

Catalogue Structure of Business-to-Consumer E-Commerce Web Sites

Louise Spiteri

School of Library and Information Studies
Faculty of Management
Dalhousie University
email

ABSTRACT

This study examines the important role that Library and Information Science (LIS) professionals can play in the world of Business-to-Consumer (B2C) e-commerce web sites, specifically via the application of the principles of cataloguing to the design of e-catalogues. The study explores how the 15 Dublin Core Metadata Elements and the 8 International Standard for Bibliographic Description (ISBD) elements can be used to design a cataloguing template that can be applied to the creation, maintenance, and evaluation of e-catalogues. The B2C sites of video retailers will be used to provide the context for the creation and application of this cataloguing template. The search directory of AltaVista reveals a total population of 50 North American B2C video retailers that ship to Canada. The template will be used to evaluate the e-catalogues of these 50 sites and to make recommendations about ideal cataloguing practices in this environment.

RÉSUMÉ

Cette étude examine le rôle important que les professionnels de la Bibliothèque et l'Informatique (LIS) jouent dans le monde des sites Web de e-commerce du Business au Client (B2C), plus précisément via l'application des principes du fichier du plan des e-catalogues. Cette étude explore comment les *15 Dublin Core Metadata Elements* et la *8 International Standard for Bibliographic Description (ISBD) elements* peuvent être utilisés pour concevoir un modèle du fichier qui peut être appliqué à la création, au maintien et à l'évaluation des e-catalogues. Les sites B2C des détaillant-e-s de vidéo fournissent le contexte pour la création et l'application du modèle de ce catalogue. Le moteur de recherche *AltaVista* révèle une population totale de 50 Américain-e-s du Nord détaillant-e-s de vidéo qui expédient au Canada. Le modèle est utilisé pour évaluer les e-catalogues de ces 50 sites et il conseille des pratiques idéales de fichier dans cet environnement.

INTRODUCTION

Business-to-Consumer (B2C) e-commerce web sites enable activities such as home-based shopping, banking, stock trading, and so forth. A recent survey of B2C web sites indicates that close to 75% of B2C sites do not provide consumers with sufficient information with which to make an informed purchase. Specifically, B2C sites tend to lack information about product availability, the security of transactions, privacy issues, and customer service (Anthes 1999). What these web sites lack is good information design, i.e., the organization and presentation of information that enables consumers to locate easily what they want to find. Internet consumers should be capable of performing the same functions they are used to carrying out in the physical world; they must

therefore be able to select products through hierarchical product-information architectures.

OBJECTIVES

According to ActivMedia Research (2000), e-commerce activity for 2000 will have reached \$132 billion worldwide, double the \$58 billion reported in 1999. This study notes an increasing shift away from informational web sites to transactional web sites; 52% of web site revenue is generated directly via online sales.

The success of B2C e-commerce sites that cater to online shopping is predicated upon a number of factors, such as the quality, variety, and prices of the product, the provision of a secure server by which to conduct online financial transactions, a return policy for goods, and so forth. It has been suggested that online shopping sites should provide *perfect information*, i.e., consumers have all the information they need to make informed, rational decisions about which goods or services to purchase in the online marketplace (Soon-Yong, Stahl, & Whinston, 1997; Wigand, 1997). Another factor in the success of e-commerce B2C sites is the consumers' ability to access these sites via well-constructed search engines and search directories. In a previous study, the author examined the extent to which six major Internet search directories facilitate consumer access to online video (i.e., VHS and DVD) B2C sites. The results of this study indicate that the directories are often unclear in their organizational structure and scope: the consumer might need to explore several different categories and hierarchies before finding relevant sites. The directories tend to use ambiguous and inconsistent terminology (Spiteri 2000).

The goal of this study is to continue the exploration of access to B2C sites by shifting the focus to how online vendors organize the information on their web sites, and how this organization could affect the consumers' ability to find the information necessary to make an informed purchase. Three aspects of web site organization were examined: (a) the contents of catalogue records; (b) the provision of "purchasing information," (e.g., shipping prices and options; customer service information, etc.); and (c) available search features by which to access the contents of the catalogues. Because of the large amount of data acquired, it is not possible to discuss and analyse the findings of (a)-(c) in one paper. The scope of this paper will therefore focus exclusively upon the structure of catalogue records.

RATIONALE

A survey of 2,000 consumers in the United States and Canada in the fourth quarter of 1999 indicated that 28% of all attempted online purchases failed, and that four out of five consumers who have purchased online experienced at least one failed purchase attempt over the same period. These failures resulted from technical

problems consumers encountered with the sites, difficulties in finding products, and logistical and delivery problems after the sale. Among the shoppers who experienced failed purchases, 48% indicated that the site was so confusing that they could not find what they wanted (Boston Consulting Group 2000).

Hoque & Lohse (1999) suggest when the online retail store design makes quality information easy to search and compare, consumers will become less price sensitive and purchase higher quality, more expensive products. Rozgus (2000) suggests that once the desired B2C site is found, the existence of a well-designed e-catalogue is essential to the site's success.

METHODOLOGY

The search directory of AltaVista was used to find the web sites of 50 B2C video retailers in order to maintain consistency with the author's previous study of access to B2C sites (Spiteri 2000). For this study, only video retailers based in North America and that shipped to Canada were chosen; this resulted in a total population of 50 retailers. The web sites of all 50 retailers were examined. The structures and contents of the web sites' catalogue records were evaluated against a template of criteria derived from the *Anglo-American Cataloguing Rules* (1998).

According to Taylor (2000, p.78), a catalogue record represents "any kind of information package in any kind of information retrieval system." A catalogue record is therefore a "presentation of the characteristics of an information package. The characteristics include both descriptive data and access points. The record stands in place of the information package in information retrieval systems such as catalogs, indexes, bibliographies, search engines, etc. An *information package* is an instance of recorded information. *Descriptive data* is [sic] data derived from an information package and used to describe it" (Taylor 2000, p. 78). The most important function of catalogue records is to assist the searcher (in this case, the consumer) to evaluate the usefulness of the information packages they represent. Catalogue record descriptions are most helpful when they are predictable in both form and content. Two sets of tools for creating catalogue records are examined below.

AACR2

In the world of Library and Information Science (LIS), the *Anglo-American Cataloguing Rules* (AACR2) have been used to create catalogue records for a variety of information packages in different media. AACR2 is based upon the application of eight bibliographic elements, namely (AACR2 1998):

1. Title and statement of responsibility
2. Edition
3. Material (or type of publication) specific details

4. Publication, distribution, etc.
5. Physical description
6. Series
7. Notes
8. Standard number and terms of availability

DUBLIN CORE

The Dublin Core Metadata Initiative is an “open forum engaged in the development of interoperable online metadata standards that support a broad range of purposes and business models” (DCMI 2001a). Dublin Core (DC) consists of a set of metadata or bibliographic elements designed to help create catalogue records for web sites. DC consists of the following 15 elements (DCMI 2001b):

1. Elements related to the content of the web site

- **Title:** the name of the web site
- **Subject & Keywords:** the topic(s) of the web site
- **Description:** an abstract of the contents of the web site
- **Source:** information about the original source from which the web site is derived
- **Language:** the language in which the web site contents are written
- **Relation:** relationship of the web site to other sources
- **Coverage:** geographic or temporal characteristics of the web site

2. Elements related to the intellectual properties of the web site

- **Author or Creator:** the name of the person responsible for the intellectual content of the web site
- **Publisher:** the name of the entity responsible for making available the web site
- **Other Contributor:** the names of other persons or entities who/that have made significant contributions to the intellectual content of the web site
- **Rights Management:** information about any usage limitations placed upon the web site

3. Elements related to the structural aspects of the web site

- **Date:** the date when the web site was created or made available
- **Resource Type:** the category of the web site, e.g., home page, online catalogue
- **Format:** software and/or hardware required to use the web site
- **Resource Identifier:** the URL of the web site

A combined total of 23 elements could thus be used to construct a template for e-commerce film catalogues. As will be seen below, a number of the AACR2 and DC elements share common features. Suggested modifications to the 23 elements are as follows.

1. Title (AACR2 & DC)

This element is common to both AACR2 and DC. This is probably the most important element in the catalogue record, as consumers are likely to search for a particular film title. It is important to consider also the possible variant titles under which a film might be known. Some films are issued under different titles, often based upon the country of their distribution. The Australian film *Spotswood* was released in North America under the title *The Efficiency Expert*. Similarly, the Australian film *Mad Max 2* was released as *The Road Warrior* in North America. Web sites should thus provide variant titles and to link them to the same catalogue records. The Web is a global phenomenon, which means that consumers could potentially reside anywhere in the world. A Canadian customer, therefore, should be able to access the film *Breach of Trust* (U.S. title) from a U.S. web site via the film's Canadian title *Crash*. For the purpose of this study, therefore, 2 bibliographic elements were used: **Title** and **Variant Title**.

2. Statement of responsibility (AACR2)/Author/Contributor (DC)

The question of responsibility can be a very problematic area when it comes to films. AACR2 equates responsibility with the person(s) or organisation(s) responsible for the intellectual content of an information product. When it comes to films, however, it is not clear to whom to assign this responsibility. Should the director, the producer, the screenwriter, or the actors be credited with responsibility for the intellectual content of the film? Perhaps a more useful question to ask in this case is, "in which named person(s) would consumers be interested?" When it comes to films, the average consumer would most likely be interested in the names of the director(s) and/or the actor(s). It is more than possible, of course, that consumers would want to access films associated with certain producers and screenwriters, but the risk of information overload is increased if catalogue records contain detailed cast and crew information. It would seem that the DC element *Contributor* might be more useful for film catalogues. For the purpose of this study, therefore, the separate bibliographic elements of **actors** and **directors** were used.

3. Edition (AACR2)

There is no clear parallel to edition in the DC elements. An edition statement can be an important factor when it comes to deciding whether or not to purchase a film. It is becoming increasingly common for films to have a number of different editions. The film *Aliens*, for example, has three editions: (a) the edited version; (b) the extended edition that contains additional footage; and (c) the special edition that

contains the film in its original length, i.e., with further restored footage. Other films like *Jaws*, for example, have a "director's edition," where the film is accompanied by interviews given by the actors, director, and producer. Special and directors' editions are becoming especially popular in DVD titles, where the multi-media nature of this format allows for additional features (e.g., the addition of interactive games, translations into different languages, etc.). Film aficionados are particularly interested in the fuller editions of films. The bibliographic element of **edition** was thus used in this study.

4. Material specific details (AACR2)/Resource Type (DC)

Given the fact that films come in different physical formats, it is important that catalogue records provide this information. Is the film in DVD or VHS format? When it comes to DVD, is it of the Region 1 or Region 2 variety? Is the VHS in PAL or NTSC (National Television Standards Committee) format? These distinctions are important if these sites are to accommodate shoppers from different parts of the globe, since not all countries use the same format standards. NTSC, for example, is the standard format for VHS films in North America, as opposed to the PAL format used in Australia and Continental Europe. Since the sites selected for this study are those that cater primarily to North American customers, the catalogue records should indicate at the very least whether the films are in DVD or VHS format. This element is re-named as **Format** in this study. This element is rather different from the DC element *Format*, since the latter refers specifically to software and hardware requirements, which are not considered appropriate for describing either VHS or DVD films.

5. Publication, distribution, etc. (AACR2)/ Publisher/Date (DC)

Films are likely to be associated with a number of organisations that fulfil the roles of distributor, producers, etc. The question to be asked is the extent to which consumers are likely to want to know whether a film is produced and/or distributed by Alliance Atlantic, Columbia, Paramount, etc. The inclusion of publisher names in the catalogue records was not considered in this study, although there is certainly scope for further exploration into this area. On the other hand, the date of a film could be of importance, particularly if different versions of the same film have been made, e.g., *Psycho* (the original 1960 release vs. the 1998 remake). The element **date** was thus used in this study.

6. Physical description (AACR2)

There is no clear DC equivalent to this element. 'Traditional' catalogue records usually denote details such as the size of the videocassette or DVD, playing/running time, sound quality (e.g., digital stereo), and so forth. It is not clear the extent to which this level of detail would affect consumers' purchasing decisions, therefore this element was not included in this study. Once again, however, further study into

the importance of this element might prove worthwhile.

7. Series (AACR2)

AACR2 describes a series as (a) “a group of separate items related to one another by the fact that each item bears, in addition to its own title proper, a collective title applying to the group as a whole”, (b) “each of two or more volumes of essays, articles similar in character and issued in sequence” or (c) “a separately numbered sequence of volumes within a series or serial” (AACR2 1998, p. 622). Although there are several instances where films are released in series-like fashion, e.g., *Mad Max*, *The Road Warrior*, and *Mad Max III: Beyond Thunderdome*, and *Alien*, *Aliens*, *Alien³*, and *Alien Resurrection*, it is not entirely clear whether these films fit the AACR2 definition of series. Definition (b) comes arguably closest to describing the nature of these films, even though the films might have different producers, distributors, etc. Because of the uncertainties faced here, this element was not included in this study.

8. Notes (AACR2)/Description (DC)

In typical cataloguing practice, this AACR2 element is used to allow for the insertion of additional descriptive information that does not fit clearly into the other elements. The DC element allows for web site designers to write a short description of their sites' contents. As far as the film web sites are concerned, additional information that might be of use to consumers would be the film rating, the genre of the film (e.g., Action, Drama, and Science Fiction), a synopsis of the film's contents, and reviews of the film. The elements used in this study are therefore named **synopsis**, **reviews**, **rating**, and **genre**.

9. Standard number and terms of availability (AACR2)/Identifier (DC)

In AACR2, this element is used to provide ISBN (International Standard Book Numbers) numbers, for example, as well as pricing information, and so forth. None of the 50 web sites examined provides a serial number that stands as an equivalent to ISBN, therefore it is unclear how useful this information might be to consumers. These catalogue records do not have a URL per se, other than that of the parent web site, so the DC element of identifier would not seem to apply. On the other hand, the price of the film, together with its actual availability (e.g., an indication of whether it is in stock, is out of print, requires a special backorder, etc.) could be crucial in the decision-making process. The element **price** was therefore used in this study. Because the sites examined sell to both American and Canadian clients, the element of **currency** was used also, i.e., whether prices are in U.S. Dollars (USD) or Canadian Dollars (CAD). Other elements related to availability that were used in this study are **availability** (i.e., whether or not the film is in stock), and **delivery time**, where clients are told how long they will need to wait for delivery of the film(s) they ordered.

10. Subject/keywords (DC)

DC suggests that web site designers assign keywords to describe the contents of their sites. In the case of a film catalogue, it might be more useful to describe the genre of the film, e.g., action, science fiction, comedy, etc. In this way, clients can search for films that share common themes; conversely, clients might want to avoid buying films that belong to certain genres. The element **genre** was thus used in this study.

11. Language (DC)

This DC element refers to the language used in the construction of the intellectual contents of web sites. In the case of film catalogues, this element could be used to indicate the language of the film. A brief examination of the 50 online sites revealed that none of them mentions the language of the film other than through the synopsis. For this reason, this element was not used in this study. On a final note, the DC elements of **source**, **coverage**, and **rights management** were not found to apply very closely to films, thus were excluded from this study.

As can be seen, most of the AACR2 and DC elements can be applied to the creation of catalogue records for online video web sites. These elements thus formed the basis for the content analysis of the catalogue records of the 50 web sites. No attempt was made, however, to comment upon the particular order in which these elements appear in the records. While it would be very useful to the consumers if all video web sites arranged their catalogue records in the same way, emphasis has been placed upon information content, rather than arrangement.

The catalogue records were thus examined to evaluate the extent to which they contained the following types of information:

Area 1: Title Elements: Title; Variant Title

Area 2: Contributors Elements: Actor(s); Director(s)

Area 3: Edition Element: Version

Area 4: Format Element: Format

Area 5: Date Element: Date

Area 6: Description Elements: Rating; Genre; Synopsis; Review

Area 7: Terms of Availability Elements: Price; Currency; Availability; Delivery Time

A total of 15 elements of information would thus be contained in the "perfect" catalogue. The records for the following film titles were examined in all 50 web sites:

Aliens

Breach of Trust/Crash
Efficiency Expert/Spotswood
Frame by Frame/Conundrum
Mad Max 2/ The Road Warrior
Psycho (1960)/Psycho (1998)

Romper Stomper

Wizard of Oz

FINDINGS

Area 1: Title (see Appendix 1)

All 50 sites list the **title** of the film, but only 3 (6%) provide **variant titles**. In one case, the variant titles are not linked to the same catalogue record. In other words, the site contained two separate records for the titles *Efficiency Expert/Spotswood*, *Breach of Trust/Crash*, *Frame by Frame/Conundrum*, and *Mad Max 2/ The Road Warrior*, but failed to link the two records, even though they deal with the same film.

Area 2: Contributors (see Appendix 1)

40 sites (80%) include the names of **actors**, although of these sites, 11 list the name of only one actor. Given the importance of actors when it comes to the reputation and popularity of a film, it was anticipated that the percentage of sites that included the names of actors would be higher. Many people are interested in films because they feature certain actors; in fact, it is very likely that these people would choose to look for films via a search for actors and might even collect films that feature a particular actor.

28 sites (56%) include the name of the **director**. While it could be argued that consumers are more likely to be familiar with the names of actors, directors can be very well known (e.g., James Cameron), particularly if they are associated with a

particular genre of film. It is not inconceivable, for example, that a consumer might want to buy films directed by Hitchcock.

Area 3: Edition (see Appendix 1)

34 sites (68%) indicate the specific **version** or edition of the film (e.g., director's cut, collector's edition, etc.). In the sites that make no mention of edition, it is impossible to tell which version is being sold; for film experts, the running time of the film (if it is available) might indicate the version of the film, but one must question how many people would be able to make this distinction.

Area 4: Format (see Appendix 1)

36 sites (72%) indicate the **format** of the film (e.g., PAL, NTSC, DVD region 1, etc.). When one considers that the majority of the 50 sites ship films all over the world, this percentage should be considerably higher. It is possible that since all of the sites are North American, an assumption is made that consumers would be aware of the default formats used for VHS and DVD in that continent. While this might be true, it would be preferable to provide consumers with more comprehensive information, as it is quite possible that a consumer in the U.K. will be annoyed to find that his/her newly-purchased NTSC video cannot be played in his/her PAL video player.

Area 5: Date (see Appendix 2)

35 sites (70%) include the **date** of the film in their records. The issue of date can be problematic, since a film might have more than one date associated with it. The film *Rampage*, for example, was made in 1987, but was not released until 1992. Sometimes directors' cuts, for example, have a different date from the original release date. In this study, the occurrence of any date was noticed. The lack of a date might not always be problematical in distinguishing between remakes, e.g., *Psycho* (the original 1960 release vs. the 1998 remake), since there are other helpful clues, such as actors, directors, etc. On the other hand, it might be important for consumers to know when a film was made, as date could be a factor in deciding upon the currency of content, style, etc.

Area 6: Description (see Appendix 2)

31 sites (62%) provide the **rating** for the film. The 50 web sites examined are not catered to specific types of audiences; therefore one would expect a higher proportion to indicate the ratings of the films. The 19 sites that fail to include ratings could thus hinder the decision-making process, especially if a consumer is uncertain about the suitability of a film for an audience of non-adults. Even among adult viewers, a lack of film rating could be problematical. The film *Romper Stomper*, for example, comes in two ratings, restricted, and unrated; the restricted

version of the film has undergone some slight censorship, as it excludes particularly violent and/or sexual scenes. Someone interested in the unrated (i.e., the uncensored) version, for example, would be unable to tell which one was for sale without the provision of the film's rating.

Only 20 sites (40%) provide the **genre** of the film. This means, therefore, that a consumer might not know whether a film is an example of science fiction, drama, romance, action, and so forth. Certainly the title of the film and/or the names of the actors might provide some indication of the film's genre, but titles are not always indicative of content, and many actors tend to work in different genres. Some consumers might have a distinct preference for one genre and, conversely, an aversion to another, so the provision of genres might be an important asset to the decision-making process.

31 sites (62%) provide a **synopsis** of the film's content. There was no attempt to distinguish between the length and quality of these synopses. The synopsis might help the consumer gain a better understanding of the film's content and thus facilitate his/her decision to purchase the film. The synopsis could be particularly important in those web sites that do not provide the genre(s) of the film, since the synopsis can indicate this genre. The web sites that provide synopses acquire them from a variety of sources: some are taken directly from the containers of the videocassettes or the DVD (i.e., the equivalent of the "publisher's blurb"); others are written by staff members of the video web site; others are culled from the entertainment sections of newspapers. This means, of course, that the quality and length of the synopses can vary significantly.

14 sites (28%) provide written **reviews** of the film. Film reviews can often be a determining factor in whether one chooses to watch a film, let alone buy it, so one would expect that more web sites would provide this type of information. On the other hand, it is possible that a web site might be reluctant to provide negative reviews of films, since this might affect its ability to sell these products. Furthermore, the quality of the reviews varies significantly. As was the case with the synopses, some reviews are written by the web site staff, while others by professional film reviewers. Because a review is critical rather than descriptive, the qualifications of the reviewers can impact greatly upon the quality and objectivity of the review. One might question, therefore, the qualifications of the video web staff that enable them to write film reviews. To muddy further the waters, some web sites provide reviews written by people who have purchased the film previously from the web site; once again, therefore, the thoroughness and quality of the reviews might be questionable.

Area 7: Terms of availability (see Appendix 3)

Not surprisingly, all 50 sites provide the purchase **price** of the film; one would be hard put to imagine a situation where a consumer would purchase a product without

knowing its price. Of these 50 sites, however, only 24 (48%) indicate the **currency** of these prices, i.e., whether prices are in U.S. (USD) or Canadian dollars (CAD). It could be argued, perhaps, that the geographic location of the web site should be enough to indicate whether prices are in USD or CAD. Some web sites, however, do not provide the address of the company; therefore it might not always be clear whether a company is American or Canadian. Furthermore, geographic location might not necessarily be related to currency. Videoflicks, for example, is a Canadian company located in Toronto; the prices of its films, however, are in USD, even if films are purchased by Canadians and shipped within Canada.

Only 25 sites (50%) indicate the **availability** of film titles. In other words, only half of the sites indicate whether a film is available for purchase, is out-of-stock, out-of-print, or on backorder. It might be easy to assume that if a web site advertises a film that it must be available for purchase; sadly, this is often not the case. On several occasions, I have placed an order for a film, only to be told via e-mail that the film was out-of-stock or out-of-print; I would have very much appreciated knowing this before I placed the order. Some of the 25 sites that do provide information about film availability go so far as to specify exactly how many copies of the film are available; one hopes, of course, that this information is current.

18 sites (36%) indicate the estimated **delivery time** for the films; in other words, they indicate whether a film will be shipped within 24 hours, 2-3 days, 7 days, and so forth. This information could be of potential importance to people who are purchasing the film as a gift or who need to arrange to be in a specific location to receive the film from the shipping agent.

SUMMARY OF FINDINGS

Only one web site, Borders, includes all 15 units of information in its catalogue records. Six web sites contain 14 units of information: Amazon, Movies Unlimited, Tower Records, Video Biz, Video Universe, and Video Varieties. Three of these sites do not provide variant titles, two do not provide film reviews, and one lacks currency (i.e., USD or CAD) information. The web sites with the poorest records are Cinema Classics, Gemini Enterprises, 1st Video, Sam's Entertainment, Vidconn, and Videolady. These six sites include only 3 units of information in their catalogue records: price and title are common to all six, while two include currency, two include format, one includes actor names, and one includes the film version. Areas 1-4 contain a total of six units of information; the average number of units contained by the 50 web sites is 3.86. Areas 5-6 contain a total of five units of information; the average number of units contained by the 50 web sites is 2.62. Area 7 contains a total of four units of information; the average number of units contained by the 50 web sites is 2.4. On average, the total number of units of information contained per web site is 8.88, which means that on average, the catalogue records contain only 59% of the required information as specified in this

study. The most frequently-used units of information are title (100%), price (100%), actor (80%), and format (72%). The least-used units of information are variant title (6%), reviews (28%), and delivery time (36%).

CONCLUSIONS

An examination of the contents of the catalogue records of the 50 video web sites indicates that on average, these records do not provide consumers with the *perfect information* needed to help them make a fully-informed and rational purchasing decision. The only elements of information the consumer can be assured of finding are the title and purchase price of the videos. Far from enabling Internet consumers to perform the same functions they would carry out in mortar-and-brick stores, many of these 50 web sites can serve to confuse consumers as to the true nature and quality of the products available for purchase. Many of the products sold on these web sites are available quite readily from mortar-and-brick stores, only without the added burden of shipping/delivery prices peculiar to B2C sites. Perhaps the greatest attractions of online shopping are its speed and convenience; on the other hand, however, these putative attractions can pall greatly if consumers waste time trying to find the product information they need.

The creation of information-rich online catalogue records is not an onerous task. As has been seen, a combination of AACR2 and DC elements provides an excellent model upon which such records may be fashioned. If, as has been suggested above, 48% of failed B2C transactions occur because consumers could not find the information they needed, the extra effort needed to create rigorous catalogue records seems to be an excellent investment of time and resources.

APPENDIX 1: AREAS 1-4

	TITLE	V. TITLE	ACTOR	DIRECTOR	VERSION	FORMAT
2020	Yes	No	Yes	No	Yes	Yes
Aardvark	Yes	No	Yes	No	No	No
Alltime Video	Yes	No	Yes	No	No	No
Amazon	Yes	No	Yes	Yes	Yes	Yes
AMR Videos	Yes	No	Yes	Yes	Yes	Yes
Bigstar	Yes	No	Yes	Yes	Yes	Yes
Blockbuster	Yes	No	Yes	Yes	Yes	Yes
Blowout Video	Yes	No	Yes	Yes	Yes	Yes
Borders	Yes	Yes	Yes	Yes	Yes	Yes
Buy Videos	Yes	Yes	Yes	No	Yes	Yes
CD Now	Yes	No	Yes	Yes	Yes	Yes
CD World	Yes	No	Yes	Yes	Yes	Yes
Chapters	Yes	No	Yes	Yes	No	Yes
Checkout	Yes	No	Yes	Yes	No	No
Cinema Classics	Yes	No	No	No	No	No
Critics Choice	Yes	No	Yes	No	Yes	Yes

	TITLE	V. TITLE	ACTOR	DIRECTOR	VERSION	FORMAT
Discgallery	Yes	No	Yes	No	No	Yes
Dove Stores	Yes	No	Yes	No	Yes	Yes
DVD Express	Yes	Yes	Yes	Yes	Yes	Yes
Eureka Movies	Yes	No	Yes	No	No	No
Film International	Yes	No	Yes	Yes	Yes	Yes
Film Worldwide	Yes	No	Yes	Yes	Yes	Yes
Gemini Enterprises	Yes	No	Yes	No	No	No
1ST Video	Yes	No	No	No	No	No
MGM Homevideo	Yes	No	Yes	No	Yes	Yes
Movie Gallery	Yes	No	Yes	Yes	Yes	Yes
Movies and More	Yes	No	Yes	No	No	No
Movies Unlimited	Yes	Yes	Yes	Yes	Yes	Yes
Muzic Depot	Yes	No	No	No	Yes	Yes
Nostalgia Family Video	Yes	No	Yes	No	No	Yes
Red Rob	Yes	No	Yes	Yes	No	Yes
Reel.com	Yes	No	Yes	Yes	Yes	Yes
ReRunner	Yes	No	No	No	No	No
Roberts	Yes	No	No	No	Yes	Yes
Rocket Video	Yes	No	Yes	Yes	Yes	Yes
Sam's Entertainment	Yes	No	No	No	Yes	No
Samsco.com	Yes	No	No	Yes	Yes	Yes
TLA Video	Yes	No	Yes	Yes	Yes	Yes
Total E	Yes	No	Yes	Yes	Yes	Yes
Tower Records	Yes	No	Yes	Yes	Yes	Yes
TWEC.Com	Yes	No	Yes	Yes	Yes	Yes
Vidconn	Yes	No	No	No	No	Yes
Video Biz	Yes	Yes	Yes	Yes	Yes	Yes
Video Collection	Yes	No	Yes	No	No	Yes
Video Den	Yes	Yes	Yes	Yes	No	Yes
Video Universe	Yes	No	Yes	Yes	Yes	Yes
Video Varieties	Yes	Yes	Yes	Yes	Yes	Yes
Videoflicks	Yes	No	Yes	Yes	Yes	Yes
Videolady	Yes	No	No	No	No	Yes
WTF Video	Yes	No	No	No	Yes	Yes

APPENDIX 2: AREAS 5-6

	DATE	RATING	GENRE	SYNOPSIS	REVIEW
2020	Yes	Yes	No	No	No
Aardvark	No	No	No	No	No
Alltime Video	Yes	No	No	No	No
Amazon	Yes	Yes	Yes	Yes	Yes
AMR Videos	Yes	No	Yes	No	No
Bigstar	Yes	Yes	Yes	Yes	No
Blockbuster	Yes	Yes	No	Yes	Yes

	DATE	RATING	GENRE	SYNOPSIS	REVIEW
Blowout Video	Yes	Yes	Yes	Yes	No
Borders	Yes	Yes	Yes	Yes	Yes
Buy Videos	Yes	No	No	Yes	Yes
CD Now	Yes	Yes	No	Yes	No
CD World	Yes	Yes	Yes	Yes	No
Chapters	Yes	Yes	No	Yes	Yes
Checkout	Yes	Yes	Yes	Yes	Yes
Cinema Classics	No	No	No	No	No
Critics Choice	Yes	Yes	No	Yes	Yes
Discgallery	No	No	No	Yes	No
Dove Stores	Yes	Yes	No	No	No
DVD Express	Yes	Yes	No	Yes	Yes
Eureka Movies	No	No	No	Yes	Yes
Film International	Yes	Yes	Yes	Yes	No
Film Worldwide	Yes	Yes	Yes	Yes	No
Gemini Enterprises	No	No	No	No	No
1ST Video	No	No	No	No	No
MGM Homevideo	Yes	Yes	Yes	No	No
Movie Gallery	Yes	Yes	No	Yes	Yes
Movies and More	No	No	Yes	No	No
Movies Unlimited	Yes	Yes	Yes	Yes	No
Muzic Depot	Yes	Yes	No	No	No
Nostalgia Family Video	Yes	No	No	Yes	No
Red Rob	Yes	Yes	Yes	Yes	No
Reel.com	Yes	Yes	Yes	Yes	No
ReRunner	No	Yes	No	No	No
Roberts	No	No	No	No	No
Rocket Video	Yes	Yes	Yes	Yes	No
Sam's Entertainment	No	No	No	No	No
Samscd.com	No	No	No	No	No
TLA Video	Yes	No	No	Yes	No
Total E	Yes	Yes	No	Yes	No
Tower Records	Yes	Yes	Yes	Yes	Yes
TWEC.Com	Yes	Yes	No	Yes	No
Vidconn	No	No	No	No	No
Video Biz	Yes	Yes	Yes	Yes	No
Video Collection	No	No	No	Yes	No
Video Den	Yes	Yes	No	No	No
Video Universe	Yes	Yes	Yes	Yes	Yes
Video Varieties	Yes	Yes	Yes	Yes	Yes
Videoflicks	Yes	Yes	Yes	Yes	Yes
Videolady	No	No	No	No	No
WTF Video	No	No	No	No	No

APPENDIX 3: AREA 7

	PRICE	CURRENCY	AVAILABILITY	DELIVERY TIME
2020	Yes	Yes	No	No

	PRICE	CURRENCY	AVAILABILITY	DELIVERY TIME
Aardvark	Yes	No	Yes	No
Alltime Video	Yes	No	No	No
Amazon	Yes	Yes	Yes	Yes
AMR Videos	Yes	No	No	No
Bigstar	Yes	No	Yes	Yes
Blockbuster	Yes	No	Yes	No
Blowout Video	Yes	No	Yes	No
Borders	Yes	Yes	Yes	Yes
Buy Videos	Yes	Yes	Yes	Yes
CD Now	Yes	Yes	No	No
CD World	Yes	Yes	Yes	No
Chapters	Yes	Yes	Yes	Yes
Checkout	Yes	No	No	No
Cinema Classics	Yes	Yes	No	No
Critics Choice	Yes	No	No	No
Discgallery	Yes	Yes	No	No
Dove Stores	Yes	No	No	No
DVD Express	Yes	No	Yes	Yes
Eureka Movies	Yes	Yes	Yes	No
Film International	Yes	No	Yes	Yes
Film Worldwide	Yes	No	No	No
Gemini Enterprises	Yes	No	No	No
IST Video	Yes	Yes	No	No
MGM Homevideo	Yes	No	Yes	No
Movie Gallery	Yes	Yes	Yes	Yes
Movies and More	Yes	No	Yes	Yes
Movies Unlimited	Yes	Yes	Yes	Yes
Muzic Depot	Yes	Yes	Yes	Yes
Nostalgia Family Video	Yes	Yes	No	No
Red Rob	Yes	No	No	No
Reel.com	Yes	Yes	Yes	Yes
ReRunner	Yes	No	Yes	No
Roberts	Yes	Yes	No	No
Rocket Video	Yes	No	No	No
Sam's Entertainment	Yes	No	No	No
Samscd.com	Yes	Yes	Yes	Yes
TLA Video	Yes	Yes	No	No
Total E	Yes	No	Yes	Yes
Tower Records	Yes	Yes	Yes	Yes
TWEC.Com	Yes	Yes	No	No
Vidconn	Yes	No	No	No
Video Biz	Yes	Yes	Yes	Yes
Video Collection	Yes	No	No	No
Video Den	Yes	No	No	No
Video Universe	Yes	Yes	Yes	Yes
Video Varieties	Yes	No	Yes	Yes
Videoflicks	Yes	Yes	Yes	No

	PRICE	CURRENCY	AVAILABILITY	DELIVERY TIME
Videolady	Yes	No	No	No
WTF Video	Yes	No	No	No

REFERENCES

- ActivMedia Research 2000. *Real numbers behind online business-to-consumer vendors 2000*. [Online]. Available from the World Wide Web: http://www.activmediaresearch.com/business-to-consumer_2000.html
- American Library Association, *Anglo-American cataloguing rules second edition 1998 Revision*. Chicago: American Library Association.
- Anthes, Gary H. 1999. The quest for e-quality, *Computerworld* 33(50): 46-47.
- Boston Consulting Group. 2000. *Winning the online consumer: insights into online consumer behavior*. [Online]. Available from the World Wide Web: http://www.bcg.com/new_ideas/new_ideas_subpage4.asp
- DCMI. 2001a. *Dublin Core metadata initiative*. [Online]. Available from the World Wide Web: <http://dublincore.org/>
- DCMI. 2001b. *Dublin Core metadata element set, version 1.1: reference description*. [Online]. Available from the World Wide Web: <http://dublincore.org/documents/dces/>
- Hoque, Abeer Y. & Lohse, Gerald L. 1999. An information search cost perspective for designing interfaces for electronic commerce. *Journal of marketing research*, 36(3): 387-394.
- Rozgus, Amara. 2000. The joys and sorrows of buying online. *Research & development*, 42(4):E4-E5.
- Soon-Yong, Choi. Stahl, Dale O. & Whinston, Andrew B. 1997, *The economics of electronic Commerce*. Indianapolis: Macmillan Technical Publishing.
- Spiteri, Louise F. 2000 Access to electronic commerce sites on the World Wide Web: an analysis of the effectiveness of six Internet search engines. *Journal of information science*, 26(3): 173-184.
- Taylor, Arlene G. 2000. *Wynar's introduction to cataloging and classification*. Englewood, CO: Libraries Unlimited, Englewood.
- Wigand, Rolf T. 1997. Electronic commerce: definition, theory, and context. *The information society*, 13(1): 1-16.