An Exploration of Trends in Academic Library Makerspaces

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The purpose of this presentation is to share the findings of a recently conducted research project. The research focused on discovering current trends in academic library makerspaces.
What are Makerspaces?

Makerspaces are places or spaces where people come together to share knowledge and resources, to collaborate on ideas and concepts, and to create and innovate.
Purpose and Objectives of the Study

The purpose of the study was to explore the technologies, services and operational practices that are available and in use in academic library makerspaces. The primary objective was to identify common trends and translate those trends into recommendations for academic libraries who may consider establishing makerspaces within their facilities.
Research Questions

What are the common technologies in academic library makerspaces?

What are the common operational practices among academic library makerspaces?
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<th>Methodology</th>
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<tr>
<td>Descriptors</td>
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<tr>
<td>Resources</td>
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<tr>
<td><a href="http://guides.lib.ua.edu/makerspaces">http://guides.lib.ua.edu/makerspaces</a></td>
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<tr>
<td>1. Training and Workshops</td>
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<tr>
<td>2. Written Standard Operating Procedure Guide</td>
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<tr>
<td>3. Costs paid through student accounts</td>
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<tr>
<td>4. Signed User Agreement required</td>
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<td>5. Offers info on other makerspace resources</td>
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<tr>
<td>6. Managed by staff</td>
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<tr>
<td>7. No indication of Technology Librarian</td>
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<td>8. No indication that equipment may be loaned</td>
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<tr>
<td>9. Appointments required/Online form</td>
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<tr>
<td>10. Students, staff, and faculty</td>
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<tr>
<td>3D Printing</td>
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<td>3D Scanning</td>
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<td>Laser Cutting</td>
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<td>Programming</td>
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<td>Electronics</td>
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<td>Raspberry Pi</td>
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<td>Fabrication</td>
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<td>Training Workshops</td>
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<td>DIY 3D Printing</td>
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Organized by Theme into 4 Descriptors

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<thead>
<tr>
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<th>Methodology Continued</th>
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<tbody>
<tr>
<td>1</td>
<td>Information and Training</td>
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<td>2</td>
<td>Written Policies</td>
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<td>3</td>
<td>Staffing Model</td>
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<td>4</td>
<td>Access</td>
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</tbody>
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Findings
Findings: Information and Training

- Required Training: 89%
- Not Required: 11%

Training is required: 89%
Training is not required: 11%
Findings: Written Policies

- Written Usage Policy: 83%
- No Written Policy: 6%
- Not available: 11%
Findings: Staffing Model

Library Staff: 76%
Faculty: 6%
Not available: 18%
Findings: Access

Students, Staff, Faculty: 83%  
Students Only: 17%
Findings: Technologies

- 3D Printing-DIY: 72%
- Electronics: 67%
- 3D Scanning: 56%
- Cutters (Vinyl or Laser): 44%
- Audio Visual: 39%
- Sewing/Textiles: 39%
- 3D Printing-SERVICE: 28%
- Virtual Reality: 22%
- Milling: 17%
- Fabrication: 17%
- Hand Tools: 11%
- Button Making: 11%
- Routers: 6%
- Woodworking: 6%
Common Operational Practices

- Mandatory Training
- Established User Policies
- Academic Library Makerspaces
- Managed by Library Staff
- Accessed by the University Community
Challenges to Establishing Makerspaces in Academic Libraries

- What is its purpose?
- How will it be paid for?
- Where will it be located?
- What are the policies?
- Who will staff it?
- Is it sustainable?
- Who are the eligible users?
Cost Considerations

• Expenditures: One time start-up costs
  • Building or Space Renovation
  • Furniture
  • 3D Printers
  • Vinyl Cutters
  • Laser Cutters
  • Plotters
  • Computers
  • Software
  • Hand Tools
  • etc.
Recommendations for Future Studies

• Assessment
  • Utilization statistics
  • Satisfaction surveys

• Reporting and Accountability
  • Library administration
  • Parent institution
  • Grant committees
  • Donors
Conclusion & Recommendations

• Establish written usage and user policies
• Develop a strategy for information dissemination and user training
• Train and or hire specific staff to manage the space; Technology Librarian
• Consider allowing access to faculty and staff
• Know the sources of funding in the planning stage for maximum sustainability
Recap

• An exploration of trends in academic library makerspaces
• Content Analysis of university websites
• Identified common occurrences of technologies and operational practices
• Data analysis produced 4 main categories of operational practices
• Data analysis showed 3D technologies and electronics as frontrunners
• Importance of identifying initial and ongoing funding
Reference List


Contact Me

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