Technology trends for Public Library Consortia

Marshall Breeding
Independent Consultant,
Founder and Publisher, Library Technology Guides
http://www.librarytechnology.org/
http://twitter.com/mbreeding
The **Library Technology Guides** website aims to provide comprehensive and objective information related to the field of library automation. It provides information on the technology products, companies, and trends that impact libraries. Whether you are in the process of selecting a library automation system, or just want to keep up with developments in the field, Library Technology Guides is the place to start.

---

**GuidePosts**

**Perspective and commentary by Marshall Breeding**

**Come see Marshall Breeding at Computers in Libraries 2014**

I’ll be in Washington, DC soon for the annual Computers in Libraries conference, speaking on a variety of topics. I’m looking forward to seeing lots of friends and colleagues. Please feel free to track me down and introduce yourself or follow me through Twitter. Here is my speaking schedule for the conference:

**W6: Library Resource Management: Strategies, Technologies, and...**

---

**Search LTG:**

**Industry News**

Wednesday Apr 9, 2014

**Full Automation News Report**

20 most recent items:

April 8, 2014. Spazio Reale in Italy opens the All Digital Library, powered by the Ex Libris Primo discovery solution. Ex Libris announced that the Spazio Reale in San Donnino, Italy, has chosen Ex Libris Primo as the discovery tool for the center’s Biblioteca All Digital, whose collections consist entirely of electronic materials. **<more>>**

April 8, 2014. Cerimonia di Spazio Reale inaugura la Biblioteca All Digital con il nuovo sistema di discovered Primo. Ex Libris annuncia che la biblioteca All Digital del Centro Spazio Reale di San Donnino a Campi Bisenzio (Firenze), ha scelto Primo di Ex Libris come strumento di discovery delle sue collezioni, costituite interamente di materiali in formato elettronico e...
Sources

- American Libraries Library Systems Report
  - 2014 online edition published April 15
- Perceptions Surveys
  - 2014 edition recently published
  - [http://www.librarytechnology.org/perceptions2013.pl](http://www.librarytechnology.org/perceptions2013.pl)
- Turnover Reports:
# Library Technology Industry Reports

<table>
<thead>
<tr>
<th>American Libraries</th>
<th>Library Journal</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014: Strategic Competition and Cooperation</td>
<td>2013: Rush to Innovate</td>
</tr>
<tr>
<td></td>
<td>2012: Agents of Change</td>
</tr>
<tr>
<td></td>
<td>2011: New Frontier</td>
</tr>
<tr>
<td></td>
<td>2010: New Models, Core Systems</td>
</tr>
<tr>
<td></td>
<td>2009: Investing in the Future</td>
</tr>
<tr>
<td></td>
<td>2008: Opportunity out of turmoil</td>
</tr>
<tr>
<td></td>
<td>2007: An industry redefined</td>
</tr>
<tr>
<td></td>
<td>2006: Reshuffling the deck</td>
</tr>
<tr>
<td></td>
<td>2005: Gradual evolution</td>
</tr>
<tr>
<td></td>
<td>2004: Migration down, innovation up</td>
</tr>
<tr>
<td></td>
<td>2003: The competition heats up</td>
</tr>
<tr>
<td></td>
<td>2002: Capturing the migrating customer</td>
</tr>
</tbody>
</table>
Industry Revenues

- $1.8 billion global industry
- $790 million from companies involved in the US
- $485 million from US Libraries
How do we identify the vendor most likely to pick out lasting trends?
Industry Giants

- **Ex Libris:**
  - 3,957 customer libraries
  - 536 FTE Employed

- **Innovative**
  - 410 FTE employed
  - 1,640 libraries

- **SirsiDynix:**
  - 3,595 libraries
  - 385 FTE Employed
# Library Technology Industry Reports

<table>
<thead>
<tr>
<th>American Libraries</th>
<th>Library Journal</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014: Strategic Competition and Cooperation</td>
<td>2013: Rush to Innovate</td>
</tr>
<tr>
<td></td>
<td>2012: Agents of Change</td>
</tr>
<tr>
<td></td>
<td>2011: New Frontier</td>
</tr>
<tr>
<td></td>
<td>2010: New Models, Core Systems</td>
</tr>
<tr>
<td></td>
<td>2009: Investing in the Future</td>
</tr>
<tr>
<td></td>
<td>2008: Opportunity out of turmoil</td>
</tr>
<tr>
<td></td>
<td>2007: An industry redefined</td>
</tr>
<tr>
<td></td>
<td>2006: Reshuffling the deck</td>
</tr>
<tr>
<td></td>
<td>2005: Gradual evolution</td>
</tr>
<tr>
<td></td>
<td>2004: Migration down, innovation up</td>
</tr>
<tr>
<td></td>
<td>2003: The competition heats up</td>
</tr>
<tr>
<td></td>
<td>2002: Capturing the migrating customer</td>
</tr>
</tbody>
</table>
### Personnel Resources 2013

<table>
<thead>
<tr>
<th>Company</th>
<th>Dev</th>
<th>Sup</th>
<th>Sales</th>
<th>Admin</th>
<th>Other</th>
<th>Total</th>
<th>2013</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>EBSCO Information Services</td>
<td>424</td>
<td>869</td>
<td>554</td>
<td>98</td>
<td>862</td>
<td>2807</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OCLC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1280</td>
<td>1250</td>
</tr>
<tr>
<td>Ex Libris</td>
<td>194</td>
<td>222</td>
<td>60</td>
<td>46</td>
<td>14</td>
<td>536</td>
<td></td>
<td>522</td>
</tr>
<tr>
<td>SirsiDynix</td>
<td>102</td>
<td>170</td>
<td>53</td>
<td>20</td>
<td>40</td>
<td>385</td>
<td></td>
<td>369</td>
</tr>
<tr>
<td>EOS International</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Follett Software Company</td>
<td>120</td>
<td>164</td>
<td>52</td>
<td>10</td>
<td>15</td>
<td>361</td>
<td></td>
<td>341</td>
</tr>
<tr>
<td>Innovative Interfaces, Inc.</td>
<td>103</td>
<td>184</td>
<td>61</td>
<td>55</td>
<td>7</td>
<td>410</td>
<td></td>
<td>341</td>
</tr>
<tr>
<td>Serials Solutions</td>
<td>124</td>
<td>63</td>
<td>52</td>
<td>5</td>
<td>11</td>
<td>255</td>
<td></td>
<td>256</td>
</tr>
<tr>
<td>The Library Corporation</td>
<td>41</td>
<td>93</td>
<td>25</td>
<td>13</td>
<td>27</td>
<td>199</td>
<td></td>
<td>199</td>
</tr>
<tr>
<td>Polaris Library Systems</td>
<td>27</td>
<td>50</td>
<td>17</td>
<td>3</td>
<td></td>
<td>97</td>
<td></td>
<td>93</td>
</tr>
<tr>
<td>VTLS</td>
<td>25</td>
<td>35</td>
<td>8</td>
<td>9</td>
<td></td>
<td>77</td>
<td></td>
<td>86</td>
</tr>
<tr>
<td>Equinox Software</td>
<td>5</td>
<td>7</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>18</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>ByWater Solutions</td>
<td>1</td>
<td>12</td>
<td>2</td>
<td>3</td>
<td></td>
<td>14</td>
<td></td>
<td>13</td>
</tr>
</tbody>
</table>
## Recent ILS Industry Contracts

<table>
<thead>
<tr>
<th>Company</th>
<th>Product</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCLC</td>
<td>WMS</td>
<td>184</td>
<td>163</td>
<td>92</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovative</td>
<td>Sierra</td>
<td>206</td>
<td>117</td>
<td>113</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ex Libris</td>
<td>Alma</td>
<td>8</td>
<td>24</td>
<td>17</td>
<td>31</td>
<td></td>
</tr>
<tr>
<td>SirsiDynix</td>
<td>Symphony</td>
<td>-</td>
<td>126</td>
<td>122</td>
<td>104</td>
<td>128</td>
</tr>
<tr>
<td>Innovative</td>
<td>Millennium</td>
<td>45</td>
<td>39</td>
<td>32</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>TLC</td>
<td>Library.Solution</td>
<td>30</td>
<td>43</td>
<td>48</td>
<td>13</td>
<td>17</td>
</tr>
<tr>
<td>Ex Libris</td>
<td>Aleph</td>
<td>47</td>
<td>39</td>
<td>25</td>
<td>26</td>
<td>25</td>
</tr>
<tr>
<td>VTLS</td>
<td>Virtua</td>
<td>18</td>
<td>22</td>
<td>13</td>
<td>14</td>
<td>7</td>
</tr>
<tr>
<td>Polaris</td>
<td>Polaris ILS</td>
<td>33</td>
<td>23</td>
<td>53</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Bibliionix</td>
<td>Apollo</td>
<td>55</td>
<td>87</td>
<td>79</td>
<td>80</td>
<td>87</td>
</tr>
<tr>
<td>ByWater Solutions</td>
<td>Koha</td>
<td>7</td>
<td>44</td>
<td>54</td>
<td>34</td>
<td>68</td>
</tr>
<tr>
<td>PTFS LibLime</td>
<td>LibLime Academic Koha</td>
<td>7</td>
<td>5</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PTFS LibLime</td>
<td>LibLime Koha</td>
<td>44</td>
<td>27</td>
<td>37</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Equinox</td>
<td>Evergreen</td>
<td>18</td>
<td>15</td>
<td>21</td>
<td>37</td>
<td>12</td>
</tr>
<tr>
<td>Year</td>
<td>Event</td>
<td>Company/Institution</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>-------</td>
<td>---------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>Ex Libr/Ex Libri (Golden Gate Capital)</td>
<td>Francisco Partners</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2007</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1996</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1994</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1993</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1992</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1991</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1989</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1988</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1987</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1986</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1985</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1984</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1983</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1982</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1981</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1979</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1978</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1977</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1976</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1975</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1974</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1973</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1972</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1971</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1970</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Business Trends

- Consolidation: Large international companies gaining increasing reach into libraries across many international regions
- Local companies vulnerable: May not have the development capacity to develop new generations of products
- Content and Technology increasingly interwoven
Majority acquisition by 2 private Equity Firms:
- Huntsman Gay Global Capital + JMI Equity
- New C-level management
  - Kim Massana, CEO
- Subsequent Transaction: Kline sells remaining shares and exits
- Global expansion
  - Dublin, Ireland
  - Noida, India
Innovative Interfaces 2014

- Innovative acquires Polaris Library Systems
- Jim Carrick and partners sell shares and exit
- No longer a separate company
  - Bill Schickling now VP for Public Library Products
  - Polaris office East Coast Operations center
SirsiDynix acquires EOS International

- Co-founder Scot Cheatham sells shares and exits
- 1,100 mostly special libraries use EOS.Web
- Common strategy for hosted solutions
Personnel Growth / Loss

- Ex Libris
- SirsiDynix
- Follett Software Company
- Innovative Interfaces, Inc.
# Personnel Resources

<table>
<thead>
<tr>
<th>Company</th>
<th>Dev</th>
<th>Sup</th>
<th>Sales</th>
<th>Admin</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCLC</td>
<td>189</td>
<td>222</td>
<td>53</td>
<td>46</td>
<td>12</td>
<td>1250</td>
</tr>
<tr>
<td>Ex Libris</td>
<td>86</td>
<td>168</td>
<td>52</td>
<td>22</td>
<td>41</td>
<td>369</td>
</tr>
<tr>
<td>SirsiDynix</td>
<td>78</td>
<td>151</td>
<td>81</td>
<td>31</td>
<td>341</td>
<td></td>
</tr>
<tr>
<td>Follett Software Company</td>
<td>89</td>
<td>161</td>
<td>53</td>
<td>31</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Innovative Interfaces, Inc.</td>
<td>131</td>
<td>51</td>
<td>51</td>
<td>3</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Serials Solutions</td>
<td>39</td>
<td>91</td>
<td>28</td>
<td>13</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>The Library Corporation</td>
<td>27</td>
<td>46</td>
<td>18</td>
<td>2</td>
<td>93</td>
<td></td>
</tr>
<tr>
<td>Polaris Library Systems</td>
<td>29</td>
<td>37</td>
<td>9</td>
<td>7</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>VTLS Inc.</td>
<td>15</td>
<td>22</td>
<td>16</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Book Systems, Inc.</td>
<td>13</td>
<td>12</td>
<td>17</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>EOS International</td>
<td>11</td>
<td>7</td>
<td>6</td>
<td>4</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Auto-Graphics, Inc.</td>
<td>11</td>
<td>7</td>
<td>6</td>
<td>4</td>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>
Appropriate Automation Infrastructure

- Current automation products out of step with current realities
- Majority of library collection funds spent on electronic content
- Majority of automation efforts support print activities
- New discovery solutions help with access to e-content
- Management of e-content continues with inadequate supporting infrastructure
Open Source Options

- Is open source a realistic option?
- Major advantages
- Pitfalls
Open Source

- Community-based software development
- No licensing costs
- Services offered for: hosting, implementation, data conversion, ongoing support
- Self-service: all costs absorbed within institution
- Library examples:
  - Koha
  - Evergreen
  - Kuali OLE
## Personnel Resources: Open Source

<table>
<thead>
<tr>
<th>Company</th>
<th>Dev</th>
<th>Sup</th>
<th>Sales</th>
<th>Admin</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTFS -- LibLime</td>
<td>5</td>
<td>16</td>
<td>3</td>
<td>8</td>
<td>8</td>
<td>155</td>
</tr>
<tr>
<td>Equinox Software</td>
<td>5</td>
<td>7</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>18</td>
</tr>
<tr>
<td>ByWater Solutions</td>
<td>1</td>
<td>12</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>18</td>
</tr>
</tbody>
</table>
Open source and Open Access

- Open source development of platform services
- Open source infrastructure components
- Open APIs to expose platform services
- Knowledge base components
  - Open access
  - Community maintained
  - Adequately resourced
Open Source Integrated Library Systems

- **Major thread in library systems development**
  - Koha
  - Evergreen
  - Kuali OLE
Open Systems

- Achieving openness has risen as the key driver behind library technology strategies
- Libraries need to do more with their data
- Ability to improve customer experience and operational efficiencies
- Demand for Interoperability
- **Open source** – full access to internal program of the application
- **Open API’s** – expose programmatic interfaces to data and functionality
Open Source Automation Systems

- Koha
  - Small to mid-sized public and academic libraries
  - Used by several consortia (SKLS)

- Evergreen
  - Designed for Library Consortia

- Kuali OLE
  - Designed for large research libraries
Evergreen

- Popular system for state funded initiatives
  - Georgia Pines
  - Virginia Evergreen
  - Indiana Evergreen
  - Pennsylvania Integrated Library System: SPARKS
  - Massachusetts: CW/MARS, Bibliomation, Merimack
  - British Columbia SITKA
  - North Carolina Cardinal
  - Vermont: new Catamount project
Evergreen Libraries Worldwide
Competing Models of Library Automation

- Traditional Proprietary Commercial ILS
  - Aleph, Voyager, Millennium, Symphony, Polaris,
  - BOOK-IT, DDELibra, Libra.se
  - LIBERO, Amlib, Spydus, TOTALS II, Talis Alto, OpenGalaxy

- Traditional Open Source ILS
  - Evergreen, Koha

- New generation Library Services Platforms
  - Ex Libris Alma
  - Kuali OLE (Enterprise, not cloud)
  - OCLC WorldShare Management Services,
  - Serials Solutions Intota
  - Innovative Interfaces Sierra (evolving)
Consortial and Resource Sharing Issues
Resource sharing

- Compatibility with MelCat INN-Reach system
- NCIP
- Other APIs and architectures?
Library Consortia

- Groups of libraries want to work together to share an automation system
- Number of participants limited by the perceived capacities of the automation system
Shared Infrastructure

- Common discovery
  - Retention of local automation systems
  - Technical complex with moderate operational benefits
- Common discovery + Resource Management Systems
- Shared Resource management with local discovery options
New Library Management Model

Unified Presentation Layer

Library Services Platform

API Layer

Self-Check / Automated Return

Stock Management

Enterprise Resource Planning

Learning Management

Authentication Service

Smart Cad / Payment systems

Consolidated Index

Search:

Digital Coll

ProQuest

EBSCO

JSTOR

Other Resources
Bento Box Discovery Model

Search: __________

VuFind / Blacklight

Search Results

- ILS Data
- Web Site Content
- Digital Collections
- Institutional Repositories

Consolidated Index

- Aggregated Content packages
- Open Access
- E-Journals

Pre-built harvesting and indexing
Socially-powered discovery

- Leverage use data to increase effectiveness of discovery
- Usage data can identify important or popular materials to inform relevancy engines
- Identify related materials that may not otherwise be uncovered through keyword matching
- Be careful to avoid introducing bias loops
Integrated Library System

Model:
Multi-branch Independent Library System

Patrons use Circulation features to request items from other branches.

Floating Collections may reduce workload for Inter-branch transfers.
Consortial Resource Sharing System

Library System A

Library System B

Library System C

Library System D

Library System E

Library System F

Bibliographic Database

Holdings

Main Facility
Branch 1
Branch 2
Branch 3
Branch 4
Branch 5
Branch 6
Branch 7
Branch 8

NCIP

Discovery and Request Management Routines

Bibliographic Database

Inter-System Communications

Resource Sharing Application

NCIP
SIP
ISO
ILL
Z39.50
Staff Fulfillment Tools

Search:
Model: Multiple independent libraries in a Consortium Share an ILS

ILS configured To support Direct consortial Borrowing through Circulation Module
Iceland Libraries

Landskerfi bókasafna
Georgia PINES

- 275 Libraries
- 140 Counties
- 9.6 million books
- Single Library Card
- 43% of population in Georgia
Recently consolidated from 4 regional networks into one

- 96 branch libraries
- 18 mobile libraries

Collections managed through single Axiell SirsiDynix Symphony LMS

http://www.ni-libraries.net/
Illinois Heartland Library Consortium

- Largest Consortium in US by Number of Members

Illinois Heartland Library System covers 28,141 square miles and serves a population of 2,248,634. There are 585 member libraries: 41 Academic, 229 Public, 259 School and 56 Special.

IHLS was created by the merger of four regional library systems in southern and central Illinois:

- Lewis & Clark Library System in Edwardsville
- Lincoln Trail Libraries System in Champaign
- Rolling Prairie Library System in Decatur
- Shawnee Library System in Carterville

Board of Directors

Staff

Advisory Council

Locations

Office Hours and Holiday Schedule

Policies

Member Libraries

Listservs for member libraries
E-Book Integration
Critical concern for public libraries

- Most libraries offer e-book lending programs
- Strong demand: increasing use statistics
- Print lending remains vigorous
- Academic libraries will benefit at a later phase by e-book lending models developed in the public library sector
Commercial library e-book lending services

- OverDrive
- 3M Cloud Library
- Baker & Taylor: Axis 360
- “Douglas County Model”
  - Locally curated e-book collections and lending platform
E-book Lending Models

- Phase I: Link out to e-book lending service
- Phase II: Load MARC records in local catalog, then link out on individual titles
- Phase III: Discovery and lending operations performed fully within the library’s catalog or discovery environment
Full e-book lending

- Discovery of print and e-book titles and copies simultaneously
- E-book transactions represented within patron’s library account
  - List of charged items, due dates
  - Service options: renew, return, etc.
- Ability to check-out and download e-books into e-reader
The e-book integration ecosystem

- E-book lending services must expose APIs
- Online catalog or discovery services must consume APIs and adjust interface design and business logic to accommodate discovery and lending operations
- Challenge: each e-book service provider’s APIs are different
- Response: Work toward consistent or standard suite of APIs
Technology Shift

- Client / Server > Web-based computing
- Beyond Web 2.0
  - Integration of social and academic identities and networks into core infrastructure
- Local computing shifting to cloud platforms
  - Application Service Provider offerings standard
  - New expectations for multi-tenant software-as-a-service
- Full spectrum of devices
  - full-scale / net book / tablet / mobile
  - Mobile the current focus, but is only one example of device and interface cycles
Leveraging the Cloud

- Moving legacy systems to hosted services provides some savings to individual institutions but does not result in dramatic transformation.
- Globally shared data and metadata models have the potential to achieve new levels of operational efficiencies and more powerful discovery and automation scenarios that improve the position of libraries overall.
Software as a Service

- Multi Tennant SaaS is the modern approach
  - One copy of the code base serves multiple sites
- Software functionality delivered entirely through Web interfaces
  - No workstation clients
- Upgrades and fixes deployed universally
  - Usually in small increments
Third-party integration

- what type of control are libraries losing over patron information
- contractual security measures
- discount/compensation should libraries expect for generating raw data
- Should libraries expect that some data is being harvested by third parties?
- should that have a value in contract negotiations?
Mobile Technology

- Will mobile technology change library staffing patterns?
  - Primary impact on virtual service delivery

- What will be trending in the next 2-4 years?
  - Most access will take place through Mobile

- How is the prevalence of mobile technology users influencing the development of ILSs?
  - Not as much as needed
  - Staff functions will be primarily operated through larger devices
  - Some opportunity for more efficient workflows that rely on tablets rather than printed lists
  - All patron-facing services must be optimized for mobile
Budget expectations

- How do we cope with technology that changes faster than our budgets will allow?
  - Must proactively plan for required technology infrastructure
Budget equities

- How do we strike a balance between larger and more technologically savvy libraries and smaller, less sophisticated libraries without bankrupting the smaller libraries or holding the larger ones back?
  - All libraries benefit from current technology
  - Leverage economies of scale to enable affordable technology opportunities
  - Perspectives of library staff may be different than library customers in those that serve small communities
Long Term Service agreements

- 3, 5, or 7 years?
  - Do not lock in beyond opportunities for beneficial change
  - Take advantage of budget advantages during a period when change isn’t possible or planned

- What protections do we want to include in the contract?
  - Ability to exit when expectations are not met
  - Expect momentum, not inertia
Future
What is the next search evolution beyond the Google one bar search?

- Public libraries more about engagement than search
- Social features that promote engagement and increased involvement with library services.
- Need to connect the public with quality content provided through libraries
- What is the future of social media and how will that impact the ILS?

- Even more important: how will it impact the Library?

- Keep a balanced perspective:
  - Leverage to amplify engagement
  - Don’t have unrealistic expectations
  - One tool among many
Will technology change the role of librarians and library staff? What will our roles become?

- Reading material will transition through different media over time
- Acquire and provide access to quality content for your communities
- Promote literacy and reading
- Research-oriented services
How will we check out a book in five years?

- Print materials will persist
- Higher proportions of electronic
- More activity via Web sites than in physical facilities
- Important to enhance process for loans of e-books
  - Completely integrated into library virtual environment
  - Compelling collections
  - Reasonable loan policies
What is the next trend on the horizon beyond software as a service?

Terminal > client/Server / hosted > Web

Current emerging phase:

- Multi-tenant Software as a service
- Fully web-based interfaces (Staff & Patron)
- Comprehensive management of print, electronic, digital
- Local, regional, global collections
What public service values will be retained in 5-10 years?
Reassess expectations of Technology

- Many previous assumptions no longer apply
- Technology platforms scale infinitely
- No technical limits on how libraries share technical infrastructure
- Cloud technologies enable new ways of sharing metadata
- Build flexible systems not hardwired to any given set of workflows
Time to engage

- Transition to new technology models just underway
- More transformative development than in previous phases of library automation
- Opportunities to partner and collaborate
  - Vendors want to create systems with long-term value
- Question previously held assumptions regarding the shape of technology infrastructure and services
- Provide leadership in defining expectations
Questions and discussion