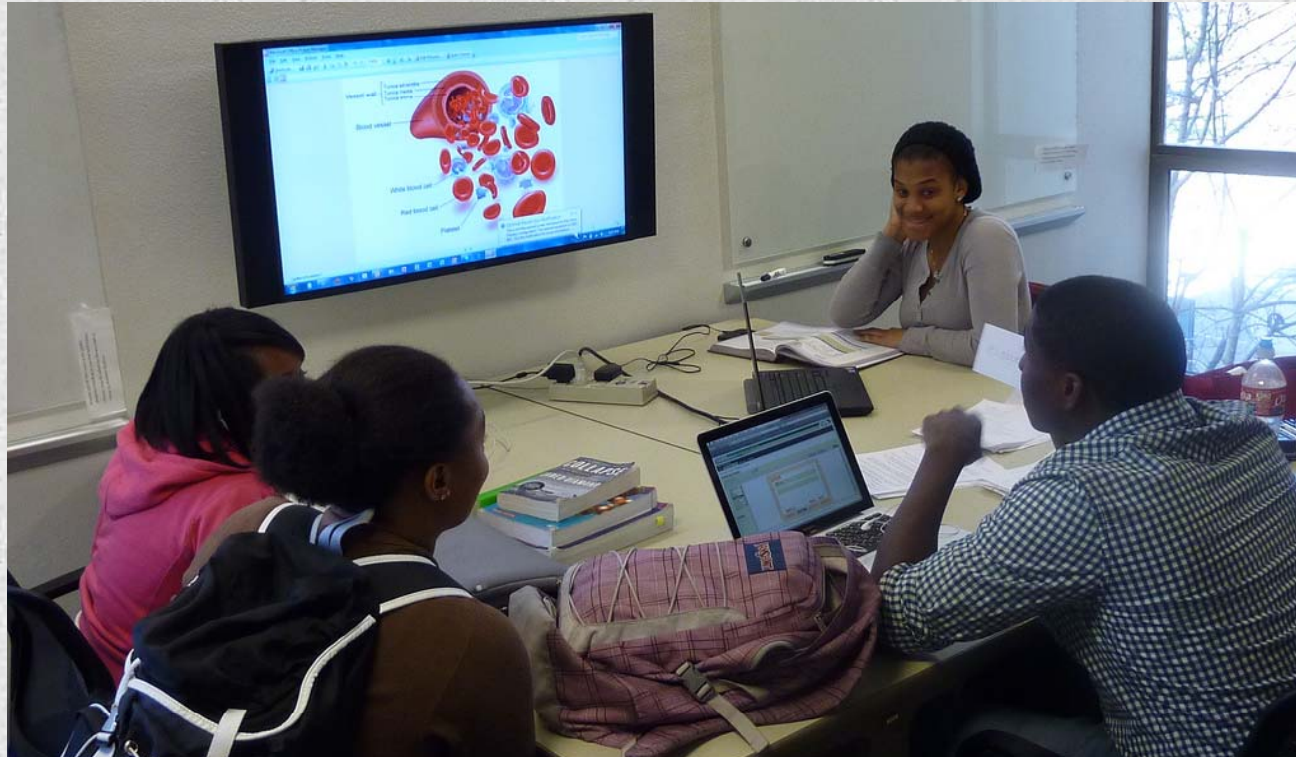




How the Robot
Works

The Robot as a Catalyst for Change

- It is a technology that created a variety of opportunities for all of the UMKC libraries
- It has enabled us to design innovative, flexible spaces for student and faculty use
- It has enabled us to make use of new technologies
- It serves as a model for future renovations of other floors and libraries



Collaborative Learning Spaces



Collaborative Learning Spaces

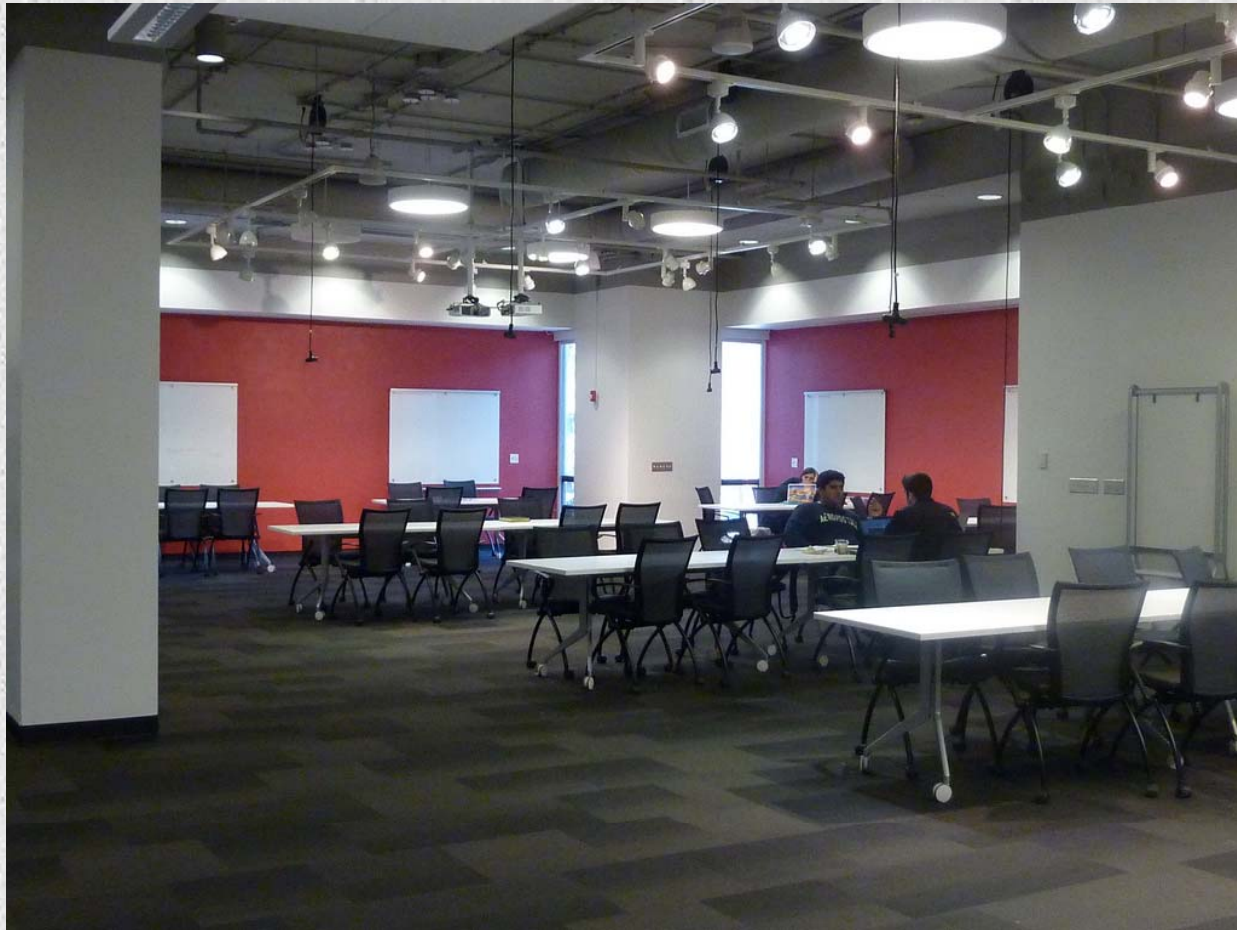




Collaborative Learning Spaces

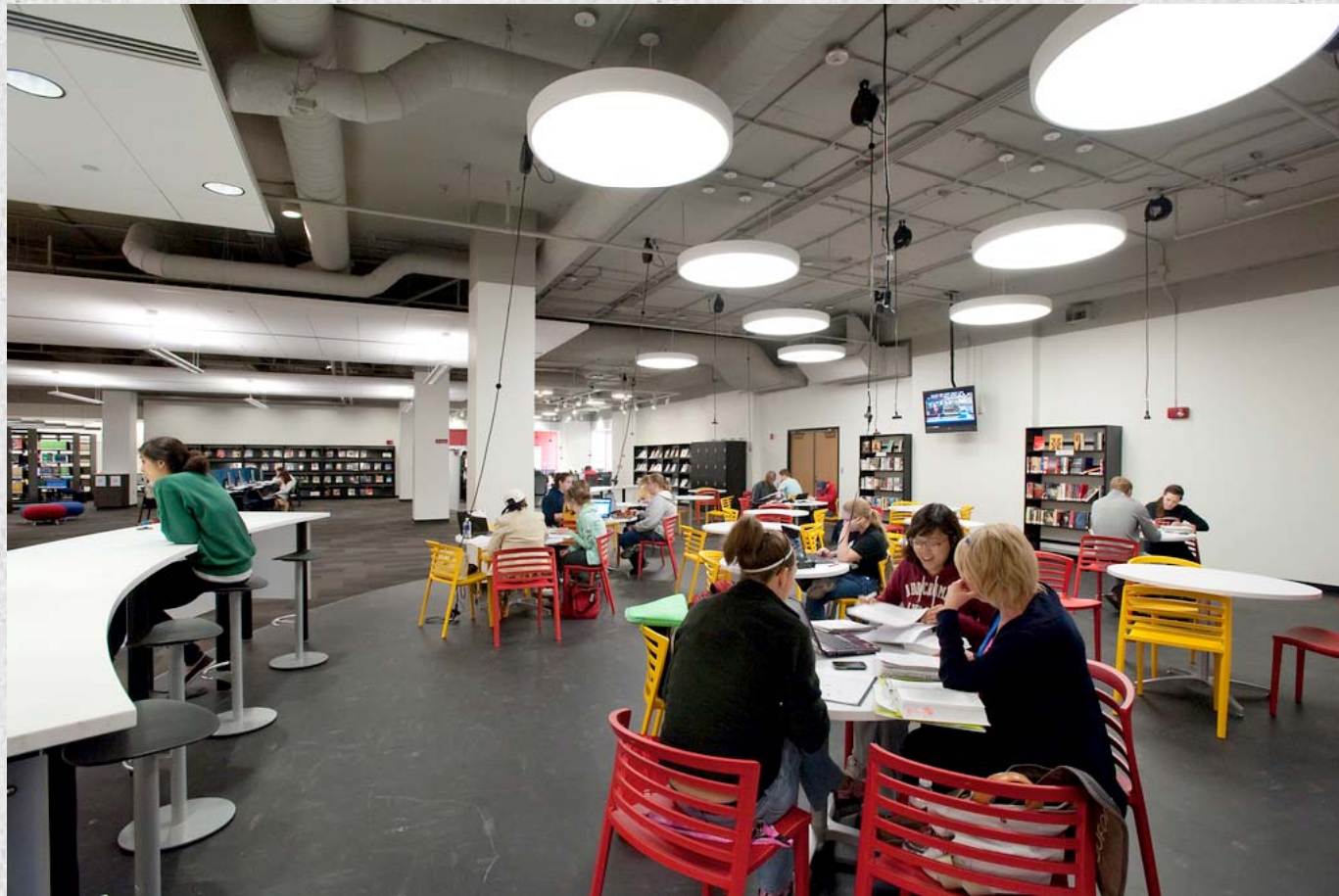


Flexible Spaces



iX (Information Exchange) Theatre





Robot Café

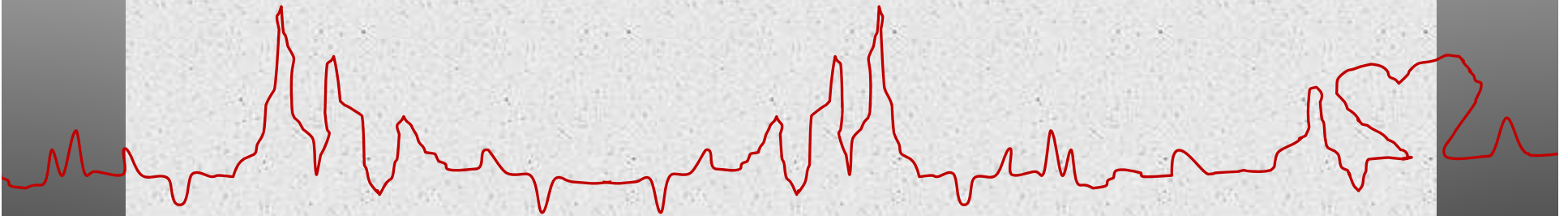


Shared Service Desk





“Psychological” Heart:
The Robot Inspires Creativity





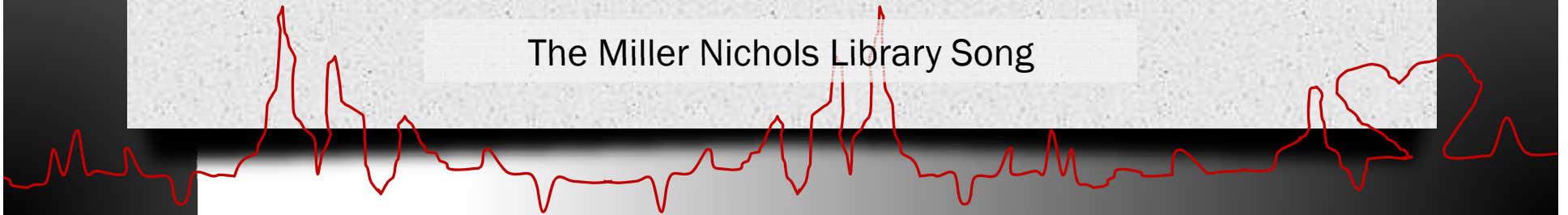
Miller Nichols Library Robot Addition



Robot Naming Contest: the Winner



The Miller Nichols Library Song





"Robots in the Social Landscape" art exhibition



Guinness Book World Record Winning Robot Dance

Questions?

Sharon L. Bostick, PhD

Dean of University Libraries

BostickS@umkc.edu

Robert A. Simmons, AIA, MPA

Associate Vice Chancellor, Administration

SimmonsR@umkc.edu