

Planning a Combined Engineering, Computer Sciences, and Physics Library at Stanford University

Grace Baysinger

graceb@stanford.edu

Head of Science & Engineering Resource Group
Libraries

Head Librarian and Bibliographer, Swain
Chemistry and Chemical Engineering Library

230th ACS National
Meeting in Washington,
D.C. Fall 2005

Stanford University



SEQ2 Master Plan and Design



SEQ 2 Model



School of Engineering Center



Description of the School of Engineering Center

- ◆ Intended to draw faculty, staff, students and visitors into the new quad.
- ◆ Home to the SEQ 2 Library, state of the art distance education and professional education classrooms, student organization and meeting spaces and the SEQ 2 café.
- ◆ Will also house the School of Engineering Dean's office, the Department of Management Science and Engineering, and the Institute for Computational and Mathematical Engineering.
- ◆ Gross square feet: 130,000. Scheduled completion date: 2009.

Building a 21st Century Library

"The SEQ 2 Library" provides an exciting opportunity for us to think about things like what an engineering library ought to look like in the 21st century," he said.

"Obviously, it'll have much more digital content than it currently has. But we're going to hopefully be very innovative in how we think about access to information in the 21st century in creating this new library."

Engineering Dean Jim Plummer

Efforts underway to develop vision statement and program plan.

Primary Clientele of the SEQ2 Library

- ◆ Aeronautics and Astronautics
- ◆ Applied Physics
- ◆ Astronomy
- ◆ Bioengineering
- ◆ Civil and Environmental Engineering
- ◆ Computer Science
- ◆ Electrical Engineering
- ◆ Management Science and Engineering
- ◆ Materials Science and Engineering
- ◆ Mechanical Engineering
- ◆ Physics



Getting From Here to There

- ◆ Collections
- ◆ Services
- ◆ Staff
- ◆ Facility
- ◆ Infrastructure

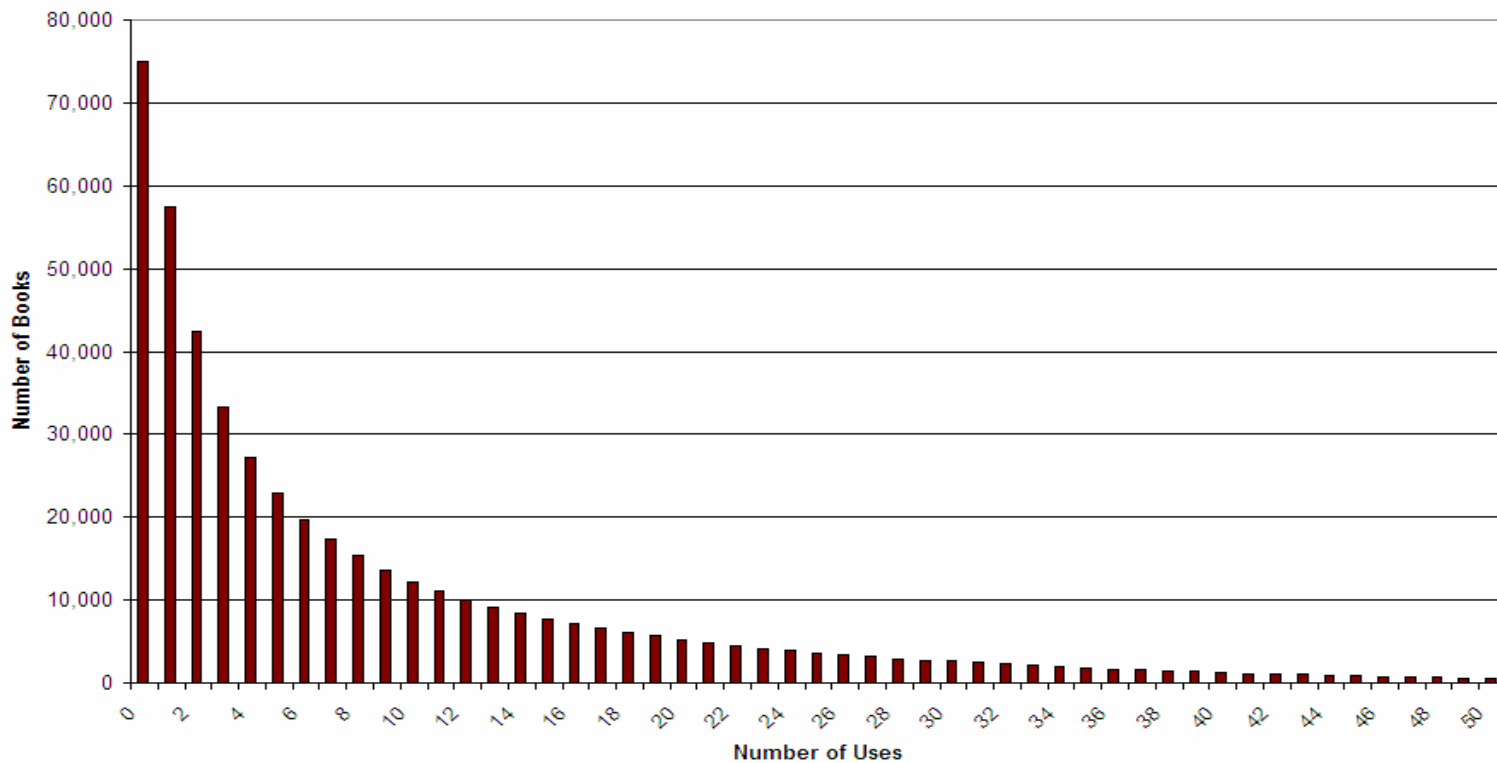


Analysis of Collections

- ◆ Quantity by document type
- ◆ Level of use
- ◆ Formats available
- ◆ Migration costs
- ◆ Copyright

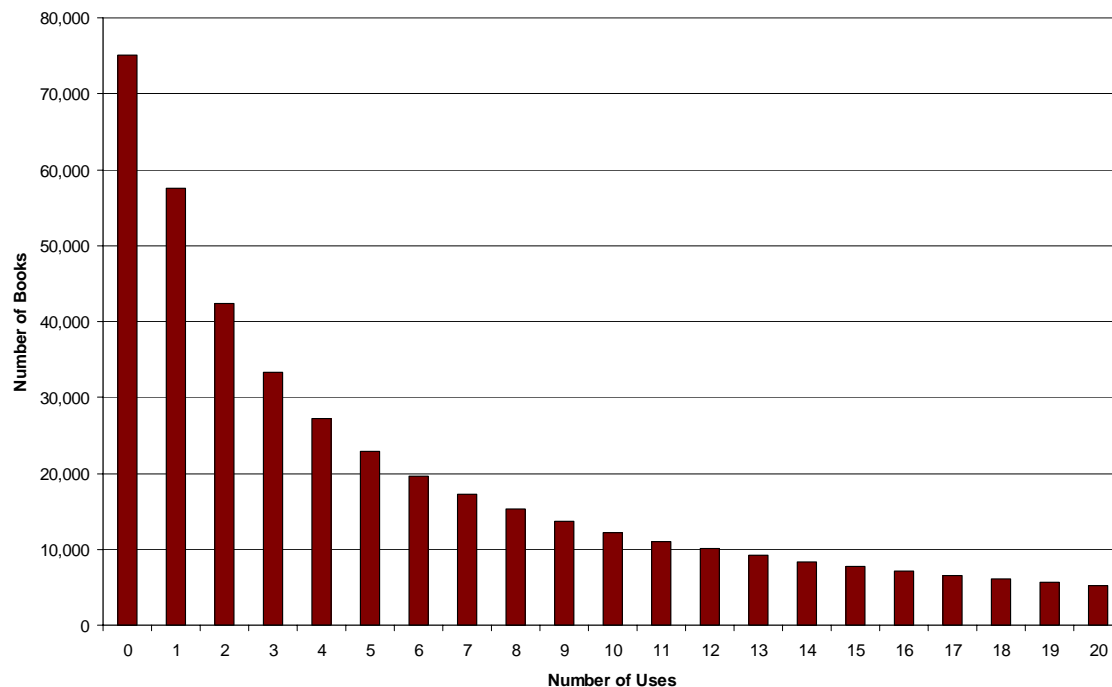
Analysis of Collection – Use of Books in Merged Collection

Number of Books Used x or More Times
(Number of Uses increments by 1)



Analysis of Collections Use of Books in Merged Collection

Number of Books Used x or More Times
(Number of Uses increments by 1)





User Services - Now

- ◆ Circulation & Reserves
- ◆ End-user Searching
- ◆ Document delivery
- ◆ Reference & Instruction
- ◆ Computer clusters

User Services - Future

- ◆ Self-service circulation
- ◆ Virtual dominates--personalized, smart, learns
- ◆ Librarian in private office
- ◆ Bot + human for most complex searches
- ◆ Knowledge Environments & portals
- ◆ Data-mining and visualization
- ◆ Staff outreach & user feedback essential

Staff - Future

- ◆ Paraprofessional to professional
- ◆ Subject domain specialists
- ◆ Technology specialists
- ◆ Location of staff
- ◆ Size

Facility

- ◆ Mixture of user spaces
 - Quiet, reflective
 - Discovery area / research gym
 - Collaborative areas
 - Community areas
 - Computing/training
 - Exhibits
- ◆ Staff areas

User Spaces – Green Library



230th ACS National Meeting in
Washington, D.C. Fall 2005

Infrastructure

Core Functions of Library

- ◆ Methods and formats will change, core functions will remain the same.
 - Build collections
 - Organize materials
 - Access and retrieval
 - Long-term preservation
 - Supporting “business” functions

Build Collections

- ◆ Digital
 - Licensed
 - Harvested from web
 - Local content, born digital
 - Digitized locally
- ◆ Print
 - Working collections
 - Historical collections

Build Collection

- ◆ Build Collections
 - “Content is king”
 - Collaboratively built collections
 - More active role in archiving locally produced publications & data sets
 - Knowledge Environments and Temporary portals

Organize

- ◆ New paradigm of science will emerge
- ◆ Auto-indexing
- ◆ Richness of metadata will vary
- ◆ Use technology to create views for searching and browsing
- ◆ Seed portals and let users personalize
- ◆ Enhance portal content based on usage patterns

Access and Retrieval

- ◆ Three layers: content, metadata, and retrieval software
- ◆ Personalized, smart, and learns
- ◆ Use existing controlled vocabularies rather than re-create taxonomies
- ◆ Navigation and visualization tools
- ◆ Balancing personalization vs privacy

Preservation

- ◆ Working assumption: current search interfaces will not exist in 100 years
- ◆ Metadata investment will vary
 - Standards/format registries still being devised
- ◆ For long-term access, must be self-contained
- ◆ Stanford Digital Repository



Business Functions

- ◆ Authentication & security
- ◆ Fiscal control & management
- ◆ Content management system
- ◆ Collection review tools
- ◆ Systems integrated

Challenges and Opportunities

- ◆ Work with library, users, and others to build 21st century library
- ◆ Be creative in use of space and make design flexible to accommodate evolving needs
- ◆ Test bed for implementing new features & services in library
- ◆ Expand and strengthen alliances with strategic partners
- ◆ Retool staff to meet new needs

Acknowledgments & Sources

- ◆ Karen Clay, Head of Engineering Library; Karen Greig, Engineering Librarian; Stella Ota, Physics Librarian; Linda Yamamoto, Math/CS Librarian
- ◆ Rick Luce, Director of Los Alamos National Laboratory Library
- ◆ Images Courtesy of Stanford University / SEQ 2 Master Plan and Design Guidelines
- ◆ Science and Engineering Quad 2: Master Plan
<http://cpm.stanford.edu/SEQ2/index.html>