

THE REAL WORLD OF BIBLIOGRAPHIC DATA:
MANAGING AND EXCHANGING MARKETING DATA
AT ARSENAL PULP PRESS

by

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Bachelor of Arts, University of British Columbia, 2004

PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF PUBLISHING

In the
Faculty of
Arts & Social Sciences

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SIMON FRASER UNIVERSITY

Summer 2007

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Abstract

This report explores how Arsenal Pulp Press participated in a bibliographic data exchange network with its online retail and data aggregation partners in Canada from May 2005 to May 2006. Looking specifically at the data requirements of Amazon.ca, BookManager, Bowker's Books In Print, and Indigo Books & Music, this report observes the challenges faced by this mid-size, independent publisher when it used a bibliographic database management system to store and distribute industry-standard marketing data (cover images and book descriptions). The conclusion of the report proposes recommendations to Canadian and international book industry institutions—BookNet Canada and EDITEUR—supply chain partners, database system developers, and Arsenal Pulp Press itself for improving the standards and procedures for exchanging comprehensive and accurate marketing data while reducing the managerial workload for the publisher.

Acknowledgements

Much gratitude belongs to my family, Judy Delaney, Art Grabham, and Vicki Grabham, without whom I would not have the courage to attempt my goals. Thank you to the Master of Publishing program faculty and staff for all their support along the way, with special thanks to John Maxwell for introducing me to the world of publishing technology. Also, I acknowledge my 2004–5 cohort for their camaraderie and humour. And thank you to Brian Lam, Robert Ballantyne, and all of Arsenal Pulp Press for their encouragement and support.

Table of Contents

Approval	ii
Abstract	iii
Acknowledgements	iv
Table of Contents	v
List of Tables	vi
Introduction	1
About this Research	3
From the Top Down: The Book Industry & Bibliographic Data Standards	5
Arsenal Pulp Press & PExOD	10
From the Bottom Up: Managing and Policing Marketing Data	14
Book Cover Images.....	16
Book Descriptions.....	18
Policing the Supply Chain to Maintain Marketing Data Integrity	27
Recommendations	30
Level One: The Bibliographic Database Management System.....	30
Level Two: The Publisher.....	32
Level Three: The Online Supply Chain Partners	33
Level Four: The Book Industry Organizations	34
Concluding Thoughts: Data Exchange Utopia, or Something Like It	36
Appendix A	38
Sample ONIX bibliographic data for one title	38
Appendix B	44
BookNet Canada Bibliographic Standards.....	44
Appendix C	45
ONIX Code Lists.....	45
List 33: Other text type code.....	45
List 34: Text format code.....	46
List 36: Front cover image file format code.....	46
List 37: Front cover image file link type code	47
List 38: Image/audio/video file type code.....	47
Works Cited	48

List of Tables

Table 1: Example of ONIX transmission, truncated	6
Table 2: Image Specs and Uploading Methods for Arsenal Pulp Press's Bibliographic Data Exchange Partners	17
Table 3: Comparison of Book Description Specifications for Arsenal Pulp Press	20

Introduction

This report reveals the challenges faced by Arsenal Pulp Press¹ (herein referred to as “the Press”) in meeting the specific bibliographic data needs of two distinct groups: its major Canadian online supply chain partners—Amazon.ca, BookManager, Bowker’s Books In Print², and Indigo Books & Music—and the national and international book industry organizations—BookNet Canada and EDITEUR, respectively. This examination specifically reveals how these two groups affect the way the Press creates, distributes, and maintains two types of bibliographic data—front cover images and book description text (such as back cover copy)—which I collectively refer to as *marketing data*.

Marketing data is distinct from other groups of bibliographic data because it describes a title’s artistic and intellectual content. For example, there is a group of bibliographic data that can be called ‘basic product information,’ which includes ISBN, title, authorship, and availability status. Distributors, wholesalers, and retailers require basic product information—which does not include marketing data—in order to track, search for, and order a book. However, to ensure that booksellers and end consumers will have enough information to make a purchasing decision, front cover image and book descriptions—marketing data—are crucial bibliographic data elements that can set that book apart from the thousands available online in a way that the basic product information cannot.

Despite the significance of marketing data for influencing book sales, this report describes a bibliographic data exchange system that is inadequate for ensuring that the Press can efficiently provide marketing data that is accurate, comprehensive, and readily available to online consumers. In addition, this report proposes recommendations to multiple layers of the book industry on how to address the issues presented herein.

¹ Arsenal Pulp Press, 200 – 341 Water Street, Vancouver, British Columbia (*arsenalpulp.com*).

² Although Bowker’s Books In Print is a US-based company, BookNet Canada considers Bowker to have “the most comprehensive database available for the Canadian market” (BookNet 2006b, 5). Also, Bowker provides the Press’s bibliographic data to BookNet Canada for their BNC SalesData service that tracks retail book sales across Canada.

The challenges of the bibliographic data exchange system are threefold:

1. The international and national book industry standards are not clearly defined enough for the Press to apply to the management of its own marketing data;
2. Supply chain partners do not fully comply with those standards; and
3. The Press's bibliographic database management system does not fully address the challenges presented in the two previous points.

Because of these challenges, the Press is required to spend extra administrative time preparing and modifying marketing data to suit each data exchange partner's individual requirements rather than simply following the internationally recognized standards; a practice at odds with the very purpose of having those standards. Instead of the Press being confident that industry-standard data exported to its partners will be accurately displayed on their websites, it must constantly survey its partners' websites in order to ensure that they have uploaded its marketing data in the way it had intended with the original data exports. These extra responsibilities require the Press to assume additional data-enforcement or 'policing' tasks. In a telephone interview, Joan Freeman, Bibliographic Data Coordinator for BookNet Canada, introduced the term "data police" to describe this role for publishers that participate in the bibliographic data exchange network (Freeman 2006). Freeman noted that small- to medium-sized publishers in particular, including Arsenal Pulp Press, unfortunately have to assume this policing role in order to monitor their marketing data along supply channels and ensure incorrect data is repaired as soon as possible (Ibid). This responsibility—to maintain the integrity of marketing data on numerous online databases and stores when the data is supposedly being exchanged within an industry-'standardized' system—should be unnecessary; moreover, it is a drain on the small- and mid-sized publishers' often scant resources, diverting staff from other tasks.

In order to clearly examine the Press's challenges in achieving the obvious advantages of ensuring that accurate and comprehensive marketing data are created, distributed, and maintained along the supply chain in an efficient manner, this report is thereby organized as follows:

The first section, "From the Top Down: the Book Industry & Bibliographic Data Standards," introduces the international standards organization, EDITEUR, the Department of Canadian Heritage's Supply Chain Initiative program, and BookNet Canada's bibliographic data certification program. This section examines how their interrelated objectives establish the context for how the Press manages and exports its bibliographic data.

Next, “Arsenal Pulp Press & PEXOD” examines how the Press began to use PEXOD, a bibliographic database management system, for both its own internal data management purposes and to independently export its bibliographic data in the supply chain.

The third section, “From the Bottom Up: Managing and Policing Marketing Data,” describes how the Press functions in its day-to-day operations to provide marketing data from PEXOD, its centralized database, to online retailers and data aggregators as well to make available to its future website and the marketing and production departments. By focusing on the actual practices of managing and monitoring marketing data to ensure its accuracy, this section reveals a contrast between the industry agencies’ expectations of the bibliographic data exchange network and what actually happens between the Press and its supply chain partners. Further, it demonstrates how the bibliographic data exchange network makes it difficult for this mid-size Press to be confident in the online marketplace.

The final section offers recommendations for the book industry. It directly addresses the inadequacies of the bibliographic data exchange network as experienced at the Press and offers concrete solutions for all levels of the book industry—publishing software programmers, publishing staff members, data aggregators, database developers, retailers, and bureaucrats of national and international organizations—to refine the efficiency of the system.

About this Research

This report presents the research I conducted at Arsenal Pulp Press during my internship, from May 2005 to June 2005, and my subsequent employment, from July 2005 to May 2006. This report therefore covers one year’s experience of managing the Press’s bibliographic database and co-ordinating the firm’s marketing data for the bibliographic data exchange network.

When I began my internship at the Press, I was immediately put to work updating its online bibliographic database management system, PEXOD (the Publisher’s Extensible Online Database) for the company to use as a central database and as a tool for exporting bibliographic data to online supply chain partners (thus relieving the Press’s sales agents of this role). Having previously used PEXOD during my studies in the Master of Publishing program at Simon Fraser University, I was acquainted with its technology and interface. This familiarity gave me the confidence to commence my task with an understanding of the system and its use within the context of the book publishing industry. However, as I began updating bibliographic data in

PEXOD and initiating data exchange relationships with major Canadian data exchange partners, I noticed that the book industry's bibliographic data format standards differed from those required by the data exchange partners. These differences required the Press to generate the same marketing data in multiple formats to suit the partners' various specifications, thereby preventing this mid-size publisher from efficiently maintaining its marketing data within the company, and externally along the supply chain.

As I discovered the complexities of making the Press an efficient, independent provider of bibliographic data, I suspected that other publishers, especially small- to mid-size publishing houses that generally had limited time and/or IT resources to invest in their bibliographic database and exchange systems, would experience similar frustrations. Therefore, I saw that the documentation of this site-specific experience would be valuable for book industry professionals. Furthermore, I chose to focus this report on the management of marketing data because it is the biggest data-exchange challenge for the Press, and likely for other publishers and their partners.

I intend the experience presented in this report to be a helpful resource for developers of bibliographic database software, book retailers, and data aggregators in their pursuits to improve their software and systems. My recommendations for improving the Canadian bibliographic data exchange network will also be of interest to the private and public organizations involved in the development of the Canadian and international book industries.

Finally, I would like to note that to my knowledge, there is very little existing research on the exchange of marketing data among supply chain partners in Canada that could substantially support or challenge the facts and arguments I present in this report. In addition, most of the background research is derived from Internet sources, which are often ephemeral. I have provided the most recent online citations I could find at the time of my internship and subsequent research. However, considering that this report focuses on a data exchange network that is amidst constant reconstruction and is based on technology that is being improved on an ongoing basis, it is very possible that the information cited in the URLs may now be altered or unavailable. I have further addressed this in the Recommendations.

From the Top Down: The Book Industry & Bibliographic Data Standards

This section explores the interrelated political and technological environment that established standards for bibliographic data exchange, and in turn, influenced Arsenal Pulp Press to attain a database management system to gain control of the dissemination of its bibliographic data—and in turn, its marketing data—along the supply chain.

In 2000, the international book industry consortium EDITEUR, made up of members from seventeen countries including Canada, the United States, and the United Kingdom, was created to aid the “development of the standards infrastructure for electronic commerce in the book and serials industries” (EDITEUR 2006a). Soon after its establishment, EDITEUR partnered with the Association of American Publishers to develop and release “ONIX” (Online Information Exchange)—an XML-based message format—in order to standardize an electronic system for transmitting universally recognized data among publishers, data aggregators, wholesalers, booksellers, and any other party involved in the sale of a book (Crawley 2001; EDITEUR 2006a, 2006c). ONIX allows publishers to send extensive title information that is marked-up with standardized, XML metadata tags to define specific bibliographic data elements (such as Contributor Name, Price, or Publication Date); and it subsequently allows the supply chain partners to recognize that data because of the ONIX standard’s definitive encoding. In other words, ONIX enables all data exchange partners to equally interpret the same data. With this database-to-database information exchange technology, the publishers’ ONIX-compliant partners can, for example, recognize an XML tag in an ONIX message such as `<subt i t l e>`, know that the data enclosed is the subtitle of the book, and therefore know to feed that data into the appropriate fields of their database systems. Table 1 (below) shows an example of an ONIX message. In the right column is the actual XML transmission. The left column identifies some of basic bibliographic data elements identified in bold format in the right column. (See Appendix A for the full feed.)

Table 1: Example of ONIX transmission, truncated

Notes	ONIX feed
ISBN-10	<pre> <Product> <RecordReference>1551521873</RecordReference> <NotificationType>04</NotificationType> <RecordSourceType>00</RecordSourceType> <ProductIdentifier> <ProductIDType>02</ProductIDType> <IDValue>1551521873</IDValue> </ProductIdentifier> <ProductIdentifier> <ProductIDType>03</ProductIDType> <IDValue>9781551521879</IDValue> </ProductIdentifier> <ProductIdentifier> <ProductIDType>15</ProductIDType> <IDValue>9781551521879</IDValue> </ProductIdentifier> <ProductIdentifier> <ProductIDType>01</ProductIDType> <IDValue>197</IDValue> </ProductIdentifier> <Barcode>47</Barcode> <ProductForm>BC</ProductForm> <ProductFormDetail>B102</ProductFormDetail> <NoSeries/> <Title> <TitleType>01</TitleType> <TitleText>La Dolce Vegan!</TitleText> <Subtitle>Vegan Livin' Made Easy</Subtitle> </Title> <Contributor> <SequenceNumber>1</SequenceNumber> <ContributorRole>A01</ContributorRole> <PersonName>Sarah Kramer</PersonName> <PersonNameInverted>Kramer, Sarah </PersonNameInverted> </pre>
EAN-13	
ISBN-13	
Trade paperback format ("BC" and "B102")	
Title Subtitle	
Author	

Source: Arsenal 2006a.

Ideally, this automated feature allows publishers to, for example, change book cover images in their database systems and not be required to 'manually' (via individual emails or FTP uploads) alert their supply chain partners of the new images. With ONIX, when publishers export their transmissions from their databases (usually on a weekly or monthly basis), the receiving supply chain partners can pull all that data, including the book cover images, from those ONIX feeds to refresh all the title information in their databases. The new cover images included in those most recent ONIX transmissions should therefore update any cover image in the partners' systems, regardless if it is new or the same as before. When ONIX is used in this way, this attribute of the XML technology thus can ensure that partners' databases will contain the most accurate title information, direct from the publishers' own databases, with every new transmission. However, as this report will reveal, the supply chain partners do not yet use this

automatic-updating feature of the technology to maintain accurate record of the Press's marketing data.

Coinciding with the release of the ONIX international standard for bibliographic data, the Department of Canadian Heritage announced in 2001 the creation of the Supply Chain Initiative component of its Book Publishing Industry Development Program (BPIDP) (Crawley 2002). The Supply Chain Initiative was created to help the book industry become more sustainable amidst changing market patterns and thereby stabilize and encourage the demand for Canadian books and authors. ONIX therefore became foundational to the Initiative's strategic movement, encouraging publishers and their supply chain partners to exchange up-to-date, comprehensive, and widely recognized data in an electronic format. Within one year after the Supply Chain Initiative formed, it facilitated the creation of the non-profit, industry-run organization, BookNet Canada in late 2002, superseding the Canadian Telebook Agency and the industry's supply-chain steering committee (Anderson 2002; Weiler 2002, 2003).

BookNet's initial goals were to facilitate a new EDI (Electronic Data Interchange) infrastructure for ordering books and tracking sales, to standardize and improve bibliographic data and its exchange system, and to create a sales tracking system within three years (Weiler 2003). BookNet then chose ONIX as the foundation of the new Canadian Bibliographic Standard, which would be released in early 2003 (Rowe 2004). With this new ONIX-based standard for the Canadian book industry, BookNet proposed a three-tiered certification plan—Bronze, Silver, and Gold—for Canadian publishers to attain. (The complete list of elements that qualify a publisher for BookNet Bronze, Silver, and Gold bibliographic data certification is in Appendix B.) John Maxwell of the Canadian Centre for Publishing Studies considers that BookNet devised this three-part standard in order to “provide a stepwise path for Canadian publishers to ease themselves into the adoption of the quite complex ONIX standard” (2006). This three-tiered method of achieving bibliographic data standards, beginning with the basic, entry-level Bronze certification, was probably appealing to many publishers because they may have had limited and/or sporadic time to devote to adapt to the breadth of the new ONIX standard. Certainly, when Arsenal Pulp Press pursued BookNet certification in 2005, it was less intimidating for the Press to know that it could easily adopt the lower level of standards certification (Bronze) first, and be assured that from that foundation, it could work toward increasing its capacity to manage its data according to the higher levels of the Canadian Bibliographic Standard. Concurrently, as BookNet introduced bibliographic data certification, BPIDP began to tie this certification to its Supply Chain Initiative funding criteria.

Five years after its establishment, the Supply Chain Initiative continues to function as “a government/industry partnership tasked with assessing the effectiveness of the existing book distribution infrastructure, identifying strategies for improvement, and seeking the participation of all sectors in implementing change” (DCH 2006c). It offers financial support for book publishers to maintain up-to-date bibliographic data as part of their overall strategy for improving sales of Canadian-authored books from Canadian publishing houses to end consumers within the country and abroad. Currently, the 2006–2007 requirements ask publishers to maintain “high-quality” (DCH 2006d)—accurate and comprehensive—bibliographic data for dissemination to supply chain partners in order for them to be eligible for substantial funding that ranges from \$5,000–\$11,000, depending on the number of titles they published over the previous three financial years (Ibid). In addition to other criteria for financial assistance, publishers must at least acquire Bronze level bibliographic data certification³ from BookNet Canada (Ibid).

Bronze certification requires publishers to be able to send to their supply chain partners twenty-six standard elements of bibliographic data expressed in an electronic spreadsheet format. These data elements are the basic title information necessary for a book to exist and be saleable online. They include elements such as the product identifier (for example, ISBN), title, author, publisher, price, and availability status (for example, Available or Out of Print). However, the Bronze level does not include marketing data in its requirements.

If publishers wish to export more comprehensive bibliographic data, they can achieve Silver certification. Silver requires the twenty-six Bronze bibliographic data elements, plus four more: product form detail (for example, Trade Paperback), language, country code (that is, the territorial rights for each distributor), and BISAC⁴ subject code data (such as “FIC000000” for a novel). In addition, the Silver elements must be expressed as an ONIX message. With an ONIX-capable database management system, publishers easily can be set up to send BookNet Silver certified data. However, it is important to note that although Silver certification seems commendable (as if it were an Olympic second-place or ‘almost perfect’), it does not include marketing data. Gold certification includes fifty-one data elements in total (twenty-one elements beyond Silver), which again must be expressed as an ONIX message, and it is the only level that

³ Other requirements for the funding are: (1) To identify the staff member who was responsible for maintaining the data quality and for liaison with data partners, (2) To commit to undertaking activities related to the improvement of the supply chain, and (3) After receiving funding, to compose a report on the attainment of these requirements, also providing a report on the use of those funds (DCH 2006d).

⁴ Book Industry Standards and Communications (BISAC) is an internationally recognized publishing forum of the Book Industry Study Group. It works in conjunction with EDITEUR and other standards organizations to create codes and technology for improving the electronic interchange of bibliographic data along the international book supply chain (Book Industry Study Group 2007).

requires marketing data. The irony of the Canadian book industry's overall mandate for establishing a bibliographic standard is that despite the widely agreed-upon advantages of the ONIX standard, the criteria for BPIDP funding at this time only requires basic, Bronze-level bibliographic data expressed in an electronic spreadsheet format. Only at the level of Gold certification, the highest recognized standard in the Canadian book industry, does BookNet Canada demand that a title's cover image and book description be exported (in an ONIX message) to supply chain partners and thereby be displayed on online retailers and aggregators. By not strongly encouraging publishers to export essential marketing information to supply chain partners, and subsequently to end consumers, it appears that these programs set a low bar for improving the appeal of Canadian books in the marketplace.

In 2005, with these three pillars—federal funding from BPIDP, national certification from BookNet Canada, and the supply chain movements toward applying EDITEUR's international standards—firmly in place, the Press believed it could take control of its bibliographic data and enable itself to independently distribute the data directly from an ONIX-compliant database. The next section introduces the Press's bibliographic data objective—to improve the quality of its data with an ONIX-compliant bibliographic database system that can send supply chain partners accurate and comprehensive ONIX data transmissions.

Arsenal Pulp Press & PExOD

Arsenal Pulp Press has been an important part of Canada's cultural history since the firm's beginning in 1971 as a small collective of counter-culturally minded individuals. Initially a publishing co-operative called Pulp Press, it printed broadsheets, pamphlets, and books. Over the next thirty years, Pulp Press grew to a mid-size, niche-focused firm and was renamed Arsenal Pulp Press. Now, it still maintains its original, against-the-grain spirit, producing "provocative and stimulating books that challenge the status quo" (Arsenal 2006b) for its loyal audiences in Canada, the United States, the United Kingdom, Australia, and New Zealand.

For the Press to participate in the digital supply chain, it needed a bibliographic database management system capable of producing ONIX. One such system is PExOD (Publishers Extensible Online Database) that the company adopted in 2004. The Canadian Centre for Studies in Publishing (CCSP) at Simon Fraser University developed PExOD: a web-based, relational database designed with ONIX in mind. The CCSP explains that the purpose of developing PExOD is to simplify publishers' time-consuming tasks of exporting detailed title information while simultaneously expanding the firms' networks of data distribution (CCSP 2004).

Apart from exporting bibliographic data, one of PExOD's secondary features is to function as a web-based, password-protected database, enabling the publishing staff to edit title information at any time via a web browser. With this online convenience, companies can always maintain up-to-date bibliographic data before it is exported to the supply chain network. PExOD is also able to present the same title information on the users' (the publishers') own websites. For example, when users change prices in PExOD, the prices automatically can be reflected on the firms' own PExOD-run websites, as well as be included in the next ONIX transmissions to retailers and aggregators.

In addition, these dynamic features of PExOD ensure that Arsenal Pulp Press can have one central source providing the most current data internally, for the staff's reference, and externally, to export to its supply chain partners and update its website. With PExOD, the Press saw that it could demonstrate its commitment to maintain accurate and comprehensive bibliographic data while improving the management and accessibility of bibliographic information internally as well as driving the data to a website.

In 2004, the Press began to use PEXOD. The firm's publisher, Brian Lam, stated that his company perceived the adoption of PEXOD as "an opportunity to gain control of [the firm's] data, particularly since it was an emerging topic in the book industry, and because there was funding becoming available from the BPIDP's Supply Chain [Initiative] project that would help [the Press] to sustain it" (Lam 2006). In a telephone interview in May 2006, Joan Freeman, the BookNet Canada Bibliographic Data Coordinator, discussed the exchange of marketing data between mid-sized publishers, like the Press, and their supply chain partners. Freeman said that it was important for publishers to control the dissemination of their own bibliographic data to maintain data integrity across supply channels (Freeman 2006). With this autonomy, publishers can be confident that the data in their systems reflects the same data throughout the network. Further, publishers that distribute and monitor their own marketing data can eliminate the possibility of title information being overwritten by old data sourced from any secondary data providers, such as sales agents or distributors. In addition, Freeman stated another benefit of data autonomy is that retailers consider data sent directly from publishers as the authority over any sent on behalf of the publishers (Ibid); therefore, retailers are likely to use the publisher's data as the primary source to update their websites.

In its initial effort toward achieving data autonomy in 2004, the Press imported the equivalent of Bronze-level bibliographic data for nearly 200 titles into PEXOD. However, the Press could not then immediately obtain BookNet certification or the Supply Chain Initiative's funding because the staff member who was responsible for PEXOD left the company. Consequently, the staff did not have the time or resources to use PEXOD to its full capacity as a data-export tool nor as a centralized source of title information until the summer of 2005, when the Press hired me as an intern to continue its implementation.

In pursuing its original goals for PEXOD, the Press's first priority was to update the bibliographic data in PEXOD to use as a centralized bibliographic database so all staff members could draw on the same source for title information. At that time, the Press's website acted as the company's centralized bibliographic database. In general, staff would refer to a book's individual webpage for title information and marketing data, finding elements such as title, price, publication date, cover image, back cover copy, and review quotes. Staff also consulted the print catalogues and their own individual databases that contained additional information in spreadsheets and electronic or print files. Since most of the Press's backlist had been entered into PEXOD the year before, I began the project by uploading the missing and most recent titles to the database and updating the backlist by cross-checking data with the website and print catalogues.

Once the title information was up to date in PEXOD, the Press took the necessary steps toward the next priority: to use PEXOD as the primary tool to export ONIX data to its supply chain partners.

For distribution and sales in Canada, the Press was sending its Toronto-based sales agent, Canadian Manda Group, an Excel spreadsheet of title information equivalent to BookNet Bronze level every fall and spring season. The sales team would then send that data to booksellers and data aggregators on behalf of the Press. In an email interview, Carey Low of Manda described the process of transferring the bibliographic data to the appropriate supply chain partners as “essentially cutting and pasting” the information from an Excel file to other files destined for the partners via email or an FTP site (Low 2006). Also, Manda sometimes manually typed in any additional information from the Press’s print catalogue into the correspondences or FTP transmissions (Ibid). Low described this shared, data transmission system as “a patchwork process that was adequate originally, and quickly became problematic” (Ibid) because both parties had to be aware of who sent data where, plus alert one another of any data changes. This shared data-uploading process was time-consuming and did not guarantee accurate data. As the expansion of the online sales market increased the workload for Manda, it clearly became advantageous for the Press to take complete control of the dissemination of its own title information to its supply chain partners in order to reduce miscommunication and erroneous data.

In the late spring and summer of 2005, with its renewed interest in PEXOD, the Press became the sole data exporter for its Canadian supply chain partners⁵. Equipped to export ONIX version 2.1 using PEXOD, the Press was also eligible for BookNet Canada Silver certification, which it then received in the fall of 2005. The bibliographic data certification made the Press a candidate for Supply Chain Initiative funding, which it received the following year. When BookNet granted the Press Silver status, the Press was also in the process of entering marketing data into PEXOD. Initially, the company’s only intention for including marketing data in PEXOD was to feed its future website that was to run off of PEXOD; however, as the marketing data was entered into PEXOD for the future website, the Press determined that it should obtain Gold certification in order to show BPIDP and its supply chain partners its leadership in and capacity for exporting high-quality, industry-approved data. So, along with entering at least one back cover copy and book cover image to as many of its titles as possible, the Press also upgraded its Silver certified data to contain Gold elements, such as Spine Thickness and Number of Pages (see Appendix B for a complete list of Gold elements). With these additions to its database, in early

⁵ The Press’s distributors and sales agents for the territories outside Canada remain responsible for sending its bibliographic data to the appropriate partners on behalf of the Press.

2006 the Press achieved BookNet Gold bibliographic data certification.

Despite its achievement, the Press soon learned it was not as easy to participate in this 'universal' data-exchange system as it originally wished. Although it followed industry initiatives to incorporate ONIX and the appropriate technology (PEXOD) for exporting marketing data, the Press discovered that some retailers and/or aggregators do not fully adhere to the ONIX standards or have the technology in place to fully deal with ONIX. As the Press tended to each partner's varied marketing data requirements, it learned that having (1) data-exporting autonomy, (2) the appropriate technology, and (3) the highest possible industry certification does not necessarily mean less work or even less possibility for errors on supply chain partners' websites. The Press also learned it had to be diligent in the maintenance of its marketing data by adapting to its partners' additional specifications, not just by following international and national book industry standards.

The next section illustrates how the presence of the appropriate bibliographic data standards and technology available to the Press and its supply chain partners has yet to significantly reduce the large amount of data management required by the Press or increase its confidence in its titles' presence in the online marketplace.

From the Bottom Up: Managing and Policing Marketing Data

The previous sections describe how, from the top down, the institutional framework influenced Arsenal Pulp Press to participate in the bibliographic data exchange network as an independent data exporter. This chapter describes how, from the bottom up, the Press uses the available database technology to maintain its marketing data according to the recommendations of BookNet Canada and EDITEUR while adapting to the contradictory expectations of its ONIX-compliant partners. In order for the reader to appreciate the complexity of the Press's task, this section focuses on the practical methods by which the Press prepares marketing data to be stored in PEXOD in order to comply with the particular specifications of its marketing and production departments, future website, and supply chain partners: Amazon.ca, BookManager, Bowker's Books In Print, and Indigo Books & Music. In all, this analysis of the effort to store, export, and monitor marketing data shows that the Press cannot maintain the integrity of its marketing data in a timely and efficient manner despite the firm's achievements toward data autonomy through the attainment of the appropriate technology (ONIX and PEXOD) and bibliographic data certification (BookNet Canada Gold level).

Since the Press gained independent control over the distribution of its bibliographic data to its major Canadian online retailers and data aggregators, it was essential for it to establish and sustain relationships with these partners' data aggregation departments in order to be well-informed of their requirements and to keep their bibliographic records up-to-date. Accordingly, the Press relies on its partners to integrate its data into their systems as soon as possible. For example, for a newly released title to be saleable online, both the Press and its supply chain partners rely on the title's availability status being updated in PEXOD from "Forthcoming" to "Available" in order that the title's "Available" status be included in the next weekly (or monthly) ONIX message. It is therefore important for both the Press and its partners for the partners' data aggregation departments to immediately refresh their databases with the Press's most recent ONIX feed in order to update the availability status (and any other revisions present in that feed) so the online audience knows the title is available for sale.

Herein is the value of ONIX: as long as the bibliographic data is properly updated in PEXOD and exported with the appropriate protocols to the respective ONIX-compliant supply chain partners, the partners' data aggregation systems should be able to receive the Press's data, recognize the ONIX metadata tags, and refresh their coinciding database systems with all the new data, regardless if the new data is different from the old data. Ideally with each transmission from the Press, the ONIX-compliant partners should update all the bibliographic data to ensure the most accurate and comprehensive bibliographic information is present in their systems. By overwriting previous data with each week's new feed, partners therefore should not require the Press to send them separate, non-ONIX correspondence (for example, an email) to alert them that a title has brand new, revised, or additional information. In theory, this automated method of using ONIX to maintain high-quality bibliographic data can be beneficial for both the publisher and its data aggregation and retail partners because the automatic updates can reduce the workload for both parties in managing separate correspondences that contain new or revised data.

It is the Press's experience that Amazon.ca, BookManager, Bowker, and Indigo *do* apply this method for ONIX feeds for some of the Gold-certified data (for example, automatically overwriting such fields as Price and Availability), but they *do not* apply this method for marketing data⁶. Rather, their aggregation systems demand that the Press alert them separately via email or FTP of any revised or new marketing data. The Press is therefore required to dedicate extra administrative time to manage the creation and export of its marketing data from PEXOD and also to monitor the partners' websites to ensure that they have accepted and posted the separately transmitted marketing data.

Beginning with "Book Cover Images," the next two sections of the report describe the administration process involved in managing the creation, storage, and export of book cover images and book descriptions. These sections are followed by another that describes the policing involved of that very data to ensure its integrity and thereby validity of the Press's titles online, while pointing to weak areas in the system that the industry should address.

⁶ On behalf of Amazon.ca, BookExpress (the wholesale division of Raincoast Books) accepts the Press's weekly ONIX feeds for all Gold level bibliographic data *except* for marketing data. It is the Press's responsibility to export its marketing data directly to Amazon.ca.

Book Cover Images

This section solely focuses on the cover image specifications required by the Press's supply chain partners for dissemination into the online market and reveals the relatively easy process of storing and disseminating book cover images, compared to that of book descriptions described in the following section. With PEXOD, the Press can enhance the marketing of its titles online by sending JPEG or GIF formatted cover images stored in the database in the Media File Detail section to supply chain partners for display on their websites. Even though the database can also store JPEG images to feed the future website as well as higher resolution TIFF images for other print marketing and production tasks, this section focuses only on images for data exchange partners for two reasons. First, because the Press's website has not yet been designed, and therefore the Press does not yet know what will be the cover image specifications for its website. And second, simply because of limited server space, the marketing and production departments do not store high-resolution images in the online database.

The process of storing the front cover images in PEXOD is relatively simple because of the definitive nature of what is a "front cover image." In other words, the data for front cover image is what its name implies: a single image of the front cover of a book (or CD, DVD, or other media object). Current ONIX and supply chain partners' standards do not require that this data element—defined with the ONIX Media File code, "Front Cover Image" (EDITEUR 2006b, 23)—to be described or categorized any other way, or be described by any other sub-categories such as the unnecessary "top-half of a book cover image" (for lack of a better example). A "front cover image" is exactly what it implies it is. In comparison, the definitive nature of "book description" is more dimensional—it could mean "back cover copy," "review quote," or "recipe," for example. The only foreseeable subcategory of front cover image that could confuse how it is categorized in PEXOD is "front cover thumbnail image," but that already is already its own ONIX Media File category⁷, and therefore has its own encoding element in PEXOD (Ibid) so it does not create any challenges to categorize the data. The simplicity of storing cover images in PEXOD and sharing them with data exchange partners is therefore based on the data's definitive limitations—Front Cover Image is a distinct term that points to a book's cover image, and in turn, this metadata element is recognized by both ONIX agencies and the Press's online data aggregators and retailers.

⁷ Along with "Front Cover Image" and "Front Cover Thumbnail Image," there twelve other Media File encodings, including "Video Segment," "Publisher Logo," and "Author Image," which are obviously separate from Front Cover Image (EDITEUR 2006b, 23).

Although the Press categorizes its front cover images in PEXOD correctly, the varied *format* specifications of those images requested by each data exchange partner cause the Press to apply more administrative time than a ‘click of a button’ to format book cover images for partners to accept them. Table 2 (below) shows the specifications required for front cover images to appear on the supply chain partners’ websites.

Table 2: Image Specs and Uploading Methods for Arsenal Pulp Press’s Bibliographic Data Exchange Partners

<i>Partner name</i>	<i>File format</i>	<i>DPI</i>	<i>Minimum dimensions, in pixels</i>	<i>Method of transmission</i>
Amazon.ca	JPEG or TIF	72	648 (longest side)	FTP
BookManager	JPEG	72	No specification	ONIX reference via URL
Bowker’s Books In Print	GIF, JPEG, or TIFF	72–150	400 (width)	FTP
Indigo Books & Music	JPEG preferred, or BMP, GIF, or TIFF	72	126 (width)	ONIX reference via URL

Sources: Amazon.ca 2006; Bowker 2006a; Indigo 2006; Scherck 2006.

Upon initial assessment of these requirements (in Table 2), the Press defined one master standard set of image specifications that complied with all four partners’ requirements in order to reduce the time necessary to re-format each stored image as per their separate requirements. This combined set of image specifications requires each image to be a JPEG file stored at 72 DPI in RGB colour mode and measure at least 400 pixels wide with at least 648 pixels on the longest side. Despite this effort toward simplifying the formatting process, the supply chain partners still demand that the Press use two separate methods of transmission—FTP and ONIX—in order to transfer front cover images to all four partners. To accommodate both transmission methods, the Press must:

1. Reformat each title’s front cover image with the combined specification for all partners;
2. Transfer each file to Arsenal’s FTP site;
3. Link each image file’s Arsenal-FTP URL in its corresponding title’s Media File Detail section of PEXOD, thereby making it available in ONIX transmissions to BookManager and Indigo Books & Music; and
4. Copy each file onto the FTP sites of Amazon.ca and Bowker’s Books In Print.

This process requires forty-five to sixty minutes to reformat a frontlist of twelve separate cover-image files from their original print resolution to the combined specification then to export them according the four steps outlined above. However, if Amazon.ca and Bowker were to accept the cover images' URL links provided in the Press's ONIX feeds—the very process that ONIX intended for publishers and their partners—and not via a separate FTP transmission, the task of formatting and disseminating cover images should require only half the time.

Overall, since the Press can distil the varied image specifications into one set of combined specifications that is accepted by all partners, it can avoid having the extra task of creating more than one front cover image to be stored and exported for online data exchange partners. However, as the supply chain partners continue to develop their data aggregation systems, and as the Press plans a new website to be run by PEXOD, the administration of its cover image data may increase, especially to suit the demands of future data exchange partners that may demand different cover image specifications and data transmission methods. Perhaps in the future, if retailers and aggregators demand that publishers export author photos and/or other images from inside the book, this image formatting and uploading task could become more complicated; the Press, PEXOD, BookNet, and EDITEUR may therefore want to consider implementing strategies to be one step ahead of the market.

Book Descriptions

Compared to the steps required of the Press to efficiently store and disseminate the front cover images for bibliographic data exchange partners, the second element of marketing data, book descriptions, demands that the Press develop even more complex data management practices. This section describes the efforts toward efficiently managing the integrity of titles' book description data.

In contrast to the definitive nature of the data element “front cover image” described in the previous section, a “book description” is an umbrella term for many sub-categories of descriptive data. For example, “table of contents,” “chapter excerpt,” and “author comments” are all considered book descriptions. In fact, ONIX has thirty-four different encodings for book description data (see List 33, Appendix C for complete list). The Press has three key marketing and production purposes for book descriptions that are stored in PEXOD, requiring each book description to be stored in the database to suit these purposes. First, the Press's marketing and production departments need book descriptions to be available for the creation of print

catalogues, publicity releases, and advertisements. Second, the Press requires book descriptions in PEXOD to be formatted for display on its future website. Third, it needs book description data to be available for transmission to supply chain partners.

PEXOD contains the text for book descriptions, (variously known as *descriptive content* (Amazon.ca), *enhanced content* (Indigo), and *text types* (EDITEUR) in its Blurb Details section. Because PEXOD is designed to send bibliographic data exports according to the ONIX standard, that standard directly informs the organizational structure of PEXOD, and subsequently, its Blurb Details section. As previously mentioned, ONIX, and therefore PEXOD's Blurb Details section, offers thirty-four possible text-type categories that can be assigned to a title. These text types include Promotional Headline, Flap Copy, First Chapter, and Description for Sales People. The Press therefore can input thirty-four different kinds of text (which, in theory, can market a book in thirty-four unique ways) into its central database for internal or external marketing or production purposes. The ONIX standard, and therefore PEXOD, also requires that when the Press exports a "blurb" (book description) to its partners, it must specify the text format in which it is composed. ONIX has seven encoded text formats available to assign a text type: SGML, HTML, XML, XHTML, Basic ASCII⁸, PDF⁹, and a Default Text Format (List 34, Appendix C). Therefore, each book description stored in PEXOD must be tagged by one of seven text formats. This designation is necessary because a retailer or data aggregator can exclude a book description, or the entire product, from its system if the Press does not comply with the retailer's text format specifications (Amazon.ca 2006; Indigo 2006).

Table 3 (below) lists the book description specifications of the online supply chain partners¹⁰; that is, those partners that accept bibliographic data ONIX transmissions, yet may not accept marketing data in those transmissions.

⁸ EDITEUR defines "Basic ASCII" (opposed to "ASCII") as: "Plain text containing no tags of any kind, except for the tags *&*; and *<*; that XML insists must be used to represent ampersand and less-than characters in text; and with the character set limited to the ASCII range, i.e. valid UTF-8 characters whose character number lies between 32 (space) and 126 (tilde)" (EDITEUR 2006b, 22).

⁹ Although PDF was a possible "text format", EDITEUR states that it was not available for transmission (EDITEUR 2006b, 22) because PDF is a format for a *document*, not a format for the *text* within the document.

¹⁰ BookManager is not included in this table because the aggregator does not accept book descriptions.

Table 3: Comparison of Book Description Specifications for Arsenal Pulp Press

<i>ONIX partner</i>	<i>Required text format</i>	<i>Type of book description accepted (as named by the partner)</i>	<i>Maximum word count (character count)</i>	<i>Blurb transmission method</i>
Amazon.ca	ASCII	<ol style="list-style-type: none"> 1. Book Description 2. Publisher Comments 3. Author Comments 4. Reviews 5. Text from the Inside Flap 6. Biography of Author 7. Table of Contents 8. Excerpt 	<ol style="list-style-type: none"> 1. 1,000 (8,000) 2. 1,000 (8,000) 3. 250 (2,000) 4. N/A (160) 5. 1,000 (8,000) 6. 500 (4,000) 7. 1,000 (8,000) 8. Not to exceed one chapter 	Online update form
Bowker's Books In Print	ASCII	<ol style="list-style-type: none"> 1. Book Description 2. Author Bio 	Not specified	Online update form
Indigo Books & Music	XHTML or HTML	<ol style="list-style-type: none"> 1. Book Description 2. Table of Contents 3. Publisher Comments / Description 4. About the Author 5. Author's Comments 6. About the Illustrator 7. Review Blurbs 8. Sample Chapter / Excerpt 9. Recipes 10. Off the Jacket / Jacket Copy 11. Tips for your Reading Group 12. Author Interviews / Q &A 	Not specified	ONIX

Sources: Amazon.ca 2006; Indigo 2006; McCraney, 2006

Since a blurb stored in PEXOD must be available to the Press's three key marketing areas—marketing/production print and online tasks, future website, and supply chain—it was advantageous for the company's administrative time to be only required to create one blurb entry in PEXOD that can be utilized in all three operative areas, just as the Press has one JPEG image that complies with all partners' image dimension specifications. However, the text format requirements of those three marketing areas cannot be combined into one format and therefore the Press is bound to store each blurb twice, as described below.

Based on the specifications in Table 3 (above), to input a title's book description into PEXOD, the Press first must know which text format to assign to a blurb in order for it to be compatible with the partners' requirements. According to their websites, Amazon.ca accepts Basic ASCII while Indigo accepts XHTML (Amazon 2006; Indigo 2006). In a telephone interview, Kellynda Scherck of BookManager said that the data aggregation company does not accept book description data, but is ready to receive book descriptions in the future and will likely accept them in XHTML text format (Scherck 2006). And an email correspondence with a representative of Bowker's Books In Print revealed that the data aggregator specifies the text to be in "standard paragraph format" (McCraney 2006)—presumably, this meant the Press should upload book descriptions to Bowker in a plain, Basic ASCII text format (an assumption which proved to be correct). In the end, based on the combined text format requirements of these partners, the Press is required to store each review quote in Blurb Details twice, first in Basic ASCII and second in XHTML text format.

Amazon.ca is the only data exchange partner that has word count specifications, but it is not necessary to adjust the word count for the Basic ASCII-formatted entries in PEXOD that are supplied to Amazon.ca because the retailer does not accept blurbs from the ONIX feeds. Instead, Amazon.ca requires the Press to upload descriptive content by cutting and pasting it onto their website's Book Content Update Form (Amazon.ca 2006). Therefore, the Press must edit the book description data outside of PEXOD to suit the word count specifications before submitting the content online to Amazon.ca, as described later in this section.

In addition to the specifications in Table 3 (above), the Press must ensure the book descriptions entered in PEXOD suit the other marketing/production and website needs. The marketing and production departments prefer accessing text with no tags so they can edit and design book descriptions as they desire, without the added task of searching for and removing the tags. Therefore, the Press created a rule that every blurb entered in PEXOD with Basic ASCII text format can only contain the printable ASCII characters¹¹; thus eliminating tags and ampersands, em-dashes, and smart quotes. In addition, since the Press's future website will use XHTML, it does not have to make alterations to the separate XHTML blurbs already stored in Blurb Details, which Indigo accepts from the ONIX exports. Therefore, at minimum, every blurb entry must be stored in PEXOD twice: once in Basic ASCII, with no tags, to suit the requirements for Amazon.ca, Bowker, and the Press's marketing and production departments; and a second time in XHTML for ONIX transmissions to Indigo (and in the future, BookManager) and for the Press's future website.

¹¹ ASCII's 95 printable characters (starting with the space character): !"#\$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNQRSTUvwxyz[\]^_`abcdefghijklmnopqrstuvwxyz{|}~ (Wikipedia 2006).

Based on the above specifications, the following describes how the Press must store the book descriptions in PEXOD. The process of inputting an XHTML blurb into PEXOD will be explained first. Once formatting the text with XHTML tags in a text editor, the Press is ready to add it to PEXOD in the Blurb Details section. After selecting New Blurb, the XHTML-formatted text is pasted into the Text field. Then the Press labels it with a text format, therefore selecting “XHTML” from the Other Text Format drop-down list that contains the appropriate ONIX encodings (see List 34, Appendix C). Since the Press must also use this blurb entry to feed its future website, “arsenalpulp.com” is entered in the Source Title field to reiterate that this text is formatted in XHTML and thus available to feed the Press’s website. This new blurb entry is then designated “Public,” as opposed to “Private,” (the only other data selection possible from the drop-down list for this field) reminding the Press and the ONIX partner that this text is intended for web display.

Here, it is important to consider the discrepancies between the definitions of the text-type metadata that pertain to the ONIX standard and to the data exchange partners (List 33, Appendix C). The Press discovered that there is little guidance from the available ONIX Code List (EDITEUR 2006b) or the Indigo reference material (Indigo 2006) to determine which text types are preferable to categorize book descriptions in ONIX. In general, the Press wants to have at least the back cover copy and review quotes displayed with each title listed on Indigo. For classifying a review-quote entry in PEXOD, it was easy to choose the appropriate ONIX text type and be reasonably assured that Indigo will recognize that ONIX text type as a review quote. ONIX offers the choice of “Review Quote, Restricted Length,” “Review Text,” “Review Quote,” and “Previous Review Quote” to classify a text that the Press regards as a review quote for its titles. From this selection, in order to input a review quote the Press chooses ONIX’s “Review Quote” to classify those entries in PEXOD since the Press’s review quotes, in general, are:

1. Excerpted from the complete text of a review and therefore can’t be classified as “Review Text;”
2. Excerpted according to the designation of the marketing department, not the retailer, and therefore cannot be “Review Quote, Restricted Length;” and
3. Pertaining to that particular book and therefore cannot be classified as “Previous Review Quote.”

In contrast to the relative transparency of ONIX metadata encodings for review quote entries, ONIX’s selection for classifying back cover copy are not as clear. The Press can reasonably categorize the text for its titles’ back cover copy with the eight different codes of

metadata: “Main Description,” “Short Description,” “Long Description,” “Description for Reader,” “Description for Sales People,” “Description for Press or Other Media,” “Description for Bookstore,” or “Description for Library” (see List 33, Appendix C). The reasons for this ambiguity are threefold:

1. The Press uses the same version of a title’s back cover copy for the catalogue, website, and other marketing materials so it can suit the implied purposes of each of the eight text-type classifications offered above (Ibid);
2. ONIX does not provide explicit definitions to differentiate among the text types, and therefore it is difficult to know their explicit purpose (Ibid); and
3. The Press has not received from Indigo documentation of what ONIX codes the retailer accepts for its website¹², and therefore the Press cannot be directed to which text-type classification the retailer accepts.

With this lack of guidance, the Press sent its initial ONIX transmission to Indigo as an experiment to see if the retailer would accept the chosen XHTML-formatted text type, Description for Reader. The purpose of this experiment was to discover which text type Indigo would accept, and since the retailer was the only partner that accepted book descriptions from ONIX feeds, whatever text type it accepted would be what the Press would use to categorize its back cover copy. The first test export of Description for Reader turned out to be successful. Therefore, the Press continues to use the Description for Reader text type to categorize its back cover copy for each title. In all, the Press cannot confidently rely on the longevity of its current categorizations of book descriptions in PEXOD because of the absence of definitions for all ONIX text types and the lack of resources from Indigo.

Overall, there are five important steps to enter just one XHTML book description in PEXOD. Here are the five designations to complete the entry of a back cover copy:

1. Public
2. Description for Reader text type
3. XHTML text format
4. Inputting text into the text field with appropriate XHTML format

¹² Indigo later released a document titled “Indigo Books & Music Inc.: Data requirements for ONIX Transmission, Version: 1.0” (July 18, 2006), which defines to a publisher what ONIX text types to export (Indigo 2006).

5. *arsenalpulp.com* source title

Retrieving a title's back cover copy from its origin in InDesign, editing, XHTML-conversion, and entering it into PEXOD requires about five minutes, depending on the length and original format of the blurb. By these calculations, entering just this one type of book description for a frontlist of twelve titles requires about one hour.

To format and enter the second ASCII-formatted blurbs is a similar process, except it requires formatting the text with acceptable ASCII characters and the exclusion of HTML tags. Therefore, to enter the second set ASCII-formatted book cover copy for a frontlist requires about one more hour. This administrative effort does not include the additional time needed to store other blurbs the Press deems essential for marketing, such as review quotes (between one to five per title) and promotional headlines (one per title). It is therefore not surprising that, for this task, it was essential for the Press to create a reference manual for the varied book description specifications so all staff members can store and organize the data in an efficient manner that be useful to the marketing and production departments, feed the future website, and ensure that the partners will accept the text.

As the fifth column in Table 3 (above) illustrates, all this neatly organized data in PEXOD does not flow directly to all data partners in the ONIX feeds. In the case of Amazon.ca and Bowker's Books In Print, the retailers require book descriptions to be uploaded via an online update form, not through an ONIX message. Amazon.ca's Book Content Update Form requires the Press to copy and paste its ASCII-formatted book description into the available fields in the online form and edit the text to suit the word count requirements in order for the retailer to accept and upload the text to its website. Bowker's Books In Print also uses a similar system called BowkerLink. Using this non-ONIX method, book descriptions must be uploaded to the Amazon.ca and Bowker websites 'on demand.' For example, when the Press wants to publicize a new review quote on the Amazon.ca or Bowker website, it must copy that text from the Blurb Details section of PEXOD, then access the respective online update form and follow the necessary steps to successfully post that quote. This process requires about three to five minutes per title, per partner. This method of updating marketing data is, again, time-consuming for the Press: it has to maintain a separate record of all new review quotes (and other new or revised book descriptions) and on a monthly basis, upload each new review quote to the respective online update forms. Rather than being able to rely the partners to accept a new blurb from their weekly ONIX transmissions, which can include other bibliographic data revisions from that week, the Press must spend at least an additional two hours every month just to upload new blurbs for their

twelve frontlist titles to Amazon.ca and Bowker, depending on the number of review quotes per title.

Before concluding this section, it is important to note that at the time of this research, Amazon.ca had two ways for publishers to upload book descriptions. According to the Publisher's Guide on the Amazon.ca website, Amazon.ca allowed publishers to choose between using their password-controlled FTP site for uploading multiple submissions of book descriptions or its online update form¹³. Since Arsenal had many book descriptions to upload, the FTP method seemed to be the most efficient. However, to use the FTP site, Arsenal had to adhere to Amazon.ca's strict format requirements, otherwise the retailer would not accept the FTP-transmitted data. Amazon.ca specified that book descriptions had to be saved as text-only documents (.txt file extension) in ASCII text format. In addition, the blurb text for each title had to be arranged with inline tags written in uppercase letters, followed by a colon, one blank character space, then the actual blurb—exactly as illustrated:

```
ISBN: [required]
DESCRIPTION:
PUBCOMMENTS:
AUTHCOMMENTS:
REVIEW: [each review must have its own REVIEW tag, with the source at the end
placed in parentheses]
BACKCOVER:
AUTHORBIO:
INSIDEFLAP:
TOC: [table of contents]
EXCERPT:
END [required to complete the message for each ISBN]
```

Also, each blurb that followed its tag could not exceed 1,000 words, which differ from the varied word counts for the Book Content Update Form (Table 3). These two separate methods made the Press doubt that Amazon.ca would accept the text sent via FTP.

In addition, the rigid Amazon.ca FTP specifications required at least one hour for the Press to format two of the Amazon.ca book-description classifications, DESCRIPTION and PUBCOMMENTS did not reflect the List 33 ONIX text types that are available to classify data in PEXOD. When browsing Amazon.ca, there is no consistency in how other publishers classify DESCRIPTION and PUBCOMMENTS, which appear as "Book Description" and "From the Publisher" respectively on the website. Since neither Amazon.ca nor EDITEUR provide definitions for their

¹³ Amazon.ca no longer provides a reference to this uploading method in its "Publisher's Guide" (Amazon 2006).

book description metadata, the Press had to create its own definitions of its ONIX metadata for Amazon.ca; thereby designating Description for Reader blurbs stored in PEXOD for the Amazon.ca DESCRIPTION category, and the Promotional Headline blurbs for PUBCOMMENTS. Overall, this ad hoc interpretation to distinguish Amazon.ca- and ONIX-data classifications in order store and upload data correctly was frustrating and time-consuming, requiring the Press to document these extraneous rules in an expanding in-house reference manual.

Ultimately, this effort to upload multiple submissions using the FTP method was futile because the first FTP-uploaded book descriptions did not appear on Amazon.ca after two weeks and the Press received no response from the Amazon.ca Help representatives in regards to the matter. The Press then changed its uploading method for multiple blurb submissions to using the Book Content Update Form out of frustration over Amazon.ca's inability to respond to the inquiries regarding their missing data. This second method requires a similar amount of time to prepare the text for uploading, however, this method ensures Amazon.ca will accept the data because the online update form's system alerts the Press if the text is incorrectly formatted. And once accepted, the book descriptions generally appear within a few days of uploading¹⁴.

In summary, this current system of preparing and exporting varied text formats of the same copy shows the challenges associated with the supply chain partners' lack of compliance with the ONIX standard. Compared to Amazon.ca and Bowker's Books In Print, Indigo Books & Music is the only data exchange partner that accepts book descriptions from the Press's ONIX transmissions. However, Indigo's data aggregation system does not fully support the potential of ONIX because the retailer only accepts the initial book descriptions for each title and does not overwrite that data after it was received. The Press therefore keeps record of additional review quotes and revised back cover copy and emails this text in plain text files to its contact person at Indigo. If all partners would accept the blurbs via ONIX transmissions, it would take the Press about five minutes per week to export the book descriptions stored in PEXOD to Amazon.ca, Bowker, and Indigo. However, because Amazon.ca and Bowker do not accept book descriptions via ONIX, and Indigo's data aggregation system does not accept revised blurbs via ONIX, a significant amount of time is spent to separately export book descriptions to suit the partners' individual needs. This non-compliance also requires extra administrative time and effort for the Press to store each book description in at least two different formats in its database. This process illustrates that being a mid-size publishing firm with Gold certification, including an ONIX-

¹⁴ During the composition of this report, Amazon.ca removed the instructions from the website for how to upload descriptive content via FTP, leaving only the online Books Content Update Form for Arsenal to use.

compliant bibliographic database, has yet to show a return as a result of the administrative work that the industry requires.

Policing the Supply Chain to Maintain Marketing Data Integrity

It is important to note that despite organizing the book descriptions and cover images in its central database system and developing a strategy for sending accurate book-description data from PEXOD to the appropriate partners, the Press must check websites daily to see if the exported marketing data was accepted and properly uploaded into the respective databases. In general, email correspondence with the representatives from Amazon.ca, BookManager, Bowker's Books In Print, and Indigo Book & Music revealed that the Press must wait five to ten business days from when it exports (via ONIX message, online update form, FTP, or email) marketing data to when that data appears on the partners' websites. However, the Press has noted, on numerous occasions, that the marketing data does not appear within the given time frame and therefore the appropriate representatives must be contacted to inquire as to why the data has yet to appear online. Often the representatives state that the cause of the missing data is from a malfunction in their data aggregation systems or because the Press did not follow the partners' specifications exactly. In general, finding the solution to each data problem requires about five business days of communicating back and forth and an additional five to ten business days of the Press checking the related websites daily to see if the correct data appears. These delays are detrimental to marketing efforts, especially when it is common knowledge in the book industry that new titles may be limited to "fifteen seconds of fame"¹⁵ and then can be forgotten by the media and public.

Since erroneous or missing marketing data can dissuade a potential end consumer from purchasing that title (especially when the title is surrounded by the competing marketing data of the numerous other titles on websites like Amazon.ca or Indigo), the Press finds it necessary to police the supply chain partners' websites for corrupted marketing data. Also, the Press must monitor the network because supply chain partners' database systems themselves malfunction without fault of the publisher. For example, in August of 2006, between forty-five and sixty of the Press's titles on Amazon.ca went missing, author names were changed, book descriptions went missing, prices changed by ten to fifteen dollars, and/or the availability status for some titles

¹⁵ "We know that authors and books may now have only 15 seconds of fame, and that when we miss opportunities to have books available to customers we hardly get a second chance." (David Kent, qtd. by Sinkins 2006)

changed from Available to Out of Print as a result of Amazon.ca's own system malfunctioning. For one month, the Press corresponded with Amazon.ca representatives and policed Amazon.ca's website to monitor the data cleanup, only find more errors. The retailer eventually fixed the malfunction, leaving the Press to wonder how this major system error affected its sales.

Also in relation to Amazon.ca, the Press specifically monitors the retailer to ensure its marketing data is not overwritten with marketing data from secondary sources. Although the publishing house is the sole exporter of its marketing data to Amazon.ca, its US distributor is responsible for sending marketing data to Amazon.com. The Press experienced at least one occasion in which the Amazon.ca data was overwritten by data from the Amazon.com site. For the title, *San Francisco: The Unknown City*, a book description had a factual error that the Press fixed and reposted on Amazon.ca. However, the old blurb reappeared on Amazon.ca after the correct one had been displayed. When the Press investigated the matter with its US distributor, it discovered that Amazon.com probably overrode the correct book description on Amazon.ca with the old book description in Amazon.com's database system that the US distributor had not yet corrected.

In a telephone interview in May 2006, Joan Freeman of BookNet Canada also spoke about how quickly marketing data can appear on online storefronts without publishers knowing or without publishers' consent. She said that while Amazon.com receives much of its data directly from publishers or their representing firms, it also posts data that is derived from Ingram Book Group, a company that provides wholesale and distribution services (Freeman 2006). Therefore, data that publishers originally designate for Ingram's wholesale services to be passed to book retailers can also appear on Amazon.com for online, non-wholesale, straight-to-end-user display; and, from the Press's experience, even be passed to the Canadian retailer, Amazon.ca. This data sharing can cause problems for publishers, especially if publishers intend that, for marketing reasons, separate book descriptions should be exported to (and thus displayed by) the US wholesaler and the Canadian retailer. Although Freeman is unsure of the extent to which data is shared among vendors (Ibid), this illustrates one of many problems in the bibliographic data exchange network that result in more policing for publishers and the Press to ensure their titles are properly represented online.

In summary, this section, "From the Bottom Up: Managing & Policing Marketing Data," shows how the extraneous, non-ONIX methods for uploading marketing data and the supply chain partners' opaque data aggregation systems challenge the Press's ability to maintain the integrity

of marketing data. The point of sending and receiving weekly ONIX transmissions is to keep all bibliographic data up to date and eliminate extraneous steps to have the information posted online. However, the Press quickly learned that complying with Canadian and international standards did not equal less data management or higher quality of data online. Despite the advantages of Indigo Books & Music accepting marketing data from the Press's ONIX feeds, the retailer still needs to improve its data aggregation system so the weekly transmissions from the Press update the appropriate fields in Indigo's database system and therefore assure the Press that its titles on the Indigo website are displayed with the most current and comprehensive marketing information. In addition, BookManager, Bowker's Books In Print, and Amazon.ca need to update their data aggregation systems to accept front cover images and/or book descriptions from the ONIX transmissions—not by online update forms—in order for the Press to reduce the time required to manage and monitor its marketing data.

Recommendations

The system of managing and exporting Arsenal Pulp Press's marketing data for its online supply chain partners is clearly inefficient. The data exchange partners require that the Press spend considerable administration time to satisfy their specifications. Additionally, the data exchange network then requires the Press to police those partners' retail websites and online databases to ensure that the exported marketing data is in fact uploaded to their sites and correctly displayed. This situation can be improved on a number of book industry levels, starting at the 'ground' level with bibliographic database developer, moving upward in the book industry strata with publishers, retailers, and data aggregators, and then acknowledging the changes that can be made at the 'upper' level, with the book industry organizations that act an umbrella, influencing the standards implemented over the entire Canadian book industry.

By following BookNet Canada's and BPIDP's respective bibliographic data certification and Supply Chain Initiative programs, the Press has made efforts to show leadership in following the book industry's supply chain mandates through both the application of an ONIX-compliant, bibliographic database system and achievement of BookNet Gold bibliographic data certification. It is through the adoption of PEXOD and the BookNet certification that the Press suspected it could improve its efficiency of data exchange with partners. However, the experience of using an ONIX-compliant database to export high-quality marketing data and maintaining its integrity on partners' websites is frustrating and time-consuming. This chapter draws on the research and experience presented in this report to propose practical solutions for every level of the book industry in order to aid in the reduction of the Press's data-management workload and to improve the representation of its titles throughout the bibliographic data exchange network.

Level One: The Bibliographic Database Management System

Considering the varied specifications of the Press's Canadian data-export partners—Amazon.ca, BookManager, Bowker's Books In Print, and Indigo Books & Music—one way to begin to

improve this system is to start with the publisher's bibliographic database system: new features can be added to PEXOD to alleviate the Press's extra administrative tasks for storing marketing data for its supply chain partners.

First, for more efficient storage of book descriptions, it is recommended that PEXOD offer a text-editing tool that automatically converts the XHTML-formatted text of a blurb entry to Basic ASCII format (with just the ninety-five printable characters and no tags). With this feature, PEXOD could be programmed to be able to generate a second, plain text blurb entry from an XHTML entry by 'the click of a button,' thereby relieving the Press of the task of creating a second entry for the same text. For example, when a Description for Reader book description in XHTML format is saved in the Blurb Details section, the user will have the option of being able to command the system to automatically generate the ASCII entry, deleting the mark-up tags of XHTML and converting smart quotes and commas to straight quotes and commas, en- and em-dashes to double hyphens (--), paragraph tags (<p>, </p>) to hard returns, and ampersands to the word "and."

Second, for book descriptions, it is recommended that a feature be incorporated into each Blurb Details entry that offers the user a list of the supply chain partners that should receive that specific blurb in an ONIX transmission; or, for each Supplier Detail entry in PEXOD (located in the Supplier Detail section that stores the contact information of each supply chain partner) there could be a list of all the available ONIX fields that can be sent in an export to that partner. Only selected book descriptions shall be sent to the supply chain partner in the ONIX transmission, thereby ensuring that the correct blurb is sent to the appropriate partner with the corresponding specifications. Either method would initially create more work for the Press to implement. However, once the initial data selections are saved in the system, the Press's marketing and production departments would have more freedom to store blurbs with multiple text-format styles in PEXOD and be assured that certain book description data would not be sent along the supply chain. Furthermore, either method would assure the Press that the appropriate book descriptions are exported to its partners.

Third, although the process of storing and sending cover images is less laborious than that of book descriptions, it is recommended that the support for book cover images be improved in PEXOD. The system could require each supply chain partner's Supplier Detail entry to include that partner's image specifications (for example, 300 pixels wide by 500 pixels long, 72 DPI, JPEG file). PEXOD could use a high-resolution image that is pre-stored in the database, and automatically reformat the image to this preset specifications required by that partner as stated in its Supplier Detail account upon each data transmission to that partner. This, of course, may be a

difficult solution to implement because it may not be possible to manipulate some images to conform to the set specifications, requiring the user to manually adjust the image. In this case, a secondary option for improving the management of cover-image data could be similar to the second solution for book descriptions but does not require automatic image reformatting programming: either implement a feature in each Media File Detail entry that designates which partner should receive the cover image that is stored in the Media File Detail section in an ONIX transmission, or implement a feature in each Supplier Detail account that points to which Front Cover Image (if there is more than one format required to be stored for a title) entry in the Media File Detail section should be included in that partner's ONIX message.

Overall, I recommend that the Blurb Details and Media File Details sections in PEXOD be updated with features that can help relieve the demands on the Press to export multiple text or image formats of marketing data to supply chain partners. (Although this solution is somewhat antithetical to the industry's push for ONIX standards compliance, the Press has not received communication from its supply chain partners that they will be upgrading their systems to be fully compliant with ONIX in the future.)

Level Two: The Publisher

In *Transforming Publishing for Industry Using Digital Strategies*, author Paul Evans states that publishers should consider taking on a new role, "becoming more of an orchestrator of interactivity rather than just a content provider" (Evans 2003). To keep all levels of the bibliographic data exchange network informed of current challenges and opportunities, publishers could regard themselves as the 'orchestrators' or catalysts for change. The Press can offer insight from its practical perspective to database system developers, retailers and data aggregators, and standardization associations, which will ultimately benefit the overall operations of the supply chain channels. In order to improve the data exchange network to better support the distribution of marketing data, I recommend that the Press lobby all levels of the book industry to improve their bibliographic database and data export systems. The Press could also seek out committees and online discussion groups regarding data management and export for peer support and mentorship on how to adhere to and improve the current system. Currently, the Press has yet to initiate these orchestration efforts because it spends most of its time and resources creating and exporting marketing data and policing the network for data corruption. However, it is important

for the company to seek alliances in order to influence change in the industry.

To maintain the integrity of the marketing data that is already available through various online supply chain partners, it is also recommended that the Press consider using a data-monitoring service from BookNet Canada. BookMonitor is a virtual data-policing tool that uses “a combination of web spidering technology, direct database access, archiving, and analysis” (BookNet 2006e) to check a subscribing publisher’s title information across online bibliographic databases and e-commerce sites. Considering BookMonitor’s reasonable subscription fee, thirty-five dollars per month per block of fifty ISBNs (Ibid), this service could reduce the time spent policing marketing data. At the time of this report, Arsenal Pulp Press has not yet subscribed to the BookMonitor service. If the Press is interested to subscribe to BookMonitor, its decision should be based on the extent to which BookMonitor can search, analyze, and report errors in marketing data¹⁶ apart from basic product identifier data (such as title, author, and availability status), which more supply chain partners readily accept according to the ONIX standard and which does not require any formatting.

Overall, it is essential for the Press to maintain an active role in the development of bibliographic data standards and supply chain improvements in order for it to work efficiently with its data-exchange partners and be one step ahead of its publishing competitors.

Level Three: The Online Supply Chain Partners

The Press’s supply chain partners are another level of the book industry that could improve their systems for the efficient exchange of high-quality marketing data. Retailers and data aggregators’ online database systems should be upgraded to be able to receive marketing data from ONIX transmissions and properly update that data with every subsequent ONIX transmission sent from the Press. It is recommended that the supply chain partners accept all ONIX-standard text types for book descriptions and use the same ONIX encoding in their data specifications. For example, as is the case with Amazon.ca, the retailer should state that it accepts the ONIX metadata “Description for Reader” or “Main Description,” not its own, non-ONIX compliant “DESCRIPTION” and “PUB COMMENTS.” Second, the Press’s retail and aggregation partners should accept XHTML-formatted blurbs, not plain, unformatted text, for the best representation book-description data on websites.

¹⁶ BookMonitor states it can track “Cover Image” and “Description Text” among title, author, publisher, availability, publication date, list price, sales price, sales rank, format/binding, number of pages, and dimensions (BookNet 2006e).

They should also accept URL-linked cover images for easy image updating (as the URL would be refreshed with each transmission), thus eliminating the extra step of the Press sending images separately.

Finally, it is recommended that retailers and data aggregators, if not currently doing so, actively work in partnership with EDITEUR, BookNet Canada, and other book publishing organizations to make improvements to the bibliographic data network.

Level Four: The Book Industry Organizations

This set of recommendations is for EDITEUR and BookNet Canada to improve the data-exchange system. Foremost, EDITEUR should clearly define all of the ONIX code list values that fall under the classification of marketing data. This is especially important for the ONIX text types so publishers and retailers can easily clarify which of the many available text-type codes should be used to categorize book-description data. EDITEUR also should expand its list of text types to include any other book descriptions that retailers or aggregators request but that the ONIX standard does not currently provide. In addition, EDITEUR should survey small- and medium-sized publishers—as they often have restricted resources for IT development—to analyze the improvements necessary to support an inclusive and fluid exchange of marketing data among bibliographic data exchange partners. BookNet Canada can then integrate them with the marketing data standards for the Canadian book industry.

Next, it is recommended that BookNet Canada, on behalf of Canadian book publishers, create a section on its website dedicated to referencing the marketing data specifications of the retailers and data aggregators in the supply chain. This reference section should be updated regularly and informed by feedback from the publishers and other related organizations. BookNet should also offer another website section that includes technological advice and workshops for exporters of bibliographic data, highlighting the software and technology available to help ease their workload in data management. This site should also be regularly updated. It would be advantageous for BookNet and BPIDP to organize a forum for small- to medium-sized Canadian publishers, their distributors and sales agents, and related software developers regarding the application of ONIX-compliant database management systems and the maintenance of data integrity in the marketplace. It is in these forums that bibliographic database developers can learn to improve their products and publishing firms can conceptualize how to excel in their data exchange.

In order to build more awareness in the Canadian book industry about the importance of exchanging accurate, comprehensive, and standardized marketing data, BookNet Canada can revise the Canadian Bibliographic Standard to make marketing data more of a priority in exchanging high-quality bibliographic data. Now that there are 160 publishers with BookNet certification—22 Bronze, 83 Silver, and 55 Gold—(BookNet 2006e) the agency could consider reducing its three-tier system to a two-tier system. This new standard would include an introductory level certification like the Bronze level that accepts a basic set of data to be exported without ONIX, and a second, an ONIX-compliant certification level that accepts a more comprehensive set of data, which includes standards for marketing data. Within this second tier of certification, BookNet should expand and clarify its specifications for marketing data, including definitive standards for formatting (for example, XHTML) and specific ONIX data elements (for example, Front Cover Image, Main Description, and Review Quote) for publishers to include in each export. Publishers, retailers, and data aggregators can adopt these changes to the Canadian Bibliographic Standard in order to relieve any confusion between publishers and themselves. Furthermore, the extension of this standard will propel publishers to make high-quality marketing data readily available, which is beneficial for both the business of retailers and publishers, and the livelihood of the book industry overall.

In addition, BPIDP can facilitate this movement by incorporating more criteria for publishers and supply chain members to receive Supply Chain Initiative funding. For example, Gold certified publishers could be eligible to receive a higher level of funding than those with Silver or Bronze certification. The Supply Chain Initiative can also provide guidance, create mandates, and/or offer financial incentives to bibliographic database developers to improve their systems to better serve the operational needs of publishers and their supply chain partners.

Finally, it is recommended that BookNet Canada, BPIDP, and EDITEUR facilitate more studies that analyze the practical effects of the exchange of marketing data in the Canadian and international marketplace in order that future related reports and studies can draw on factual documentation.

Concluding Thoughts: Data Exchange Utopia, or Something Like It

A report cannot be complete without a ‘big picture’ solution. This finishing touch to this report is provided by two professionals who are well versed in the technological possibilities of online bibliographic data exchange and the challenges in monitoring its exponential growth—Joan Freeman of BookNet Canada and Doug Plant of PEXOD propose the same utopian solution for maintaining accurate bibliographic data, including marketing data, across all industry levels: one central database for all publishing firms in Canada. However, each expert has a different vision for its use: Plant foresees that this mammoth central database would exist in a static way, in which book retailers and data aggregators would have access the central database to download or select the appropriate bibliographic data to or for their databases (Plant 2006). This solution would definitely change the current system, where major retailers and data aggregators demand that publishers send them data formatted according to their individual specifications—this central database would force the retailers and aggregators to seek out the data for their systems on their own. On the other hand, Freeman said that it “would be utopia” (Freeman 2006) if the central database received all publishers’ bibliographic data and then that central database would automatically send that data to all supply chain partners. Freeman’s database would allow retailers and data aggregators to retain some authority over how they would like to receive their data because their systems could still parse out what data they wanted from the central database. Regardless of which method would be employed, either type of centralized system would still require retailers, data aggregators, and publishers to comply with the same standards, which overall is what needs to occur in the book industry.

Of course, any catchall solution would require much compromise, and compromise often requires extensive consultation, not to mention financing, which is why this dream will likely remain within the confines of this report. For, in order to create a central database for all publishers’ bibliographic data, the ONIX standard for books, which already comprises of hundreds of printed pages of reference material, would have to be expanded significantly to encompass present and future bibliographic data classifications and technologies required for a central data

repository. Also, in order for this behemoth central database to be possible, it would still require firms to upgrade their database systems and practices to adhere to the centralized database's technological requirements. This would require more financial investment by publishers and/or significant subsidy support from government, both of which could be difficult to realize.

In all, technological and communication improvements need to occur among all levels of the book industry in order to facilitate more cooperation among the members of this ever-changing, exponentially growing, and increasingly messy bibliographic data exchange network. With the orchestration of more multilateral interactions among software developers, publishers, retailers, and book industry agencies and associations, Arsenal Pulp Press should be able spend less of its time being data massagers and data police, and spend more of its time attending to other strategies for sustaining and improving the availability of their titles in the international marketplace.

Appendix A

Sample ONIX bibliographic data for one title

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have sold well over 110,000 copies; both won the Veggie Award for favorite cookbook of
2003 and 2004 by &lt;i>VegNews&lt;/i> magazine, and &lt;i>Herbivore&lt;/i> magazine, in a
cover story on Sarah, called her "The World's Coolest Vegan." Sarah returns with her
first solo cookbook, featuring more of the delectable, easy-to-prepare recipes that
vegans around the world have come to adore. For Sarah, vegan cooking—which eschews all
animal products, including butter, milk, and cheese—can be an adventure in dining,
without a lot of investment in time or money. In fact, most of the recipes in &lt;i>La
Dolce Vegan!&lt;/i> can be prepared in 20 to 30 minutes or less. From soups and salads to
entrees and desserts, they are sure to inspire both committed and part-time vegans
alike.&lt;/p>
&lt;p>At the heart of the book is Sarah's commitment to the vegan lifestyle that has

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changed her life completely—from a childhood plagued with health problems to an adulthood filled with the pleasures and joys of living vegan. For Sarah, an animal-free diet will make you happier, healthier, and more content with the world around you. In addition to the wonderful recipes, there is a fun do-it-yourself section of vegan tips and non-food items. Learn to live the sweet life of veganism and you'll never look back!</p></Text>

<p>Recipes include: Beauty and the Beet Borscht, Mocked Clam Chowder, Roasted Cherry Tomato Pasta, Sloppy Janes, Blessed Broccoli Stir-Fry, Apple Pie Pancakes, Carob Almond Truffles, and Tomato Soup Cake.</p></Text>

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Sarah returns with her first solo cookbook, featuring more of the delectable, easy-to-prepare recipes that vegans around the world have come to adore. For Sarah, vegan cooking—which eschews all animal products, including butter, milk, and cheese—can be an adventure in dining, without a lot of investment in time or money. In fact, most of the recipes in La Dolce Vegan! can be prepared in 20 to 30 minutes or less. From soups and salads to entrees and desserts, they are sure to inspire both committed and part-time vegans alike.

At the heart of the book is Sarah's commitment to the vegan lifestyle that has changed her life completely—from a childhood plagued with health problems to an adulthood filled with the pleasures and joys of living vegan. For Sarah, an animal-free diet will make you happier, healthier, and more content with the world around you. In addition to the wonderful recipes, there is a fun do-it-yourself section of vegan tips and non-food items. Learn to live the sweet life of veganism and you'll never look back!

Recipes include: Beauty and the Beet Borscht, Mocked Clam Chowder, Roasted Cherry Tomato Pasta, Sloppy Janes, Blessed Broccoli Stir-Fry, Apple Pie Pancakes, Carob Almond Truffles, and Tomato Soup Cake.</Text>

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She's a venerable vegan kitchen goddess who knows that eating cruelty-free doesn't mean
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<TelephoneNumber>(800) 283-3572</TelephoneNumber>
<FaxNumber>(651) 221-0124</FaxNumber>
<EmailAddress>mailto: orders@cbsd.com</EmailAddress>
  <SupplierRole>02</SupplierRole>
  <SupplyToCountry>US</SupplyToCountry>
  <ReturnsCodeType>02</ReturnsCodeType>
  <ReturnsCode>Y</ReturnsCode>
  <AvailabilityCode>IP</AvailabilityCode>
<ProductAvailability>20</ProductAvailability>
<DateFormat>00</DateFormat>
<ExpectedShipDate>20051001</ExpectedShipDate>
  <OnSaleDate>20051001</OnSaleDate>
  <PackQuantity>18</PackQuantity>
  <Price>
    <PriceTypeCode>03</PriceTypeCode>
    <PricePer>00</PricePer>
    <ClassOfTrade>gen</ClassOfTrade>
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    <PriceAmount>19.95</PriceAmount>

```

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        <CountryCode>US</CountryCode>
<PriceEffectiveFrom>20051001</PriceEffectiveFrom>
</Price>
    </SupplyDetail>
    <SupplyDetail>
<SupplierName>Turnaround Publisher Services</SupplierName>
<TelephoneNumber>(0208) 829-3000</TelephoneNumber>
<FaxNumber>(0208) 881-5088</FaxNumber>
<EmailAddress>mailto: orders@turnaround-uk.com</EmailAddress>
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<SupplyToCountry>GB DK FR DE IT NL NO RU ES SE</SupplyToCountry>
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    <ReturnsCode>Y</ReturnsCode>
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    <Price>
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        <CountryCode>GB</CountryCode>
    </Price>
    </SupplyDetail>
    <SupplyDetail>
</Product>
</ONIXMessage>

```

Source: Arsenal 2006a

Appendix B

BookNet Canada Bibliographic Standards

Bronze Level (v. 1.8)

ISBN-10
EAN-13
Product Form Code
Title Text
Subtitle
Publisher Name
Imprint
Replaced by (ISBN)
Publication Date
On Sale Date
Weight
Dimensions (height, width)
Availability Status Code
Price Amount
Currency Code
Pack or Carton Quantity
Returns Conditions Code
Supplier Name
Terms of Trade
Discount Percentage
Territorial Rights and Sales Restrictions
Contributor Role
Contributor Name (last name)
Contributor Name (first name)
Corporate Contributor Name

Silver Level (v. 1.8)

(Transmission method: ONIX 2.0 or 2.1)

Bronze level identifiers, plus:

Product Form Detail
Language
Country Code
BISAC Subject

Gold Level (v. 1.8)

(Transmission Method ONIX 2.0 or 2.1)

Silver level identifiers, plus:

UPC
Barcode Indicator
Number within Series
Series Title or indicator
Year of Annual
Dimensions (spine thickness)
Biographical Note
Number of Volumes
Number within a Set
Edition Number
Edition Statement
Number of Illustrations
Illustrations and Other Contents Note
Number of Pages
Audience Code
Audience Restriction Note
Cover Image
Text Type Code
Text Format
Main Text

Source: BookNet 2006d

Appendix C

ONIX Code Lists

List 33: Other text type code

Value	Description
01	Main description
02	Short description/annotation (Text cannot exceed 350 characters)
03	Long description
04	Table of contents
05	Review quote, restricted length (Text is limited to word count agreed between the sender and receiver of an ONIX file.)
06	Quote from review of previous edition
07	Review text (The full text of a review.)
08	Review quote (The standard review quote: text that is excerpted from the <i>review text</i> .)
09	Promotional “headline”
10	Previous review quote
11	Author comments
12	Description for reader
13	Biographical note
14	Description for Reading Group Guide
15	Discussion question for Reading Group Guide
16	Competing titles
17	Flap copy
18	Back cover copy
19	Feature
20	New feature
23	Excerpt from book
24	First chapter
25	Description for sales people
26	Description for press or other media
27	Description for subsidiary rights department

28	Description for teachers/educators
30	Unpublished endorsement
31	Description for bookstore
32	Description for library
33	Introduction or preface
34	Full text

List 34: Text format code

Value	Description
01	SGML (The Standard Generalized Mark-up Language is the forbearer to HTML. Essentially, SGML has a stricter syntactical structure than its progeny. SGML provides a variety of mark-up syntaxes that can be used for many applications, which made extensive to use in industries but prevented it from being used widespread, on a small-scale, general-purpose level.)
02	HTML (HyperText Mark-up Language is a popular Web-programming language that has looser structuring than SGML, but is currently being replaced by formats of XML and XHTML.)
03	XML (The eXtensible Mark-up Language is derived from SGML and now dwarfs SGML in terms of breadth of application because it is designed to be simpler to parse and process than full SGML, and to have more lightweight internationalization. The design of XML therefore has directly influenced the evolution of XHTML.)
05	XHTML (eXtensible HyperText Markup Language is an application of XML and is the most preferred mark-up language for formatting ONIX text types destined for online display. XHTML is essentially a stricter syntactical version of HTML.)
06	Default text format
07	Basic ASCII text (Basic ASCII (American Standard Code for Information Interchange) is plain text containing no tags, except for <i>&amp;</i> ; (ampersand) and <i>&lt;</i> ; (less-than character) and with the character set limited to the ASCII range: 33 non-printing, mostly obsolete control characters that affect how text is processed, plus these 95 printable characters (starting with the space character): !"#%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNQRSTUvwxyz[\]^_`abcdef ghijklmnopqrstuvwxyz{ }~)
08	PDF (A Portable Document Format is an Adobe Systems file format for representing two-dimensional documents. PDF is included in this ONIX code list, but cannot of course be used as a text format attribute as it is a document format, not a text format.)

List 36: Front cover image file format code

Value	Description
02	GIF
03	JPEG
05	TIF

List 37: Front cover image file link type code

Value	Description
01	URL
02	DOI
03	PURL
04	URN
05	FTP address
06	filename

List 38: Image/audio/video file type code

Value	EDITEUR	Description
01		Whole product
02		Software demo
04		Front cover image
07		Front cover thumbnail
08		Contributor image
10		Series image
11		Series logo
12		Product logo
17		Publisher logo
18		Imprint logo
23		Inside page image
29		Video segment
30		Audio segment

Source: EDITEUR 2006b.

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