# Assessment of Content Enrichment Service Providers Syndetic Solutions and Content Café 2

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# **Executive Summary**

An assessment of content enrichment service providers was undertaken from May to August 2013 to determine which provider would best enhance the discoverability of items in Edmonton Public Library's (EPL) online catalogue/discovery tool<sup>1</sup> and ensure a superior search and discovery experience for EPL's customers. The following questions were addressed:

- Who provides content enrichment services?
- What discovery tools are said content enrichment service providers compatible with?
- How does the enriched data integrate into the discovery tool?
- How customizable is the integration of the enriched data?
- What enriched data elements are available?
- What enriched data elements are included in the provider's subscription package?
- What is the cost of each enriched data element?
- What is the cost of the total subscription?

To answer these questions, the researcher corresponded with representatives from two major content enrichment providers, Syndetic Solutions (SS) and Content Café 2 (CC2), evaluated the content providers' websites and documentation, and conducted a literature review. In an attempt to answer questions regarding integration and display, the researcher also analyzed and compared 250 cover images for five different item types (books, eBooks, CDs, DVDs and video games) found in discovery tools enriched by SS and CC2. The researcher noted the URL automatic links for the images that displayed, as well as the ISBNs and UPCs included in the MARC records for each item. The results of the analysis revealed that the integration, and therefore the display of the cover image, was impacted by:

- Whether or not an ISBN or UPC was listed in the MARC record,
- Which ISBN or UPC was listed, as items could potentially have more than one,
- Items that had both an ISBN and UPC assigned to it (e.g. DVDs),
- The order in which the ISBNs and UPCs were listed in the MARC record, and
- Whether or not SS or CC2 had the image in their database at the time of the search.

The quality of the cover image displayed was found to be impacted by:

- The size 'called' by the library, and
- The size of the image provided by the publisher.

<sup>&</sup>lt;sup>1</sup> As online catalogues and discovery tools or layers are synonymous in this context, discovery tools or layers will be used predominately throughout the rest of the report.



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# Introduction

To ensure that EPL is upholding their commitment to improving catalogue searching online, as per the Shared Values statement, and providing their customers with the highest quality discovery experience, a comparative evaluation of two content enrichment service providers was undertaken.

Syndetic Solutions by Bowker and Content Café 2 by Baker & Taylor are two providers that make available high-quality enriched content designed to enhance library discovery tools. They afford access to millions of data elements, such as full-colour cover images dating back to the 1980s, full-text reviews, author biographies, publisher summaries, and table of contents, among others, for items of all types including DVDs, CDs, audiobooks, eBooks, books and video games. The data elements supplied by these providers add visual interest to the discovery tool as well as help improve the discoverability of the library's holdings.

Incorporating enriched data into a library's discovery tool has been found to contribute to an enhanced search and discovery experience that positively impacts item use and circulation. Enriched data helps customers identify important aspects of the item they have searched or discovered through browsing. Moreover, elements such as table of contents, reviews and summaries help customers determine the relevancy and suitability of an item.

The following report includes a profile on Syndetic Solutions and Content Café 2, a comprehensive list of the data elements they offer and the quantities available. As well as an analysis of how data elements are integrated into the discovery tool and the factors that impact their display.



# **Content Enrichment Service Providers**

# **Syndetic Solutions**

Syndetic Solutions (SS) was the first provider to offer libraries high-quality enriched content designed to enhance their online catalogues.<sup>2</sup> In 2004, when SS was acquired by Bowker, "the world's leading provider of bibliographic information management solutions," they provided data elements for less than 2 million books and videos.<sup>4</sup> Today, SS has approximately 40 million unique descriptive data elements for books, eBooks, audio/visual (A/V) materials and video games, with new content added weekly.

SS' services are supplied on an annual basis (as a one year subscription), with multiyear contracts available. See Table 1 (p. 6) for the elements that are included in a basic subscription and Table 2 (p. 7) for a complete list of available data elements along with quantities and brief descriptions.

The enriched content supplied by SS, which resides on the high-speed Internet secured at Bowker, is mainly integrated into the library's discovery tool through automatic links provided by the International Standard Book Numbers (ISBN) within local MARC records.<sup>5</sup> For video and music content, automatic links are mainly provided by the Universal Product Code (UPC) first and then if applicable, the ISBN.<sup>6</sup>

SS offers two implementation options: Classic or Plus.

- Syndetics Classic displays enriched content in a pop-up window using HTML or XML.
- Syndetics Plus allows enriched content to be directly integrated into the record display by using JavaScript and XML, or inline via Syndetics Plus widgets.<sup>7</sup>

A number of major integrated library system (ILS) vendors, including SirsiDynix, support the integration of SS enriched content (see Bowker.com for complete list of compatible systems).

SS also offers Indexed Content Enrichment (ICE), which enhances the search and discovery of "titles that are undetectable through traditional MARC data searches" right from the discovery layer. By indexing content for a number of elements like summaries,

<sup>&</sup>lt;sup>8</sup> Bowker. Syndetic ICE: FAQs. Retrieved from <a href="http://www.bowker.com/en-US/products/syndetics/ice/faqs.html">http://www.bowker.com/en-US/products/syndetics/ice/faqs.html</a>



<sup>&</sup>lt;sup>2</sup> Nesting, V. (2005). R. R. Bowker Acquires Syndetic Solutions. *Public Libraries*, *44*(2), 118-119.

<sup>&</sup>lt;sup>3</sup> Bowker. Homepage. Retrieved from <a href="http://www.bowker.com/en-US/">http://www.bowker.com/en-US/</a>.

<sup>&</sup>lt;sup>4</sup> Nesting, V. (2005). R. R. Bowker Acquires Syndetic Solutions. *Public Libraries*, *44*(2), 118-119.

<sup>&</sup>lt;sup>5</sup> Bowker. Syndetic Solutions:FAQs. Retrieved from <a href="http://www.bowker.com/en-US/products/syndetics/faqs.html#1">http://www.bowker.com/en-US/products/syndetics/faqs.html#1</a>.

<sup>&</sup>lt;sup>6</sup> Product Manager at Bowker, email correspondence, June 3, 2013.

<sup>&</sup>lt;sup>7</sup> Product Manager at Bowker, email correspondence, June 3 & 21, 2013.

reviews and table of contents, the library customer can discover items that not only have the searched text (e.g. Chemistry) in the title, but in the summary, review or TOC as well. This raises the visibility of items in the collection and brings greater relevance to search results. ICE can be added to either the Classic or Plus subscription, however, ICE requires a search and discovery platform like AquaBrowser from Serials Solutions, Primo from ExLibris or Enterprise from SirsiDynix. <sup>9</sup>

SS is also offering new services as of 2013:

- **Journal Cover Images**: Customers who subscribe to the cover image element can also receive over 14,000 premier journal cover images via Ulrich's Web.
- Facebook App: Subscribers can add their holdings to their libraries' Facebook
  accounts where customers, who use Facebook, can look up a title and see all the
  enriched data that the library has subscribed to, as well as link to the title
  availability in the library.
- Video Game Content: SS is now offering enriched video game data, which
  includes more cover images as well as ratings information, such as the Maturity
  Standard Rating.

Table 1: Syndetic Solutions' Basic Subscription Package, Elements Included

Syndetic Solutions Basic Subscription Package
Cover Images
First Chapters
International Content (Spanish and Swedish)
Reviews
BookList
Choice
HornBook (Magazine & Guide)
Kirkus
Library Journal
Publishers Weekly
School Library Journal
Summaries
Table of Contents



<sup>&</sup>lt;sup>9</sup> Product Manager at Bowker, email correspondence, June 3, 2013.

Table 2: Syndetic Solutions Element Quantities and Descriptions 10

Element	Quantity (Approx.)	Notes		
Annotations & Summaries	9 million	Available for fiction, non-fiction, trade and scholarly titles. Summaries and annotations are derived from book jackets, edited publisher copy, or independently written annotations from Book News, Inc.		
Author notes/bios	1.4 million	Available for writers of fiction and non-fiction. Also includes lists of contributors and affiliations for many multi-author texts and compilations.		
Awards	-	See Bowker.com for complete list of awards.		
Book profiles	1 million	Contains a wide range of headings for each title including:  Genre and Sub-genre  Major and Ancillary Topics  Main Characters and their Distinguishing Attributes  Geographic and Non-geographic Settings  Time Periods  Awards and Honors  Series/Sequel information  Author Notes  Plot Summaries  Special Notes  Biographer's Name and Background (i.e., Birthplace, Birth/Death Dates, Ethnicity, etc.)  Book Profile  Characters  Name: Lottie Gender: Female Attributes: Disappointed that her boyfriend hasn't proposed yet; her old flame, Ben, reminds her of their pact to get married if they were both still single at thirty; gets on a plane to marry Ben;  Name: Ben Gender: Male Attributes: Reminds Lottie of their pact to get married if they were both still single at tihrty; gets on a plane to marry Lottie;  Genre Fiction; Romance; Chick lit; Humorous; Humor;  Topics Past loves; Relationships; Marriage proposals; Weddings; Friendship; Sisters; Love;  Setting London, England; Europe; Englan (read more)		
Cover images	9 million	Images begin with titles published in the early 1980s and are available in three sizes:  • 94 pixels high  • 187 pixels high  • 400 pixels high		

<sup>&</sup>lt;sup>10</sup> Information retrieved from Bowker.com



Find similar titles	-	This optional function allows users to click on any combination of headings or descriptors within a Fiction Profile and retrieve a list of titles with those same attributes. The user can then look at the Fiction Profile of any title on the results list and also view the title's availability within the library. This powerful tool can find religious romances involving single parents living in Arizona or the Southwest, or academic mysteries containing an African-American archaeologist, involving stolen artifacts in an Egyptian pyramids setting. All Fiction Profiles are available within this option, with over hundreds of new novels added each month.		
First chapters & Excerpts	300,000	Available from prominently reviewed new titles, both fiction and non-fiction; thousands of new chapters and excerpts are added each month; chapters are supplied from selected publishers; excerpts include poems, essays, recipes, forwards and prefaces.		
International content	-	Delivers data elements for different languages including: Spanish – TOCs, Reviews, Cover Images and Summaries for books Swedish – Summaries, TOCs and reviews for books and summaries, cover images and reviews for A/V items. German – Summaries and cover images for books. Italian – Summaries and cover images for books and DVDs.		
Reviews	2.8 million	See Table 5 (p. 13) for list of available review sources and Bowker.com for the frequency with which they're updated and dates of coverage.		
Table of contents	1 million	Available in a number of formats. Provides TOC for a wide variety of items, including new publications from small presses, trade, US and UK scholarly publishers, and many Spanish language titles.  Table of Contents  Author's Note P. ix P. xi Prologue P. 3  Part 1 The Ten Thousand Things P. 9 2 Splitting P. 28 3 Hunching in a Remotely Upright Position P. 38  Part 2 Tracks P. 61 4 The Pacific Crest Trail, Volume 1: California P. 47 5 Tracks P. 61 6 A Bull in Both Directions P. 76 7 The Only Girl in the Woods P. 102  Part 3 Range of Light Post Post Post Post Post Post Post Pos		
Series information	80,000	Provides content for more than 80,000 new and existing series.  Each fiction title within a series is linked to the complete series record. The record displays each title in reading order and also displays the publication order if different. Alternate series titles are also displayed.  Series  The Twilight saga 1 Twilight 2 New moon 3 Eclipse 4 Breaking Dawn		



Video Game Profiles	90,000	Offers over 70,000 US and 20,000 UK titles, and includes:  • Cover images  • ESRB (Entertainment Software Rating Board) ratings  • Game information, features and description  • System requirements  • Reviews  • Screenshots
		Release Date Publisher 2K Sports Developer Visual Concepts Genre Sports System PlayStation 3 Style Basketball Players 10 Internet Players Similar Games College Hoops 2K7 NBA Street: Homecourt NBA 07 Madden NFL 07
		Screenshots
Video & Music	-	<ul> <li>Provides V &amp; M Content and V &amp; M Profiles for more than 4 million A/V titles.</li> <li>V &amp; M Content includes: cover images and annotations, which list cast member and directors for DVDs, and track listings, song running time and composer/performer for CDs.</li> <li>V &amp; M Profiles include: release dates, genres, keywords, themes and similar artists/movies.</li> </ul>
		Video & Music Profile
		Rating: ★★★☆☆ Release Date: 2013 MPAA Rating: R Studio: Universal Studios Running Time: 130 minutes
		Genres Romance;
		Themes
		Infidelity; Star-Crossed Lovers;  Moods
		Poignant; Stylized; Tearjerking; Similar Movies
		Moulin Rouge; Thérèse; William Shakespeare's Romeo + Juliet;
		Portions of Content Provided by Rovi Corporation. © 2012 Rovi Corporation.  Terms of use  Descriptive content provided by Syndetics™, a Bowker service.



## Content Café 2

Baker & Taylor's Content Café 2 (CC2) enables libraries to enrich their discovery tools by providing access to more than 22 million data elements for books, eBooks, audio/visual (A/V) materials and video games, with new additions made daily.

CC2's services are provided on an annual basis. See Table 3 for the elements that are included in a basic subscription and see Table 4 (p. 11) for a complete list of available data elements along with quantities and brief descriptions.

Utilizing web-based technology, CC2 creates, manages and delivers enriched data directly to the library's discovery tool. Enriched content, which is stored at Baker & Taylor's Information Technology Centre, is integrated into the discovery tool through the item's ISBN or UPC, 11 similar to process used by SS. A number of enriched content elements are displayed behind tabs or alongside the NoveList Select content. 12

EBSCO Publishing is an authorized re-marketer of CC2 and has been offering it as a product for the past five years. 13 CC2 can be integrated with most ILS vendors (including SirsiDynix) and is currently available for III and Polaris Library Systems catalogues, with more catalogues to come.

Baker & Taylor also offers Muze Enhanced Entertainment Data, which can be added to a CC2 subscription. This option provides movie features, such as trailers, similar cinema, rating, director and star information, and music features, such as track listings, in-depth artist information and related video and books.

Table 3: Content Café 2's Basic Subscription Package, Elements Included

Content Café 2 Basic Subscription Package
Author Notes/Biographies
Flap Copy
Publisher Summaries

<sup>&</sup>lt;sup>13</sup> Senior Account Executive at EBSCO Information Services, email correspondence, July 11, 2013.



Senior Account Executive at EBSCO Information Services, email correspondence, May 29, 2013.
Technical Support Representative for EBSCO, email correspondence, June 18, 2013.

Table 4: Content Café 2 Element Quantities and Descriptions 14

Element	Quantity (approx.)	Notes
Annotations & Summaries	7.3 million	Annotations and summaries are derived from publisher copy and are available for fiction, non-fiction, trade and scholarly titles.
Author notes/bios	1.3 million	Author notes and biographies are available for writers of fiction and non-fiction when provided by the publisher. Contributor information is not included.
Awards	-	Provided by NoveList Select (EBSCO). Tracks over 1000 awards.
Cover images	11,676,321	Includes over 1 million for eBooks, and over 2 million for A/V items. Of the 11.6 million, 3.5 million titles have at least one image and many come in multiple sizes (at least three). Cover images date back to the 1980s.
Excerpts & First Chapters	387,373	Are available for new, classic, fiction and non-fiction titles and are supplied by the publishers.
Flap copy	408,000	Digitized information from the book jacket flap cover, such as a short summary of the book or author information.
Reviews	2.3 million	Provides full-text reviews from approximately 17 sources (see Table 5, p. 12). Added monthly.
Table of contents	1.4 million	TOCs will appear however Baker & Taylor has entered the content - some examples include page numbers some do not. <sup>15</sup>
Series Information	-	Provided by NoveList Select (EBSCO), which has over 20,000 series in reading order.
Video & Music content	-	Provided by Baker & Taylor's Muze Enhanced Entertainment Data, and includes: Video Releases – 332,282 Similar Cinema – 101,229 Popular Music (track listings) – 1,201,662 Classical Music (track listings) – 165,079 Essential Artists data – 222,847 Cover/Jacket Images – 536,069

 <sup>&</sup>lt;sup>14</sup> Information retrieved from the Content Café 2 brochure, and through correspondence with EBSCO representatives.
 <sup>15</sup> Technical Support Representative for EBSCO, email correspondence, June 18, 2013.

# Syndetic Solutions vs. Content Café 2

Table 5: Comparison of Data Elements Provided by Syndetic Solutions and Content Café 2

		SS		CC2
Enriched Content Element		Available (<= Yes/ ×= 1	No)   Qua	antity (Approx.)
Annotations & Summaries	<b>√</b>	9 million	✓	7.3 million
Author notes/bios	· ·	1.4 million	· ✓	1.3 million
	<b>√</b>	1.4 111111011	×	1.3 111111011
Awards	<b>∨</b>	4 '11'		
Book profiles	<b>V</b>	1 million	×	
Cover images (for books, A/V items, eBooks and video games)	✓	9 million	✓	11.6 million
Excerpts & First chapters	✓	300,000	✓	387,373
Find similar titles	✓		×	
Flap copy	×		✓	
International content	✓		×	
Reviews	✓	2.8 million	✓	2.3 million
AudioFile	×		✓	
Booklist	✓		✓	
Book News	×		✓	
Bookseller and Publisher Magazine	✓		×	
CD Hotlist	×		✓	
Choice	✓		✓	
Criticas <sup>16</sup>	✓		×	
Doody's Book Reviews	✓		×	
E-STREAMS	×		✓	
ForeWord	×		✓	
Guardian, The – Exclusive	✓		×	
Horn Book Guide	✓		✓	
Horn Book Magazine	✓		✓	
Kirkus	✓		✓	
Library Journal	✓		✓	
New York Times, The – Exclusive	✓		×	
Publishers Weekly	✓		✓	
PW (Publishers Weekly) Annex	×		✓	
Quill and Quire	✓		×	
School Library Journal	✓		✓	
Video Librarian	×		✓	
VOYA	✓		✓	
Series information	✓	80,000	×	
Table of Contents	✓	1 million	✓	1.4 million
Video Game Profiles	✓	90,000	×	
Video & Music Content and Profiles	✓	4 million	×	

<sup>&</sup>lt;sup>16</sup> Criticas Magazine appears to have ceased publication: http://www.thenewmagazinecity.com/criticas.html

#### Video & Music Data

EPL currently subscribes to Video & Music Content and Profiles, among other elements from SS. Yet, out of 50 DVD titles searched in EPL's online catalogue, not one included Video & Music Profile data (see Figure 1). Detroit Public Library also subscribes to the Video & Music Profiles and their bibliographic web page for the *Life of Pi* (DVD) includes the profile data (e.g. genre, theme, mood, etc.) within a section of the web page called *A Look Inside* (see Figure 2, p. 14). It is important to note that Detroit Public Library uses a SirsiDynix discovery tool.

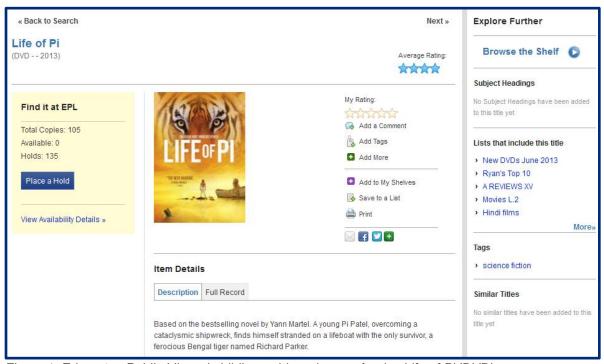


Figure 1: Edmonton Public Library's bibliographic web page for the Life of Pi (DVD).

Along with Video & Music Content and Profiles, SS used to offer an element called Video Clips (i.e. movie trailers) but was removed from their offerings due to low demand.<sup>17</sup>

And while CC2 does not include video and music data, CC2 customers can add Baker & Taylor's Muze Enhanced Entertainment Data, which includes movie trailers and track listings, to their subscription (see Table 4, p. 11).

<sup>&</sup>lt;sup>17</sup> Product Manager at Bowker, email correspondence, August 16, 2013.



Figure 2: Detroit Public Library's bibliographic web page for the Life of Pi (DVD), Video & Music Profile.

As per the 2011 Collection Management and Access Operational Review report, providing CD track information was identified as a means of enhancing customer service. And while Video & Music Content should provide track listings, song running time and composer/performer information, none of this data appeared in 50 bibliographic web pages for CDs in EPL's catalogue.

In addition to track information, song samples would further enhance customer service. For example, Amazon provides a service called Music Sampler which offers hundreds of thousands of song samples that are integrated into the web page (see Figure 3, p. 15).

The Music Sampler automatically advances through the track samples, each approximately thirty seconds in length, but users have the option to stop tracks, skip ahead and adjust the volume. Certain technical requirements are necessary for the Music Sampler to function, such as specific Microsoft Windows and Apple Mac OS X operating systems, as well as browser, plug-in, proxy server and firewall setting requirements.



<sup>&</sup>lt;sup>18</sup> CMA Operational Review, Section 4.3, p. 10.



Figure 3: Amazon Music Sampler.

# **Comparative Analysis of the Cover Image Element**

As the objective of this project was to evaluate SS and CC2, it seemed appropriate to assess how enriched content is integrated in the discovery tool. However, an attempt to analyze all major enriched data elements supplied by SS and CC2 would be unmanageable. Consequently, only the cover image element was selected for assessment because it is a widely used element that is easy to measure and verify. Cover images were also selected because they are critical to ensuring an enriched discovery experience. They make the discovery tool more visually appealing and work to elevate the visibility of items in the collection (Rahman & Dominic, 2012).

### Methods

To assess the integration of and compare the extent and quality of cover images supplied by both providers, 250 items in five different formats, including books, CDs, DVDs, eBooks and video games, were searched in discovery tools enriched by SS (Edmonton Public Library and Ottawa Public Library) and CC2 (Greater Victoria Public Library and Oceanside Public Library) from May 17 to June 21, 2013.<sup>19</sup>

Searches were conducted mainly through the advanced search option, limited by format. Once the individual bibliographic web pages for each item were loaded, the URLs for each image source were obtained<sup>20</sup> and documented, as were all the ISBNs listed in the 020 fields and all the UPCs listed in the 024 fields of the MARC records. This was to establish which ISBN or UPC was used in the automatic link. If no cover image appeared, the BiblioCommons' default format image was used in its place (see Figure 4) and the URLs for these images were not recorded. However, the ISBNs and UPCs listed in the 020 and 024 fields of the MARC record were still documented for verification purposes.











Figure 4: BiblioCommons default images for books, CDs, DVDs, eBooks and video games.

<sup>&</sup>lt;sup>19</sup> All the libraries selected for this assessment used BiblioCommons as their discovery tool at the time of data collection. And the same computer and browser (Firefox) was used to conduct all basic and advanced searches (limited by format and at times, audience and date range).

<sup>&</sup>lt;sup>20</sup> Image URLs were obtained by right clicking on the image and selecting View Image Info (using the Firefox browser). A Page Info window opens from which the address was copied.

To verify the titles for which images did not appear in the discovery tool, all of the ISBNs or UPCs associated with those specific titles were inserted into the respective provider's index/database URLs.<sup>21</sup> This was done by inserting the ISBNs or UPCs into the URL link. Two URLs were used to verify images supplied by SS, one for titles with ISBNs and one for titles with UPCs.

# **Findings**

Once the search results list displayed in the discovery tool and after each individual bibliographic web page was loaded for all 250 items, one of three things occurred:

- 1. The cover images displayed in both the SS and CC2 enriched discovery tools;
- 2. A cover image appeared in one discovery tool but not in the other; or
- 3. The cover images did not appear in either discovery tool.

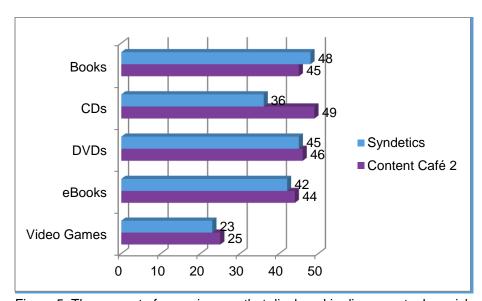


Figure 5: The amount of cover images that displayed in discovery tools enriched by Syndetic Solutions and Content Café 2, by item type.

<sup>&</sup>lt;sup>21</sup> The verification of all the titles with missing cover images was conducted on July 9, 2013.

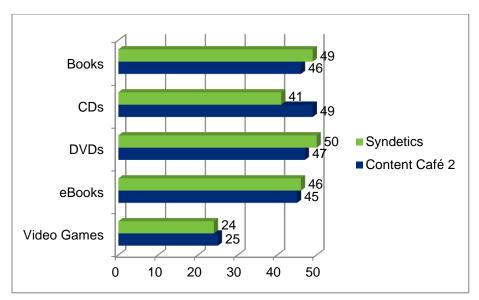


Figure 6: The amount of cover images that appeared in SS and CC2's database after verifying the title's ISBN or UPC using the index/database URLs, by item type.

#### **Books**

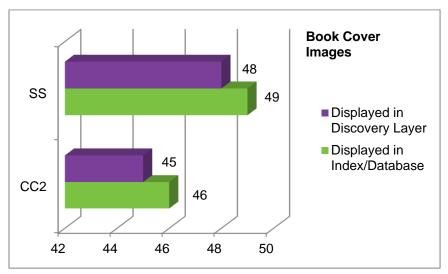


Figure 7: The amount of book cover images that displayed in the discovery layer and after verification in the providers' database, by provider.

Discovery tools enriched by SS displayed 96% (48/50) of the images for the 50 books searched. Once the missing titles were verified using the URL for the ISBN index, it was found that SS had one of the two missing book images in their database, that title being *Wheat Belly* by William Davis (2011).

As Figures 8 and 9 demonstrate, the first ISBN listed in the MARC record for *Wheat Belly* does not have the cover image linked to it. Interestingly though, a Preview is included, which features the cover image of the book (see Figure 10, p. 21). It was

found that the second ISBN listed in the record provided the cover image in addition to other enriched content (see Figures 8 & 11, pp. 19-20).

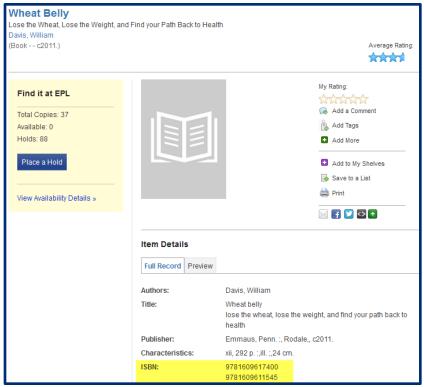


Figure 8: Bibliographic web page for Wheat Belly.

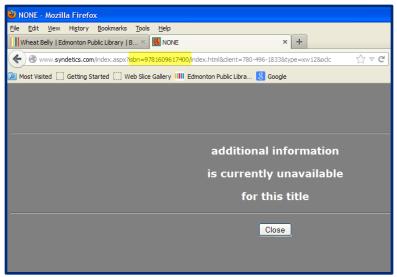


Figure 9: Syndetic Solutions Index URL using the first ISBN listed in MARC record.



Figure 10: Preview with cover image for Wheat Belly.



Figure 11: Syndetic Solutions Index URL, using the second ISBN listed in MARC record.

The second title with a missing image did not appear in the SS index, which suggests that they did not have that image in their database or the ISBN was incorrect. Therefore, SS had 98% (49/50) of the images for the 50 book titles searched.

Discovery tools enriched by CC2 displayed 90% (45/50) of the images for the same book titles searched (see Figure 7, p. 18). The ISBNs documented during data collection were used to verify the five titles with missing images using the URL link. It was found that CC2 had one of the five missing images in their database, *Cooked: A Natural History of Transformation* by Michael Pollan (2013). Interestingly, the first ISBN listed in the MARC record for this title was used in the verification process and retrieved an image in CC2's index/database. Yet the cover image did not display in the discovery tools of Greater Victoria Public Library (GVPL) or Oceanside Public Library (OPL). Furthermore, the other four titles were all from Canadian publishers (Viking Canada, HarperCollins Canada and Douglas & McIntyre). It was determined that CC2 had 92% (46/50) of the cover images for the books searched.

# **CDs**

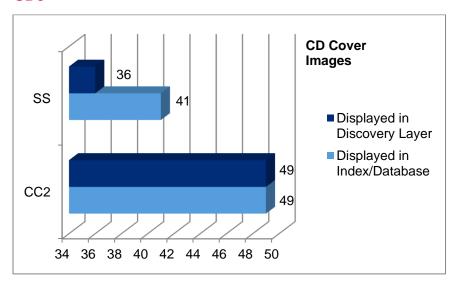


Figure 12: The amount of CD cover images that displayed in the discovery layer and after verification in the providers' index/database, by provider.

SS provided 72% (36/50) of the images for the 50 CDs searched. However, verifying the UPCs in the MARC record using the UPC URL link revealed that SS had 5 of the missing CD cover images in their database; therefore, it was found that they had of 82% (41/50) of the cover images.

For the CDs in which a cover image did not appear, it was because either the UPC was not included in the MARC record in the 024 field (e.g. in EPL's discovery layer, *Noel* by Josh Grobin, *Merry Christmas* by the Supremes, and *Taking Chances* by Celine Dion

did not have a UPC listed in their MARC records) or the image was linked to a different UPC that was not included in the MARC record (*Duets II* by Tony Bennett).

CC2 appeared to have more CD cover images than SS, as 98% (49/50) of the CDs searched included cover images. The title with the missing image was verified using the URL, and it was confirmed that it is not in CC2's database, either because they did not have it yet, or the UPC was incorrect.

### **DVDs**

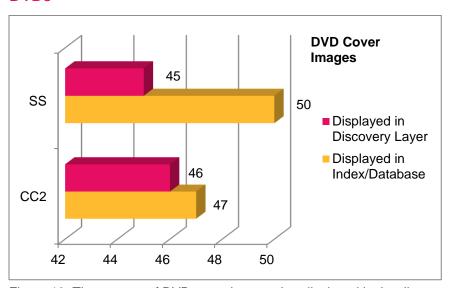


Figure 13: The amount of DVD cover images that displayed in the discovery layer and after verification in the providers' index/database, by provider.

SS provided 90% (45/50) of the images for the 50 DVDs searched. Yet once the DVDs with the missing cover images were verified using the UPC index URL link, it was discovered that SS had them in their index/database, indicating they have 100% (50/50) of the images for the 50 titles searched. This confirmed that the UPCs listed in the MARC records were used as the automatic link, yet the images did not display in the BiblioCommons discovery tool.

Interestingly, all five of the titles (*Flight, Rise of the Guardians, Madagascar 3, Jack Reacher*, and the *Guilt Trip*) also included at least one ISBN in their MARC records, which are listed in the 020 field, preceding the 024 UPC field. To be prudent, the ISBNs were verified in SS' ISBN Index (using the ISBN URL), and it was determined that the images were not linked to the ISBNs included in the MARC records.

The discovery tools enriched by CC2 displayed 92% (46/50) of the DVD cover images. Once the missing titles were verified, it was found that CC2 had a cover image for the



DVD *Argo* (2013). However, the automatic link was assigned to a different UPC than the one listed in the MARC records of both GVPL and OPL. It was determined that CC2 did not have cover images for the other three titles (*The Hobbit*, *Cloud Atlas* and *Taken 2*), providing 94% (47/50) of the cover images for the 50 DVDs searched.

## **eBooks**

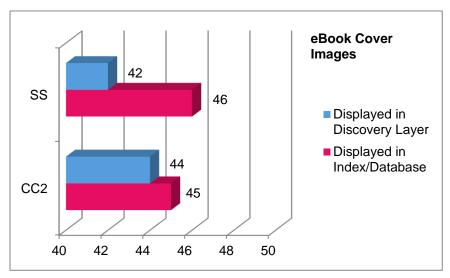


Figure 14: The amount of eBook cover images that displayed in the discovery layer and after verification in the providers' index/database, by provider.

SS provided 84% (42/50) of the cover images for the 50 eBooks searched. The missing titles were verified and it was found that SS had four of the missing cover images in their database, indicating they had 92% (46/50) of the cover images for titles searched.

In comparison, CC2 provided 88% (44/50) of the eBook cover images searched in the discovery tools. Those without cover images were verified and it was found that CC2 had one of the missing images in their database. However, it did not display because it was linked to an ISBN that was not included in the MARC record. The other five were not found in CC2's index, indicating they did have the images for those specific eBook titles or the ISBNs were incorrect.

#### Video Games

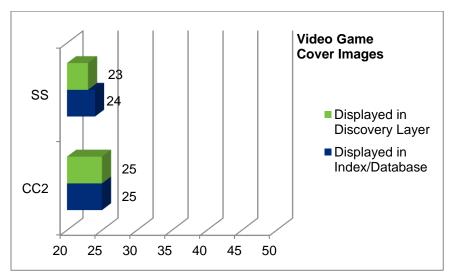


Figure 15: The amount of video game cover images that displayed in the discovery layer and after verification in the providers' index/database, by provider.

For the 50 video game titles searched in discovery layers enriched by both SS and CC2, no more than half of the cover images appeared. SS provided 46% (23/50) of the images for the titles searched, while CC2 provided 50% (25/50) of the cover images. Verification of the items with missing images revealed that SS had one additional title in their database, which did not display because the image was linked to a UPC that was not included in the MARC records. And it was found that CC2 did not have any of the missing images in their database. Therefore, it was determined that SS had 48% (24/50) of the images while CC2 remained at 50% (25/50).

# **Image Quality**

When a cover image displayed in both the SS and CC2 enriched discovery tools, the quality of the image was also noted. Based the 250 items assessed, many of the images supplied by SS appeared blurry or distorted in comparison to the images supplied by CC2 (see Figures 16-18, pp. 24-25).





Figure 16: Cover images for the 2012 Grammy Nominees CD, supplied by SS (left) and CC2 (right).



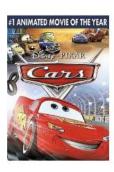
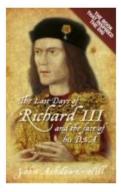


Figure 17: Cover images for the DVD *Cars*, supplied by SS (left) and CC2 (right).



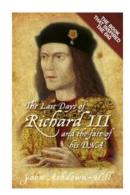


Figure 18: Cover images for *The Last Days of Richard III*, book (print), supplied by SS (left) and CC2 (right).

To determine why some images were blurry, the researcher right clicked on the image and selected View Image Info. This opened a new window that displayed the type (JPEG), the size (bytes) and the dimensions (pixels) of the image (see Figures 19 and 20).

http://www.syndetics.com/index.aspx?isbn=/MC.GIF&client=780-496-1833&type=xw12&oclc=&upc=602527908755 Image

Location: http://www.syndetics.com/index.aspx?isbn=/MC.GIF&client=780-496-1833&type=xw12&oclc=&upc=602527908755

Type: JPEG Image

Size: 11.96 KB (12,243 bytes)

Dimensions: 200px × 200px (scaled to 147px × 147px)

Associated Text: Grammy Nominees 2012

Figure 19: Syndetic Solutions image information for the 2012 Grammy Nominees CD.

http://contentcafe2.btol.com/ContentCafe/Jacket.aspx?&userID=OCP36373&password=CC52001&Value=602527908755&content=M&Return=1&Type=M

Image

Location: http://contentcafe2.btol.com/ContentCafe/Jacket.aspx?&userID=OCP36373&password=CC52001&Value=602527908755&content=M&Return=1&Type=M

Type: JPEG Image
Size: 23.23 KB (23,788 bytes)

Dimensions: 240px × 212px (scaled to 147px × 130px)

Associated Text: 2012 Grammy Nominees

Figure 20: CC2 image information for the 2012 Grammy Nominees CD.

It was found that most images provided by SS were smaller in size (bytes) and in dimensions (pixels) than the images supplied by CC2.

# **Discussion**

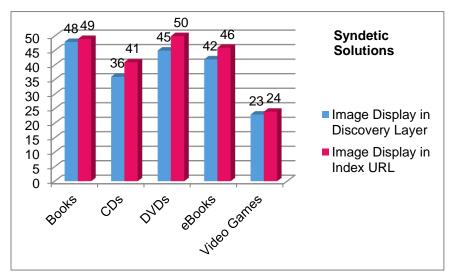


Figure 21: Comparison of image display in discovery layer versus in the index URL, Syndetic Solutions.

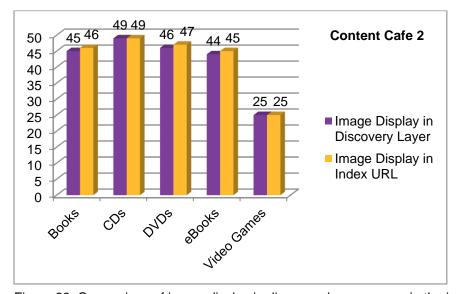


Figure 22: Comparison of image display in discovery layers versus in the index URL, Content Café 2.

As Figures 21 demonstrates, the initial search in discovery tools enriched by SS displayed less images, for all item types, than when the titles were verified using the index/database URLs. Whereas CC2 displayed almost the same amount of images in the discovery tools than in their database (see Figure 22). Compared to the findings outlined in Figure 21, this suggests that CC2 may be more compatible with the BiblioCommons discovery tool than SS or CC2 may employ more sophisticated automatic links and procedures. The cataloguing practices of the libraries included in the assessment may have also impacted the display of cover images.

Based on the display of images in the enriched discovery tools, both providers supplied almost an equal amount of cover images for DVDs (SS=45, CC2=46), eBooks (SS=42, CC2=44), books (SS=48, CC2=45), and video games (SS=23, CC2=25), differing by no more than 3 images per item (see Figures 21 & 22, p. 26). While both SS and CC2 displayed almost an equal amount of video game images, it was no more than half of the titles searched. This indicates that both providers have the least amount of images for video games compared to the other item types. However, SS is now offering Video Game Profiles, which includes more cover images, among other information (see Table 2, p. 9).

The greatest discrepancy between SS and CC2 was found in the display of cover images for CDs (SS=36, CC2=49). The verification of titles using the URL index suggests that CC2 has a greater wealth of CD cover images than SS.

An analysis of the images' source URLs and the item's ISBNs and UPCs revealed that the first ISBN or UPC listed in the record was used in the automatic links for both SS and CC2. This indicates that the order in which the identifiers are listed impacts the automatic links and therefore, the display of the cover images and potentially other enriched data elements.

This proved especially problematic for the DVD images, as they were the only item type to, occasionally, include both an ISBN and a UPC in their MARC records. The findings for DVDs indicate that the inclusion of the ISBN impacted the display of the cover image, as video and music content is linked through the UPC.

The quality of the image displayed, according to SS, "depends on which size the library calls." SS states that they "resize images on the fly, so if the library calls for a large cover image, but we (SS) received a smaller pixel image from the publisher, it will appear blurry." SS suggest calling a medium sized cover image.<sup>22</sup>

While customers may place more value on enriched content for identifying items they want than on the ISBN or the UPC (Tarulli, 2009), the findings indicate that the inclusion of these identifiers in the record are integral to ensuring enriched content, specifically the cover image, is made available to them. The results of the assessment reveal that the cover image element may or may not display because:

- The ISBN or UPC was entered incorrectly in the MARC record or was not included in the record at all, in which the provider would have nothing to link to.
- Items had multiple ISBNs or UPCs in the record.



<sup>&</sup>lt;sup>22</sup> Product Manager at Bowker, email correspondence, June 21, 2013.

- Items had both ISBNs and UPCs in the record.
- SS or CC2 did not have the image in their database at the time of the search.

Therefore, a missing image is not indicative of the extent of SS or CC2's databases but it does call into question the processes by which data is linked, called and displayed.

#### Limitations

A number of limitations were identified:

- The cataloguing practices and ILSs used by Greater Victoria Public Library (GVPL) and Oceanside Public Library (OPL) were unknown to the researcher and may have had an impact on the automatic links/data retrieval process.
- The content enrichment subscription contracts for the other libraries (i.e. the elements subscribed to) were unknown to the researcher.
- SS boasts over 9 million cover images and CC2 over 11.6 million cover images, therefore, 250 cover images searched is not an adequate representative sample.
- Data elements are added daily or weekly, in which case images that did not appear at the time of data collection may now be available.
- As bibliographic records come from a variety of sources, inconsistencies, errors and omissions of ISBNs and UPCs are inevitable, which would impact the display of enriched data.
- The researcher's lack of knowledge about the technical processes involved in creating and executing automatic links and/or search algorithms.



# Conclusion

As the findings of the cover image assessment suggest, the differences in how SS and CC2 perform are negligible. But as outlined in Table 5 (p. 12), SS offers additional enriched content that appears to meet the growing demand for audio/visual items and video games. The following is a list of the pros and cons of each provider based on their profiles, quotes, and from the results of the cover image assessment.

#### SYNDETIC SOLUTIONS

#### **PROS**

- Has more enriched data elements than CC2, specifically more:
  - Annotations & Summaries
  - Author Notes
  - Book Profile data
  - Reviews
  - Video & Music Content and Profile data
- Offers increased Video Game data, such as more cover images, ratings, etc.
- Offers Indexed Content Enrichment, which could enhance search and discovery.
- Basic subscription package includes more elements than CC2.
- Individual elements cost less and the overall subscription cost is less than CC2 (prior to discount).

#### **CONS**

- Less cover images than CC2.
- Video & Music Profile data does not appear to display in the BiblioCommons discovery layer (based on assessment of 50 DVD titles).
- A number of cover images are blurry compared to those supplied by CC2.
- Indexed Content Enrichment is not compatible with BiblioCommons.
- There was a 6% (approximate) increase in the annual subscription cost from 2012 to 2013. In which case the overall annual subscription fee is more expensive than CC2.

#### **CONTENT CAFÉ 2**

#### **PROS**

- More cover images than SS, specifically more CD cover images.
- Cover images appear to be sharper and of better quality.
- More TOCs.
- · More Excerpts & First Chapters.
- Less expensive than SS after discount.
- Displayed more cover images for all items in the BiblioCommons discovery layers, except for books, than SS.

#### CONS

- Basic subscription package includes fewer elements than SS.
- Muze data does not integrate well into any user interface at this time.
- Individual data elements are more expensive than SS (pre-discount).
- Missing book cover images were all from Canadian publishers.
- Does not offer enriched video game data (just cover images), but are actively looking into it.



# **Appendices**

# **Appendix A: Other Content Enrichment Providers**

Other content enrichment providers were identified during the information gathering phase, albeit very few. A scan of public libraries' websites revealed that Canadian libraries use either SS or CC2, while 2 out of 10 American libraries are receiving enriched content from providers other than SS and CC2 (see Appendix C). The source for a number of cover images found in Brooklyn Public Library's catalogue appears to be from Midwest Tape, a full-service media distributor (see Figure 23). And a number of cover images found in Dallas Public Library's catalogue appear to be supplied by ChiliFresh (see Figure 24).

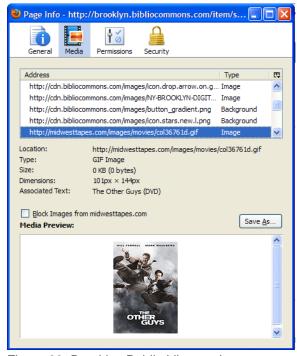


Figure 23: Brooklyn Public Library - Image Source for the *Other Guys*.

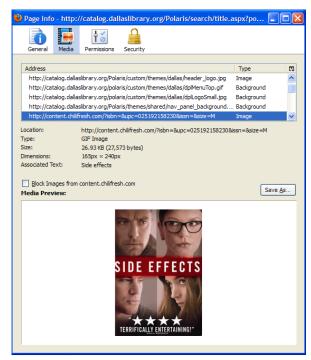


Figure 24: Dallas Public Library – Image source for *Side Effects*.

#### ChiliFresh

- Is a cross-platform, collaborative, flexible and integrated service.
- Provides access to over 8 million book cover images through their Patron Book Review Engine.
- Reviews (quantity unknown) from the local community and worldwide are provided through the ChiliFresh Book Review Engine, which resides on a remote server.
- Can integrate into most ILSs.



In addition to enriched data elements supplied by ChiliFresh and Midwest Tape, Nielsen Book Services Ltd. was identified as a major content enrichment service provider.

#### Nielsen Book Services Ltd.

Nielsen is a global information and management company that offers a number of products including, BookData Enrich.

#### Nielsen BookData Enrich

- This service provides libraries with access to Nielsen's bibliographic database of over 18 million records for print and digital titles, as well as other media including CDs, DVDs and eBooks.
- Nielsen collects book data from publishers in over 70 countries, including the UK, Ireland, Australia, New Zealand, South Africa and the United States.
- Content is stored on Nielsen's secure servers and is supplied instantly when a search is performed.

Table 6: Nielsen Book Data Elements and Quantities

Element	Quantity
Author Biographies	654,000
Cover Images	10.9 million
Descriptions	3.9 million
Literary Awards (all major awards covered)	23,700
Reviews (from independent reviewers in the UK and US)	610,000
Table of Contents	864,000

As Nielsen Book Services Ltd. does not appear to have a North American presence based on the libraries surveyed (see Appendix C) and does not appear to collect data on Canadian titles, it was decided that they were not worth pursuing at this time. No other providers comparable to SS or CC2 were identified.

# **Appendix B: Literature Review**

Advancements in web 2.0 tools and techniques, and the development of non-library systems such as Amazon, have influenced the evolution of the library catalogue and impacted user expectations (Jetty, Abul, Jain & Hopkinson, 2011; Rahman & Dominic, 2012; Faiks, Radermacher & Sheehan, 2007; Madarash-Hill & Hill, 2004; Buczynski, 2006). Based on their interactions with non-library systems, users have grown accustomed to seeing enriched content such as cover art, first chapters or reviews in addition to basic bibliographic information (Faiks et al., 2007). To remain competitive and meet user expectations, libraries began enhancing their online catalogues through the services offered by Syndetic Solutions and Content Café.

Syndetic Solutions (from Bowker) and Content Café (from Baker & Taylor) are two content enrichment service providers that supply libraries with access to millions of enriched data elements, such as full-colour jacket images, table of contents (TOC), author biographies and reviews (Buczynski, 2006; Jetty et al., 2011). These enriched data elements, among others, provide additional access points that enhance the visibility of items in a library's collection and can theoretically, positively impact usage and circulation (Madarash-Hill & Hill, 2005; Faiks et al., 2007). A use study undertaken by Madarash-Hill and Hill (2005) discovered that "having catalog records that include electronic enhancements to book reviews, cover jackets, TOC, or publisher descriptions can result in potentially higher use of books..." (p. 30).

Enriched content also makes the catalogue more visually appealing and beneficial (Rahman & Dominic, 2012). Jacket images add visual interest while reviews, summaries and TOC help the individual determine the relevancy and suitability of an item (Faiks et al., 2007; Byrum Jr. & Williamson, 2006; Buczynski, 2006). According to Buczynski (2006):

Using reviews of products and services to aid in decision-making has become part of everyday life in the Internet Age. Whether it is a movie, restaurant, consumer electronics product or book, many people consult reviews prior to making a decision. (p. 110)

TOCs also have the potential to increase search effectiveness and provide a more rewarding search experience for the user (Byrum Jr. & Williamson, 2006). When TOCs notes are also included in either the 505 or 520 fields of the MARC record they are indexed and therefore searchable in the online catalogue, which provides additional search terms that can make relevance rankings more accurate (Byrum Jr. & Williamson, 2006; Madarash-Hill & Hill, 2005; Faiks et al., 2007). Faiks et al. (2007) adds, "And finally, the value of TOCs may be in their ability to prevent disappointment by fruitless



actions such as needlessly checking out or making interlibrary loan requests for unhelpful books" (p. 7).

Acknowledging the importance of TOCs, Syndetic Solutions now offers Indexed Content Enrichment (ICE), which provides additional search capabilities that "... go a step further to search the table of contents to reveal extended material which the users might have missed in normal search" (Jetty et al., 2011, p. 4). Yet, how this service works on a technical level, specifically its compatibility with the various discovery tools and integrated library systems has not been addressed in the literature.

# **Appendix C: References**

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