Data-Driven Music Score Approval Plans

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February 2, 2018
Music Library Association
About Syracuse & the Collection

» School of Music: 300 majors
  ▪ Largest degrees are music industry and music education

» Other programs in musical theatre & liberal arts

» No graduate-level musicology!

» Shelved in main library (LC class A-P)

» Former Fine Arts service desk closed

» No prior approval plan
Why a data driven plan?

» Focus on music of immediate need and higher demand

» Not as concerned about collection balance

» Demand driven acquisitions previously rejected as option
Step 1: What do you already know?

» No chamber music program
  - Baroque Ensemble, 5 or fewer players
  - Contemporary Music Ensemble, 2-10 players

» Broadway seems very popular

» Choral music seems dead

» Voice faculty are enthusiastic about contemporary works
Step 2: Understand vendor plan

» What does “ethnic” mean? “Representative” coverage?

» Limit by publisher, or limit by instrumentation, or both?

» Separate plans for 19th century & before vs. 20th/21st Century?

» Specialty areas?
Step 3: Establish research questions

» How popular are different sizes of chamber groups?

» Do we have ethnic music? Is it used?

» Should some solo instruments be excluded?
  ▪ Harp? Guitar? Organ?

» What contemporary composers are
  ▪ Circulating?
  ▪ Being performed?
  ▪ Desired by faculty?
  ▪ Borrowed on ILL?
Step 4: Collect Data

» Determine what data would [ideally] answer each research question

» Work closely with your local data providers

» Ask for more data than what you need

» Be flexible, and be willing to adjust your research questions
Step 5: Clean and enhance your data

» Determine what to normalize
  - Publishers?
  - Composer typos?

» Create specialized fields for your research questions
  - Ethnic music categories (by class)
  - Type of score (subject heading & physical description)
  - Instrumentation and genre categories
Analysis and Challenges
My Data Sets

» Circulation report
  ▪ 10 years

» Shelf list with bibliographic data

» Interlibrary loan
  ▪ 2 years

» Recital programs
  ▪ 3 years

» Faculty input
  ▪ Voting on composer list
My Data Sets: the 6th set

» Contemporary composer list
  - Data combined from all other data sets
  - Composers who died 1940 and after

Circulation Data

» Report with Item ID & charge dates

» Pivot by Item ID & charge year to get totals

**Shelf List: custom circulation fields**

» Bring in circ totals by item ID from circ report

» Add fields for y/n circ

<table>
<thead>
<tr>
<th>Title</th>
<th>Historical Charges</th>
<th>y/n circ since 2007</th>
<th>Circs since 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sonata I per violino, viola e violoncello / Johann Georg Alb</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Romance for bass tuba : for tuba/euphonium quartet / by</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Sonata for three : for flute, violin, and guitar / Thea Musgr</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Serenade in D minor, op. 44 : for 2 oboes, 2 clarinets, 2 ba</td>
<td>12</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Chronochromie, pour grand orchestre.</td>
<td>5</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Se??re??nade pour quintette a?? vent solo et orchestre a?i ? ? ?</td>
<td>2</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Concerto grosso, pour cor, trompette et trombone et orchestre</td>
<td>0</td>
<td>0</td>
<td>0</td>
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</tbody>
</table>

Shelf List: custom genre fields

» Add custom fields
  - Genre/instrumentation and score type

<table>
<thead>
<tr>
<th>Type</th>
<th>Instrumentation 1</th>
<th>Instrumentation 2</th>
<th>Instrumentation 3</th>
<th>Instrument 4</th>
<th>Subject Headings</th>
</tr>
</thead>
<tbody>
<tr>
<td>piano/vocal score</td>
<td>vocal - secular</td>
<td>dramatic work</td>
<td>musicals</td>
<td>excerpts</td>
<td>Musicals--Excerpts--Vocal scores with piano</td>
</tr>
<tr>
<td>piano/vocal score</td>
<td>vocal - secular</td>
<td>dramatic work</td>
<td>musicals</td>
<td>excerpts</td>
<td>Musicals--Excerpts--Vocal scores with piano</td>
</tr>
<tr>
<td>score</td>
<td>vocal - secular</td>
<td>art songs</td>
<td>2 duos with keyboard</td>
<td>voice</td>
<td>Songs (Medium voice) with piano. // Jones</td>
</tr>
<tr>
<td>score</td>
<td>vocal - secular</td>
<td>art songs</td>
<td>2 duos with keyboard</td>
<td>voice</td>
<td>Songs (High voice) with piano. // Lewis, J.</td>
</tr>
<tr>
<td>score</td>
<td>vocal - secular</td>
<td>art songs</td>
<td>2 duos with keyboard</td>
<td>voice</td>
<td>Songs (High voice) with piano. // Tich</td>
</tr>
</tbody>
</table>
Shelf List: totals by genre

- Pivot by genre/instrumentation with circ
- Formulas to calculate averages and %

<table>
<thead>
<tr>
<th>Row Labels</th>
<th>ALL TIME CIRCULATION</th>
<th>CIRCULATION SINCE 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td># items owned</td>
<td>unique items</td>
</tr>
<tr>
<td>American popular</td>
<td>101</td>
<td>93</td>
</tr>
<tr>
<td>art songs</td>
<td>2030</td>
<td>1232</td>
</tr>
<tr>
<td>2 duos with guitar</td>
<td>85</td>
<td>45</td>
</tr>
<tr>
<td>2 duos with keyboard</td>
<td>1945</td>
<td>1187</td>
</tr>
<tr>
<td>art songs with large ensemble</td>
<td>574</td>
<td>280</td>
</tr>
<tr>
<td>choruses</td>
<td>2579</td>
<td>965</td>
</tr>
<tr>
<td>collections</td>
<td>427</td>
<td>182</td>
</tr>
<tr>
<td>men's voices</td>
<td>41</td>
<td>13</td>
</tr>
<tr>
<td>mixed</td>
<td>1525</td>
<td>572</td>
</tr>
<tr>
<td>treble voices</td>
<td>73</td>
<td>19</td>
</tr>
<tr>
<td>unaccompanied</td>
<td>513</td>
<td>179</td>
</tr>
<tr>
<td>collections</td>
<td>284</td>
<td>94</td>
</tr>
</tbody>
</table>

Shelf List: totals by composer

» Pivot by composer with circ totals

» Formulas to calculate averages and %

» Bring totals into contemporary composer list

Lessons: Shelf List & Circulation

» Use Item ID to match up circ data with the shelf list
  ▪ Barcodes can change over time!

» Ask about institutional history
  ▪ Change from 2007 to 2011 due to desk closure, and portions of collections in no-circ or in-house only
  ▪ How are browse stats collected now & historically?

» Don’t be afraid to change your mind and then NOT re-do your work
Interlibrary Loan Data

» Isolate to contemporary composers

» Pivot by composer

» Bring totals into contemporary composer list

Lessons: Interlibrary Loan Data

» We have a very active borrower who plays harp

Image: Thomas Sully [Public domain], via Wikimedia Commons. 
### Recital Data

- Compiled from recital program Word files
- Only collected contemporary composers

<table>
<thead>
<tr>
<th>Composer</th>
<th>Dates</th>
<th>Instrument</th>
<th>Size</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>André Bloch</td>
<td>(1873-1960)</td>
<td>clarinet</td>
<td>duo with keyboard</td>
<td>Denneriana</td>
</tr>
<tr>
<td>Pierre Boulez</td>
<td>(1925-2016)</td>
<td>mixed</td>
<td>sextet</td>
<td>Dérive I</td>
</tr>
<tr>
<td>Andrew Trovato</td>
<td>(b.1987)</td>
<td>strings</td>
<td>duo, other</td>
<td>Dirty Carnival</td>
</tr>
<tr>
<td>Josef Szulc</td>
<td>(1875-1956)</td>
<td>voice</td>
<td>duo with keyboard</td>
<td>Dix Melodies</td>
</tr>
<tr>
<td>Robert Muczynski</td>
<td>(1929-2010)</td>
<td>woodwinds</td>
<td>duo, other</td>
<td>Duos for Flutes</td>
</tr>
<tr>
<td>Francis Poulenc</td>
<td>(1899-1963)</td>
<td>horn</td>
<td>duo with keyboard</td>
<td>Élégie for Horn and Piano</td>
</tr>
<tr>
<td>Peter Schickele</td>
<td>(b. 1935)</td>
<td>clarinet</td>
<td>duo with keyboard</td>
<td>Elegies for Clarinet and Piano</td>
</tr>
<tr>
<td>Leonard Bernstein</td>
<td>(1918-1990)</td>
<td>horn</td>
<td>solo</td>
<td>Elegy for Mippy 1</td>
</tr>
<tr>
<td>Richard Hundley</td>
<td>(b. 1931)</td>
<td>voice</td>
<td>duo with keyboard</td>
<td>Epitaph on a Wife</td>
</tr>
<tr>
<td>Christopher Deane</td>
<td>(b. 1957)</td>
<td>percussion</td>
<td>solo</td>
<td>Etude for a Quiet Hall</td>
</tr>
</tbody>
</table>

Faculty Data

» Suggested composer list from vendor
» Loaded in Google Drive for voting
» Bring totals into contemporary composer data set

<table>
<thead>
<tr>
<th>Your name</th>
<th>here ---&gt;</th>
<th>KR</th>
<th>EJ</th>
<th>JB</th>
<th>JS</th>
<th>sum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abels, Michael, 1962-</td>
<td>1962-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Abrahamsen, Hans, 1952-</td>
<td>1952-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Adamo, Mark</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Adams, John Luther,</td>
<td>1953-</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Adams, John,</td>
<td>1947-</td>
<td>1</td>
<td>1</td>
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<td>3</td>
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<td>Adams, Leslie, 1932-</td>
<td>1932-</td>
<td>0.5</td>
<td>0.5</td>
<td></td>
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<tr>
<td>Adler, Samuel,</td>
<td>1928-</td>
<td>0.5</td>
<td></td>
<td></td>
<td></td>
<td>0.5</td>
</tr>
</tbody>
</table>

Fox Von Swearingen, R. (2018) Faculty Dataset [data set].
Contemporary Composer List

» Contemporary = died in 1940 or after

» ILL Data less than 100 composers

» Vendor data (faculty voting) 350 composers

» Recital data 250 composers

» Shelf list/circ data 2500 composers
  - Contemporary composers, plus those without dates
  - Winnowed down
Scoring Goals

» Automatically include any composer who:
  - Received two or more faculty votes
  - Received four or more recital performances
  - Had five or more unique titles circulate

» Don’t include a composer solely on:
  - ILL loans
  - Circulation of four or fewer titles
# Reason for Including a Composer

<table>
<thead>
<tr>
<th>Reason</th>
<th># of composers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collection use</td>
<td>58, 25%</td>
</tr>
<tr>
<td>Faculty request</td>
<td>24, 10%</td>
</tr>
<tr>
<td>Recital</td>
<td>6, 3%</td>
</tr>
<tr>
<td>Combination</td>
<td>143, 62%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>231</strong></td>
</tr>
</tbody>
</table>

Faculty choices vs. other data

» Voice faculty
  ▪ voted for 81 composers
  ▪ All 81 were ultimately chosen
  ▪ Only 13 had zero points from other data sources

» Instrumental faculty
  ▪ voted for 48 composers
  ▪ 46 were ultimately chosen
  ▪ Only 11 had zero points from other data sources
Lessons: Contemporary Composers

» Composers without dates in some data sets may have dates in other data sets

» Tried ranking voice and instrumental separately; no conclusive answer

» Took the most work, but was the most beneficial
Future Assessment

» Monitor publishers
  - Visual inspection for public domain editions
  - Pull data after 2-3 years to consider reducing to smaller publisher list for plan that covers 19\textsuperscript{th} century & before

» Monitor large ensemble music & choral music
  - Consider removing from 19\textsuperscript{th} century & before plan

» Monitor contemporary composers
  - Promote new title lists with faculty
  - Run circulation data for those items after 2-3 years
  - Consider demoting some composers to “representative coverage” or “vocal music only”
Key Excel Features Used

» Lookup tables
  ▪ Facilitates matching data based on one shared field

» Text to columns
  ▪ Splits up a column of data (like composers and dates)

» Filter by “contains”
  ▪ Identifies similar cells within a column, like subject keywords within a subject string or variations in publisher names

» Pivot tables
  ▪ Calculates totals of data occurrences
Questions later?

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