Reported by Andrew Senior

Library consultant Marshall Breeding opened the panel discussion by outlining the historical and market contexts of integrated library systems, services platforms, and discovery layers, and addressed a question that represented conversations that were taking place in the industry: whether such systems should be available “bundled” together in a single product, or separately in an “à la carte” fashion.

Beginning with the earliest library automation phase, Breeding showed a historical pattern of consolidation. First generation integrated library systems (ILS) were based around separate functions - specific modules for print management. This changed with the advent of electronic resources. OpenURL link resolvers, implemented through separate knowledgebases, replaced hard-coded links, and electronic resources management (ERM) systems appeared with varying longevity. Breeding argued that some ERMs, such as Ex Libris’ Verde, Serial Solutions’ 360 Resource Manager, Endeavor’s Meridian, and Innovative Interface’s E-Resource Manager, were a less successful genre of automation.

A subsequent movement in discovery centered on improving patron interfaces. Rather than use the native ILS online catalog, separate discovery systems (examples include Endeca’s ProFind, AquaBrowser, and VuFind) proved popular with librarians, though less so with patrons. Breeding highlighted the complexity of synchronizing different front- and back-end systems at the time and how ultimately libraries often reverted to the ILS vendor’s discovery product. Index-based, web-scale discovery layers such as ProQuest’s Summon, Ex Libris’ Primo, the EBSCO Discovery Service, and OCLC’s WorldCat Local/Discovery followed, leveraging knowledgebases that draw on a central index. More recently, there has been a move to a less fragmented model of resource management through bundled library services platforms that support workflows and multiple resource types. These are created by providers of pre-existing index-based discovery services that offer bundled products with an added cost benefit incentive such as, Ex Libris’ Alma, OCLC’s WorldShare Management Service, and ProQuest’s Intota.

Breeding returned to the principle question of his part of the presentation: do index-based discovery and library services platforms need to be bundled together as a single product, or should there be an “à la carte” selection? He proposed the response could be argued both ways: bundling products has the advantage of built-in interoperability between discovery indexes and common knowledgebases, with only a single provider to contact when support is required. Disadvantages include potential disconnects between the desired discovery services and back-end management needs, as well as a lack of customization options. For example, one provider may offer superior indexing coverage, or libraries might wish to opt for an open source discovery solution apart from their provider’s product. Breeding also outlined some obstacles to leaving a bundled environment, such as obtaining support for non-
integrated systems and pricing or migration incentives that leave libraries feeling obliged to opt for a bundled solution. Current market dynamics display the prevalence of bundled systems in recent academic library platform choices. Ex Libris’ Alma/Primo and OCLC’s WorldShare Management/Discovery are the current dominant services. According to Breeding, ProQuest’s acquisition of Ex Libris means they are well-positioned in the academic and research library market through a consolidated central index.

Neil Block of EBSCO continued the presentation by stating what he considered to be the two big themes in discovery evaluation: choice and quality. Block urged attendees to become familiar with the substantive differences in web-scale discovery systems. Taking the level of trust we place in Google search results as an example, he enumerated the elements for evaluating quality, such as assessing relevancy ranking, metadata, user experience, platform interface and interoperability. He emphasized that there are key differences in the current marketplace to consider. For example, does the quality of metadata in the index and the relevancy ranking permit sophisticated search retrieval, thus driving user experience? Irrespective of the interface, the underlying technology should still return the correct search results and discovery platforms should be interoperable with the varying campus systems such as databases, institutional repositories, existing ILS, and the learning environment. Drawing on his role as Vice President of Discovery Innovation at EBSCO, Block mentioned that EBSCO maintains more than sixty partnerships that enable interoperability.

Using a photo of a traditional purpose-built bedroom dresser as an analogy for the library “all-in-one systems,” Block showed how discovery is currently one constituent part (or drawer), while the original design was to function outside of that system. He argued this is a limiting choice for libraries that was unfortunately driven by marketing rather than technology. He juxtaposed this view with another image of a modern extensible bedroom shelving-storage unit which he likened to the future of discovery with new functionality, such as linked data interoperability, both flexible and adaptable to future trends. Block employed the analogy with a food product: did users want Kraft slices or Gouda cheese? Both represented the same product but with very different experiences and he hoped that libraries would avoid an equivalent experience in discovery.

Robert H. McDonald from Indiana University then presented on the options of buying, building, or leasing discovery platforms in the context of a “dis-integration” between user experience and the management needs of libraries. He discussed how often the work that libraries had originally contributed to the discovery user experience was lost when their provider’s interface proved unsustainable by highlighting the number of products and technologies listed in Breeding’s early slides that were now defunct. Consequently, many libraries in that position have since tried to leverage open source interfaces drawing on search APIs. McDonald provided the context for Indiana University Libraries, currently using the EDS API, and their experience regarding whether to buy, build, or lease. Subscription models mean the university is buying less software outright, and more frequently using “software as a service” or leasing options. When assessing the feasibility of building a product, exploring the open source community was part of the process.

In the context of leasing, McDonald contrasted a traditional loss of lease (and the work involved in moving physical materials) with that of a library system lease. Cloud-based discovery entailed moving data across platforms, a process which is currently a ten-yearly cycle for many libraries. In the same way, contingency plans for backup form the basis of IT directors’ cloud migration strategies. Libraries must likewise be sure of their plan for future migration when entering into a leasing arrangement and aim for greater agility around back-end management and the speed of such migrations. He continued by arguing for a “dis-integrated” user experience design with control in the hands of institutions. Sometimes this is obtained through open source, but the key element to consider is interoperability. In mentioning the work of 501(c) (3) tax-exempt non-profit organizations for community
source software, McDonald concluded with a question: “Where is that fabric of collaborative support in libraries that can sustain some of the open source community?” While not all ventures will need sustenance, libraries will need to build such a fabric for sustainability or embrace current options that may be longer-lived.

Curtis Thacker from Brigham Young University concluded the panel presentation by first asking attendees several questions relating to their satisfaction with - and the performance of - their institutions’ discovery layer. He explained how the library at Brigham Young University decided to build their own discovery platform, first using Primo, and then EBSCO EDS for their central index. He suggested that there were many smaller reasons for doing this, rather than one single one. Taking real search examples, he showed how their discovery layer displayed variant formats of publications, with the simplicity of user experience belying complex back-end work. Accordingly, Thacker believed that hiding complex details from the user is part of the job of making discovery easier.

Then, Thacker discussed open source in general and the commonalities between the Open Source Software (OSS) movement and libraries, such as shared values for open formats and information. Paraphrasing a paper by Kate Moore and Courtney McDonald, he pointed out that open source was only free in the same way that puppies are free, with hidden financial and time costs. To prove his point, Thacker discussed the survey in the ARL Spec Kit [340] he authored, in which 69% of respondents said that although they were in a position to implement an OSS project, they had chosen not to do so, for reasons ranging from time to community support, code quality, and external system dependence. Significantly, Thacker pointed out that over 50% of initiated OSS projects fail, but that none of these aspects were reasons not to invest in OSS projects. He reiterated that the shared values between the open source community and libraries were important reasons we should support OSS platforms. Finally, he suggested that the future of discovery will involve personalization, leveraging usage data for greater relevance ranking, and employing tools building on data mining and machine learning, utilizing already existing technological solutions. Thacker hoped that a combined effort will enable our communities to figure out solutions to current discovery issues.