Analytics and Your Neighbors

Comparative Approaches

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Agenda

1. Introduction
2. Benchmark Analytics
3. Comparative Collection Analysis
Introduction

• Cooperative friendly neighbors
Introduction

• Not like this

Introduction

• When performing comparative analysis, there is a need to balance different aspects of the comparison
  • The depth/detail of data
  • The breadth of comparison/number of institutions comparing to
Introduction

- **Benchmark Analytics** puts focus on the breadth of comparison
- Data being compared is high level/KPI

- **Comparative Collection Analytics** puts focus on the depth of comparison
- Group for comparison is smaller
Agenda

1. Introduction
2. Benchmark Analytics
3. Comparative Collection Analysis
Benchmark Analytics

• The overall goal and idea of the Benchmark analytics is for the institution to identify
  • Where in their workflows improvements can be made
  • Where processes are already at a satisfactory or above satisfactory level.

• One way for doing this is to compare KPIs with other institutions

• The KPIs can be measured on a monthly or yearly basis. This enables the identification of trends.

• The scheduled release is:
  • Preview – April 2017
  • August 2017
Benchmark Analytics

• For example, an institution may see that from the time of ordering physical items until the time the item arrives takes significantly longer than the average for other institutions.
• This institution can then drill down to investigate where in the process there may be a problem.

  • It may be that between the time the order is created until the time it is sent takes too long because the “review” process is taking too long.
  • It may be that certain vendors are taking an unusually long time to process the orders.
  • There could also be a problem with the period from when the item arrives to the institution until it arrives to the acquisitions librarian to scan it in.

• Benchmark analytics allows the institution to identify these issues
As part of the process each institution is defined with a profile so that they can be compared appropriately with other institutions, in a non-identifying manner.
Benchmark Analytics

- The Benchmark Analytics can be easily accessed via an “out of the box” customizable and ready to use KPI dashboard.
Benchmark Analytics

- The Benchmark Analytics is a subject area in Alma Analytics and, like all other subjects, customized specific reports can be created on demand by each institution.
As is the case with all tabs in the KPI Dashboard the comparison to other institutions can be filtered by various criteria.
The KPI Watchlist provides a summary of various KPIs which can be seen together.

The gauges quickly inform the user where his institution (blue dial) stands in comparison to other institutions (pink dial)
• Hovering over the gauge provides further details. When the dial is near the green this is good.
• When the dial is near the red this is a warning
The KPI Watchlist also provides the information in tabular form with status indicators of warning, critical and OK.
Benchmark Analytics - My Trends

- The “My Trends” tab of the dashboard provides the institution with an up close look at his own institution, and may be filtered by time and specific measures.
The “My Trends” currently includes three areas of measurements.

- Monthly requests measures
- Monthly loan measures
- Monthly inventory measures

Each area includes several measures.
Benchmark Analytics - My Trends

My Institution - Monthly Requests Measures

Measure Selector
- Num of physical item requests that involved transits (by month)
- Num of patron physical item requests created (by month)
- Num of booking requests created (by month)
- Num of digitization requests created (by month)
- Num of patron physical item requests rejected (by month)
- Num of patron physical item requests rejected by library (by month)
- Num of patron physical item requests rejected by patron (by month)

Num of physical item requests that involved transits (by month)

<table>
<thead>
<tr>
<th>KPI Year Month</th>
<th>Desc</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016-12</td>
<td></td>
</tr>
<tr>
<td>2017-01</td>
<td></td>
</tr>
<tr>
<td>2017-02</td>
<td></td>
</tr>
<tr>
<td>2017-03</td>
<td></td>
</tr>
</tbody>
</table>
And, of course, each institution can choose the dates for which he wants to see the trends.
• The Inventory Total tab allows the institution to compare its inventory to other institutions
• At the current time this includes:
  • Number of bibliographic records in repository (total)
  • Number of electronic collections in repository (total)
  • Number of electronic portfolios in repository (total)
  • Number of physical items in repository (total)
- The dotted line is the average
- The blue bar is “my institution”
- The pink bars are all other institutions.
Hovering over the data provides additional information.
Inventory Total

- The data also appears at the top of the dashboard in performance tiles

<table>
<thead>
<tr>
<th>Description</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Num of active physical items in repository (total)</td>
<td>1,374,005</td>
</tr>
<tr>
<td>Num of electronic portfolios in repository (total)</td>
<td>1,503,989</td>
</tr>
<tr>
<td>Num of electronic collections in repository (total)</td>
<td>734</td>
</tr>
<tr>
<td>Num of active bibliographic records in repository (total)</td>
<td>2,602,878</td>
</tr>
</tbody>
</table>
Benchmark Analytics - Inventory Total by month

• The Inventory Total by month tab allows the institution to compare what was added to his inventory with other institutions.
• At the current time this includes:
  • Number of bibliographic records in repository (by month)
  • Number of electronic collections in repository (by month)
  • Number of electronic portfolios in repository (by month)
  • Number of physical items in repository (by month)
The chosen times appearing can be “played” on the slide bar on top showing the changes over the time period.
Benchmark Analytics - Inventory Total **by month**

- The data also appears at the top of the dashboard in performance tiles.
- Here we have the average amounts added per month for the specified time period

<table>
<thead>
<tr>
<th>Num of physical items in repository</th>
<th>Num of electronic collections in repository</th>
<th>Num of electronic portfolios in repository</th>
<th>Num of bibliographic records in repository</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,414 added (by month)</td>
<td>7 added (by month)</td>
<td>30,909 added (by month)</td>
<td>25,089 added (by month)</td>
</tr>
</tbody>
</table>
• The Loans by Month tab allows the institution to compare its fulfillment loans with other institutions
• At the current time this includes:
  • Number of loans (by month)
  • Number of late returns (by month)
Benchmark Analytics - Loans by Month

- The chosen times appearing can be “played” on the slide bar on top showing the changes over the time period.
- Here is the number of loans per month per institution.
Benchmark Analytics - Loans by Month

- Here is the number of late returns per month per institution
Benchmark Analytics - **Loans by Month**

• The data also appears at the top of the dashboard in performance tiles

<table>
<thead>
<tr>
<th>Num of loans by month (In House + Not In House)</th>
<th>Num of loans by month (In House)</th>
<th>Num of loans by month (Not In House)</th>
<th>Num of late returns by month</th>
</tr>
</thead>
<tbody>
<tr>
<td>31,888</td>
<td>12,150</td>
<td>19,738</td>
<td>2,544</td>
</tr>
<tr>
<td>In my repository</td>
<td>In my repository</td>
<td>In my repository</td>
<td>In my repository</td>
</tr>
</tbody>
</table>
Benchmark Analytics - **Requests by Month**

- The Requests by Month tab allows the institution to compare its fulfillment requests with other institutions.

- At the current time this includes:
  - Number of patron physical item requests created (by month)
  - A detailed table including:
    - Number of patron physical item requests created (by month)
    - Number of patron physical item requests rejected (by month)
    - Number of patron physical item requests rejected by patron (by month)
    - Number of patron physical item requests rejected by library (by month)
## Benchmark Analytics - Requests by Month

<table>
<thead>
<tr>
<th>Category</th>
<th>Num of patron physical item requests (by month)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of requests</td>
<td>287 rejected</td>
</tr>
<tr>
<td>Number of rejected requests</td>
<td>59 rejected by library</td>
</tr>
<tr>
<td>Number of rejected requests by patron</td>
<td>9 rejected by patron</td>
</tr>
</tbody>
</table>

### Graph: Num of patron physical item requests created (by month), AVG

- **X-axis:** Month
- **Y-axis:** Num of patron physical item requests created (by month)
- **Legend:**
  - Total requests
  - Rejected by library
  - Rejected by patron

- **Average (AVG):**
  - The average number of patron physical item requests created by month.
Benchmark Analytics - Requests by Month

- The chosen times appearing can be “played” on the slide bar on top showing the changes over the time period
- Here is the patron physical item requests created per month per institution
Benchmark Analytics - **Requests** by Month

- Here is a table showing the data with additional measures:

<table>
<thead>
<tr>
<th>Institution</th>
<th>Num of patron physical item requests created (by month)</th>
<th>Num of patron physical item requests rejected (by month)</th>
<th>Num of patron physical item requests rejected by patron (by month)</th>
<th>Num of patron physical item requests rejected by library (by month)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inst 96614676</td>
<td>10,126</td>
<td>710</td>
<td>101</td>
<td>149</td>
</tr>
<tr>
<td>Inst 66131130</td>
<td>7,809</td>
<td>818</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>Inst 25290108</td>
<td>5,523</td>
<td>1,220</td>
<td>7</td>
<td>75</td>
</tr>
<tr>
<td>Inst 56773351</td>
<td>4,958</td>
<td>826</td>
<td>21</td>
<td>134</td>
</tr>
<tr>
<td>Inst 53859913</td>
<td>4,311</td>
<td>931</td>
<td>19</td>
<td>63</td>
</tr>
<tr>
<td><strong>My Institution</strong></td>
<td><strong>2,982</strong></td>
<td><strong>287</strong></td>
<td><strong>9</strong></td>
<td><strong>59</strong></td>
</tr>
<tr>
<td>Inst 59507251</td>
<td>2,945</td>
<td>262</td>
<td>11</td>
<td>42</td>
</tr>
<tr>
<td>Inst 37394907</td>
<td>2,441</td>
<td>214</td>
<td>9</td>
<td>105</td>
</tr>
<tr>
<td>Inst 5584154</td>
<td>2,439</td>
<td>807</td>
<td>9</td>
<td>81</td>
</tr>
<tr>
<td>Inst 81375611</td>
<td>2,295</td>
<td>217</td>
<td>1</td>
<td>58</td>
</tr>
<tr>
<td>Inst 34286026</td>
<td>1,406</td>
<td>267</td>
<td>4</td>
<td>29</td>
</tr>
<tr>
<td>Inst 52033242</td>
<td>1,365</td>
<td>189</td>
<td>2</td>
<td>34</td>
</tr>
<tr>
<td>Inst 97407214</td>
<td>1,327</td>
<td>39</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>Inst 81159948</td>
<td>989</td>
<td>219</td>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td>Inst 31722692</td>
<td>790</td>
<td>108</td>
<td>5</td>
<td>27</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>37,258</strong></td>
<td><strong>2,822</strong></td>
<td><strong>236</strong></td>
<td><strong>324</strong></td>
</tr>
</tbody>
</table>
Benchmark Analytics - **Requests by Month**

- The data also appears at the top of the dashboard in performance tiles

<table>
<thead>
<tr>
<th>Num of patron physical item requests (by month)</th>
<th>Num of patron physical item requests (by month)</th>
<th>Num of patron physical item requests (by month)</th>
</tr>
</thead>
<tbody>
<tr>
<td>287 rejected</td>
<td>59 rejected by library</td>
<td>9 rejected by patron</td>
</tr>
</tbody>
</table>
• The Acquisitions – Electronic tab allows the institution to compare its acquisitions measures regarding electronic collection and portfolios with other institutions
• At the current time this includes:
  • Electronic Portfolio - Avg days from POL creation to portfolio activation
Benchmark Analytics - Acquisitions - Electronic

Electronic Portfolio - Avg days -
8.63 from POL creation to portfolio activation

Electronic Portfolio - Avg days -
0.36 from POL creation to sent

Electronic Portfolio - Avg days -
8.26 from POL sent to portfolio activation
• Here the institution can see that regarding the time it takes from ordering electronic inventory to getting it activated he is faster than the average.
• The data also appears at the top of the dashboard in performance tiles

- Electronic Portfolio - Avg days -
  8.63
  from POL creation to portfolio activation

- Electronic Portfolio - Avg days -
  0.36
  from POL creation to sent

- Electronic Portfolio - Avg days -
  8.26
  from POL sent to portfolio activation
• The Acquisitions – Physical tab allows the institution to compare its acquisitions measures regarding the ordering of physical one-time inventory with other institutions
• At the current time this includes:
  • Physical - Avg days from POL creation to item arrival
Benchmark Analytics - Acquisitions - Physical

Physical - Avg days - 23.57
from POL creation to item arrival

Physical - Avg days - 0.19
from POL creation to sent

Physical - Avg days - 23.38
from POL sent to item arrival
• Here the institution can see that regarding the time it takes from ordering physical inventory to having it arrive it is much slower than the average.
- The data also appears at the top of the dashboard in performance tiles

<table>
<thead>
<tr>
<th></th>
<th>Physical - Avg days</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>from PCL creation to item arrival</td>
<td>Physical - Avg days</td>
</tr>
<tr>
<td></td>
<td>23.57</td>
<td>0.19</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Physical - Avg days</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>from PCL creation to sent</td>
<td></td>
</tr>
</tbody>
</table>
**Benchmark Analytics – Additional planned KPIs**

- In addition to the KPIs shown here, there are plans to roll out several additional KPIs.
- These include the following:

<table>
<thead>
<tr>
<th>Area</th>
<th>KPI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Alma Staff</strong></td>
<td>Number of staff logins - in the last year</td>
</tr>
<tr>
<td><strong>Claiming</strong></td>
<td>Percentage of orders that have to be claimed - orders sent in the last year</td>
</tr>
<tr>
<td><strong>Cost Per Use</strong></td>
<td>Average Cost Per Use - in the last year (from COUNTER reports is Cost Usage subject area)</td>
</tr>
<tr>
<td><strong>Course Reserves</strong></td>
<td>Number of items in Course Reserves location - added - in last year</td>
</tr>
<tr>
<td><strong>Digital Inventory</strong></td>
<td>Number of digital objects - added- in the last year</td>
</tr>
<tr>
<td><strong>Digital Inventory</strong></td>
<td>Number of digital objects - total</td>
</tr>
<tr>
<td><strong>Discovery</strong></td>
<td>Number of Journal/DB views - in the last week</td>
</tr>
<tr>
<td><strong>Discovery</strong></td>
<td>Number of searches - in last week</td>
</tr>
<tr>
<td><strong>Discovery</strong></td>
<td>Number of ServicePage/Uresolver sessions - in the last week</td>
</tr>
<tr>
<td><strong>Discovery</strong></td>
<td>Number of sessions - in last week</td>
</tr>
<tr>
<td>Area</td>
<td>KPI</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>Fees</td>
<td>Money collected from patrons - total - in the last year</td>
</tr>
<tr>
<td>Fees</td>
<td>Money owed by Patrons - total</td>
</tr>
<tr>
<td>Fees</td>
<td>Money waived by staff - total - in the last year</td>
</tr>
<tr>
<td>Fees</td>
<td>Percentage of patrons that have blocks</td>
</tr>
<tr>
<td>Fees</td>
<td>Percentage of patrons that owe money</td>
</tr>
<tr>
<td>Invoicing</td>
<td>Average handling time for invoices - From creation until closure - invoices created in the last year</td>
</tr>
<tr>
<td>Invoicing</td>
<td>Average handling time for invoices - From creation until payment - invoices created in the last year</td>
</tr>
<tr>
<td>Invoicing</td>
<td>Average handling time for invoices - From creation until sent for payment - invoices created in the last year</td>
</tr>
<tr>
<td>Resource Sharing Borrowing Requests</td>
<td>Average supply time for borrowing (outgoing ILL) requests - in the last year</td>
</tr>
<tr>
<td>Resource Sharing Borrowing Requests</td>
<td>Number of borrowing (outgoing ILL) requests placed - in the last year</td>
</tr>
<tr>
<td>Resource Sharing Lending Requests</td>
<td>Number of lending (incoming ILL) requests - in the last year</td>
</tr>
<tr>
<td>Resource Sharing Lending Requests</td>
<td>Percentage of lending (incoming ILL) requests that could not be filled - in the last year</td>
</tr>
<tr>
<td>Transit</td>
<td>Average time in transit - in the last year</td>
</tr>
</tbody>
</table>
Agenda

1. Introduction
2. Benchmark Analytics
3. Comparative Collection Analysis
Comparative Collection Analysis - Overview

• The overall goal and idea of the comparative collection analysis is for the institution to be able to understand the collection relative to a set of peer institutions
• Peer institutions have agreed (mutually) to work together in a known and identified manner

• This will enable the institution to, for example
  • Create weeding (withdrawal) plans
  • Effectively create a collection development policy by knowing what subjects are held by other institutions which are my peers and thus accessible to my patrons.
Comparative Collection Analysis

• Bibliographic and inventory data is compared with that of other predefined peer institutions.

• Example ‘queries’:
  • How much overall overlap is there between your collection and those of your peers?
  • How many of your items are unique among your set of predefined peers?
  • How old is your collection compared to those of your peers?
In the example here the “Sarah Khan Technical College” has five peers:

- John Smith University
- City College
- Yilis Institute
- State Technical College
- Central Park College

These peers all form a group of six institutions which collaborate with each other on various levels.

For example patrons in each of the six institutions and can loan items from the other five institutions.
Comparative Collection Analysis – General Overlap

Overlap & Unique record comparison with Peer Institutions

- John Smith University
- City College
- Yilis Institute
- State Technical College
- Central Park College

Total Records
Overlap with my Institution
• It will also be possible to query which institutions have “how many” bibliographic records with particular call numbers or subjects.

• Example: TK is the LC Classification code for Electrical Engineering
Here we clearly see that "My Institution" and "State Technical College" both have many records (more than half of total) which are for “Electrical Engineering”
• On the other hand ... if we compare the institutions on “word from subject = feminism” ...
Comparative Collection Analysis – Subject Overlap

Records with subject Feminism

- Central Park College
- State Technical College
- Yilis Institute
- City College
- John Smith University
- My Institution

Records with subject Feminism: [Insert bar lengths]
Total Records: [Insert bar lengths]

0% 20% 40% 60% 80% 100%
Comparative Collection Analysis – LC and Year Overlap

• There are some cases where it is important to also be able to filter by year.
• For example, we previously saw that both "My Institution" and the "State Technical College" have a lot of material with LC Category “TK” which is “Electrical Engineering”.
• We may further want to know how much of that material is from the last two years.
Comparative Collection Analysis – LC and Year Overlap

- Here are the results in graph format

![Bar graph showing the percent of titles with LC Class TK published in 2016 and 2017 for various institutions.]

- Central Park College
- State Technical College
- Yilis Institute
- City College
- John Smith University
- My Institution

- Total Records
- Records with LC Classification TK and published 2016;2017
- Records with LC Classification TK
Thank You

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