Towards a Holistic Analysis Tool to Support Decision-Making in Libraries


16 April 2013
Introduction

NOTICE: BUDGET CUTS
NOW OPEN EVERY 3rd TUESDAY OF ODD-NUMBERED MONTHS DURING LEAP YEARS.

Dave Granlund © www.davegranlund.com
Introduction
Holistic Analysis

Strategic and well-coordinated budget plan by means of a “holistic approach”. (Ernst and Segall 1995)

Holistic ➔ importance of the whole and the interdependence of its parts

Importance of the entire library and the interdependence of its processes, collection and services.
# Holistic Analysis

<table>
<thead>
<tr>
<th>Perspective</th>
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## Holistic Analysis

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First Quadrant - Costing Analysis

- **Time-Driven Activity-Based Costing**

First Quadrant - Costing Analysis

**Acquisition**
- Acquisition of Books
- Acquisition of Journals

**Cataloging**
- Original Cataloging
- Copy Cataloging
- Cataloging Closed-Stack Items

**Circulation**
- Lending items
- Returning items
- Reference

**Document Delivery**
- Requesting closed stack items
- ILL Outgoing Request
- ILL Incoming Request – digital items
- ILL Incoming Request – printed items
First Quadrant - Costing Analysis

• Benefits

  – *Disaggregated values per activity*
    • Scanning activities,
    • Overdue fines
    • “Searching” activities of an ILL request

  – *Comparison of scenarios*
    • Manually returning vs. Self-check machine
    • Copy cataloging vs. Original cataloging

  – *Justification of decisions and choices*
    • Hiring students
    • Development of new services
First Quadrant - Costing Analysis

- **Challenges**
  - *Time*
    - Data collection
    - Documenting the activity
  - *Feeling controlled*
    - Uncomfortable being observed
    - Data collection delay

- Involvement and commitment
- Explaining the purpose of measurement
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## Second Quadrant - Quality

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<th>2012</th>
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<tr>
<td>Affect of Service</td>
<td>+</td>
<td>↑</td>
</tr>
<tr>
<td>Information Control</td>
<td>+</td>
<td>↓</td>
</tr>
<tr>
<td>Library as a Place</td>
<td>+</td>
<td>↑</td>
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http://www.libqual.org/home
Second Quadrant - Quality

STUDENTS

STAFF
# Second Quadrant - Quality

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<th>Domains</th>
<th>Actions points</th>
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<td><strong>Library as place</strong></td>
<td>Group work areas improved</td>
</tr>
<tr>
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<td>Learning center facilities with hi-tech equipment</td>
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<tr>
<td><strong>Affect of service</strong></td>
<td>Customer service training programs</td>
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<td>Long-term cooperation projects to exchange expertise</td>
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<td>Information Specialists</td>
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<td><strong>Information control</strong></td>
<td>Enhancing the new search platform</td>
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<td>Improving remote access</td>
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Second Quadrant - Quality

• Challenges

  – *Data Preparation*
    • Language definition
    • Variety of population

  – *Granularity*
    • No results for branch libraries and disciplines

  – *Participation rates*
    • Very long survey
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Third Quadrant - Usefulness

Citations patterns
Publishing patterns
Vendor-supplied statistics
Web of Science

CBA Analysis
Third Quadrant - Usefulness

• **Challenges**

  – *Time*
    • 2.5 hours to manually analyze a thesis

  – *Abbreviations*
    • No defined standard for journals’ abbreviations and acronyms

  – *Data management*
    • Need of dedicated software
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# Fourth Quadrant - Users’ behavior

## Bibliographic Surrogate
- MARC, Dublin Core
- Author, Publisher
- Subject headings/
- Classification
- Abstract, Keywords
- Type of material
- Location (Physical, Virtual)
- Accessibility

## Bibliometric Data
(requires non-aggregated e-resource data)
- Citations / Links
- Social networks, e.g.
- Disciplines
- Affiliations

## Library Services
Basics: Time, Date, Location, Format, Concurrent use

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<th>Searching</th>
<th>Circulation / Use</th>
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<tr>
<td>Content (flag for failed search)</td>
<td>OPAC info (circ lengths)</td>
</tr>
<tr>
<td>Path of search (before/after)</td>
<td>Transaction Log Analysis</td>
</tr>
<tr>
<td>Resolution of search</td>
<td>Clickthrough link / Proxy Info</td>
</tr>
<tr>
<td>Concurrent with use of materials</td>
<td>COUNTER data</td>
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<tr>
<th>Reference</th>
<th>Outreach and Training</th>
<th>ILL / Other Requests</th>
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<tbody>
<tr>
<td>Method</td>
<td>Program type</td>
<td>Stream of request</td>
</tr>
<tr>
<td>Question</td>
<td>Program title</td>
<td>Final supplier</td>
</tr>
<tr>
<td>Question topic</td>
<td>Program subject</td>
<td>Time of processing</td>
</tr>
<tr>
<td>Time taken</td>
<td>Attendee demographics</td>
<td>Time to supply</td>
</tr>
<tr>
<td>Answer</td>
<td>Requestor information</td>
<td>Costs</td>
</tr>
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## Demographic Surrogate
Depends upon setting:
- College / Department / Level
- Zip code / Group membership / Areas of Interest
- Department / Company Role
- Building / Grade / Teacher
Fourth Quadrant - Users’ behavior

- **Challenges**
  - *User privacy*
    - Encode the user identification
    - Demographic surrogate
  - *Identifiability of IP Addresses*
    - Define the range of IP addresses
Conclusions

• To holistically analyze a library
  – library functions (collection and services)
  – stakeholders’ perception (internal and external).

• Considerations
  – Time
  – Data Management
  – Privacy
  – Dedicated systems
Thanks for your attention

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