

Fingal County Libraries: The User's Perception of a Next Generation Library Catalogue

A Case Study based on the recent deployment of Encore, the public library's national catalogue

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Abstract

This study explores the perception of borrowers from Fingal County Libraries of Encore, a next generation library catalogue. Fingal County Libraries is a public service library and for generations, public libraries have provided a free, democratic and universal service. With a diverse target audience, public libraries strive to improve and enhance the wellbeing of all members of the community. It is envisaged that Encore would provide significant benefits to the public, allowing access to library collections in one easy search. Therefore, it is important to understand what the user perceptions are of this indispensable discovery tool which acts as a gateway to information for Fingal borrowers.

This research was conducted by adopting a qualitative research approach. The researcher was concerned with obtaining an in-depth understanding of this contemporary phenomenon rather than a measurement of it. The study aimed to get below the surface, to achieve a deeper and more insightful response by interviewing users via focus groups. Members of the Project team, responsible for managing the deployment of the new catalogue were also interviewed.

Overall it appears that users like Encore, the next generation library catalogue. This was displayed by positive feelings from the user about the new discovery tool and from the fact that user's logon regularly to search and reserve library resources, with some users logging on every day. For the most part, they found the system intuitive to use and visually appealing. However, they raised a number of concerns around the descriptive information of library resources. It became very clear from the beginning that users would like to see more detailed, consistent and accurate information when searching for a library resource in the library catalogue. Conducive to a next generation system, Encore provides a range of searching technologies to enhance the search and discovery experience however, users were not inclined to use advanced search or faceted navigation to assist in the refinement of their searches. When users were asked about relevancy ranking and if they had experienced a higher success rate in their search for library items. Users expressed frustrations with the amount of returned results, feeling there was too much data on the screen. One of the insightful findings from the research study resulted in how users of the library service valued the relationship and interaction with library staff. As much as they liked the next generation catalogue, they would not like it to replace the librarian, in fact, they feel the two combined, compliment the library service provided. Finally, one of the sought after features from users was social interaction such as book reviews, star ratings. These features are available on Encore however they are currently not enabled for Fingal County borrowers.

In terms of features and functionality, there is no doubt that Innovative Interfaces can meet the needs of web savvy library users through their discovery tool, Encore. However, it is clear, due to the enormity of this particular deployment, that focus on the end user experience was neglected. Essentially, a stronger emphasis was placed on implementing the new Library Management System as a whole and Encore was just one component of that. With pressures on the public library service to be cost effective, it was necessary for contractual reasons to rollout the software within a tight timeframe. Unfortunately, Encore got lost in the deployment and this goes to explain why “desirable” features and functionality, as identified by users in the focus groups, were omitted.

Chapter 1: Introduction

“Opportunities for All”, the strategic plan for public libraries in Ireland, has taken the Irish public library service in a new and ambitious direction. The 2013 to 2017 strategy was constructed around seven progressive strategic programmes. Each programme contains a number of strategic aims and recommended actions which will transform Ireland’s public libraries into a leading edge 21st century exemplar. One of the key recommendations proposed in the innovative strategy is a shared information communication technology (ICT). A single national library management system (LMS) was proposed which would result in a national catalogue and database of resources giving every citizen in Ireland access to all collections (Department of the Environment, Community and Local Government, 2013, p.3-5). In June 2015, the new LMS was deployed by Innovative Interfaces, an established leader in library technology and developer of next generation library systems. Next generation library systems are a new era of library automated systems and were developed in response to the rapid evolving internet world and Web 2.0 technologies (Breeding, 2007, p.5). Fingal County Libraries was one of six selected local authorities to pilot the deployment of the national LMS in June 2015 (LGMA, 2013, p.1).

The public libraries strategy is a joint initiative of the Department of the Environment, Community and Local Government, the County and City Managers’ Association (CCNA) and the Local Government Management Agency (LGMA) (Department of the Environment, Community and Local Government, 2013, p.3-5). The Department of the Environment, Community and Local Government (the Department) has a large and wide-ranging role with responsibility for various and distinct areas in Ireland. The Department provides the framework and the necessary supports needed to build a society that enables Citizens to live fulfilling lives in a safe, sustainable and environmentally friendly manner. The Department supports local government in its role of promoting the wellbeing and quality of life of citizens and communities through the delivery of local services. This is achieved through the efficient performance of functions and the delivery of good-value services at local level. The provision of the nation’s public library service is one of those valued services (Department of the Environment, Community and Local Government, 2016).

With oversight from central government, Local Government has run the public library service in Ireland for over 160 years’ services (Department of the Environment, Community and Local Government, 2013, p.3). The Public Libraries Ireland Act of 1855, is the legal foundation for public libraries in Ireland and the act has empowered local authorities with the responsibility to provide a library service to its Citizens. The current Local Government Act, 2001 provides legislation governing public libraries today. Public Libraries in Ireland has a network of 336 branch libraries and 31.5 mobile libraries across the country (Department of the Environment, Community and Local Government, 2013.p.4). They are currently managed by 32 separate library authorities and €131.6 million was

spent on library services in 2011 (Department of the Environment, Community and Local Government, 2013, p.4). With over 17 million visits made to public libraries each year, the library service provides a wide range of virtual and physical services to a diverse spectrum of users (Department of the Environment, Community and Local Government, 2013, p.4).

For generations, public libraries have provided a free, democratic and universal service. With a diverse target audience, Public Libraries strives to improve and enhance the wellbeing of all members of the community. As a learning hub it supports literacy and lifelong learning, often filling the gaps in formal education. As a social hub it can tackle isolation by providing services to the most vulnerable. It is a community hub, providing information about services, volunteering, and environmental awareness. As a cultural hub it promotes literature and provides free creative spaces for artists, writers, musicians and computer programmers. And it is an economic hub, encouraging enterprise by giving support to small businesses and providing free creative working spaces. And it supports digital skills by providing access to computers, WIFI and online learning classes (Fingal County Council, 2014).

Shortly after the publication of the public libraries strategy plan, Innovative Interfaces, a leading provider of library technology, was contracted by the Irish government to deploy the new LMS for public libraries in Ireland. With over 38 years' experience, the company's software is used by a variety of different libraries, including academic, public, medical, law and special libraries (Innovative Interfaces, 2016). Encore is one of Innovative Interfaces key products and in September 2014, was installed at 1,794 libraries, across 3912 facilities worldwide (Innovative Interfaces, 2016). Encore Discovery Solution, is the name of the new national library catalogue and the interface for library borrowers and is the new way to search library resources in Fingal County Libraries. The new catalogue is also described as a next generation catalogue, considered to be a sophisticated finding tool which provides a systematic listing of books and materials with descriptive information about each library item. With a web based interface, Encore can be accessed anywhere and at any time. In comparison to its predecessor, it will provide the public with some additional and beneficial features such as single search results, relevance ranking, faceted search and spelling correction. According to Wang & Dawes (2012, p.36), Encore is placed as a new discovery and services platform.

Alan Kelly, the minister from the Department of the Environment, Community and Local Government, described this new initiative as ground-breaking and the first of its kind in Europe. For public library borrowers, it will mean access to all public library collections via one single national catalogue. Next generation catalogue is becoming the current catalog of choice according to Marshall Breeding (2007, p.5). Breeding goes on to explain that the next generation catalogue not only signifies the latest advances in Library Catalogues technology but it has the "ability to transcend some aspect of the traditional mold of library catalogs" (Breeding, 2007, pp. 5-6).

Chapter 2: Research Question

The new national catalogue is a government initiative developed to enhance the experience and service of library borrowers. With over €131.6m spent on Library Services in 2011 (Department of the Environment, Community and Local Government, 2013, p.4), it is anticipated that this ground breaking initiative will provide significant benefits to library borrowers, allowing access to library collections, resources and digital content of all public libraries in one easy search. The objective of a third generation library catalogue is to entice borrowers, novice and expert, to use the catalogue by making the experience similar to popular commercial and social media websites.

Therefore, it is important to understand what the user perceptions are of this indispensable information retrieval tool which acts as a gateway to the library resources of the Irish public library service. To date and as verified by the Project team responsible for deploying Encore, user evaluation has not been conducted to assess the users experience and viewpoint of Encore. It was confirmed that neither the department of the environment, community and local government, LGMA or individual local authority libraries have conducted any research of this nature. Outside of Ireland, the literature on next generation catalogues was wide ranging and consisted of an evaluation and comparison of discovery tools, comparing search behavior between the classic catalogue and the next generation catalogue, the achievements of open source development towards the next generation catalogue. With no comprehensive studies found, particularly in the Irish context, my research study aims to address this gap and investigate this phenomenon in a public library environment, exploring the perceptions of Fingal County Library users specifically as they come to grips with this seemingly sophisticated searching tool.

The findings from this study will be of interest to all invested parties including Fingal County Libraries and the remaining library authorities who participated in the pilot in June 2015. The study will also benefit the remaining library authorities who will deploy the new LMS, including Encore, over the next year.

Research Question:

What is the perception of the next generation library catalogue amongst the Library Borrowers of Fingal County Libraries?

Chapter 3: Literature Review

3.1. Introduction

According to Bryman (2012, p.8), the literature review demonstrates an understanding of a field of study incorporating the key theories, concepts and ideas. By addressing the major issues and debates, it enhances the knowledge of the topic further by assisting in the clarification of the research question – what new insights will this study reveal to the library community and the general public. The literature review will critically analyse previous research which can be divided into two categories: primary and secondary. Primary literature includes published sources such as central government publications such as “Opportunities for All” and the eTender document, advertising the supply & implementation of the national Library Management System. Secondary literature sources include library related books, journals and conferences (Saunders, Lewis and Thornhill, 2009, pp.70-90).

The concepts discussed in the literature review will include the role of the library catalogue, its objectives and functions and how the catalogue has evolved since its inception. It will explore the relationship the user has with the library catalogue and examine Encore in depth and all that it can offer. The literature review will define what a next generation catalogue is and identify any current issues or concerns. And finally, through the literature, we will understand the importance of content in a library catalogue, in the form of descriptive metadata of library resources.

3.2. Purpose of a Library Catalogue

Taylor and Miller (2006, p.6) describe the Library Catalogue as “an organised set of bibliographic records that represent the holdings of a particular collection and/or resources accessible in a particular location”. To elaborate further, Hildreth (1994, p.84) describes library Catalogues as an information management and retrieval system, comprising of surrogate records which represent the holdings or information resources of a library. As defined by Taylor and Joudrey (2009, p.4), bibliographic records, sometimes called surrogate records describe the characteristics of an information resource, “an instance of recorded information, essentially a library item be it a book, article, CD, DVD, internet document, etc.

According to Denton (2007, pp.36-37) the history of catalogues stems back as far as 4000 years ago. In Sumerian and Babylonian times, inventories of books appeared on stone tablets. As centuries past, the library catalogue evolved and existed in a variety of physical forms such as unique manuscripts. However, it wasn't until printing was invented in the fifteenth century, as Taylor and Joudrey (2009, pp.67-72) reveal, that the book catalogue and the role of the bibliographer was born.

As noted by Taylor and Joudrey (2009, pp.67-72), as a result of the high cost of printing, the printed book catalogue was replaced by a more economical option in the early 1900s, the card catalogue. In the 1960's microform catalogues replaced card catalogues and the online public access catalogues (OPAC) has become the most prevalent catalogue today. Hildreth (1994, p.85), explains that the OPAC initially emulated the card catalogue however through technological advancements, the OPAC has evolved and has become a sophisticated searching tool. Supported by a range of automated services and in line with users demands in an online environment, the OPAC has added functionality allowing users to perform various additional tasks. As observed by Taylor and Joudrey (2009, pp.166-69), users can now place a reserve on an information resource and choose the destination of pickup. There are personalised logons with security authentication allowing users to logon to their personalised library account. The OPAC is available remotely and can be accessed 24 hours, 7 days a week and it can provide further information on an information resource such as circulation status, location, year of publication, format.

According to Denton (2007, pp.39-40), in 1904, Charles Cutter, an eminent Librarian in the middle 19th Century outlined the purpose of a Catalogue in his Rules for a Dictionary Catlog. In this document, Cutter describes the functions of a Library Catalogue which are ultimately to identify, collocate and evaluate library materials. By this, Cutter (1904, p.12) explains that users of the Catalogue should be able to identify or locate their desired item in a Catalogue. Following the users search, the Catalogue should bring together similar or related materials together, allowing the user to select and evaluate from a list of related records, the library item which best represent their needs.

Undeniably, a lot has changed in the Cataloguing world since Cutter's Rules for a Dictionary Catalog, however the foundations still very much exist today and are reflected and developed further in the Paris Principles, produced by the International Federation of Library Associations and Institutions (IFLA) (Denton, (2007, p.47). The International Federation of Library Associations and Institutions (IFLA) is an independent, international body who represent information and Library professionals in promoting the delivery of high quality library and information services (IFLA, 2015). IFLA has established a set of international cataloguing principles outlining the objectives and functions of a Library Catalogue, echoing Charles Cutter views. IFLA sees the Library Catalogue as an efficient tool enabling the User to (IFLA, 2009, pp.3-4):

- find library resources in a real or virtual collection as the result of a search
- identify the library resource
- select the library resource that is appropriate to their needs
- acquire access to the described library resource
- navigate the catalogue with ease

OPAC's today are very much customised according to the needs of the Library however there can be frustrations amongst Library staff over loss of control over the display of catalogued records. Library systems are designed by programmers in library software companies such as Innovative Interface who have very little knowledge of the complexities of cataloguing. Taylor and Miller (2009, pp.9-11) address the importance of usability of the OPAC to the User. Ultimately, the catalogue should be easy to use otherwise it will be ineffectual and a wasted resource for an organisation however Tennant (2007, p.6), in his article on the demise of the Catalogue questions the future of the catalogue. He makes the point that one interface should exist which will search for all resources within a library.

3.3. UX, the User Experience

According to Kinstler, (2013, p.18) libraries are under pressure from users to provide sophisticated Library Catalogues on par with popular web interfaces such as Amazon and TripAdvisor. The Online Computer Library Center (OCLC) produced a report in 2009, titled "Online Catalogs: what users and librarians want". In the report, it specified the need for change in the design of OPACs so to meet user's expectations. Otherwise libraries are at risk of losing borrowers to more sophisticated models which offer enhanced functionality based on features of popular search engines (Calhoun, 2009, p.2). The main findings from the OCLC report produced the following most wanted features, as viewed by catalogue users:

- Users would like to see correct, relevant and trustworthy data in the catalogue. Users consider obtaining a library resource as important as finding a library resource
- More enhanced descriptive information to assist in selecting the most relevant library item for their needs
- Results that are relevant to their information needs
- Facility to complete an advanced search with field searching. Field searching allows the user to inform the database exactly where they want the keyword to be found i.e. title, author, subject field
- Faceted searching so to refine and reduce their search
- Easier access to online content from the library catalogue

(OCLC, 2009, pp. 11 -12)

Breeding (2007, pp.5-7) addresses some of the deficiencies of legacy catalogue systems such as complicated search interfaces, no facility to interact socially with the User, no relevance ranking feature and no enriched content. The biggest failing of all is the inability to search all items in a Library Collection. Currently, books and multimedia materials can be searched in the Library

Catalogue using the OPAC however eBooks, eMagazines and eNewspapers are managed by different vendors and require separate logins for each component, making it a cumbersome and time consuming process for the user. In contrast to outlining the failings of legacy Library Catalogues, Breeding does acknowledge some of the more attractive and beneficial features such as personalised login and the facility to reserve library items.

In 2010, the OCLC produced another report titled "Perception of Libraries, 2010: Context and Community". In this report it examined the perception of today's information consumer. 84% of information consumers commence their search for information on a search engine, 3% begin on Wikipedia and no respondents in the survey commenced their search for information on a library Web site. Respondents deem search engines and the physical library as credible sources of information, in particular search engines are favoured because of the convenience and speed. Information consumers feel they are very competent at finding information online. They consider themselves to be independent searchers and have the confidence to determine if the information they have found is reliable yet, respect and appreciation still remains for the trusted Librarian remains (OCLC, 2010, p.32).

3.4. Three Generations of Library Catalogues

Hildreth (1994, pp.84-87) discusses the progression of the Online Public Access Catalogue (OPAC) and the significance of recent technological developments. Each generation has its own unique features and functionality and efforts have been made to improve and enhance the information retrieval system over the last number of years. Taylor and Joudrey (2009, pp.166-167) note that a considerable amount of system design research has been invested in the OPAC, with each evolution being described by the library community, as "generations".

The first-generation was a stand-alone catalogue developed in the early 1980s with no user manipulation available. Resembling the card catalogue, searching was restricted to two fields or elements, "author" and "title" and searches were limited to left-anchored searching, the catalogue would search the first word on the left. The first-generation did not facilitate browsing, key word searching and worked only if the exact title was known to the user. With no internet access, users of the catalogue had to be in the library in order to avail of the catalogue. A much improved OPAC followed in the late 1980s, and arrived in the form of a second generation catalogue which included the entire contents of a record and the facility to keyword search using Boolean operators. It resembled a web interface and borrowers could now access the catalogue remotely.

According to Yang and Hofmann (2010, p.141), the third generation library catalogue, also referred to as Library 2.0 catalogue, is the latest retrieval system which is more representative of user's

information seeking behaviour. It combines second-generation functionality with some new features as outlined by Yang and Hofmann (2010, pp. 141-150) including:

- a simple search box with an advanced search option
- natural language query
- faceted navigation which will reduce your search by category
- enriched content such as images of book jackets
- user driven contribution such as reviews on library materials
- mobile compatible

The next generation system is constantly expanding the possibilities of the library catalogue by harvesting content from other resources through federated searching (Breeding, 2009, pp.23-27) Many of the features and functionality of third generation systems are to make the system more user friendly and appealing. As noted by Ballard (2011 pp.261-273), the third generation catalogue or Catalogue 2.0 is now inviting user participation and contributions.

Wisniewski, (2009, p.56), identifies one of the challenges with third generation library systems which is the ability to accomplish interoperability with third party products such as RFID self-service machines, PC reservation system, Wi-Fi, managed print solutions, SMS service. According to Taylor and Joudrey (2009, p.95), achieving interoperability assists in reducing the loss of information.

Wang and Dawes (2012, p.77), addresses the open-source movement, which is software that can be used, altered and shared by anyone for free. It is a global non-profit initiative which champions software freedom in society through education, collaboration, and infrastructure. This is a prominent trend in library technology with products such as Koha and Evergreen entering the market and providing a competitive threat to commercial proprietary companies such as Innovative Interfaces. As noted by Yang and Hofmann (2010, p.141), library staff have greeted this new movement, seeing it as an opportunity to develop the next generation catalogue further as competition intensifies.

As argued by Brown-Sica, Beall and McHale (2010, pp.214-222), the enhanced features and functionality of a next generation catalogue, has raised the problem of delayed response time as users search the library catalogue. With the assistance of Web 2.0 features, users can create reading lists, tags, book reviews and with enriched data such as book cover images. With the abundance of data, so too has the traffic of this additional data across the web, resulting in slow response times for users.

3.5. Encore

The first version of Encore was released by Innovative Interfaces in 2007. According to Marshall Breeding's, (2008, pp. 23-27), a popular contributor on library technologies, Innovative Interfaces approached the development of Encore in a very non-traditional manner. Responding to user's expectations, Encore designed and developed the next generation library interface by building it on new technologies reflective of a rapidly developing web environment. Currently on version 4.5 which was released in 2016, each release of Encore adds new features, many of which are very much focused on giving more control to the user (Innovative Interfaces, 2016).

Encore brings together resource discovery and social interaction to help borrowers obtain the information they need. The next generation catalogue, begins with a familiar keyword or phrase search, enables intuitive refinement of the search results, and provides opportunities for borrower's input if the borrower so wishes. The refined searching tool serves as an integrated starting point for easy access to a library's local collections, remote resources, enriched content, and community participation tools.

The discovery tools in Encore include features similar to search engines such as Amazon, commercial web sites and social networking sites. Some of main features include:

A single search box

The single search box enables the user to apply familiar web searching techniques to discover library resources. The discovery process begins with a keyword or phrase search as opposed to using the controlled vocabulary – a database of terms. The user can enter an author's name, an item's title, or keywords describing a subject. If the user wants to search for an exact phrase, they can enclose the phrase in quotation marks. Encore returns a list of all the library resources that match the search terms. The single search box remains on screen, inviting the user to continue searching throughout their session, Breeding (2008, pp.23-27).

Faceted browsing

The features and functionality in Encore provide numerous ways to refine a given search. Taylor and Joudrey (2009, p.174) describe faceted browsing as allowing the user to explore and discover library content by selecting and using multiple facets. Facets reflect certain aspects of the data and groups information into relevant categories i.e. format, availability, language, publish date.

The number of items that appear in each facet appear in brackets. Facets use fields from the metadata schema MARC record (Fagan, 2010, pp.58 –66). Innovative Interfaces claim Encore is particularly powerful when the user begins with a broad search and need to refine the results.

Relevance Ranking – Right Result

Relevance ranking brings the most relevant search results at the top of the results display. Search results appear grouped by RightResult relevance to provide quick access to the most useful resources. According to Breeding (2008, pp. 23 - 27), RightResult is a relevancy ranking technology developed by Innovative Interfaces specifically for ranking library data. The user can switch between a RightResult view and an ungrouped view, sorted by date or title, using the sort options provided at the top of the result screen. RightResult weights resources based on where the search term appears in the record data and assesses other factors such as the type of material and similar terms. The User has the ability to re-sort a result list by Title or Date (Innovative Interfaces, 2016).

Social Features

Traditionally, libraries have collected physical materials and digital resources. According to Breeding (2010, p.32), with Encore, the community's conversation about those materials becomes part of what the library collects and preserves. Users can provide content which can consist of book reviews whereby fellow readers can submit a review of a book or film they borrowed from the library and add it to the library resource description. Another type of social interactions is star ratings allowing users can rate how good they thought a library resource was.

Federated Searching

Catalogue integration is the ability to search for eBooks, Digital Audiobooks, subscription databases without leaving the Encore catalogue. As observed by Taylor and Joudrey (2009, p.182), federated searching shows great potential however admits that it is very much an emerging technology.

3.6. Descriptive Metadata

According to Baca (2008, p.1), descriptive metadata is structured information describing the characteristics of an information resource with the intention of enabling useful search and discovery. Descriptive metadata is a distinct type of metadata which assists users to identify and describe what they are looking for by providing important context. This type of metadata supports the ability to search, browse, sort, and filter information. The metadata is derived from aspects of the information resource and it can include many familiar elements or fields such as title, author, subject, date (Taylor and Joudrey, 2009, pp.91-94).

As Taylor and Joudrey (2009, pp. 91-94) explain, metadata is used by various information retrieval tools such as library catalogues, indexes, search engines and bibliographies and the metadata creation is therefore very much a part of the cataloguing function. It is an essential element of an effective and usable information retrieval tool such as the Library Catalogue as according to Beall (2006, p.61), metadata can add value to information in the library catalogue. Library catalogues need and use descriptive metadata at the individual information resource level. In the library community, the bibliographic record or surrogate record is the name given to a record which represents the tangible information resource located on a library shelf. The surrogate record should include a description of the information resource, making it easily distinguishable from other information resources, assisting the user in evaluating the suitability of the information resource for their needs. The description of the resource informs the need of users to find, identify, select, and obtain, therefore, it is imperative to consider the user's needs and expectations when creating descriptive metadata.

According to Smiraglia (2005, p.14), the description of an information resource is not the only information required in a metadata record. Enabling access to the information resource can be achieved by having specified access points. Access points are created by the cataloguer and are specific names, titles and subjects which assists in the retrieval of the information resources. The process of creating access points is called authority control and is used by cataloguers to collocate information resources that logically belong together but which might present themselves differently in the catalogue. Collocation simply means displaying similar data elements together in a useful order and it is known that collocation greatly improves information discovery

Subject content is the third type of information considered to be descriptive metadata and it is considered to be what users seek out the most when using the online library catalogue. The subject analysis of the information resources expresses and categorises the subject matter of the item and assigns the suitable authorised terms located in subject analysis tools such as controlled vocabularies

and classification schemes. Subject analysis not only provides the user with the subject of the information resources but collocates other information resources with similar subjects together.

Taylor and Joudrey (2009, pp.103-104) explain, a metadata model was created in 1998 by the International Federation of Library Associations and Institutions (IFLA) from a collective desire by the library community to standardise the creation of metadata and to maximise interoperability. FRBR, the Functional requirements for bibliographic records (FRBR) was created and according to Taylor and Joudrey (2009, pp.103-104), the purpose of FRBR was to shape the metadata creation process by improving the cataloguing records, cataloguing and library catalogues. The conceptual entity-relationship model identifies the tasks of retrieval and access that users perform when using the online library catalogue: to find, to identify, to select and to obtain.

As noted by Taylor and Joudrey (2009, pp.117-119), the metadata model is significant because it is separate from specific cataloguing standards such as Anglo-American Cataloguing Rules (AACR) or International Standard Bibliographic Description (ISBD). Standardisation is required to make the surrogate records consistent both in the content of the record but also in the format of the record. However, according to Brand, Daly and Meyers (2003, p.1) in a guide designed for publishers, titled "Metadata Demystified", acknowledges that the quality and amount of descriptive metadata captured in an actual record can vary enormously.

Chapter 4: Methodology

4.1. Introduction

The objective of this study was to ascertain how the library borrowers of Fingal County Libraries perceive Encore, the new national library catalogue. In the introduction, it was explained that Encore is a next generation library catalogue, a term coined by the information and library science field and a term not familiar or identifiable to the library borrowers of Fingal County. The next generation interface is seen as a tool rather than a catalogue and the system design is intended to make it easier for library borrowers to navigate and discover information more effectively.

This research study embarked on a qualitative approach and as observed by Connaway and Powell (2010, pp.77–78), this method was appropriate in order to understand how users experienced the features and functionality of a next generation library system. The study has provided some interesting insights and has assisted in establishing if Encore has met the needs of borrowers in terms of discovery.

As reiterated by Pickard (2013, p.40), there was a clear purpose to this study, which was to address and answer the research question. The methodology chapter explains how research for this study was undertaken and incorporates the philosophical side of the study, how the study would be approached, the collection and analysis of primary and secondary data and how it addressed research ethics and limitations related to this study.

4.2. Research Philosophy

Saunders, Lewis and Thornhill (2009, pp.127-128) note that research philosophy is a key aspect of the research process and by adopting a philosophical approach it will enhance the researchers understanding of how to approach the research study. This in turn, according to Saunders, Lewis and Thornhill (2009, pp.127-128) will influence the research process in terms of methodological choice - approach, strategy and data collection and analytic methods.

According to Saunders, Lewis and Thornhill (2009, pp.132-137), one of the ways of approaching research philosophy is epistemology. Saunders, Lewis and Thornhill (2009, pp.132-137) explain that epistemology is accepted knowledge and concentrates on what is deemed acceptable knowledge in an area of study. The research philosophy adopted for this study is Interpretivism which is an epistemology. Interpretivism, as explained by Bryman (2012, pp.28-33) is concerned with individual's

experience of society and their interpretation of the external reality. Pickard (2013, p.13) suggests that qualitative methodology such as interviewing users of the library service would therefore be the appropriate primary data collection method in interpretivism studies as it involves the interchange of thoughts and ideas.

The researcher sought to get an in-depth knowledge of how users experienced and interacted with the new catalogue. As noted by Creswell (2009, p.8) the choice of research philosophy involved asking a lot of open questions, allowing participants to share their views. As Pickard (2013, p.13) outlines, this study was very much interested in how respondents perceive, interpret and view reality from their eyes.

Due to the subjective nature of an interpretivist approach as noted by Creswell (2009, p.8), there were concerns for bias on behalf of the researcher. As primary data was collected qualitatively, the researcher was mindful at all times that collected data would not be impacted by the researchers own viewpoint.

4.3. Research Approach

The research approach for this research study was inductive whereby the researcher, according to Cooper and Schindler (2008, p.74-75), drew conclusions from the data collected. The inductive approach is a bottom up approach whereby the conclusion reached is on the top. The focus of the study was based on Fingal County Libraries and the recent deployment of Encore, a next generation catalogue. As outlined by Cooper and Schindler (2008, pp.75-77), one of the missions of this research study was to determine the type of evidence needed to enable the discovery of user's perceptions and to choose the appropriate methods to ascertain this information. As Bryman (2012, p.12) indicates the chosen research method of semi-structured interviews, allowed for key concepts and theories to be raised such as descriptive metadata, relevancy ranking. As verified by Saunders, Lewis and Thornhill (2009, pp.143-14), data was collected and analysed by the researcher, patterns were searched for in the data, resulting in the formulation of a theory.

An Inductive approach is in contrast to a deductive approach. In a deductive approach the hypothesis is developed based on an existing theory and through the research methodology, the hypothesis will be tested to prove if it is right or wrong Saunders, Lewis and Thornhill (2009, pp.143-146).

4.4. Research Strategy

Saunders, Lewis and Thornhill (2009, pp.173–182), explains that the research strategy describes the rationale of your research and outlines the most appropriate approach for answering the research question. With this being a qualitative research study, a case study approach was best suited in meeting the objectives of this study. According to Saunders, Lewis and Thornhill (2009, pp.179–180), a case study strategy is used in explanatory and exploratory research - it explores a contemporary phenomenon, something that is happening presently. As echoed by Yin (2009, p.4), this case study was a detailed and intensive study of a particular event: the deployment of a new Library Management System, affecting both the user interface for the citizens of Fingal and for staff of Fingal County Libraries. To achieve this purpose, it involved the researcher entering the library environment of Fingal County and studying the users in their own context by analysing how users interacted with the next generation discovery tool. The research objective was to discover what users thought of the new features and functionalities of the new catalogue and to understand if the system design of the new catalogue had improved or enhanced their experience of the public library service.

As observed by Yin (2009, p.98), the evidence for this case study derived from a number of sources, interviews and documentation. There were 3 focus group interviews consisting of novice and expert users and a face to face interview with members of the project team. The data collection methods, as confirmed by Yin (2009, p.114), provided evidence from multiple source, triangulating to ensure accuracy in the data collected, while arriving with similar findings. Documentation played a specific role by providing and clarifying exact details of the tendering process of the new LMS and product information from Innovative Interface.

According to Saunders, Lewis and Thornhill (2009, pp.173–182), case studies can provide very detailed and rich information which has assisted the researcher to generate new insights into this area of knowledge and permitted investigation in an area where there currently was no understanding. As verified by Yin (2009, pp.46-48), this study was grounded on a single case which was based on an event at a specific time.

4.5. Sampling

With over 179,000 registered borrowers (Fingal County Council, 2014, p.102) all from a diverse spectrum of people, it was necessary to choose a sample who were representative of the population and to allow the researcher to infer how the rest of the population think and feel about Encore.

Due to the challenges of constructing a sampling frame from a large population, it was recommended by Saunders, Lewis and Thornhill (2009, pp.287–289) to choose participants using non-probability sampling. As observed by Creswell (2009, p.178) using non-probability sampling allowed the researcher to select a sample of the population size who they thought would best assist in their understanding of the research question.

As verified by Barbour (2007, pp.57-63), it was important that the sampling group was homogenous and that each member of the group shared a common attribute. It was necessary that the homogenous group included regular users of the library who had experience in finding library resources in a real collection, identify the library resource once found, select the library resource that is appropriate to their needs and acquire access to the described library resource. The homogenous group was then subdivided further into two more groups – novice users and expert users.

Novice Users:	Users who never used the online catalogue
Expert Users:	Users who used the library catalogue regularly to search and reserve library items

The novice and expert groups were chosen for slightly different reasons. It was felt that each group would address and answer the research question from slightly different angles. The novice user group would provide insight from a user group who had no experience of using Encore allowing the researcher to explore the perception of a next generation catalogue from fresh eyes. It was felt that the expert user group would allow the researcher explore in greater depth an experienced user's perception of this new sophisticated searching tool. The aim was also to understand similarities within this group and to understand user behaviour of the catalogue.

The sample size for the focus group consisted of 11 users. As noted by Saunders, Lewis and Thornhill (2009, pp.281–287), 12 participants were deemed a sufficient number for a homogenous group.

1.1. Data Collection

As observed by Yin (2009, p.102), interviews are a fundamental source of data collection for case studies, as the discussion and exchange between individuals in an interview scenario tends to flow freely. Data was collected by asking individuals questions relating to the research topic and in a location that the participants were familiar with, putting the participants at ease. As noted by Bryman (2012, p.501), the discussion was guided by the researcher who assumed the role as moderator.

Saunders, Lewis and Thornhill (2009, pp.374–380) have divided Interviews into two types: standardised and non-standardised. A non-standardised technique was selected and consisted of

semi-structured interviews. As this study was exploratory in nature, semi-structured interviews was a very useful tool in finding out detailed information about the behaviour of Fingal Borrowers with Encore and their attitude to this new discovery tool (Yin, 2009, p.108). The interviews allowed the moderator to probe further during the course of the interview which lead to interesting and unknown aspects of this subject area. For this study, three focus groups were held and one face to face interview, all of which were conducted in June and August 2016.

Focus Groups

As defined by Bryman (2012, p.501), focus groups consist of a group of people who are brought together to explore a topic in depth through a selection of questions. The focus group was chosen specifically over individual interviews as the method of collecting data for this study. As Bryman echoes (2012, p.501), the researcher was interested in how participants discuss a topic as a group rather than as individuals. Barbour (2007, p.2) adds, focus groups were primarily chosen to facilitate an interactive discussion as it was predicted that the focus group would provoke information that would be different in content to individual interviews. According to Brinkman & Kvale (2015, pp. 175-176) focus groups initiate different viewpoints, be them personal viewpoints or conflicting viewpoints and it is how participants respond to each other's viewpoint that is of interest to the moderator.

Three focus groups were conducted over the summer. One group consisted of novice users: users who have never used the online catalogue. The second and third group consisted of expert users: users who are proficient in using the library catalogue to search and reserve library resources. Six participants were confirmed for the Novice Focus Group however five participants were present on the day of the focus group: one participant could not attend due to a family illness. Four participants were confirmed for the first of the expert group however on the day of the focus group, three participants were present: one participant "no showed" on the night. Three participants were confirmed for the second expert group bringing the total number of participants interviewed to 11.

Participants were interviewed for a considerable period of time, with both interviews lasting from 40 minutes to one hour. Ten questions were asked in each group: each group had a different set of 10 questions as the questions were tailored for the type of user being interviewed: novice, expert and project team

Face to Face Interview

The face to face interview occurred with two members of the project team: a Senior Librarian from Dublin City Libraries who was leading the Project in Phase 1 and continues to do say for Phase 2 and

3 and the Systems Librarian from Fingal County Libraries. An interview schedule consisting of 10 questions was prepared in advance. The questions were very different to the Focus Group interviews and centered around the rollout of Encore and Sierra and their perception of how users adapted to Encore. Both members had a deep knowledge of the next generation system and the deployment. Both also had experience working with and receiving support from Innovative Interfaces which was of particular interest to the Researcher. This interview provided an important understanding of Encore, Innovative Interfaces and the deployment of the new LMS and provided enhanced information around the topic, an important aspect of case studies (Yin, 2009, p. 108).

Interview Schedule

An interview schedule was drawn up containing a list of specific question to be asked during the interviews (Bryman, 2012 p.469). The interview questions were derived from the case study's research question, consisting of 10 questions for each interview, hence 3 unique sets of questions, with some overlap in terms of areas for discussion. Questions were prepared in advance which allowed the researcher to invest time in creating the right questions in order to obtain authoritative responses. Barbour (2007, p. 82) recommends to consider possible answers for each of the questions in the interview schedule and visualising the direction the answer might take. This advice was taken by the researcher when creating the questions.

Questions were framed in the following manner, "In your experience...", "Tell me about...", "What do you think", "What ideas do you have". The format of the interview included an introductory question to encourage interaction between the group e.g. "Can I begin by asking you, how frequently do you use the Online Catalogue to search for Library items?". Subsequent questions went from broad in terms of topic to narrow e.g. "What features/functionality of the new Catalogue do you find difficult to use?" As suggested by Brinkmann and Kvale (2015, p.199), the purpose of the interviews is to build knowledge in this topic through interaction with the participants so leading questions were avoided so not to prompt a participant to answer a certain way or to suggest a particular answer and there were no closed questions.

The interview schedule was used as much as possible however as Bryman (2012, p.469) confirms, the interview at times diverted away from the schedule as the researcher picked up on something interesting or pertinent which was said by the participants e.g. how users valued the human side of the library experience.

Selection of participants and composition of groups

As recommended by Barbour (2007, p.58), interviewees were thoughtfully recruited as it was important to have a group with similar attributes, ensuring effective and authoritative responses. Participants had to be regular users of the library so to understand how to search and access library resources, be it in the physical library or the virtual library. Three libraries in Fingal were contacted by email looking for possible participants: Skerries, Balbriggan and Rush Library. Details of the research study along with the criteria for interviewees was outlined in an email to the branch library. Each library reverted with a number of interested participants, along with contact names and numbers. Focus groups were scheduled by the researcher/moderator, subject to the availability and convenience of participants.

As emphasised by Barbour (2007, p.58), the group composition was important and consisted of a variety of individuals who were mostly strangers to each other. The novice group and the first expert group consisted of females and the third focus group was an all-male assemble.

The Interviews

As the group congregated in the research setting, a rapport among the group members developed: group members were introduced by the moderator and names badges were supplied to each participant. The discussion in both focus groups was very interactive and there were very few silent moments. Participants talked freely with other members in the group.

Prior to the focus group commencing, participants were well briefed on their role in the focus group. As recommended by Saunders, Lewis and Thornhill (2009, pp.238-239), information sheets were handed out detailing information about the research study: purpose of the study, duration of the interview, the participant rights and anonymity.

The moderator listened carefully to each participant and redirected the discussion when necessary, being cognisant of managing the dynamics of a group scenario from beginning to end. The duration of focus for each question lasted between 5 to 10 minutes which lead to deeper discussion.

Recording and Transcription

As the content of the discussion generated narrative data, the moderator recorded the whole interview on a smartphone and tablet (the back-up device) and took notes on vital points that were

obtained from the group. An open source smartphone voice recorder app, called Cogi was used and all interviews were subsequently transcribed.

Audio taping the interviews provided accuracy and ensured that nothing was missed in the course of the discussions. Interviewees were advised in advance if they were comfortable about being recorded, to which there were no objections with the interview being recorded. The recording devices appeared to be unobtrusive and did not create a distraction amongst the group. Test recordings were conducted prior to the interview with the software and recording devices so when it came to the recording, there was no fiddling with equipment. Recording ran smoothly and each recording was uploaded to a secure location in the cloud. Notes were taken by the moderator, not merely to assist the moderator but more to ensure the interviewees saw that the moderator was listening.

As confirmed by Bryman (2012, p.469) transcription was a time consuming process, accumulating in thousands of words, however as Brinkmann and Kvale (2015, p.206-207) reveal, it allowed the researcher to present the data collected in a form conducive for further analysis.

Yin (2009, p.106), highlights how complicated the data collection process is with case studies in comparison to other research methods. Bias of the researcher, poor recollection of the interviews, ensuring quality control, recruiting participants were all factors that were taken into consideration. Advantage of collecting the primary data through various interviews was to verify/authenticate information between each of the interviews (Yin, 2009, p.109)

Documentation

Documentation and interviews are the most regularly collected data used in case studies (Yin, 2009, p.101). By using a combination of different sources, each source of data complements the other and according to Yin, is an indicator of a strong case study (Yin, 2009, p.101). Although at times documentation can be difficult to access for confidentiality reasons, Bryman (2009, p.543) advises on the use of documentation, both official and personal documents. Once the documents are relevant to the topic and haven't been produced for the purpose of the research study, they can be used and analysed as part of qualitative research. Documentation can come in a variety of forms and can validate and supplement evidence from other sources. They can make inferences and its strengths are that it is precise, solid information which can be checked frequently.

Heterogeneous sources of data in this study include the following:

- Tender document, posted on eTenders for the implementation of the new Library Management System

- Opportunities for All – Strategic plan for public sector libraries
- Innovative Interfaces website
- Fingal County Council website

As much as documents can contain explicit data, adding value to the research study, one must be mindful when using documents as they were written with a particular group and purpose in mind other than those who are the centre of this case study, therefore challenges include bias from the author of the documents (Yin, 2009, p.105).

1.2. Data Analysis

Yin (2009, pp.127-130) acknowledges that analysing case study evidence is one of most challenging and difficult aspects of undertaking a case study. Unlike quantitative data analysis, techniques for analysing primary data are not clearly defined and guidelines have not been established, adding to the complexity (Bryman, 2012 p.565). The purpose of data analysis is to determine the answer to your research question. It is important, therefore, that evidence accumulated is understood (Connaway and Powell, 2010, p.223). As defined by Creswell, qualitative research is “a means for exploring and understanding the meaning individuals or groups ascribe to a social or human problem” (2009, p.4) therefore an analytic strategy is required to define what elements need to be evaluated and why.

As described by Pickard (2013, p.267), qualitative analysis is an inductive mode of analysis as the researcher goes about understanding the phenomenon under examination. An inductive approach begins with the initial collection of data and on further examination, themes emerge. The inductive process, allowed the Researcher to examine the data and to draw inferences. This is also known as a grounded theory approach whereby theory emerges from the collection and analysis of data (Saunders, Lewis and Thornhill, 2009, pp.549 - 550).

As outlined by Brinkmann and Kvale (2015, p.216) qualitative analysis commences at the data collection stage, from the moment when the interviews commence. The data analysis evolves at every stage of the data collection process as you collect, analyse and interpret data and as you conduct each interview (Pickard, 2013, p 280). Saunders, Lewis and Thornhill (2009, p.544) describes the data collection and data analysis stage as very much interconnected.

In this study, the approach to analysing the qualitative data is data display and analysis (DDA), analysing textual material, rich in content. Data analysis took place after the primary data was collected – transcripts from the focus groups and individual transcripts were analysed, with constant attention being put on the research question. As explained by Saunders, Lewis and Thornhill (2009,

pp.564-566), DDA contains three important steps in this analytical process: data reduction, data display and drawing conclusions.

Data reduction involved listening back to all of the voice recordings, cleaning up and removing any irrelevant data from the interviews. When transcribing data from the voice recordings, it was necessary to capture the voice of the participants: not only what was said during the interview but and how it was said, taking into consideration the body language of the participants and voice tone. Each interview was transcribed in a separate word-processed file (Microsoft Word), to be checked again against the voice recordings to ensure all relevant data was accurately captured during the conversation (Saunders, Lewis and Thornhill, 2009, pp.564-566). As transcripts were written, the participant and moderators names were clearly indicated on the left side of the page and comments were added as data was analysed, in the right margin of the page using the "comments" feature in Microsoft Word. The participant's names were not used, opting instead to use pseudo names to protect the anonymity of the participant e.g. Expert1, Expert 2, Novice1, Novice 2.

The second stage, according to Saunders, Lewis and Thornhill (2009, pp.564-566) was data display and this involved reading and examining each of the transcripts carefully and labelling relevant words, phrases or sections. The labels were thoughtfully chosen and captured, taking into consideration what was felt to be relevant to the analysis e.g. opinions, actions, activities, concepts. It was deemed to be particularly relevant if words repeated several times by the participants. In other instances, it may be something that wasn't expected or it might be something of importance to the participant concerned. This processing was called coding. As the researcher, it is important to be unbiased and to engage with the data. Decisions were made on how important and relevant codes were and codes were grouped and assigned to appropriate categories. These categories are also known as themes. As defined by Bryman (2012, p.297), these categories are groups of phenomena and are highlighted because they are thought to be important and worthy of further analysis.

Drawing conclusions is the final stage of the data analysis process where results are delivered described from the chosen categories and connections are made. Finally, results are interpreted based on theories or concepts relating to this field of study.

NVivo and ATLAS, are computer-aided qualitative data analysis software (CAQDAS). A decision was made not to use CAQDAS to assist in the primary data analysis process. With the number of interviews and participants involved and one researcher, it would be more time consuming to get to grips with new software. The Research opted to use Microsoft Word and the Comments feature to code.

1.3. Research Ethics

As explained by Bryman (2012, p.130), ethics must be considered when conducting a research study, particularly when it involves interviewing members of the Irish public library service. Saunders, Lewis and Thornhill (2009, pp.208 - 210), explain that research ethics is about the conduct of the researcher as they gather, scrutinize and describe data collected from participants and any human subject who could be affected by the reporting of the research results. Research ethics necessitates a certain standard of behaviour involving many facets: respecting the privacy and maintaining confidentiality of participants, honesty and impartiality of the researcher, managing the collected data securely and ensuring the safety of all concerned. Saunders, Lewis and Thornhill (2009, pp.208 - 210), highlight that it is the role of the researcher to mitigate any possible ethical issues which could arise during each stage of the research process.

Research ethics was factored in from the moment the research topic was chosen. Traditional access was chosen as the means to collect data and according to, Saunders, Lewis and Thornhill (2009, p. 210), traditional access includes face to face focus groups and individual interviews. The researcher of the study was an employee of Fingal County Libraries so there was a level of credibility established with participants, though the researcher was equally mindful of behaving in an open, objective and responsible manner. The County Librarian and Executive Librarian from Fingal County Libraries were contacted by the researcher as soon as the research topic was formulated and they were provided with details about the research topic and the methods chosen to collect data. There were no objections from the senior management of Fingal County Libraries.

When the time had come to negotiate access, Skerries, Balbriggan and Rush Libraries were contacted and asked if they were happy to participate in the study. Once they consented, it was agreed between the Librarians and Researcher that the library staff would approach members of the public who fitted a criterion as outlined by the researcher. Library staff invited possible participants to partake in the study and once a participant gave their approval, contact details were exchanged between the participants and Library staff. It was agreed that the researcher would contact each participant individually to schedule the interviews. Each participant was contacted by phone and the purpose of the research was explained in more detail. As recommend by Saunders, Lewis and Thornhill (2009, pp. 238 – 239) participants were provided with an information sheet detailing the purpose of the research study, details of the format of the interview the time commitment involved, participant's rights and confidentiality were outlined. If they wished to seek any further information, contact details of the researcher and the researcher's supervisor were provided. As recommended by Saunders, Lewis and Thornhill (2009, pp. 239 -239), it was made clear that participants would be entitled to withdraw at any stage if they so wish.

As pointed out by Bryman (2012, p. 137), the Researcher was aware of legal implications around gathering, handling and storing personal and confidential data and was aware of the legal obligation under the EU Data Protection Act to keep personal information private. At the data collection and data findings stage, participants remain anonymous and were provided with pseudonyms from the very beginning to protect their identity i.e. Expert1, Expert2, Novice1, Novice2 etc.

As explained by Pickard (2013, pp.81 – 83) data management is necessary in order to protect the collected research data and to preserve the data for future use. Data is susceptible to being damaged or lost and once it is lost it cannot be recaptured. Research data collected may be used by the institutional repository of DBS. The files containing audio recordings and transcripts of the interview have been assigned file names, following a naming convention and stored centrally and securely. Backup copies were made and stored in an alternative location. The hard copies of signed consent forms from participants were filed away in a secure and safe location using the same naming convention as the electronic files. Measures have been put in place to maintain confidentiality of the data once the research study is submitted for grading.

1.4. Limitations

Pickard (2013, p.55) gives pragmatic advice regarding the identification of limitations in any research study. She explains that limitations are to be expected and should be revealed and explained from the beginning. Cooper and Schindler (2008, p.585) stresses that it would be dishonourable not to reveal issues experienced with the research design. They noted that by revealing the limitations, it would add validity to the research study.

The time constraint for this study was always a concern. Having a three-month window to collect, analyse and write up findings from 3 Focus Groups and 1 individual interview proved challenging. The fact that the three-month window fell in the summer time when possible participants were away on holidays, proved difficult when recruiting participants for the Focus Groups and scheduling the Focus Groups.

There was no doubt that Focus Groups was the best choice in terms of collecting rich primary data. It gave participants the opportunity to think through and clarify how they view a phenomenon, that they might not have given much thought to previously. The challenge with Focus Groups was initially recruiting volunteers with some possible participants wanting to be interviewed individually over the telephone. It wasn't explicitly stated by participants however it was assumed by the Moderator that participants felt uncomfortable in a group situation.

It was intended to run 2 Focus Groups with 6 participants in each group. For the Novice Group, 6 participants were confirmed to attend the discussion however it was only possible to recruit 4 participants for the Expert Group which proved disappointing. On the day of the Focus Groups, there was one "no-show" from each group, reducing the sampling size to 8 participants. In an effort to increase the sampling size and increase the representation, a third group was arranged. Balbriggan Library was contacted and numbers were confirmed however participants pulled out at the last moment. Eventually a third group was organised through Rush Library. Three expert users attended the last Focus Group, increasing the sampling size to 11.

As the Researcher was also an employee of Fingal County Libraries, it was important that the study be impartial. Being an employee of Fingal County Libraries provided convenient in many ways in terms of knowing the staff, being familiar with the environment and the technology however it's unlikely but it could have influenced the responses from participants.

Chapter 5: Findings

As Saunders, Lewis and Thornhill (2009, pp. 604–605) outline, the findings chapter presents the results from the primary and secondary data collected for this study. The content in the findings chapter is purely descriptive and factual in nature, with no reflective interpretations. According to Bryman (2012, p.689), the findings chapter details what was discovered from the research and will include verbatim quotes from participants who attended the user focus groups and the project team interview. The wealth of data obtained from qualitative research methods allows not only the voices of the users of the Irish public library service to be heard but includes two members of the project team responsible for implementing the next generation system. The user's thoughts, opinions and experiences of Encore are simplified forms of library related concepts and theories and have been translated purposefully e.g. descriptive metadata, controlled vocabulary and next generation search technologies.

As echoed by Saunders, Lewis and Thornhill (2009, pp.604–605), documentation has been used as part of the content for the findings chapter to make inferences. The documentation chosen for this study has come in a variety of forms. It includes the invitation to tender for the supply and implementation of the LMS as issued by the LGMA and product specifications from Innovative Interfaces website. As observed by Bryman (2009, p.543), the strengths in documentation are that it is precise, solid information which is authoritative.

The presentation of the findings is reported thematically in this chapter with the more relevant and important themes displayed first (Saunders, Lewis and Thornhill, 2009, pp. 604–605). **Resource description, next generation search technologies, relationship with the librarian** and **social interaction** are the chosen themes.

5.1. Resource Description

5.1.1. Focus Groups and Individual Interviews – Primary Data

Across all three of the focus groups, it became very clear that users would like to see more detailed, consistent and accurate information when searching for a library resource in the library catalogue. Insight was also provided from the Project Team on their perception of the deployment of Encore and how the function of Cataloguing has changed for the Fingal Cataloguing team.

One participant from Focus Group 1 (Novice) had an interesting analogy for the kind of information they would like to see in the catalogue. They resembled it to the descriptive information that they would read from the back of a book, as if they were holding the book in the library

“There was only one or two lines of a description, so it could do with more” - Focus Group 2

“I would read the bit at the back (from the back of the book). That bit should be there (in the catalogue)” – Focus Group 1

There were particular items of information, currently not available on the new catalogue, which users would like to see added. Users would like to view the latest releases of new library items and view books by similar authors or genre. Some users liked the suggestions feature on Amazon, “Customers Who Bought This Item Also Bought”. Users said they would find it very beneficial if the catalogue could display additional information next to a library item such as the title of the next book in the series. A lot of Users spoke about having to access another website such as Amazon, to obtain additional information, information that was missing from the library catalogue e.g. book review, book series, new titles.

“One thing that I thought would be very useful but I’m not sure if it’s there or not...say, “you liked this author, you may like this one”, like what they have on amazon, that would be fantastic facility” – Focus Group 3

“And also the series, because, sometimes I read a book and I wonder...there must be one before that and you don’t know” – Focus Group 2

“Rather than having to go out and into a different web site and search that way to find it” – Focus Group 2

It was recognised by users of the catalogue that having good descriptive metadata for each library resource adds more meaning and recognition to the library resource.

“there is no blurb so you are kind of going, “what does this mean” – Focus Group2

“It’s just a Title” – Focus Group 2

It was also mentioned by users that information or metadata that is currently present in the library catalogue is not accurate and users felt that accurate information is an essential component of a library catalogue. It was pointed out by some users that essential housekeeping is needed on Fingal County Library records in order to clean up unnecessary data such as library resources showing “missing inventory”. Users felt it didn’t make much sense to display items that were no longer available to the public to borrow with one user suggesting that inaccuracies in the data would affect the google like experience of the catalogue.

“.....and it’s important that the data is accurate. I think it would be useful if somebody could prune it, so say, when a book is gone, it’s still listed but when you go in to it, it says “old stock” or “off from shelf” or ...so take those things out so you see...” – Focus Group 2

“The data is not clean” – Focus Group 3

“it does have a bearing on the “non google ability” – Focus Group 3

One user said that inaccurate and inconsistent information in the library catalogue is something you come to expect from the library catalogue. With one user describing the input of data as arbitrary.

“I would often find that a lot of the titles in the library, that the data is inputted quite arbitrarily... You can do a search on, it could be that the surname comes first or the surname comes second, there could be a comma between the first name and second name and it’s just an historical thing”. – Focus Group 3

“You, kind of just expect it. I expect it”- Focus Group 2

It was also pointed out that other local authorities such as Dublin City libraries would have more detailed information on their library resources in comparison to Fingal County Libraries. It was felt that Fingal, in particular, lacked relevant descriptive information on their information resources.

“I still think, a blurb, if feasible, because some of the other catalogues would have had blurb in their data so that could be imported with them even though Fingal didn’t” – Focus Group 2

“I discovered that Dublin City has a lot more” – Focus Group 2

When interviewing the project team, it was mentioned that the rollout of new national Library system proved very challenging for all concerned. It was also acknowledged that Encore was neglected in the deployment of the new LMS. There was more emphasis and effort invested in Sierra, the staff interface of the new library management system.

“I think it was a massive leap to go to a new and a shared system at the same time and I think that was one of the main problems” – Project Team

“Encore possibly has got a little lost because of the whole Sierra thing” – Project Team

When asking the Project Team, what was the main challenge with the implementation of the new LMS, they explained it was resistance from Staff using the Sierra application.

“I was really surprised about the negativity of staff, really surprised. I thought it was shocking. Now we did have our previous system for 20 years and it was a big change but there was some people who were completely unwilling to give it a chance and everything, everything that went wrong, they blamed on Sierra even though a lot of it was human error” – Project Team

It was recognised in the interview that missing features discussed by the Focus Groups participants as desirable features could very well be enabled on Encore and that there was opportunity to improve and develop Encore further however due to the enormity of the project, combined with staff adjusting to the change of software, Sierra received a lot of the focus.

“It’s a whole big project so there were probably functions we could be getting and using that we aren’t aware of. So we would need to do some work on it” – Project Team

“it would be worth somebody actually spending some time on Encore and looking, properly looking at what people are using and trying to adapt it” – Project Team

When asking the question about having a centralized cataloguing section to allow for the integration of multiple catalogues, the Project Team mentioned that each authority will manage their own catalogued records however efforts are being made to standardise library records across each local

authority library. A representative from each of the Cataloguing teams in each authority meet regularly to discuss the importing and amending of library records to ensure uniformity.

“there will be more centralized cataloguing” – Project Team

“...we are all going to be working together way more than what we used to, so there has to be some kind of structure there” – Project Team

5.1.2. Documentation – Secondary Data

In the invitation to tender document, one of the Information Communication Technology (ICT) visions outlined by the LGMA was for public libraries “to move to current library cataloguing standards which would enable inter-library co-operation” (LGMA, 2013, pp.3-4).

Fingal’s previous Library Management System was Axiell Open Galaxy which used UKMARC as its cataloguing standard. As Open Galaxy system did not support the current metadata schema, MARC21, it was necessary to choose an LMS that would. According to Taylor and Joudrey (2009, pp.137-138), MARC is the acronym for Machine Readable Cataloguing. It allows computers exchange, use, and interpret bibliographic information and its data elements. MARC21 makes up the foundation of most library catalogues used today. Additionally, Open Galaxy, was not designed for cataloguing standards such as Functional Requirements for Bibliographic Records (FRBR) and Resource Description and Access (RDA). As explained in the eTender document (LGMA, 2013, p.6), FRBR is a conceptual entity-relationship model developed by the International Federation of Library Associations and Institutions (IFLA) that relates user tasks of retrieval and access in online library catalogues. Resource Description and Access (RDA) is the new standard for resource description and access designed for the digital world (LGMA, 2013, p.6)

One of the specified functional requirements in the tender document was for the new system to provide “access to a catalogue of bibliographic records which would be shared by all libraries of that system. Libraries should be able to attach holdings directly to the shared records, edit the records, or copy them from the shared catalogue to the libraries’ local catalogue” (LGMA, 2013 p. 61). As outlined on Innovative Interfaces website (Innovative Interfaces, 2016), Skyriver is the cataloguing utility supplied by Innovative Interfaces and built into their office suite. It is essentially a database consisting of 60 million of complete, metadata rich, bibliographic records, enabling copy cataloguing of high quality MARC records. Innovative boast of libraries finding 98% of their records on Skyriver (Innovative Interfaces, 2016). Skyriver allows libraries “to simplify workflows and increase efficiency” and ultimately “improve discoverability and access to your library’s collections” (Innovative Interfaces, 2016).

In conclusion, by having more descriptive information, users can find and identify between library resources with more ease and efficiency therefore making better decisions when choosing library material. In the current digital age, user's expectations are higher than before: it came across quite clearly that users would like to have features that are available on commercial and social media websites replicated in their library catalogue.

5.2. Next Generation Searching Technologies

5.2.1. Focus Groups and Individual Interviews – Primary Data

The search features in the next generation catalogue are designed to enhance the search and discovery experience for the user. The search features discussed include the one search box, advanced searching, relevancy ranking and faceted navigation. Most of these features, users either found frustrating and not intuitive to use or didn't use them at all. In particular, was the one search box. Users found the results too broad and not relevant to their search. They would prefer if there was more opportunity to refine their search prior to entering the keyword or phrase.

“I end up scrolling down whereas if the tick boxes were there to begin with, I would put in the thing and tick, tick, tick, and I would have it refined straight away” – Focus Group 2

*“It's not really intuitive because you are going in and you get all the stuff”
– Focus Group 2*

When asking users if they were inclined to use the Advanced Search box to refine their search, they explained that they may have used this feature one or twice before but didn't find it particularly helpful.

“I didn't find it helped. I didn't find that it made any particular difference but I only used it once or twice in the beginning and then gave up on it” – Focus Group 2

Users were asked about relevancy ranking and if they had experienced a higher success rate in their search for library items. Relevancy ranking is the process of sorting your search results so that the library items which are most likely to be relevant to your query are shown at the top. Participants from Focus Group 2 had a lot to contribute regarding this particular search feature when asked and didn't hold back on their frustrations with the amount of returned results. It was probably one of the big differences that they noticed about the next generation system. Relevancy Ranking reappeared numerous times during the course of the interview.

*“I think, the big difference that I noticed is that you actually get tonnes of stuff”
- Focus Group 2*

*“a whole lot of stuff came up. So I kind of found that a little bit frustrating and I kind of, I'm not sure. I now can do it, but it doesn't short list it for me. I have to scroll and check”
– Focus Group 2*

“You are ciphering through it”- Focus Group 2

“It's not really intuitive because you are going in and you get all this stuff”- Focus Group 2

“I would put in a lot of detail, name of the author and the name of the book and it will still bring up things unrelated which is unusual” – Focus Group 3

“It’s generally on the first page. The obvious one isn’t always on the top” – Focus Group 3

Borrowers are not using the “Refine by” or faceted browsing option or even the advanced search to narrow their search. If they have used these features to reduce the search results, they didn’t seem to be happy with how it worked and therefore discontinued using them. Like most search engines, users are not prepared to go through pages and pages of search results, opting to view the results on the first screen of results before they decide to continue.

“No, that explains a lot of where I’m going wrong” – Focus Group 3

“I didn’t find it helped. I didn’t find that it made any particular difference but I only used it once or twice in the beginning and then gave up on it” – Focus Group 2

“I knew what I wanted, I knew the author ...and I mostly knew the title and then I was just getting all these other things that you know....I mean the screen about the size of that one (pointing to a screen in the room) and it was just, full, full, full” – Focus Group 2

“I couldn’t remember exactly what the title was but I knew more or less what it was and I put in the rough title and the author and I got every single book that this man had ever opened, not just things that were just by him and some of the titles had nothing to do with what I had put in to the search and that made me a bit cross” – Focus Group 2

It’s essential to have a strong relevance ranking system in place in a library catalogue so that users not only find relevant results, but also the best possible result, ideally on the first page of the result list. Nevertheless, there has been a lot of unhappiness from Borrowers with the high number of results being displayed. Users essentially want an answer to their question rapidly - they want results quickly.

Focus Group 2, the expert group felt the catalogue did not facilitate browsing by subject type. They wanted to replicate the browsing experience, similar to if they were actually in a physical library. It appears that borrowers tend to go into the catalogue with something specific in mind e.g. title and not to browse. They feel the catalogue is not amenable for browsing.

“there would be at least one hook that you need to be fishing with” – Focus Group 3.

“you go to the catalogue with a book in mind, you don’t go looking for something” – Focus Group 2

“can you choose by type of book. Can you choose by Science Fiction? What I would like to be able to do is go in and and browse, and I can’t do that” – Focus Group 2

“libraries will have a Science Fiction section and they will have a historical section where as the catalogue is just everything on the floor and you are supposed to go in and find the one you want” – Focus Group 2

“And you can’t search by a type” – Focus Group 2

“It’s that browse thing, to be able to browse more, rather than having to know exactly what you want. To be able to go in and look at a shelf, say, you were looking for a cookery book and you can look on the shelf and there are other ones near that are vaguely like the ones that you would like to get but maybe hadn’t thought of them” – Focus Group 2

“I kind of know what kinds of things, I’m trying to find out but I don’t know, a particular book” – Focus Group 2

If you don't know the title or author of an item, or if you are searching a library item based on a subject such as Asian Cooking, users are relying on keyword or subject searches. The success of your search depends on understanding the difference between the two.

Users also admitted to not knowing how to use searching features such as faceted browsing and advanced search.

“I’m probably not using it as well as I could, I could be optimising the search a little bit better” – Focus Group 3

“I certainly am not using it more effectively in terms of filtering searches” – Focus Group 3

5.2.2. Documentation – Secondary Data

In the invitation to tender document, another vision of the Information Communication Technology (ICT) outlined by the LGMA was for the new LMS to deliver a “discovery services which will uncover all the riches the library services have to offer to customers from catalogues, databases and online services via a single search” (LGMA, 2013, p.4).

The criteria as outlined by the LGMA was to provide an intuitive, web-based public user interface and would include search filtering capabilities such as what is currently available: searching using variant spelling, faceted browsing which is the capacity to order search results by various criteria, allow the user to change the sort order, provide a list of previous searches made during the same session. However, there are criteria which haven’t been delivered upon such as the ability to search for newest edition, the ability to search for recently added stock, provision of the “check this out” link, supporting the fulfilment of purchase requests submitted by borrowers and the ability to seamlessly search non-standard databases via a variety of means (e.g., newspaper/ journal index) (LGMA, 2013, p.50).

It appears that users are not getting the most out of the Encores searching features and are putting up with high search results. It's interesting to see that for most users, there were unaware of the "refine by" or faceted browsing feature. From examining the tender documents, there are a number of searching features which haven't been delivered upon.

5.4. Relationship with the Librarian

One of the opening questions put to the "Novice User" focus group, brought this particular theme of "human interaction" to the forefront. The Novice user group, users who were identified as not using the catalogue, were asked why they don't use the Fingal Library Catalogue.

One of the insightful findings from this question resulted in how users of the library service valued the relationship and interaction with library staff. For families, in particular, the visit to the Library, is not just about encouraging children to read or obtain information for a school project. The trip to the Library is considered an outing for children and their families. It allows them the opportunity to explore and discover something new and to build a relationship with the knowledgeable Library staff who they seem to trust.

"Catalogue is great but you don't want it to replace the Librarian"- Focus Group 1

"For children it's a trip out and for them to have a look and see if they can discover something new but if it's something specific that they are looking for then.... it's the interaction with the Librarian" – Focus Group 1

"He would be reading the back of "Captain Underpants" checking what's the next one, giving it back and asking if he can reserve the next one. We got used to doing that but do you know it's nicer for him to do that with the physical person" – Focus Group 1

"it's kind of going down and having a look around is the exciting bit. It's the whole experience with the kids" – Focus Group 1

"becomes the place that you go with your kids"- Focus Group 2

"it should be a focal point of the community" – Focus Group 3

A slightly different question put to the Focus "Expert User" group, raised the same theme. The Expert user group, users who were identified using the catalogue regularly and were deemed to be proficient in using the information retrieval tool, were asked how could the catalogue be promoted in order to encourage users to use it. Even with capable users of the catalogue, the human interaction is still very important and relevant to users of the public library service for a variety of reasons: subject knowledge, recommendations, personable service, convenience, frustrations with searching on the catalogue.

"And although the catalogue is good, actually, people (Librarians), just knowing what there is...you know, around the subject" – Focus Group 2

"I'm terrible because when I go to the library, I use the Librarian as my catalogue" – Focus Group 2

“they have suggested books to me that I wouldn’t have heard of the author’s name” – Focus Group 3

“the staff here provide layers of service on top of what the technology provides too” – Focus Group 3

And as much as technology has advanced, user, even proficient users, still experience frustrations with using a library system.

“I spent about five minutes on the computer and the computer was working perfectly well but I was just having this wrestling match with this thing and I said to myself “I’m going to talk to a human being and they will sort me out” and she did (Librarian). She was brilliant” – Focus Group 2

It became clear from the Focus Groups that Borrowers not only enjoy the contact and communication with staff but they value the experience and knowledge of the Library staff. By physically visiting the Library, it allows them the opportunity to discover what is new in the library collection. To a greater extent, it is about the social interaction with someone else. By glancing at the returns trolley, which holds the mostly recently read and returned library resources, they discover what fellow borrowers are reading. Users of the service also like to seek out recommendations from Library staff. Their knowledge and expertise seem to be valued by the public.

5.5. Social Interaction

One of the big and most common features of a next generation catalogue is social interaction. Social interaction can occur in many forms – it can consist of integrating the catalogue with social networking sites whereby users can share links to library items with their friends on Facebook or Twitter. It can also occur in user contributions in the form of submitting book reviews, submitting comments, rating library resources and tagging or folksonomies. Unfortunately, some of these features are not available on Encore and this was noted by users in the Focus Groups.

“And they have reviews. That would be good. People love reading reviews of everything like TripAdvisor and even Amazon” – Focus Group 1

“People expect to be able to read the reviews before they buy anything these days Even, a star rating. You don’t have to a comment. It would be really easy to do” – Focus Group 2

Once again, it appears that Users jump between the Library Catalogue and Amazon for their different requirements. On this occasion they use the book review information on Amazon, as the facility for book reviews is not enabled on Encore yet.

“I might go and have a look on Amazon and see if the review is any good” – Focus Group 2

However, one user felt that a library related review would have more authority and opted for this over an Amazon review.

“I would be more likely to trust a library based review service than I would a commercial entity review service” – Focus Group 3

User also felt the star rating feature would be a quick and easy feature to implement and wouldn't require any monitoring by library staff. This feature would allow users to rate if a library resource was good or bad. There would be 1 to 5 stars, with 5 stars being the best.

“It’s easy to do, when you are renewing...you can do the star rating or whenever. Or if you could look up what you had recently, you could star (rating) it. It doesn’t take time to do it” – Focus Group 2

Maybe not recognised as a social feature as such, some users liked the recommendations feature which many internet search engines, particularly online vendors, provide information about related materials.

“I got a Kindle for Xmas. I held out for many years but the thing I do like about it is, you can go in and things come up like “because you liked this, you might like this” and to be able to do that in the library” – Focus Group 1

Once again, as with resource description, it was recognised in the interview that missing features discussed by the Focus Groups participants as desirable features could very well be enabled on Encore and that there was opportunity to improve and develop Encore further however due to the enormity of the project, combined with staff adjusting to the change of software, Sierra received a lot of the focus.

“It’s a whole big project so there were probably functions we could be getting and using that we aren’t aware of. So we would need to do some work on it” – Project Team

Documentation – Secondary Data

In the invitation to tender document, one of the criteria’s of the new LMS was that it should integrate with social media and that the new system should permit the creation of interactive and personal features such as book reviews, ratings, and social tagging including linkage to Facebook, Twitter etc. (LGMA, 2013, p.51-53).

Chapter 6: Discussion

According to Pickard (2013, pp.313–314), the focus of the discussion chapter is to interpret the results gathered from the primary and secondary data for this study. The analysis and discussion will also give the researcher the opportunity to assess the impact that this research has on the theories and concepts outlined in the literature review chapter (Saunders, Lewis and Thornhill, 2009, pp.605-606). The key areas of focus are resource description, next generation searching technologies, human interaction and social interaction and will be analysed independently. It is envisaged that both the discussion and conclusion will provide meaningful and insightful information to the management of Fingal County Libraries, the LGMA and all local authority libraries who have and will be deploying the new LMS.

6.1. Resource Description

As described by Smiraglia (2005, pp.2-3), metadata is structured information describing attributes of a library resource for the purpose of finding, identifying, selecting, obtaining and navigating the library catalogue. Metadata is a very familiar term within the library and information science community however the term is not so familiar with the general public. In the public's eyes, it is detailed information used to accurately describe a resource in the catalogue. Created and management by the Cataloguing team, metadata or the descriptive information about an information resource is deemed to be authoritative and therefore a trusted source of information.

Users of the catalogue exam and scrutinize the resource description to assess if the information resource is suitable for their needs. The descriptive information provides meaning to the user and is a valuable component of an information retrieval tool. Interviewing the novice and expert users provided valuable insights into how users perceived the information in the next generation library catalogue. It was agreed by all the users that even though the features and functionality of Encore were very appealing and intuitive to use, when it came to the moment of truth, what is paramount to users is detailed, informative, accurate and consistent information. As noted by Smiraglia (2005, p. 3), the library catalogue will be judged by how users can find, identify, select and obtain library resources – the main user tasks outlined in the FRBR, metadata model (IFLA, 1998, p.82). Nevertheless, users, on numerous occasions during the course of the interview, expressed their frustrations about issues they experienced with the description of resources citing inaccuracies with the information on display, inconsistent information between information resources and insufficient descriptive information.

According to Valacich and Schneider (2014, pp.32–36), the information world we inhabit have increased the user's expectations higher than ever. The ubiquitous nature of personal computers, laptops, smartphones, tablet means that users can access information at a touch of a button, 24

hours a day, 7 days a week. There is an insatiable appetite from users for easily accessible and enriched information. The Fingal Library users considered the detailed information an essential component of a library catalogue in assisting them choose the right information resource for their needs. The next generation library catalogues such as Encore are competing against commercial websites such as Amazon and eBay who are very customer driven. It was therefore not surprising that the subject of Amazon and similar commercial websites, popped up through the course of the focus group discussions and the project team interview. By all accounts, it appears that our library users use Amazon as an authoritative source to acquire and validate information, as they feel the information they require is simply not available in the library catalogue. Users explained that they use Amazon and similar sites in conjunction with the catalogue. They use external websites to conduct additional investigative work meaning users need to leave the Catalogue and access another website to obtain information that is not present in the catalogue. Users compared the level of information available on Amazon in comparison to the catalogue. A particular feature which the library users liked was the additional information available about a book or DVD which enhanced their searching experience: what books appear next in the series or reading supplementary information about a resource such as a book review.

Apart from the deficiency of descriptive information in the catalogue, expert users of the catalogue described their frustrations of inaccuracies in the library records such as library items appearing as being available in the catalogue however when visiting the library, the library resource would not be on the shelf. The expert users also commented on library resources appearing in the catalogue as "worn out" and agreed that this type of information added no value. In their opinion, it seems pointless to display items in a catalogue that are unavailable to the user. Users confessed that they have come to accept these inaccuracies as being commonplace in the Encore library records. It became evident in the course of the interviews that the Fingal users do not have complete trust in the information in the catalogue. It is essential to have accurate and consistent data in an information system, not only does it give credibility but users are inclined to use a system that is deemed to be trustworthy.

The quest for more meaningful information has become an onerous task for users. This goes against the belief of prominent Librarian, S.R. Ranganathan, who was considered the father of library science. In Taylor's book, "Understanding FRBR" (Denton, 2007, pp. 44–45) William Denton, one of the contributors in the book, discusses Ranganathan. The Librarian's notable contributions to the library and information science field was his publication of "The Five Laws of Library Science", written in 1931. One of Ranganathan's five laws is to "save the time of the reader". Is it acceptable that users have to validate information or obtain missing information from their library catalogue against another source such as Amazon? Is this acceptable for a next generation catalogue? Interestingly, on interviewing the Project team, it was confirmed that Encore has the capability of providing richer metadata such as book series and the facility to add social interaction features such as reviews. Why,

then, are these much desired features of a next generation catalogue, not enabled on the national library catalogue?

Fingal County Library users were not alone in experiencing a change to their library interface back in June 2015. The deployment of the new LMS also had an impact on staff using Sierra, the staff interface of the new library system. It was acknowledged by the Project Team that staff resistance was one of the main challenges of the deployment of the new Library Management System (LMS). The previous LMS was Open Galaxy and staff were accustomed to the same system for nearly twenty years so resistance to a new information system was inevitable. The project team were shocked at how much resistance they received from staff as they struggled to adjust to a new interface along with changes in workflows and different terminology.

The Cataloguing team in particular found the transition particularly challenging for a number of reasons. Fingal, along with the three Dublin local authorities all used the same metadata schema, UKMARC, prior to the deployment of Sierra/Encore. Transitioning to the new system involved adapting to MARC21, a different version of the metadata schema. The change of information system, and changes in the cataloguing standards and workflows proved to be difficult for the Cataloguing teams. In addition to this, there was a pressing need from LGMA and project team for all library records to look and feel the same, ensuring seamless and transparent delivery to the User. Discrepancies in the descriptive metadata of local authority libraries was not conducive to a shared system and a national library catalogue. Consequently, efforts are currently concentrated on stabilising the catalogue and ensuring uniformity across the range of records from the different local authorities. As the deployment of the new LMS was led by Dublin City Libraries, a centralised cataloguing team was formulated by Dublin City Libraries to set about establishing uniformity of catalogued library records between each library authority. Even though cataloguing standards are in place to ensure interoperability and consistency in cataloguing, each local authority had developed their own style of cataloguing, possibly inherited over the years. Aware of the importance of ensuring cataloguing standards were adhered to, there were concerns from Cataloguers from across the local authority libraries network, that they would lose the identity of their region in the transition to the next generation.

It is interesting that Skyriver, the cataloguing utility supplied by Innovative Interfaces has not helped the issues relating to inconsistencies and inaccuracies in library resources. By enabling copy cataloguing of high quality MARC records, it is designed not only to increase efficiency but to improve discoverability and access to your library's collections (Innovative Interfaces, 2016).

The project team also admitted that moving to a new system and a shared system together was a huge challenge for phase 1 of the deployment and that it would have made better sense to pilot all the local authority libraries in Dublin first. In addition, support received from Innovative Interfaces was not sufficient for the enormity of the project and subsequently was acknowledged by Innovative Interfaces. Initially, support came from Innovative Interfaces in America meaning support was only available for a number of hours each day, putting pressure on the Project Team to provide support to the six local authorities who went live back in June 2015. This has since improved with more staff assigned to the project and a move from an American presence to a European presence. Over one year on, it seems that the challenges facing the deployment of the new system have not subsided reflecting the enormity of the project as a whole.

6.2. Next Generation Searching Technologies

The foundation of a search and discovery tool is the delivery of intuitive searching technologies such as relevancy ranking. The next generation catalogue claims to provide easy to use search technologies to enhance the search experience for the user. According to the borrowers of Fingal County Libraries, the Encore search technology is not working as effectively as it should. This has led the users of Fingal to some frustrating moments during their search experience. Users feel bamboozled by the volume of returned results and at times irrelevant results, citing that "relevancy ranking, in particular didn't make a difference to their search results.

Innovative Interfaces offers a range of searching technologies such as the one search box, advanced search, faceted navigation and relevance ranking (Innovative Interfaces, 2016). Relevancy ranking is also used by web search engines who rely on different formulas to determine relevancy. Innovative Interfaces ranking strategy, RightResult, uses several criteria to provide users with the most relevant results for their search query. RightResult weights library resources based on where the search term used by the User appears in the record data. It will assess other factors such as the type of material, the proximity of the terms used, specified fields where the search term appears in the record and similar or variant terms. In Marshall Breeding's opinion (2008, p.24), Right Results, the relevance ranking technology seems to work sufficiently for library data.

Relevancy ranking is not the only search technology available on the next generation catalogue. Encore provides a simple, single search box experience and an advanced search box providing the user with further limiters allowing the user to drill down as deeply as they want to enhance their search request. The advanced Search allows more experienced users to execute more highly-refined searches with the option to select from popular fields such as "title", "author" and "subject", the choice of using Boolean operators (AND, OR and NOT) and a wide range of limiters and expanders. It was interesting to discover that advanced search is not being used by any of our expert user group.

Furthermore, it was equally surprising to discover that users do not use the faceted navigation feature, situated to far left hand side of the screen to refine their search. As Rosenfeld, Morville, & Arango, (2015, pp.297 –302) explain faceted navigation was created in the 1930's by Ranganathan, a Librarian whom we have mentioned before in this study. Faceted navigation allows users multiple ways to find information, giving the user control over their own searching needs and preferences. As Fagan (2010, p.58) describes, faceted navigation provides browsing and searching support to the user by displaying a breakdown of their results by subcategories. Facets can display attributes or characteristics of the item which derives from metadata from the record, consequently the subcategories can be fields from the MARC record. It can also display the availability of the library item and the branch library where the library item can be located. Faceted navigation provides a great deal of flexibility by allowing the user to preview results in a particular subcategory by clicking on that particular facet. It also allows the user to return back to the previous list of search results. Subcategories of course can be combined, allowing more refinement of the search results. Fagan (2010, p.65) reviewed user studies from faceted browsing, looking specifically at next generation catalogues and there was no conclusive evidence that would suggest user success when using faceted navigation in library catalogues.

One feature, not available in Encore is predictive searching, also known as autocomplete. As noted by Rosenfeld, Morville, & Arango, (2015, pp.257–258), Google developed the feature of predictive search back in 2004 with "Google Suggest". In 2010, "Google Suggest" was re-branded Google AutoComplete. The autocomplete feature or predictive search means that the library catalogue can anticipate the users query and display the relevant results. As users begin to enter their search term, keyword suggestions appear automatically, the results being taken from controlled vocabularies and/or search indexes. The autocomplete feature examines the query before the search is executed ensuring the best search possible.

The focus groups revealed that our web savvy library users do not avail of the search technologies on offer by Encore and are disappointed with the search results. One of the reason could be that users are so used to searching on web search engines that they are disappointed with their searching expectations in the library catalogue. Are library users experiencing problems with the online library catalogue, because users are used to search engines that search full text? On the web search engine, users can search successfully for very specific terms and receive results. However, they are unable replicate the same experience on the catalogue because of the limited amount of information attached to library resources. The catalogue will search for terms only included in the bibliographic or surrogate record Users might be disappointed to discover that searching occurs only on certain fields such as "title", "author" and "subject". While searching over full text doesn't mean that you have chosen the right search terms however the fact that you have a large amount of text to compare against, will increase your chances of finding what you are looking for.

It is also clear from the documentation that Encore can offer a lot of the features and functionality of a next generation catalogue to the users of Fingal County Libraries such as book reviews, book series information. However due to the enormity of the deployment of the new LMS and the fact that it is a national project, the concentration of Encore has taken a hit in terms of missing features and functionality and the volume of library resources that can be seen on Encore.

6.3. Relationship with the Librarian

As reiterated in the "Opportunities for all", the strategic document for public libraries, for generations, the Irish public library service has provided a free, democratic and universal service. With a diverse target audience, public libraries strive to improve and enhance the wellbeing of all members of the community. In his article, Pas (2012, pp. 67-79) acknowledges that libraries and library staff contribute greatly to the human knowledge by providing expertise based information. Pas prefers to call libraries, a public information service, acting as a vehicle for access to knowledge, ideas and information.

From evidence gathered from the users of the Fingal library service, it is apparent that even in the 21st Century, the public information service provided by public libraries is still perceived as a trusted and recognised feature of the local community. In the eyes of the users, the staff of Fingal Libraries seem to be one of their best resources. Users were not asked explicitly in the interview questions about library staff however. The research topic was not about library staff, it was about the user's perception of a next generation catalogue however in each of the focus groups, the topic of library staff and how their knowledge and experience is valued, appeared in each of the focus groups. In the eyes of the users, one complements the other. In one user's words, library staff provide "layers of service on top of what the technology provides" (Focus group 3). Users feel they are greeted when they walk in the doors of the library. They feel the staff are very focused on the service they deliver and that there is a great level of detail given. As a vast amount of staff are professionally qualified in Information and Library science, the staff are trained information specialists. They know what questions to ask the user and they know where to find it. The staff have an understanding of their role in the community and there is a strong sense of engagement with its members.

As the internet exploded into our worlds, there were fears and uncertainty about the future of the public library service. It was envisaged that users would migrate from the physical library to the virtual library. In fact, the opposite has happened according to Jochumsen, Hvenegaard and SkotHansen (2012, pp.588-589), in a Danish report based on public libraries, it was discovered that the physical library is experiencing a transformation and there is no indication that people have

stopped using the library, they are just using it in different ways such as learning, inspiration, meeting.

6.4. Social Interaction

The most significant change in today's digital world is digital connectivity. It has put the power in the hands of the consumer. According to Breeding (2010, p.32), social interaction or social sharing gives users of the library catalogue new and exciting ways to connect with fellow readers and borrowers by sharing information, knowledge and experience in the virtual world. It is evident in the focus groups that borrowers have become accustomed to this Web 2.0 technology and expect to have this feature reflected in their Library catalogue. As voiced in the focus groups, social interaction is a feature that certainly appeals to them and is a desired feature.

Users can provide the content of the library catalogue which can consist of a book or film reviews which they borrowed from the library and add it to the library resource description or links can be create to an external book review site such as GoodReads. Another type of social interactions is star ratings allowing users to rate how good they thought a library resource was. In contrast to Web 1.0 library catalogues were the user's roles was passive and the content of the library catalogue was static, Web 2.0 technology allows users to share information online by becoming the creator of content.

According to Innovative Interfaces web site (Innovative Interfaces, 2016), currently on Encore, users can use tagging on individual library resources. Tagging allows users of the library catalogue to categorise library resources by adding "tags". The tags are short, usually one-word description of the library resource which facilitates when searching the catalogue. The users of the catalogue were unfamiliar with this feature and consequently don't use tagging.

It was recognised by the project team that missing features, desired by users such as social interaction could very well be enabled on Encore and that there was opportunity to improve and develop Encore further however due to the enormity of the project, combined with staff adjusting to the change of software, Encore was neglected in the deployment. On reading the literature, social interaction is available on Encore and is a main feature of a next generation catalogue. It seems the library users are not getting to experience all that Encore can offer.

Chapter 7: Conclusion

According to Saunders, Lewis and Thornhill (2009, pp.607-608), the focus of the conclusion and recommendations chapter is to bring the research study to a close by answering the research question. It will discuss the main findings and suggest any recommendations for the future, including areas for further research.

The purpose of this research study was to find out what were the Fingal County Libraries users perception of the next generation library catalogue.

Overall it appears that users like Encore, the next generation library catalogue. This was displayed by positive feelings from the user about the new discovery tool and from the fact that our expert user group log on regularly to searching and reserve library resources with some of the expert users logging on every day. For the most part, they found the system intuitive to use and visually appealing. However, they raised a number of concerns around the descriptive information of library resources. It became very clear from the beginning that users would like to see more detailed, consistent and accurate information when searching for a library resource in the library catalogue. They felt that the descriptive information currently in the catalogue was not sufficient and they felt that by having more information about the resource that it would add more meaning to library items. They felt information about library resources was inaccurate, stating that the data currently in the system was not clean and was inputted arbitrarily. They also felt that data in the catalogue was inconsistent, with some records having more descriptive information than others. On further examination, it seems that some local authority libraries would have more descriptive information compared to Fingal County Libraries. There was features that users asked about having on Encore that are not available currently, such as access to newly released materials, viewing book series, viewing book reviews. It was confirmed that these features are available from Encore however as the deployment of Encore is part of a nationwide initiative that efforts are being made to standardise library records across each local authority library. As understandable and valid as this is, it seems to be jeopardising the search and discovery service to the user.

Conducive to a next generation system, Encore provides a range of searching technologies to enhance the search and discovery experience for the user. The search features discussed include the one search box, advanced searching, relevancy ranking and faceted navigation. Most of these features, users either found frustrating and not intuitive to use or didn't use them at all. There were certainly no success stories. In particular, was the one search box. Users found when entering a keyword or phrase into the one search box that the results were too broad and not relevant to their search. They would prefer if there was more opportunity to refine their search prior to entering the keyword or phrase. Surprisingly, users were not inclined to use advanced search or faceted navigation to assist in the refinement of their searches. They seem to either trudge through the array

of results or move on to another search, after the first page of results. When users were asked about relevancy ranking and if they had experienced a higher success rate in their search for library items. Users had a lot to contribute regarding this particular search feature when asked and didn't hold back on their frustrations with the amount of returned results. Users felt there was too much data on the screen.

One of the insightful findings from the research study resulted in how users of the library service valued the relationship and interaction with library staff. For families, in particular, the visit to the Library, was not just about encouraging children to read or obtain information for a school project. The trip to the Library was considered "an outing" and "an experience" for children and their families. It allows them the opportunity to explore and discover something new and to build a relationship with the library staff, who they felt were very knowledgeable and whose opinion and recommendations they trust. When discussing the feature of having book reviews available on Encore, one borrower felt that he would prefer a library related review over a commercial entity review service such as Amazon. As much as users think that Encore is good and that the opportunities are there for it to develop, it seems that Fingal County Libraries do not want the catalogue to replace their librarians.

One of the big and most common features of a next generation catalogue is social interaction. Social interaction can occur in many forms such as users can share links to library items with their friends on Facebook or Twitter. It can also occur in user contributions in the form of submitting book reviews, submitting comments, rating library resources and tagging or folksonomies. Not aware that these features could be available on Encore, users voluntarily inquired about them.

The novice user group was chosen as it was felt by the researcher that their perception would provide insight from a user group who had no experience of using Encore allowing the researcher to explore the perception of a next generation catalogue from fresh eyes. One of the interesting insights was that 60% of the group were not aware of the existence of the Catalogue even though they are users of the library. An eTutorial was shown during the Focus Group for the novice users and proved to be quite successful. The eTutorial, was an introductory video on Encore, produced by a public library in the states. The tutorial highlighted all the key features of a third generation library catalogue such as the one search box, spelling correction, facet navigation. After watching the eTutorial, the group were able to discuss features and functionality that appealed to them and features and functionality they felt were missing from the library catalogue and would like to see such as social sharing features. Users felt the catalogue should be promoted more in the Libraries suggesting an eTutorial similar to the eTutorial shown at the focus group be shown on a plasma screen in the library. Other promotional routes were discussed which included visits to schools and tagging a link to the catalogue in the courtesy notices, sent by libraries.

Meeting with the project team provided additional information which filled in a lot of missing gaps for this research study. From an internal perspective, it provided the researcher with some “behind the scenes” information about the deployment of the new Library Management system. It was made clear that there should have been more of a focus on the end user experience. Essentially, a stronger emphasis was placed on implementing the new LMS with a lot of attention going to Sierra, the staff user interface. With pressures on the public library service to be cost effective, it was necessary for contractual reasons to rollout the software within a tight timeframe. Unfortunately, the user and Encore got lost in the deployment which was acknowledged by the project team and goes to explain why “desirable” features and functionality, as identified by users, are missing.

There are challenges facing public libraries with staying relevant combined with the evolving functions of a catalogue. Catalogues are much more than locating a dewey decimal number and are no longer an inventory of library resources. Users expectations have altered by rapid changes in our evolving digital world. Users now expect features like social sharing and enriched information.

Chapter 8: Recommendations

As explained by Saunders, Lewis and Thornhill, (2009, p. 609), exploratory research such as this can have recommendations included in the study. This research warrants the need for the following changes and improvements to be made:

- Continue the stabilising of catalogue records across the local authorities. Introduce a quality control which include documented procedures for the cataloguing of records for a national catalogue
- Work towards cleaning up the data
- Enhanced descriptive metadata – adding descriptions and reviews
- Revision of relevancy ranking with the view to refining search results further
- Enhance the browsing experience in the catalogue including user friendly ways to search by subject/topic
- information literacy programme for users – eTutorials to show users how to use the catalogue effectively i.e. using faceted navigation and advanced searching. By enabling eTutorials not only will it instruct users but it can also be used to promote the services that are there
- Embedding the library’s main web page and perhaps the Fingal home page with the simple search box feature – again will help promote the library catalogue
- Enable the features which support the social experience for users e.g. book reviews

Chapter 9: Reflections on Learning

9.1. Introduction

With 9 years working in Fingal County Libraries as a library assistant, I felt I was ready to take on the challenge of completing a Masters in Information and Library Management. A number of my work colleagues had completed a similar Library programme in UCD so I was fortunate to have an array of past LIS students close by to seek guidance from. As advantageous as that was, in hindsight, I don't think I fully grasped what was ahead of me as I began my Masters journey in September 2015.

I found the first week particularly daunting as I comprehended the level of commitment needed to achieve the Masters qualification. A great deal had changed in terms of academic writing since I completed my degree in Management and Information Systems in 2001. Words such as plagiarism, Harvard referencing, journal articles, discovery tools, critical analysis were the new buzz words in my vocabulary. However once the first week had past, I felt determined to take this challenge on, step by step. On recommendation from our lecturer, Dr. Brid Lane I began and continued to keep a research notebook, recording various aspects of my research study e.g. reputable names of Library contributors I came across them, search terms for my search strategy, definitions of key research terms. My research notebook became my bible as I revisited time after time.

In this chapter I will discuss my experience as I worked through the various stages of this research study and I will analysis how I have personally and professionally developed during this process.

9.2. The research topic

As Connaway and Powell (2010, p.44) verify, from the beginning I was keenly aware of the importance of choosing a research topic. Very quickly and with the guidance from the Research Methods lecturer, I was able to identify the key attributes to a good research topic: a topic that would keep my interest during the lifecycle of this research study, a topic that was researchable and a topic that would provide fresh insights and would contribute to the library field. Coming from public libraries, it was inevitable that I would choose a topic related to that sector. I initially chose the provision of eServices in public libraries and how users perceive this service however it was following a chat with the Head of Library Service in DBS, Marie O'Neill, that I decided to change my research topic to the user's perception of Encore, a next generation catalogue. Taylor and Joudrey (2009, pp.166-167) note that a considerable amount of system design research has been invested in the online public access catalogue (OPAC), with each evolution being described by the library community, as "generations". The next generation catalogue, which was a third generation catalogue, was deployed in Fingal the previous June so the topic was very current and relevant

9.3. Literature Review

I began my journey by visiting the literature. As I adapted to searching for articles on the college's academic databases, I also adapted to familiar research terminology as I deciphered the journal articles. Initially, this was an intimidating experience however with practice, it was something I became comfortable with. I learnt about search strategies which enabled me to search for particular terms relevant to my topic. Again with guidance from the library, I felt able to evaluate the relevance of the literature I found. I was also able to distinguish between different sources of literature e.g. primary and secondary. But most of all, the most important element I learnt was the appreciation and understanding of critical analysis. This was initially quite difficult for me as I was inclined to accept information at face value however I have since discovered that critical analysis helps develop a knowledge of your research topic further and it is necessary element of the literature review.

9.4. Research Design

At times, I struggled to grasp the theory in research methods in particular research philosophy, strategy and approach. Terms like ontology and axiology, not to mention the various philosophical perspectives such as positivism, realism and so forth. At the time, I failed to understand and appreciate how expansive the subject of research is. Once I narrowed each stage down of my research design, I felt the jigsaw was coming together. I had a leaning towards qualitative research as I felt it matched my personality. I wanted to get an insight into my research topic and not a measurement. Being a people person, it wanted to find out what the Fingal County users thought, felt and do and I was prepared to hear the good with the bad.

9.5. Collecting and Analysing Data

I particularly enjoyed this part of the research process as I felt I was moving away from research theory and moving into the heart of the research study. At times, it was challenging locating volunteers to partake in the focus groups. I was conscious of asking people to take time out of their busy schedules to discuss a library catalogue, especially in the middle of summer. The majority of the people I asked happily accepted with only a couple of people preferring to be interviewed over the phone. Unfortunately, I had to decline as I had chosen focus groups to collect my data. With two no-shows on the day, I was delighted with the attendance of each of the focus groups. I felt I built up a great rapport with the participants and each focus group proved to be an enjoyable experience with the exchange of some insightful ideas.

From the moment each of the focus groups commenced, there was a great deal of beneficial and informative data arising from the interaction of participants. As participants were discussing and answering the interview questions, I subconsciously was marrying the participant's viewpoints to key library concepts and theories.

The interview with the project team gave me an excellent inside track into how the project team perceived the deployment. It was a particularly honest and candid interview which helped to understand the bigger picture of this huge project.

I found analysing the data daunting. I knew I had collected interesting data and wanted to do it justice in the best possible way.

9.6. Learning Style

According to Whetten and Cameron (2007, p. 76), learning style is the "inclination each of us has to perceive, interpret and respond to information in a certain way". There are a number of approaches to learning and the advantage of knowing your ideal learning style helps to identify the best ways to learn, absorb and react to information. David Kolb developed the learning style inventory (LSI) which is designed to determine a person's learning preference. The theory is based on using two continuums: active experimentation-reflective observation which relates to how you evaluate information and abstract conceptualization-concrete experience relates to how you gather information.

On reflection of Kolb's LSI, I feel that I gather information best by learning through involvement and taking a hands on approach. I enjoy new experiences and thrive on a challenge. In the classroom, I particularly enjoyed interacting with fellow students and lecturers, seeking information from personal sources over books, drawing me towards concrete experience rather than reflective observation. In terms of evaluating and using information, I like to try out what I have learnt by getting my hands dirty and applying what I have learnt straightway, so I have an inclination toward active experimentation over abstract conceptualisation.

9.7. Personal and Skills Development

I feel the Masters course has been a huge learning curve for me. I have always enjoyed learning even though at times I struggle at grasping and understanding the theory, but once I apply myself and commit to it, I tend to have a better understanding. I do get a great sense of empowerment from understanding something new or building my knowledge around a particular subject.

In terms of my skillset, I feel my confidence has grown in so many different areas. I have developed new skills such as research, information literacy, research, cataloguing, information retrieval, XML and strengthened existing skills such as information technology, web development, network technologies, communication and teamwork. When writing up my research study, I found that I was able to incorporate various concepts and theories from across most of the modules I studied which was very rewarding e.g. information architecture, information organisation, strategic library management.

To date this course has provided me with a lot of exciting opportunities to grow and develop. I feel that the only threat or obstacle is my own self confidence which I feel, as I am progressed through the course has improved in leaps and bounds.

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Appendices

Appendix 1: Interview Schedule 1

Focus Group Questions for Novice Group

1. One of the functions of a Library Catalogue is to enable Borrowers to find a Library item i.e. book, CD, DVD etc.,. The Catalogue can show a Borrower what each Library has available to borrow and it can assist in the Borrower's choice by providing a description of the item i.e. Edition, Format, Language.

You have been identified as not using the Fingal Online Library Catalogue, can you tell me, why you do not use the Catalogue?

2. Do you feel you understand the purpose of a Library Catalogue?
3. In preparation for today's focus group, I have asked you to watch a short video which shows you the basics of how to use the Library Catalogue. We have just viewed the video again, after watching the video, what are your initial thoughts of the online Library Catalogue?
4. In the video, what particular features/functionality of the Library Catalogue appeal to you the most?
 1. Probe: one search box, spelling correction, natural language query, refine/reduce your search, images of book jackets, did you mean?
5. What features/functionality of the new Catalogue did you find unappealing or difficult to understand?
6. In your opinion, what do you think is important in a Library Catalogue?
7. How would you evaluate a library catalogue?
8. What could Fingal County Libraries do to entice you to use the Library Catalogue?
9. Were you aware of the plan by the Irish Government to introduce a national Library Catalogue?
10. The national Library Catalogue will provide significant benefits to the public allowing access to Library collections of all public libraries in one easy search, what do you think about having a national public library Catalogue?

Appendix 2: Interview Schedule 2

Focus Group Questions for Expert Group

1. Firstly, can I begin by asking you, how frequently do you use the Online Catalogue to search for Library items?
2. The new Library Catalogue went live last June, what were your first impressions of the new Catalogue? Did you notice a difference straight away?
3. What new features/functionality in particular do you notice?
 1. Probe: one search box, spelling correction, natural language, query, refine/reduce your search, images of book jackets
4. I would like you to rate your experience in terms of finding library resources on the Catalogue. Are you experiencing higher success rates in your search?
Rating - Poor, Fair. Good. Very Good
5. Are there any particular features/functionality of the new Catalogue that you would like to see?
6. What features/functionality of the new Catalogue do you find difficult to use?
7. Are there any particular features/functionality missing that would enhance your experience of using the Catalogue?
 1. Probe: Social Networking i.e. opportunities to interact with other Borrowers via book reviews
8. In your opinion, does the current catalogue fully meet your requirements and in what way?
9. The new national Library Catalogue will provide significant benefits to the public allowing access to Library collections of all public libraries in one easy search, were you aware of the plan by the Irish Government to introduce a national Library Catalogue?
10. What do you think of having a national public library Catalogue?
11. What ideas do you have that you think could improve your experience of using the Catalogue?

Appendix 3: Interview Schedule 3

Interview with Aoife (Project Team) and Theresa McNally (System Librarian, Fingal County Council)

1. Can you briefly outline, what was your role on the project team?
2. My dissertation is based on the Public Library's Users perception of Encore, the national library catalogue, from your experience to-date, what has been the reaction from Users to the online public Catalogue?
3. In terms of evaluating the User's perception of Encore, what studies have the LGMA/ Project Team conducted to-date to assess the User's experience of using Encore and are there plans in the future to conduct any form of evaluation?
4. Were Users invited to participate at any stage of the planning, design and development of the new LMS, specifically the online public catalogue?
5. Following the rollout of Encore, has there been any significant changes in terms of the usage (increase or reduced usage) of the new national catalogue?
6. Regarding features/functionality of the new catalogue, does and will the new catalogue have the ability to search for recently added stock i.e. display lists of newly acquired items broken down by collection or material type?
 - a. Does the new catalogue have allow users to view serial holdings?
7. In terms of social interaction, are there plans to allow for the creation of interactive and personalisable features such as book reviews, ratings, discussions threads and social tagging including linkage to Facebook, Google+, Twitter etc.?
8. What are the plans for full catalogue integration so to enable users to search across all Library resources i.e. Web-Scale Discovery Services (e.g. the VuFind open source library search engine)?
9. What has been the main challenges with the implementation of the new LMS?
10. Regarding relevancy ranking, when ranking results from the library's book collection, what has the feedback from Users? Are they happy with the search results?
11. What stage is the Project at in terms of the rollout of the new Library Management System?