LiveLabs Pivot
A Future Direction for Library Search?

David Kane
Systems Librarian
Waterford Institute of Technology
The Library Building
What Is Pivot?

Designed to:

“interact with massive amounts of data in ways that are powerful, informative, and fun.”

-Microsoft Live Labs

It is a way of:

“making sense out of mountains of data”

-MIT Technology Review
Searching in Pivot

• Drill-down to specific data – OUT
• Swimming in a sea of data – IN
Faceted Information

- <Item Id="2" Img="#2" Name="Arcta" Href="beast-quest/Arc"]<Description>Tom must free the magical beasts of Avaland from destruction?" /></Description>
- <Facets>
  - <Facet Name="Title">
    <String Value="Arcta the Mountain Giant" />
  </Facet>
  - <Facet Name="Number">
    <String Value="3" />
  </Facet>
  - <Facet Name="Series">
    <String Value="1: Beast Quest" />
  </Facet>
</Facets>
</Item>
Example

• Using the Pivot Viewer application (you need to download this from getpivot.com)

http://content.getpivot.com/Collections/bingnewcars/bingnewnewcars.cxml

A good rounded example of a *fixed* collection, which demonstrates the strengths of Pivot.
Deep Zoom Image Format
Pivot as a Data Analysis Tool

• Downloaded Data about our 5,000 most popular books from our library system.
• Created a pivot collection via Excel.
<table>
<thead>
<tr>
<th>Image Location</th>
<th>Preview</th>
<th>Name</th>
<th>Href</th>
<th>CAT Date</th>
<th>UPDATED Date</th>
<th>Revisions</th>
<th>CIRCS</th>
<th>D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg</td>
<td></td>
<td></td>
<td></td>
<td>20/06/2003</td>
<td>09/07/2010</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg</td>
<td></td>
<td></td>
<td></td>
<td>20/06/2003</td>
<td>09/07/2010</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg</td>
<td></td>
<td></td>
<td></td>
<td>20/06/2003</td>
<td>09/07/2010</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg</td>
<td></td>
<td></td>
<td></td>
<td>20/06/2003</td>
<td>09/07/2010</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg</td>
<td></td>
<td></td>
<td></td>
<td>20/06/2003</td>
<td>09/07/2010</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg</td>
<td></td>
<td></td>
<td></td>
<td>20/06/2003</td>
<td>09/07/2010</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg</td>
<td></td>
<td></td>
<td></td>
<td>20/06/2003</td>
<td>09/07/2010</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg</td>
<td></td>
<td></td>
<td></td>
<td>20/06/2003</td>
<td>09/07/2010</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg</td>
<td></td>
<td></td>
<td></td>
<td>20/06/2003</td>
<td>09/07/2010</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg</td>
<td></td>
<td></td>
<td></td>
<td>20/06/2003</td>
<td>09/07/2010</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C:\Users\dkane\Desktop\COLOURS_DEMAND\0.jpg</td>
<td></td>
<td></td>
<td></td>
<td>20/06/2003</td>
<td>09/07/2010</td>
<td>4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Pivot As A Data Analysis Tool

• Can See Hidden Relationships in Data Very Quickly
• Can isolate individual data points rapidly and link in to them
• Library Example: Top 5,000 books in our collection.  http://library.wit.ie/pivot/
• Using a range of colour-coded images adds an extra dimension (see next slide)
Pivot as a Data Analysis Tool
Managing Data With Pivot

See:
http://davidkane.net/?p=411
Worth a Mention...

Google Refine
See: https://code.google.com/p/google-refine/
Microsoft Tools Used

• Microsoft PivotViewer
• Pivot Collection tool for Excel
• Microsoft Visual Studio 2010 (For Silverlight)

Install these prerequisites
– Silverlight 4 Tools for Visual Studio 2010
– Silverlight 4 Toolkit (released April 2010)

Microsoft V.Studio Express can be downloaded for free.
A Pivot Catalogue?

See: http://davidkane.net/?p=411
This product is licensed.
A Dynamic Library Catalogue

Library Catalogue Server

Pivot Collection Server

Z39.50 Search

.CXML, .DZI, and Other Pivot Data
Software Used:

• PHP Deepzoom (Nicolas Fabre)
• ImageMagick
• PHP/Yaz (IndexData.dk)
• On Ubuntu Linux
Finally:

The **easiest way to get started** is to download the following tools from getpivot.com:

1, PivotViewer Browser
2, Excel add-on for making collections
Thank You

David Kane

Waterford Institute of Technology

Ireland

dkane@wit.ie
Online Resources 1

Start with: http://getpivot.com/

For Silverlight:

And,
PHP Yaz:

PHP DeepZoom:
http://github.com/nfabre/deepzoom.php