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Dismantle Your Electronic Resources Fund! Applying The Power of Faceted Classification to Acquisitions Budget Management.

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Statewide California Electronic Library Consortium (SCELC)

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Dismantle Your Electronic Resources Fund!

Applying The Power of Faceted Classification to Acquisitions Budget Management

Maria Savova, Director of Information Resources and Systems, Claremont Colleges Library
Jason Price, Ph.D., Director of Licensing Operations, SCELC Consortium
Budget questions we should be able to answer

1. What (exactly) is the money being spent on?
2. How much money is left to spend this year?
3. How much will be needed in future years?
1. What (exactly) is the money being spent on?
2. How much money is left to spend this year?

Percent of budget Spent by Quarter

- Jul-Sep: 40%
- Oct-Dec: 14%
- Jan-Mar: 34%
- Apr-Jun: 12%
3. How much will be needed in future years?

### Library Budget

<table>
<thead>
<tr>
<th></th>
<th>FY02/03</th>
<th>FY03/04</th>
<th>FY04/05</th>
<th>FY05/06</th>
<th>FY06/07</th>
<th>FY07/08</th>
<th>FY08/09</th>
<th>FY09/10</th>
<th>FY10/11</th>
</tr>
</thead>
</table>

### Purchase Index

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<tr>
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<th>FY02/03</th>
<th>FY03/04</th>
<th>FY04/05</th>
<th>FY05/06</th>
<th>FY06/07</th>
<th>FY07/08</th>
<th>FY08/09</th>
<th>FY09/10</th>
<th>FY10/11</th>
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### Inflation

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<th>FY04/05</th>
<th>FY05/06</th>
<th>FY06/07</th>
<th>FY07/08</th>
<th>FY08/09</th>
<th>FY09/10</th>
<th>FY10/11</th>
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</thead>
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<tr>
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<td>58.36%</td>
<td>7.20%</td>
<td>7.10%</td>
<td>15.21%</td>
<td>7.73%</td>
<td>8.27%</td>
<td>8.80%</td>
<td>7.70%</td>
<td>6.00%</td>
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<tr>
<td>Book Inflation</td>
<td>28.29%</td>
<td>8.70%</td>
<td>3.50%</td>
<td>3.00%</td>
<td>0.40%</td>
<td>5.20%</td>
<td>4.00%</td>
<td>4.00%</td>
<td>4.00%</td>
</tr>
<tr>
<td>Other Inflation</td>
<td>13.35%</td>
<td>5.10%</td>
<td>3.70%</td>
<td>3.90%</td>
<td>5.10%</td>
<td>2.80%</td>
<td>5.00%</td>
<td>2.30%</td>
<td>3.00%</td>
</tr>
<tr>
<td>Total Inflation</td>
<td>6.84%</td>
<td>5.33%</td>
<td>9.29%</td>
<td>5.04%</td>
<td>6.25%</td>
<td>6.49%</td>
<td>5.60%</td>
<td>4.79%</td>
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</tr>
<tr>
<td>Library Budget Change</td>
<td>4.36%</td>
<td>6.67%</td>
<td>7.13%</td>
<td>4.76%</td>
<td>4.76%</td>
<td>0.22%</td>
<td>-5.26%</td>
<td>-4.49%</td>
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</tr>
<tr>
<td>Purchasing Power Change</td>
<td>-2.60%</td>
<td>-1.19%</td>
<td>-3.50%</td>
<td>-3.78%</td>
<td>-5.28%</td>
<td>-11.23%</td>
<td>-20.39%</td>
<td>-27.46%</td>
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</tbody>
</table>
How should acquisitions budgets be designed to best address these questions?
How should acquisitions budgets be redesigned to best address these questions?
What is wrong with this structure? (hint: a budget is a classification scheme!)

<table>
<thead>
<tr>
<th>Subject</th>
<th>Format</th>
<th>Books (Autoship Approval)</th>
<th>Books (Standing Orders)</th>
<th>Serials</th>
<th>Microform</th>
<th>A/V</th>
<th>Electronic Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthropology</td>
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<tr>
<td>Art &amp; Art History</td>
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<td>Biology</td>
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<td>...</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Traditional library budget acquisitions funds

Books (autoship)  acquisition mode  print books autoship

Books (standing orders)  acquisition mode  print books standing orders

Subject area:

Books  material type  print books one-time

Serials  material type  print journals ongoing

Microform  material type  physical microform one-time

A/V  material type  physical media one-time

Electronic resources  material format  electronic mixture of material types and mixture of acq. modes
Dismantling the E-resources fund

- E-journal subscriptions
- Non-journal database subscriptions
- E-book subscriptions
- Journal backfile purchases
- Primary source purchases
- E-book purchases
- Streaming media subscriptions
- Streaming media purchases
- E-book standing orders

Colour = format
Shape = material type
Pattern = acquisition mode
Traditional budget structure
Budget structure based on Faceted Classification Schema

Each of the facets is a separate taxonomy, comprised by “clearly defined, mutually exclusive, and collectively exhaustive” attributes (Taylor, 2004).

https://www.cloudset.net/hc/en-us/articles/420212-Faceted-Knowledge-Base
Recommended new Acquisition budget structure

Facets - the four core aspects of information resources acquisitions:

1. **cost center** (subject/discipline/administrative unit)
2. **material type** (book/journal/primary source, etc.)
3. **acquisition mode** (purchase/subscription, etc.)
4. **material format** (print/electronic)
Redesign steps

1. Identifying the attributes for each facet
2. Assigning one attribute from each facet to a fund to form the new structure
3. Reassigning existing ongoing acquisitions to the right funds
4. Mapping incoming acquisitions to the new funds
Identifying the attributes for each facet

- **Format**
  - Print/Physical (p)
  - Electronic (e)

- **Material type**
  - Book (b)
  - Journals and Journal databases (j)
  - Media (m)
  - Non-journal content (n)

- **Acquisition mode**
  - Ongoing (o)
  - Standing orders (s)
  - Approval autoship (a)
  - DDA (d)
  - Firm orders (f)

- **Discretion / effort**
Discipline as the cost center facet

- Large administrative library unit: branch, discipline group, large subject area, etc.

- CCL’s Cost centers, based on disciplines and library admin units:
Combining attributes into funds
Our fund codes

<table>
<thead>
<tr>
<th>Cost center</th>
<th>Material type</th>
<th>Acquisition mode</th>
<th>Material format</th>
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<tr>
<td>(ah)</td>
<td>(book)</td>
<td>(autoship)</td>
<td>(print)</td>
</tr>
<tr>
<td>Fund code</td>
<td>Discipline</td>
<td>Material type</td>
<td>Acquisition mode</td>
</tr>
<tr>
<td>-----------</td>
<td>------------------------</td>
<td>---------------</td>
<td>------------------</td>
</tr>
<tr>
<td>1ahbde</td>
<td>Arts &amp; Humanities</td>
<td>Book</td>
<td>Demand</td>
</tr>
<tr>
<td>1ahbfe</td>
<td>Arts &amp; Humanities</td>
<td>Book</td>
<td>Firm</td>
</tr>
<tr>
<td>1ahboe</td>
<td>Arts &amp; Humanities</td>
<td>Book</td>
<td>Ongoing</td>
</tr>
<tr>
<td>1ahbse</td>
<td>Arts &amp; Humanities</td>
<td>Book</td>
<td>Standing</td>
</tr>
<tr>
<td>1ahjfe</td>
<td>Arts &amp; Humanities</td>
<td>Journal/JDB</td>
<td>Firm</td>
</tr>
<tr>
<td>1ahjoe</td>
<td>Arts &amp; Humanities</td>
<td>Journal/JDB</td>
<td>Ongoing</td>
</tr>
<tr>
<td>1ahnfe</td>
<td>Arts &amp; Humanities</td>
<td>NonJourDB</td>
<td>Firm</td>
</tr>
<tr>
<td>1ahnoe</td>
<td>Arts &amp; Humanities</td>
<td>NonJourDB</td>
<td>Ongoing</td>
</tr>
<tr>
<td>1asjfe</td>
<td>Asian Studies</td>
<td>Journal/JDB</td>
<td>Firm</td>
</tr>
<tr>
<td>1asjoe</td>
<td>Asian Studies</td>
<td>Journal/JDB</td>
<td>Ongoing</td>
</tr>
<tr>
<td>1asnfe</td>
<td>Asian Studies</td>
<td>NonJourDB</td>
<td>Firm</td>
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<tr>
<td>1asnoe</td>
<td>Asian Studies</td>
<td>NonJourDB</td>
<td>Ongoing</td>
</tr>
<tr>
<td>1mdbde</td>
<td>Multiple Disciplines</td>
<td>Book</td>
<td>Demand</td>
</tr>
<tr>
<td>1mdbfe</td>
<td>Multiple Disciplines</td>
<td>Book</td>
<td>Firm</td>
</tr>
<tr>
<td>1mdboe</td>
<td>Multiple Disciplines</td>
<td>Book</td>
<td>Ongoing</td>
</tr>
<tr>
<td>1mdbse</td>
<td>Multiple Disciplines</td>
<td>Book</td>
<td>Standing</td>
</tr>
<tr>
<td>1mdjfe</td>
<td>Multiple Disciplines</td>
<td>Journal/JDB</td>
<td>Firm</td>
</tr>
</tbody>
</table>
All possible facet combinations
= 240 funds

6 \times 4 \times 5 \times 2 = 240
Meaningful facet combinations
= 126 funds
Books

• Print

• Firm orders
• Autoship
• Standing orders
• DDA
• Ongoing

• Electronic

• Autoship
• Firm orders
• Standing orders
• Ongoing subscriptions
• DDA

http://www.canstockphoto.com

www.fernandobiz.com
Journals and journal databases

• Print

• Ongoing subscriptions
• Firm orders
• Autoship
• Standing orders
• DDA

• Electronic

• Ongoing subscriptions
• Firm orders
• DDA
• Autoship
• Standing orders
Non-journal databases

- Electronic
  - Ongoing subscriptions
  - Firm orders
  - DDA

- Physical
  - Firm orders
  - DDA

Electronic
- Ongoing
- Firm orders
- DDA

Media

http://www.flickr.com/photos/elgrandee/3217549652/
Meaningful facet combinations
= 126 funds
CCL’s budget funds = 68 funds
How does it compare with before?

In two stages, we went from two-dimensional budget with 199 funds (in FY06) to four-dimensional faceted structure with only 68 (in FY13)!
Budget questions we can now answer easily

1. What (exactly) is the money being spent on?
2. How much money is left to spend this year?
3. How much will be needed in future years?
Standard by mat. type or discipline

- Journal/JDB: 55.9%
- Book: 21.0%
- NonJourDB: 21.4%
- Media: 1.8%

- Social sciences: 33.5%
- STEM: 36.3%
- Arts & Humanities: 18.5%
- Multiple Disciplines: 10.0%
- Asian Studies: 0.7%
- Browsing: 0.5%
- Special Collections: 0.4%
New facets at a single click

by format

Electronic 85.7%

Print 14.0%

Physical 0.4%

by acquisition mode

Standing 3.8%

Autoship 5.9%

Demand 3.0%

Firm 16.1%

Ongoing 71.2%
Combining Facets

Material Type, Format, and Discipline

All disciplines
- Journal/JDB Print: 1.8%
- Book Electronic: 10.9%
- Book Print: 16.4%
- Journal/JDB Electronic: 70.9%

STEM
- Journal/JDB Print: 0.4%
- Book Electronic: 9.4%
- Book Print: 3.9%
- Journal/JDB Electronic: 86.3%

A&H
- Journal/JDB Print: 3.8%
- Book Electronic: 8.7%
- Book Print: 41.4%
- Journal/JDB Electronic: 46.1%
All four facets can reveal strategy

Limited to Mat Type: [Book], Disc: [Arts & Humanities]
All four facets can reveal strategy

Limited to Mat Type: [Book], Disc: [STEM]
Budget questions we can now answer easily

1. What (exactly) is the money being spent on?
2. How much money is left to spend this year?
3. How much will be needed in future years?
Budget funds tree

Ongoing  Approval  Standing

Materials

Firm + Demand*

Discretionary funds

Non-discretionary funds

Books  Media

Journal  Non-journal

FP  FP  FE
FE  FE  FE
DP  DP  DE
DE  DE  DE
<table>
<thead>
<tr>
<th>Material type</th>
<th>Acquisition mode</th>
<th>Format</th>
<th>Amount Budgeted</th>
<th>Amount Expended</th>
<th>Remaining Fund %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Book</td>
<td>Demand</td>
<td>Electronic</td>
<td>100.00%</td>
<td>82.70%</td>
<td>17.30%</td>
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<tr>
<td>Book</td>
<td>Firm</td>
<td>Electronic</td>
<td>100.00%</td>
<td>8.30%</td>
<td>91.70%</td>
</tr>
<tr>
<td>Book</td>
<td>Demand</td>
<td>Print</td>
<td>100.00%</td>
<td>34.82%</td>
<td>65.18%</td>
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<tr>
<td>Book</td>
<td>Firm</td>
<td>Print</td>
<td>100.00%</td>
<td>38.71%</td>
<td>61.29%</td>
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<tr>
<td>Journal/JDB</td>
<td>Firm</td>
<td>Electronic</td>
<td>100.00%</td>
<td>39.89%</td>
<td>60.11%</td>
</tr>
<tr>
<td>NonJourDB</td>
<td>Firm</td>
<td>Electronic</td>
<td>100.00%</td>
<td>13.09%</td>
<td>86.91%</td>
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<tr>
<td>Media</td>
<td>Demand</td>
<td>Electronic</td>
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<td>3.94%</td>
<td>96.06%</td>
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<td>Media</td>
<td>Firm</td>
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<td>1.48%</td>
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<td>Demand</td>
<td>Physical</td>
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<td>190.00%</td>
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<td>Firm</td>
<td>Physical</td>
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<td>71.87%</td>
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<td>Firm + On demand</td>
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<td>22.92%</td>
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<thead>
<tr>
<th>Material type</th>
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<th>Amount Expended</th>
<th>Remaining Fund %</th>
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<tbody>
<tr>
<td>Book</td>
<td>Standing</td>
<td>Electronic</td>
<td>100.00%</td>
<td>81.23%</td>
<td>18.77%</td>
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<tr>
<td>Book</td>
<td>Standing</td>
<td>Print</td>
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<td>37.17%</td>
<td>62.83%</td>
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<td>Standing orders</td>
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<td>100.00%</td>
<td>63.11%</td>
<td>36.89%</td>
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<th>Material type</th>
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<th>Remaining Fund %</th>
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<td>Ongoing</td>
<td>Electronic</td>
<td>100.00%</td>
<td>20.31%</td>
<td>79.69%</td>
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<tr>
<td>Journal/JDB</td>
<td>Ongoing</td>
<td>Electronic</td>
<td>100.00%</td>
<td>23.05%</td>
<td>76.95%</td>
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<tr>
<td>Journal/JDB</td>
<td>Ongoing</td>
<td>Print</td>
<td>100.00%</td>
<td>17.18%</td>
<td>82.82%</td>
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<tr>
<td>NonJourDB</td>
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<td>Electronic</td>
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<td>75.16%</td>
<td>24.84%</td>
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<tr>
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<td></td>
<td>100.00%</td>
<td>34.06%</td>
<td>65.94%</td>
</tr>
</tbody>
</table>

Total materials | 100.00% | 32.69% | 67.31%
Budget questions we can now answer easily

1. What (exactly) is the money being spent on?
2. How much money is left to spend this year?
3. How much will be needed in future years?
Communicating impact of inflation

Year 1: 20% - $12,000,000
Year 2: 15% - $10,000,000
Year 3: 10% - $10,000,000
Year 4: 66% - $16,000,000
Year 5: 66% - $16,000,000
Year 6: 75% - $16,000,000
Year 7: 75% - $16,000,000
Year 8: 75% - $16,000,000
Year 9: 75% - $16,000,000

Print journal subscriptions (4.08%) - $2,000,000
E-book subscriptions (8.49%) - $1,800,000
E-journal subscriptions (5.40%) - $1,500,000
"Discretionary" funds - $1,000,000
Non-journal e-subscriptions (3.05%) - $900,000
Total budget (2%) - $400,000

Total: -$206,078
Questions and Discussion

Your questions

• Discussed in more detail in our MS
  – “Giving up” on subjects
  – Predictability within each budget
  – Allocation principles and procedure
  – Implementing the new structure