An Investigation Into the Information Acquisition Methods of the Library Users of Blaenau Gwent's Public Libraries.

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Abstract

The purpose of this research study is to investigate the methods, by which individuals, acquire information, within the public libraries of Blaenau Gwent, Wales, and to extrapolate, any future scenarios, individuals, wish to see their public libraries adopt, in relation to service and/or information delivery.

The aims and objectives of this study are; to explore the various methods, by which an individual can acquire and gather information, in the context of a library; the identification of key issues noted from secondary sources into the methods individuals acquire information; the exploration of the perceptions, regarding, the role of the information provider; the querying of the library users of Blaenau Gwent, in regards to their information acquisition methods; to explore future possibilities and trends that may exist within the general library space.

An explanatory mixed-method is employed to collect primary data, by which a quantitative study, is followed up by a predominantly qualitative study. Quantitative data, was collected through the use of the quota sampling method, by which a printed survey was presented to research participants, that consisted of 3x A4 pages, which consisted of ten questions. Qualitative data, was collected, through the use of the convenience sampling method, by which a series of semi-structured interviews, was conducted, that consisted of a series of open ended questions, that allowed for a verbose answer, with responses being recorded.

The results showed, that individuals will attend a library for a specific purpose, however the reasons are diverse and numerous. Digital methods of information acquisition, such as the internet, appears to be displacing traditional methods, such as obtaining printed media. A majority of research participants, view the librarian as a custodian of the bookshelves, whilst overlooking the more diverse and broad skill set, the librarians has. Many library users, expect library services to change within the next 20 years, with digital technologies, advancing the need for change and adaptation of library services.

In conclusion, it would appear, that the way library users, access and acquire information, is changing, as a causal relationship exists, between an individual’s age and their method of information acquisition, as such a digital divide could be opening up, with the older age groups would appear to be averse to the usage of digital technologies, therefore a possible future scenario could exist by which they are excluded from accessing information. What is certain is that the monolithic proprietary information systems, which revolve around books, and traditional printed media, are being displaced by newer, digital or more mobile forms of information acquisition, which may force libraries to adapt to an increasing dynamic user base.
Declaration

This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature for any degree.

Signed ................................................................. (candidate)

Date ........................................................................

STATEMENT 1

This work is the result of my own investigations, except where otherwise stated. Where *correction services have been used, the extent and nature of the correction is clearly marked in a footnote(s).

Other sources are acknowledged (e.g. by footnotes giving explicit references).

A bibliography is appended.

Signed ................................................................. (candidate)

Date ........................................................................

[*this refers to the extent to which the text has been corrected by others]

STATEMENT 2

I hereby give consent for my work, if accepted, to be available for photocopying and for inter-library loan, and for the title and summary to be made available to outside organisations.

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Date ........................................................................
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List of Abbreviations

ACM - Association for Computing Machinery
CILIP - Chartered Institute of Library and Information Professionals
DIS - Department for Information Studies
IBM - International Business Machines Corporation
ICT - Information Communication Technology
IEEE - Institute of Electrical and Electronics Engineers
LISA - Library and Information Science Abstracts
LISTA - Library, Information Science and Technology Abstracts
NT - New Technologies
ONS - Office for National Statistics
PDF - Portable Document Format
SPSS - Statistical Package for the Social Sciences
UK - United Kingdom
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Chapter 1: Introduction

1.1 Background of Research Study

The term "information acquisition", is generally accepted to refer, to the task of capturing all sorts of relevant information about how things are currently done, which may include, information flow, external and internal data, gaps in existing knowledge, problems with the current situation, amongst others. In many scenarios it is desirable to augment existing data with information acquired from an external source, however what is unclear the process of information acquisition, how its obtained, and through what media.

The process of acquiring information from an external source could involve multiple steps, such as deciding what subset of information to obtain, locating the documents that contain the required information, acquiring relevant documents, extracting the specific piece of information, and combining it with existing information to make useful decisions. However, given the wealth of information available to individuals, there could be a significant cost associated with gathering and integrating this additional information, which makes it near-impossible for example, to purchase every available database or crawl and parse every page on the web, the resources required for this task may include monetary, time, human, and administrative costs, which would be prohibitive.

Recent estimates, by the Chartered Institute of Library and Information Professionals (CILIP), say there were 322 million visits are made to UK public libraries each year, from 2005 to 2011, as such it would appear that one of the primary functions and goals of libraries and librarians in our societies is to connect people with information, whether it be in the form of a book, manuscript, painting or digital document. If we assume that the connection of
people to information is the primary value and objective of libraries and librarians, it remains unclear as to how librarians should go about making this connection, or how the library, can foster intellectual inquiry and nurture communication, that go beyond vague expressions, which in turn can't, be easily translated into specific library functions or services.

Therefore, better understanding, of information acquisition, may serve two purposes, one, to increase the chances of a successful retrieval of information sought for by the individual, and two, to design and implement better, more advanced or refined services, for those institutions which hold a vast amount of information, such as a library.

1.2 Research Purpose

If we consider the process of efficiently acquiring external information, the first step often involves, deciding what information to obtain, since some information may be more valuable than other, motivating us to prioritise the acquisition of those pieces that would help achieve our final goal. In some cases, the required information may be readily available in a suitable form on the external source, such as a book, on a bookshelf within the individuals residence. However, in most scenarios, it may be embedded in an extremely large, heterogeneous corpus, in this scenario, individuals may opt towards using the resources and skill set available within a library setting, which could aid them in obtaining the specific information, not available to them by any other means.

Therefore the purpose of this research study, is to investigate, the methods by which individuals, acquire information, within a public library setting, and to extrapolate from the research participants a series of potential future scenarios and roles they would like to see public libraries adopt. This study will therefore assist, in the development of future library
services and to aid in the maintenance and addition of information resources, which may ensure the public library, keeps its current user base, as well as ensuring relevance to the local community it serves.

The results, comments and suggestions obtained from this study will also be used by the public libraries of Blaenau Gwent to overcome any difficulties, concerns, or suggestions for improvements, experienced by its users, in order to assist the library management assist in their current decision-making procedure to improve information support for all those concerned.

1.3 Research Scope

The term "library users", at first glance, may include, any individual who enters and utilising the space a library offers, therefore, the term itself, prima facie, would appear to be vague and undefined.

For the purpose of this study, the term "library users" is defined as an individual who uses the information resources available to them within the public libraries of Blaenau Gwent, irrespective of age, gender, and educational background. This research bears in mind, the diverse range of information resources available, and as such, information resources have been classified into two broad sections, traditional, and digital.

Therefore the study investigates, specifically, the acquisition methods, library users, utilise when acquiring information, from within any of the six available public library spaces within Blaenau Gwent. In order to add more realism to the results, the study makes use of surveying frontline library staff, who are directly involved in the operation of the libraries, and who provide information services and support.
1.4 Aim and Objectives

The following section, presents details regarding the research question, along with the aims and objectives that underpin this study.

1.4.1 Research Question

The research question that underpins this study is;

What method(s) do individuals, who use the public libraries of Blaenau Gwent use, to acquire the information they seek?

1.4.2 Research Aim

The aim of this study is to, investigate, the methods, by which the users of the public libraries of Blaenau Gwent, utilise, to acquire information, from within a public library setting.

As such, this research will illustrate whether the public libraries of Blaenau Gwent is both, sufficiently, meeting the expectations and demands of its current user base, and to assess whether it is prepared for the increasing diversity and variation, demanded by its users for the information services available.

The results, will identify current trends of library users information acquisition methods, ranging from traditional, printed media, to more advanced, digital methods, such as the internet and will extrapolate, any potential areas, within the field of information acquisition that will need to be further developed.

1.4.3 Research Objectives

- To explore the various methods, by which an individual can acquire and gather information, in the context of a library.
• To identify key issues arising from the research of literature into the methods individuals acquire information.

• To explore the current perceptions, regarding, the role of the information provider (for example, the librarian).

• To investigate the perceived information acquisition methods of individuals, through the querying of the users of public libraries, within Blaenau Gwent.

• To explore future possibilities and trends that may exist within the general library space.

1.5 Dissertation Structure

This dissertation, and its underpinned research scenario is structured around six chapters, laid out as follows;

Chapter One: This chapter, introduces this dissertation, by providing, an insight into the background of the research study, along with the scope, purpose, and aims and objectives, that underpins the whole study.

Chapter Two: A review of literature is conducted, that provides an overview of the current state of research, obtained from secondary resources, regarding the notion of how information is acquired by individuals, both in the general and library settings. Also detailed is the search methodology used to acquire the secondary research, such as the information repositories consulted, and the search terms and syntax employed.

Chapter Three: Describes the methodology employed to collect primary research data, along with the tools, that were deemed appropriate to maximise responses from research participants. The use of the mixed research method, ensured multiple modes of data
collection were used, as such the chapter details the structure, layout and presentation of
the semi-structured interviews, and paper-based surveys, along with the appropriate
sampling methods. Also detailed are the ethical considerations that were followed, during
the primary data collection.

Chapter Four: Presents the results, that were obtained, exclusively through the collection of
primary data, with the quantitative results, being presented, graphically, in the form of
charts and tables, and the qualitative results, being presented, in the form of direct
quotations from research participants.

Chapter Five: Discusses the outcome, from the primary research, and compares it from the
research, viewpoints and hypotheses, obtained from secondary sources, found in the
literature review.

Chapter Six: Concludes this dissertation, by assessing whether or not the aims and
objectives that underpin this study were met, along a discussion on the internal and
external validity of the findings, and recommendations for further research and
improvement.

1.6 Referencing and Citation Style

This dissertation, makes use of the Harvard Author-date parenthetical referencing and
citation style, accompanied by a list of the full citations in alphabetical order, contained
within the References, and Bibliography, end sections.
1.7 Research Planning Policies

The planning, and direction of this study will follow the policies set out by Aberystwyth University Ethical Practice in Research, and DIS Ethics Policy, which are based upon the British Sociological Association, Statement of Ethical Practice, code of professional practice.

The collection of primary data will also follow the Blaenau Gwent County Borough Council Research Guidelines which are a series of professional guidelines, laid out for public sector workers, further detailed in section 3.9 Ethical Considerations.

1.8 Conclusion

The aim of this chapter was to set the scene for this dissertation, by describing the fundamental aspects of the proceeding study.

The background to the research study could imply that individuals, may already possess a basic or broad overview of the subject matter, and therefore acquire information from an external source, to supplant existing information, however with respect to the amount of information acquired, individuals, may over-invest in their efforts, which could lead to an overload of information, that is neither relevant, nor desired, therefore as new information arrives, we may need to make decisions about our confidence in the values of the acquired information.

This chapter has also highlighted the purpose of this research study, which is an investigation of the methods by which individuals acquire information, and is scoped onto the individuals, the "library users" who use the information resources, available to them within the public libraries of Blaenau Gwent.
The next chapter, presents a review of the current state of the research found, within the information acquisition field of study, in the form of a literature review, based upon six themes, along with the associated research methodology in obtaining the secondary resources.
Chapter 2: Literature Review

2.1 Introduction

The previous chapter, opened the dissertation, by introducing the fundamental aspects of this study, such as the background, purpose and scope of the research, along with the aims and objectives that will aid in answering the research question, and also providing the structure to this dissertation, as such by reflecting upon what was discussed within the previous chapter, it can be argued, that given the rise of technology within the past two decades, has fundamentally changed the way, we, as individuals acquire information. The traditional library space can be seen, as a medium to provide information in a single form, print, whether it is in textbooks, journals, articles or monologues.

However technology and its ubiquitous nature, now allows an individual to acquire and seek for information differently, using multiple different sources, such as optical storage media, or accessed remotely, such as the internet, at a time of their choosing. As such technology can now be seen as encroaching onto the library space, providing them with significant challenges in responding to change. A library now face adapting to modern technology whilst attempting to sustain their traditional functions, but also raises questions relating to the role of libraries and librarians.

This chapter, is concerned with, presenting the research obtained from secondary resources, in the form of a literature review, based upon six separate themes, identified from within the information acquisition school of thought.
The layout of this chapter, begins, with a section detailing the search methodology used to obtained secondary research material, such as the search terms used and how they were used, which is followed up by the review, of the current state of the research and literature within this field of study.

2.2 The Literature Search

The following section, describes, the information resources and repositories that were used to collect the secondary research that underpins this study, along with the usage of search terms, and the methods the search terms were used to collect specific literature.

2.2.1 Repositories Consulted

To undertake the following literature review, online library catalogues, such as Aberystwyth University (Voyager and Primo), the Blaenau Gwent County Borough Council Library Catalogue and the Monmouthshire Libraries and Information Service Catalogue were used.

The main databases used to retrieve research materials include Library and Information Science Abstracts (LISA); Library and Information Science and Technology Abstracts (LISTA) available via Aberystwyth University, to identify further literature that many of the other sources fail to pick up.

Academic journals were searched using Association for Computing Machinery (ACM) Digital library, as well as The Institute of Electrical and Electronics Engineers (IEEE) digital archive.

Aberystwyth University library – via Primo, Blaenau Gwent public libraries and Monmouthshire public libraries were used and searched for printed media, such as textbooks, articles and journals.
Online databases such as Libri the International Journal of Libraries and Information Services were used to search for topics relating to information acquisition in public libraries.

Online search engines such as Google, were consulted for a broad overview of topics relating to information acquisition.

2.2.2 Search Terms

Upon consulting online search engines and library catalogues, initial search terms included “information acquisition”, and “library information acquisition”, within quotation marks to return results that had the text within them returned. Search term such as “PDF” was added to return PDF documents, available on digital repositories and online search engines. Truncated search terms such as “information seek*” were used to acquire the maximum possible results. Boolean logic, such as AND, OR and NOT was used, between search terms, to link search words. Search terms were entered into text boxes or subject fields of a supporting search engine, digital databases, and library catalogues. Search terms relating to each subheading of the literature review were also entered into search databases for example 2.3.2 Seeking for Information was entered into search engines as “Information seeking” with quotation marks.

2.3 Literature Review

The following section presents the findings and research of literature deemed relevant to the research topic, organised by multiple themes.

2.3.1 Connecting People to Information

It can be argued that one of the primary functions of the library is to connect people with information. Librarians often play a prominent role in society to help an individual acquire
information and as Buckland (1991) states "information exists to be consumed, and will be consumed to those who are willing to consume it", however this statement would appear to imply that information, itself is a rigid, monolithic object that exists in a single form, which fails to take into account the many different ways information can be reached, such as a book, manuscript, painting or digital document.

What is not clear is how the connection of people to information takes place what makes an individual search for a textbook, whilst another individual will use a digital document. Vincent (2005) argues that it is essential to better understand how this connection is made, as it will allow librarians to design and manage their libraries and services more effectively.

Mudrock (2010) notes that designing and managing library services can be difficult, as different people want different things. Therefore Voss (2008), tends to direct research onto the individual itself, and highlights that librarians can be quite helpful to individual library users by providing them with suggestions that the librarians feel will help them and educate them. However it can be argued that most library users do not approach the librarian for assistance, as a vast number of people in society who could benefit from the advice of librarians are not aware of them at all or what they have to offer (Brophy, 2002).

The librarian can often be seen as the bridge, between an individual and information. Cockrell (2010) defines the librarian as being proficient at searching through many types of resources for any type of information. This enables them to make suggestions about information resources that might interest the library user, and as such the user can be introduced to new resources, such as a book or journal, or other ways of acquiring information, which wouldn’t have occurred to the library user if he or she acted alone. Lee (2007) suggests that whilst the library user has the ability to accept or reject what the
The librarian has to offer, in any case the user, itself has opportunity to learn and grow thus being connected to information which was imparted based on the library environment.

The current state of librarianship can be seen as catering towards an individual who engages in their own method of information acquisition, Goodyear (2011), highlights that the role of the library is to guide the information seeker, whilst the individual, itself, defines their own search parameters. This may go some way as to explaining how the connection of people with information is not as effective as it could be and indeed should be. Battleson (2009) however prefers to defer critical tasks away from an individual such as defining and refining the search are presumably tasks assumed by the reference librarian, and reference service is a fairly clearly defined means in which libraries help to connect people with information. But this would appear to require and foster some degree of intellectual inquiry and nurturing communication that are vague expressions cannot easily be translated into specific library functions or services.

2.3.2 Seeking for Information

We can safely assume that the most obvious way that library users acquire information is by actively seeking it out. Agosto (2010a) notes that the library catalogue, in whichever form its available, online, or in print, is designed specifically for seeking out specific information. However Haythornthwaite (2001) argues that libraries are now making the whole information seeking procedure more sophisticated, in light of new technologies, and changing user’s needs.

Regardless of which method is used, a user must know first know something about the information that the user seeks, prior to seeking out information in a library’s catalogue. De Rosa (2005), draws attention to the fact that an individual must know the title, author,
subject, publisher or any one of the other various fields that can be queried in a catalogue, else the information seeking procedure may fail. Budd (2001) agrees, and highlights that most library users will not know exactly what to look for, nor will they know everything about the information sought, but must know at least something about it. This can be seen in the traditional library space, an individual cannot search for a piece of information, such as a textbook without knowing its author, editor, translator, title, subject, publisher, or ISBN number. However we can safely assume that most people don’t enter a library without at least an outline of what they want, for example the title, or an author, what isn’t clear is how this information has been imparted onto the individual in the first instance. We may have acquired this information by doing some initial research; therefore some basic information must be acquired before a search can take place. (Agosto, 2010b)

Therefore libraries can be seen to serve as a hub for information for people who already know what they want, or know what they are looking for, whether partially or fully. Bawden and Vilar (2010) notes that an individual often knows what they want, and as such library catalogues, serve as a means of accessing a library’s collection of information. Pullinger (1999) draws attention to the fact that this information seeking behaviour is not unique to a library setting, and can exist anywhere where there is a wealth of information or knowledge. However Case (2011) notes that most individuals will choose an information source, that is readily available, requiring the least amount of effort, regardless of the quality of the information retrieved. Combes (2008) highlights that newer generation information-seekers are no longer content with rapid responses from library databases but want instant, on-the-spot gratification of their search demands.
Zhang (2012) highlights that younger researchers, those who have been brought up to use the internet, the so-called “net generation”, need to improve their information seeking skills as many rely on insufficiently constructed search strategies and information searching is often via Google rather than via the high quality information sources to which the institution subscribes. Often younger researchers don’t sufficiently evaluate the information they have retrieved.

Klyne (2009) argues that many issues surround the notion of articulating a search query. Regardless of what search method is used, whether it’s in a traditional library setting or online, users cannot use continuous prose or natural language to generate their search terms, instead they must formulate them using search syntax. Research by Shenton and Dixon (2003) show, that a majority, of users do not know adequate search syntax, or are unaware of Boolean logic. Library users in this instance are required to translate their search query into controlled, simplistic vocabularies, but as this implies keyword synonymy can present a major conceptual problem when the terms that users choose to search by do not overlap with system search terms, as there is no standardised platform for search query languages. (Heiner, Heffernan, and Barnes, 2007)

Campbell (2007) also notes that library catalogues use outdated interfaces; whilst Antell and Engel (2006) notes that a “lack of user perseverance” in regards to users failing to browse beyond the first page of results often hinders a successful search.

2.3.3 The Online Acquisition of Information

At present, individuals who want to research an area thoroughly must at least once, go to a library and conduct the traditional search process, however current technology now opens up research to different methods such as the internet and other electronic means.
However the internet, itself, raises an interesting question, how can an individual ensure the information found on the internet is authentic, valid and of sufficient quality. The ubiquitous nature of the internet now allows an individual if it wishes to base a search entirely on the internet by assuming the information available there is complete and accurate or that the internet, alone provides an adequate resource. (Gamberini and Bussolon, 2001)

Pivec (2007) have found that individuals who possess high computer literacy are more likely to use the internet as their preferred search resource, but this raises a problem, search engines such as Google and Yahoo, offer much wider coverage, search results that traditional libraries allow, often in the range of a million or more results, whilst a library would offer thousands of results. Researchers in this field have noted that online search engines tend to offer results that are of lower quality, whilst lacking the filter and descriptive quality compared with a traditional library (Srivastava, 2012).

Cardini (2009) notes, that a majority of users of online search engines would appear to not know how to use them effectively, often leaving out advanced features or using sophisticated search algorithms embedded within search engines. As a result the search can provide incomplete information that is often rudimentary, and inefficient, with little organisation and thus possible relevant or important information is disregarded.

Therefore it would appear that the online digital repository of information is unorganised and may offer too much information for any one individual to search through, however Long (2005) notes that online resources need a system to ensure the selected information is viable with validation of authenticity of the content provided, with more legitimate process for selecting and finding information. Traditional libraries almost always provide a descriptive catalogue of all the information they hold, however if we are to depend upon
the internet to provide this information in the future then similar cataloguing methods should exist. (Lawless and Schrader, 2005)

Morgan (2011) proposes that a portal with selected sources, better search tools, and a validated set of resources. Such a portal could address many of the current problems and limitations by providing an appropriate inventory of resources, the necessary descriptors, and an associated search engine. Josang and Ismail (2007) however would appear to contradict Morgan (2011) as they highlights, search engines often lack the complex Boolean logic and search algorithms that are the equivalent of modern library search engines and catalogues, also, it would appear that the search results obtained from online search engines may lack the metadata, cross-reference information, and other important identifiers necessary to conduct more complex searching.

The emerging trend of accessing digital resources, through a search engine, would appear to be disrupting the traditional library setting. However much of the debate and search on online methods of information acquisition tends to focus on the authenticity and validity of the information acquired on the internet. Nichols (2012) argues that information stored in a library, in print-form offers a conscious set of decisions about the validity of the information whereas the internet, the defined role of a library is lost, with regards to the selection, preservation, and provision of the digital resources. Gonyea (2010) researches that if an individual, were to use online methods of information acquisition, then it is now up to the individual to learn how to evaluate the new information resources available.

**2.3.4 Providing Access to Information**

When we search for information, we tend to go to a library and assume the information is there because it is a library, what is often overlooked is the fact that information in
whatever form won’t exist without the librarian. At present, librarians perform a valuable service to information seekers by allowing quick and easy access to information. Fourie (2012) notes, that the librarian’s role is becoming redundant where increasing amounts of information, are accessible through the internet, direct to users. However Feather (1996) contradicts, Fourie (2012) who highlights that the internet is a “chaotic medium”, by which individuals, are not willing to waste time in fruitless searching for the precise information that they need.

Fagan (2010) argues that the information-seeker is little concerned with what happens behind the scenes, as long as the information is quickly and easily available, however the librarian facilitates this, by dealing with the selection, and acquisition of information available whilst dealing with the hardware and software requirements needed for electronic resources.

Librarians are often familiar the mechanics of acquisition. Hay (1990) highlights, that the librarian knows what information, suits the library user and how to get it, whilst exploring avenues of information acquisition that are unavailable to non-librarians. For example a printed text, or monograph, may be purchased direct from a publisher, through suppliers, such as booksellers, or library supply company, or have access to subscription agents to acquire journals.

Given the increase in availability of information it would appear the librarian’s role is just as important. The librarian is often concerned with deciding, choosing and acquiring the materials needed by their library users and knowing how to obtain the chosen materials, but also to arrange the collection of information, to make it easier for users to find items, and
maintaining and developing search tools, such as indexes and catalogues. (Parker and Jackson, 1998)

In many ways, librarians can be seen as the gateway to acquiring information and by dealing with library users directly, they can be seen as the first point of contact, should a user wish to lend or reserve an item, but also to reacquire and re-shelve the lent item. Wilson (2006) notes, that the librarian can interact with the library user, in order to discuss the users information needs, and advising them on the best method to acquire the sought-after information. Perhaps a central role the librarian occupies is the preservation, conservation and archiving of information, making sure that materials remain available to users, past, present and future (Kennan, 2011).

Price (2010) states “The skills of a librarian are, in fact, just as relevant to electronic media as they were to that of print.” However the role and tasks librarian form, would appear similar, but not identical, insofar that collection development now implies that library users want straightforward access to electronic resources, with minimal fuss. Whilst cataloguing needs to attach metadata to information objects to make it easy for users to readily find information. Herring (2007), shows that preservation remains a significant unresolved issue for electronic publications, with ownership of those publications becoming fluid. This would appear to require a new or higher level of administration skills, skills, such as the formulation of queries for search systems that individuals are unwilling to invest the time or effort in, which remain delegated to the librarian (Bültmann, 2009).

2.3.5 Selecting an Information Source

As soon as an individual recognises the need to acquire information, then the question of how that information is to be acquired arises. Kuhltau (1991) highlights that when the need
to acquire information arises, it is the individual who ascertains what is relevant or not, in relation to a topic of the individual's interest, however this initiates information-seeking behaviour, as individuals may need to access highly organised taxonomy of information on a given subject area that relates to their research. However for the selection process to be successful, an individual is required to formulate and translate their selection needs into an organisational structure that libraries facilitate (Grant and Berg, 2008).

Ethnographic research by Lee (2011) examining how, individuals use and view their local library, shows that they often fail to ask librarians for assistance, even when the need it. The librarian in this sense is viewed not as an academic expert, but one who points to information within the library. It can be argued that the librarian, itself, can foster this problem, insofar that librarians tend to overestimate the research skills of some of their users, and often project an idealistic or even simplistic view of the research process, which can result in interactions that leave individuals feeling intimidated and alienated.

This contrasts to what Morrison and Vancouver (2010), says, as his research shows, that information literacy can play an important role in selecting information resources. Information literacy is the skillset that involves locating, evaluating, managing, and using information effectively from a range of sources for problem solving, decision making, and research (Narayanan, 2011). Following this description, it would appear that Information and Communication Technologies (ICT) and information literacy are linked, as digital and electronic formats are gradually replacing printed materials in libraries. Using ICT technologies to locate and use electronic resources are becoming a concern for users and public libraries; Swanson (2012) suggests that it is the librarian’s responsibility to provide
digital-based information literacy skills for the purpose of meeting their growing demands to
acquire information through libraries’ electronic databases.

Hey (2010) argues that selecting an information source varies based on the problem or
research question the individual, seeks an answer to, as complex problems, more thought
an effort, requiring the individual to disseminate what is known and what is unknown, and
then collect the resources that addresses the specific focus of the question. At this point,
the individual should have developed enough of a general understanding of the principles
and concepts underlying his or her problem to make decisions regarding relevance of both
content and form, and rejecting or accepting data that they want. (Martin and Rader, 2010)

2.3.6 The Changing Nature of Public Libraries

It would appear that public libraries of all sizes and types need to embrace digital
technologies in order to be sustainable in the future (Ashcroft, 2007). As research by Black
and Crann (2010) shows that new purchases in the library space, whether it is journals,
magazines, and abstracting and indexing services are now heavily biased towards the digital
media, whilst e-books are making a presence.

Shenton (2002) notes, that individuals, are demanding library services, such as digital
journals that can be linked from and to indexing and abstracting databases, that are
accessible from the users home, or office, whether or not the physical library is open, whilst
libraries themselves prefer digital content as it saves space, and lowers maintenance costs.
As Pung (2010), notes “When total processing and space costs are taken into account,
electronic collections may also result in some overall reductions in library costs”. However
the change from print collections to digital collections would appear to have an impact on
library users and their perceptions. (Moore, 2007). Even though research in this field tends to be biased towards the internet and lack a substantive section on libraries themselves.

As such, the current library role can be seen to be supporting the literary, leisure, learning and cultural pastimes of the population, however questions are raised if this role holds true in light of emerging digital technologies. Johnson (2011) asks “with internet companies such as Google becoming more involved in digitising content, what role does the public library have in today’s web-driven society?”

Whilst it does appear that web technologies are changing the way we acquire information, they only work when an individual is computer literate, statistics published by the Office for National Statistics (ONS) show an increase in individuals with access to the internet in their homes, from 57% in 2006 to 70% in 2009. What about the 30% who don’t have access to the internet, the ONS terms these individuals as “digitally excluded” with groups such as older people and those from disadvantaged groups, including the unemployed, these groups are often overlooked when research assumes that public libraries are going to be displaced by web technologies (Hepworth and Clayton, 2011).

However, libraries have adapted in the past to the changing needs of its users, in the 1930s, library buildings incorporated a small art gallery, theatre, or a film theatre, therefore it would appear that libraries can adapt to modern media such as CDs, videos and DVDs, talking books, computer software, and internet access (Hayes and Morris, 2009). Green (2010) notes, that library spaces in the future may need to incorporate a more diverse set of public services to stay relevant, such as computer training suites, advice centres, careers services, or cafes.
A common undertone as shown by Usherwood, Wilson, and Bryson (2011) arises, is that the role of the public library is becoming unclear, libraries are trying to find the best ways to define their user communities, understand what they value, and evolve digital library collections and services to meet their demands. However, little research has been undertaken in regards as to how library users interact and behave within a network environment, or how they combine library services with online methods such as search engines, or an online bookstore. Furthermore, the library has proved itself as being competent at their use of their traditional collections and services, whilst the online facilities, have not (Marcella and Baxter, 2011).

2.4 Conclusion

This chapter began with the author describing the resources and search terms used to conduct this literature review, upon using them, it has provided an understanding of the various themes involving the methods individuals will use to acquire information and the changing nature of the library and the role of librarians.

The chapter then provides a detailed review of relevant literature relating to information acquisition, and takes a look at how technology is changing the way we traditionally think about acquiring information. However the review has highlighted that information itself is a vast and broad concept and what we think as to how we acquire it can often just scratch the surface.

Connecting people to information would appear to be a more complex issue than previously thought, as authors in this field demonstrate the vast number of methods by which information can exist, whether it be in print media, or more modern, digital formats and as
such certain authors argue it can be up to individual preference as to what method they choose to connect to or acquire the information.

Given the numerous methods of information acquisition, seeking out information on the part of the individual gives rise to complex issues, for example when one enters a library, how does an individual successfully search for and acquire the information they seek? Information seeking behaviour would appear to play an important part in answering that question, and would appear to provide a base for further developments and refinements in information literacy teachings.

A common undertone arises is that the way we acquire information is changing, the traditional library space, some would argue is becoming or would appear to be already obsolete, as individuals, move to more modern, digital methods of information acquisition, however there appears to be a relation between those who are computer literate and those who can use digital media, whilst certain authors would appear to suggest that information literacy provides a key to forming and returning adequate search results.

Authors within the field of information acquisition, particularly when applied to the library space, often question the traditional role of the library and librarians, however they often overlook the concepts surrounding information, insofar that the internet, offers a vast archive of knowledge, by which the librarian can be regarded as skilled in dealing with it, and providing relevant information to information consumers.

Finally the review provides a broad outlook on what future trends public libraries, and their librarians and workers would appear to have to adapt to if they wish to stay relevant in the future. Technology would appear to be spurring an advance in the way we access and
acquire information, and the public library space would appear to be between a rock and a hard place, by adapting to changing needs whilst maintaining their regular users.

The next chapter discusses the author’s research methodology, and the steps taken to ensure the study addresses both the research question and aims and objectives, by linking the primary data collection to the themes highlighted within this chapter.
Chapter 3: Research Methodology

3.1 Introduction

The research method is often viewed as the most fundamental part of any research project; the previous chapter identified several themes and issues that surround the field of information acquisition and methodological approach to obtain secondary research on the topic.

This chapter aims to discuss the methodological approach taken by the author to ensure sufficient and valid primary data is collected on consenting research participants, in order to answer the specific research question;

What methods do users of public libraries, within Blaenau Gwent use, to acquire the literacy or information they seek?

Answering this question through the use of a mixed method approach would appear to ensure that exploration of the research topic can be as exhaustive as possible within a given timeframe.

This chapter begins with a justification of the methodological approach taken along with a comparison of data collection methods such as interviews and questionnaires. Followed by the various processed that the author used before, during and after primary data was collecting, and ending with the limitations the author encountered when doing the research.
3.2 The Research Approach

The methods by which individuals acquire information are changing in light of the growing use of the internet, and the proliferation of technology. Common methodologies in researching the information acquisition habits of individuals typically involve the traditional research methods that surround the use of surveys, questionnaires and interviews, in essence asking, enquiring and probing individuals about how they acquire information.

The research paradigms of Positivism and Interpretivism, that are classically linked with the social sciences were consulted but ultimately rejected in favour of the post-modern objective and subjective paradigms, although related, these paradigms provide a more critical understanding of Positivism and Interpretivism which may have helped to avoid some of the pitfalls, that are common with the classic research paradigms.

The author chose the explanatory mixed method design as the most suitable way of primary data collection, by which a quantitative study will be followed up by a predominantly qualitative study, it was considered important to gain a broad overview and although limited understanding by surveying a large sample of research participants, which was then followed up by interviewing a smaller sample in order to gain a more in-depth analysis, both inquisition methods contained questions that were based on the themes identified within the previous chapter.

The methods used to collected primary data therefore included a questionnaire, to collect quantitative data, and semi-structured interviews to collect qualitative data.

The questionnaire aimed to assess the attitudes and experiences of library users towards information acquisition, the design of the questionnaire is considered important, in order to
maximise participant response rate, Reynolds (1993) argues that a questionnaire that contains a single scale, such as a Likert or Guttman scale allows the participant to complete the questionnaire as efficiently and as completely as possible, thus letting the researcher elicit data from participants, however Pickard (2007) disagrees, by designing a questionnaire with multiple scales and/or questions that allow for an open text commentary, the questionnaire itself becomes more qualitative and allows a respondent to select a choice that best demonstrates their level of agreement with a given statement and allow for a personalised responses.

The semi-structured interviews served as a means to explore and probe the issues and attitudes that surround methods of acquiring information from an individual perspective. It was determined that this qualitative approach gave the opportunity for a more detailed and comprehensive elaboration of questions put to each interviewee, however Turner (2010) argues that interviewing often demands more time for data collection, coding and analysis of each transcription. Selecting willing participants to be interviewed is often viewed as a challenging process, with many people preferring to avoid interviews, or are unfamiliar with the interview setting, however the semi-structured nature of the interview questioning, was designed to add a more conversational feel to the interviews, by allowing the interviewee to expand upon their original responses, and return questions to the interviewer.

The investigative and in-depth nature of this study allowed for personalised responses from research participants that aided the understanding of the research topic at hand, the use of the mixed method approach provided benefits to further the development of information services for library users of Blaenau Gwent Public Libraries, however the time-constrains
and total costs of this study, didn’t allow for a more explorative investigation of the research topic.

3.3 Data Collection Methods

The research methods used in social sciences are often categorised as being either, quantitative or qualitative, what is often overlooked is the apparent advantages and disadvantages these methods offer, the following section presents a background to each research method along with the considerations involved when selecting an appropriate research strategy.

3.3.1 Questionnaires

Quantitative research is primarily concerned with the collection and analysis of data that exists in numeric form, with datasets that tend to be large-scale and representative. Although the use of it, within the social sciences, has diminished in favour of qualitative methods, it still remains a useful tool, more so when the type of information to be collected is already known. Quantitative research is strongly associated with objectivism, with the common methods used to collect this type of research includes, questionnaires and scientific experiments.

For the purpose of this study, the questionnaire collection method was used when obtaining quantitative data. Gillham (2008), defines the questionnaire as being a research tool, with the purpose of presenting a series of questions, and/or prompts to a respondent with the purpose of gathering information which can be statistically analysed. Neuman (1994) recommends that questionnaires follow a formal and standardised format, by which the questions contain prescribed wording, so that each respondent receives the same stimuli with questions on one subject, or one particular aspect of a subject, should be grouped
together. Given (2008), recommends a single format for each response, to enable rapid completion of the questionnaire, with an explanation accompanying each question, to ensure the respondent answers it correctly and with clarity. However Byrne (2001) warns that a questionnaire should be well-designed and must meet the research objectives, as this would avoid common problems, such as inadequately probing particular issues that underpin the research sought.

Questionnaires have become a popular method to collect quantitative data, with the advantages being; the cost effectiveness when compared with face-to-face interviews, more so when the study, involves large geographic or sample size. Questionnaires are familiar to a large proportion of the general population, nearly everyone has had some experience filling out a questionnaire, and therefore they don’t make people apprehensive. The anonymity of each participant and the confidentiality of their responses can be assured, which also reduces the chance of bias. Questionnaires can be analysed in an objective and scientific manner, with the results often being logically presented, whereby the interpretation of the results is similar to different readers, which may have a limited affect to its reliability and validity.

However the questionnaire often lacks to personal feel that is fundamental to qualitative interviews, and given this limited contact, some disadvantages can arise, such as; quantitative research in general, offers a broad overview on a chosen subject, making it inadequate to understand some forms of information, such as emotions, and feelings. It can be difficult to ascertain or probe for a deeper understanding of a response. It can be impossible to tell how truthful or how much thought has been given to a response. Participants may interpret the wording of the question, or read differently as to what was
originally intended, therefore adding a level of subjectivity which is not acknowledged, which could affect the validity of the results obtained.

3.3.2 Interviews

Although research may be viewed as a systematic investigation to find a solution to a given problem, the qualitative research method focuses the collecting and analysing of information in a non-numeric way, it tends to focus on the depth of the issues involves as opposed to breadth. Qualitative research is often associated with the subjectivist paradigm and emphasises the naturalistic and phenomenological mode of research by focusing on the exploration of as much detail as possible of the human condition. Common methods of collection qualitative include observational studies, interviews and focus groups.

This study used semi-structured interviews as a method to collect qualitative data. Denzin and Lincoln (2000), recommends that interviews be conducted conversationally with one respondent at a time, whilst Smythe (2001) highlights that dialogue and questions can meander around the research agenda as opposed to presenting verbatim questions often found in questionnaires. However Miles (2002) argues that semi-structured interviews should contain both closed and open ended questions which are followed up by the “how” and “why” questions which may elicit an additional, more detailed response. Parry (1998) warns against interviews being long and drawn out, by keeping the timeframe to a minimum at around 30 minutes or less, to avoid fatigue for the interviewer and the respondent.

Interviews are a common method to collect qualitative research, more so when the researcher seeks to acquire, in-depth and descriptive data, or when the study appears to be complicated with questions that can’t be answered easily.
The advantages of using interviews tend to related to them offering reliable and comparable qualitative data. Interviews may be less intrusive to the interviewee as the semi-structured interview encourages two-way communication; the format allows the interviewee to ask the interviewer questions. Interviews often confirm what is already known and provides an opportunity for the interviewer to learn and to obtain the reason for the answers as opposed to just the answer, whilst allowing the respondent to freely express their views on their own terms.

However semi-structured interviews do offer certain disadvantages, such as the interviewer needing specific interviewing skills, the interviewer has sole responsibility for the design and preparation of each question, they can be time consuming and resource intensive to execute. The interviewer needs to be asking consistent questions, else the data obtained may be affected, and the interviewer has to take into consideration the ethical considerations such as the respondent’s anonymity.

3.3.3 Mixed Method Approach

The mixed research method is focused towards collecting and analysing datasets that contain both quantitative and qualitative data. The use of mixed methods have increased in the social sciences, in recent decades with the main argument for the use of it being that it may provide a better understanding of the research problems that a study poses, compared with the use of a single methodological approach. Mixed methods research is associated with pragmatism, where data is inducted and deducted, and is represented both numerically, textually and pictorially, it provides strengths that offset the weaknesses of both quantitative and qualitative research, and by using it; researchers are able to use a greater variety of data collection tools.
In conducting mixed methods research, Bryman (2006) recommends that research questions are based upon real-life contextual understandings, multi-level perspectives, and cultural influences. However Morgan (2007) advises that analysing one dataset such as a quantitative survey, first, and then using the information to inform the subsequent data collection such as interview questions. Teddlie and Tashakkori (2009), warns that it may be difficult to maintain an equal mix, should the study become unbalanced then it may offer findings that are unique to the relatively few people included in the research study, as such making an interpretation based on integrated results may be challenging because of the unequal emphasis placed on each dataset. Therefore Creswell and Plano Clark (2011) note that adequate sample sizes and using comparable samples and employing a consistent unit of analysis across both datasets are needed for any mixed method approach.

The advantages of using the mixed method approach would appear to be; that it can answer a more complete and broader range of research questions; the researcher can apply, test, and generate a grounded theory, and use the strengths of both research methods to overcome their weaknesses, it may provide a stronger conclusion with better, more detailed evidence collected through the convergence and corroboration of findings.

However the disadvantages of using mixed methods include; the researcher needs to be skilled in both quantitative and qualitative research methods and may have to learn about multiple methods and understand how to mix them, fundamental questions remain unresolved such as problems of paradigm mixing, how to qualitatively analyse quantitative data, and how to interpret conflicting results, it can be costly and time consuming, more so when the research using multiple methods are being conducted concurrently.
3.4 Authorisation to Carry Out Research

A consent letter was sent to the Head of Library Services at Blaenau Gwent County Borough Council, to seek prior permission to carry out research within the public libraries of Blaenau Gwent. The letter as shown in Appendix A, outlines the proposed research methodology, by highlighting that it would entail questioning library users by use of a questionnaire in the form of a survey, as well as follow up qualitative interviews. The letter also shows, a breakdown of the expected costs involved, along with a provisional timetable of research, with an expected completion date by which all research within the public libraries will terminate. The main body of the text deals with highlighting the benefits the study has to offer which include an opportunity to learn from the research conducted, in order to aid in the improvement of library services, as well as supporting the current aims and objectives. The letter also draws to attention the ethical procedures that will be followed during the study, such as ensuring the confidentiality of all research participants, as well as a sample of the questions, found both within the survey and a provisional interview schedule.

3.5 Population and Sampling Frame

The population to be surveyed and interviewed comprised of individuals who visited a public library within Blaenau Gwent. Blaenau Gwent contains six public libraries, spread out over a radius of 10 miles. Each library has a range of resources, and employs an open door policy by which any individual can enter and access any of the library resources, also the occupancy rate tends to be highest during September, and lower during the summer holiday months. This guaranteed that participants were a random cross-section, and varied set of individuals.
The study employed two different sampling methods. For the survey, a quota sampling method was applied, given the limited timeframe and budget. A sample size of 180 was calculated based upon a 6.05 confidence interval with a 95% confidence level, the population size of n=571 was used, this was calculated as the average of the total daily occupancy rate of all 6 public libraries during the month of September of the previous five years, the sample size was divided by 6 (libraries), to give a total of 30 surveys to be deposited in each library. All 180 questionnaires were made available thus matching the margin of error rate of 6.05.

The interviews employed a convenience sampling method, because the researcher had easy access to the participant group (library users) that matched the preselected criteria that are relevant to the research aims and objectives. Given the semi-structured nature of the interviews, a fixed sample size of 3 per library for a total of 18 was used, as a determination was made on the basis of theoretical saturation. The sample was selected when the library contained at least 1 person, and each interviewee were selected at random; at random point of each day the interviews took place, which aimed to represent a varied range of interviewees and responses.

3.6 Pilot Study

A pilot study was carried out prior to the final survey questionnaire being published and sent out to research participants. The purpose of the pilot study was to identify any errors or confusing and/or questions that contained ambiguity, this was important to keep the language of the questions simple, in order to maximise the potential response rate. The pilot study consisted of a survey, printed on white A4 paper, and was tested on 20 library staff members, who were chosen at random, this allowed the author to gain feedback and a
critical discussion on the survey so that, the finalised product could be better presented with the questions following a logical order. All the questionnaires were completed, with feedback provided. Based on the responses obtained some modifications were made such as including an “other” option and including a few open ended questions that allowed the participant to write an answer as opposed to only ticking a box.

There was no pilot study conducted for the interviews; however the semi-structured interview questions were passed around library staff members, which were familiar to the author for discussion and refinement, such refinements included, simplification of the wording of certain questions, and the recommendations of an addition of a digital recording device that allowed for retention of the interviewee responses for later transcription and analysis and the conduct of interviews in an isolated, and quiet section of each library.

3.7 Questionnaire Design

The finalised questionnaire, took the form a 3-page, printed, paper-based survey, which contained ten questions, with an ethical statement on the first page. The first section, dealt with personalised questions relating to the participant, the second section, presented questions based upon the themes identified in the literature review. The survey didn’t make use of a single, generalised scale; instead the questions, required participants to either, tick a box, or enter a worded answer. Tourangeau (2007) elaborates that this approach, both saves time, and elicits a personal response from each participant. A branch question existed in the survey, required participants to specify a personal choice, which the survey then directed participants to a follow up question. Provision was given in some questions for the participant to enter a long worded answer, with the “other” option available to write a shorter answer, one Likert-scale question existed, with participants having to choose from a
rating scale their level of satisfaction with certain electronic resources, along with one question requiring participants to enter a number based on their experience. The questionnaire was designed to investigate the themes identified in the literature review and to gauge the participants’ responses to various information acquisition methods.

3.8 Semi-Structured Interviews

A series of semi-structured interviews complemented the primary data collection, this method was used to gain a more in-depth and immediate understanding of the responses given in the survey. The format of the interviews consisted of a series of questions, put to the interviewee; each interview was conducted in an empty space, with two chairs at 45 degree angles, in order to avoid a confrontational or interrogative feel, the interviewer and interviewee maintained eye contact throughout. The interviews were recorded, with permission from the interviewee, using a digital dictation device, and notes were handwritten as the interviewee gave each response, both were used for transcription and analysis. The interviews consisted of mainly open ended questions which allowed the interviewee to give an answer, which was anticipated to be rich in information, content and resulted from personal experience.

3.9 Data Analysis

The following section, presents the details of the computer software packages and/or the methods used in the analysis of the collected data obtained from primary sources.

3.9.1 Quantitative Data Analysis

Upon completion of the quantitative element of the study, each questionnaire was collected, and read through, individually, and were scanned for either no response recorded, or errors in the responses given. For each questionnaire that contained a single
error or no response to any question, the whole questionnaire was disregarded for the purpose of statistical analysis.

For each questionnaire that was void of errors, the information on it, was entered manually, into IBM Statistical Package for the Social Sciences, version 19.0, this software allowed further analysis of various relationships between differing types of variables, such as nominal and ordinal data, which assists in the investigation of the research question.

Each response assigned a specific code number, that related to the answer given, this transformation of the data, made it easier to input into a form that was understandable by computer software used. For each tick-box answer the code number, was defined exactly (word for word), as found on the questionnaire, for each written answer, observer impression was used, by which, any written answer, was examined, then interpreted, by forming an impression and assigned a predefined code number that most closely matched the written answer given.

3.9.2 Qualitative Data Analysis

To analyse the qualitative data obtained from the semi-structured interviews and employed a mechanical technique, in which, each interview was recorded on a digital voice recorder, the Sony ICD-PX312 and were transcribed as accurately (word for word) as possible. Even in the quiet environment of a library setting, there were still extraneous noise, which were picked up by the high sensitivity of the microphone. Golafshani (2003), advocates, the transcription of all recorded speech, including the "mm" and the "yeah" to signal, the interviewees, agreement with the interviewer, in order to provide a narrative that is "as near to what happened" as possible.
The transcribed interview, was manually entered into Microsoft Word 2010, then underwent a preliminary exploratory analysis, by which it was read many times in order to become familiar with the interview data and also to add notations, Scott (2000), states in this state, the researcher may be able identify themes that are relevant or related to the research study.

A coding scheme was selected, based upon, assigning each theme (as identified in Chapter 2: Literature review), a separate colour, with blocks of data, being highlighted, that the researcher, identified, belonging to its respective theme. For the purpose this study each theme was not further categorised into subcategories. The data is then reviewed within the themes and an understanding of each theme and given response is reached. An example interview transcript with coding is provided in Appendix D: Semi-Structured Interview Transcript

3.10 Ethical Considerations

The study was designed to adhere to the following ethical procedures;

- The British Sociological Association – Statement of Ethical Practice
- Blaenau Gwent County Borough Council Research Guidelines

All the participants were used for the purpose of research, were individuals who visited a public library within Blaenau Gwent. In accordance with the ethical procedures noted above, the informed consent was sought for each participant. Each participant was informed that any research, personal or otherwise gathered, from their responses was used strictly for the purpose of research and was to be disposed of when the study is completed. The participants were told the reason for undertaking the research and the rationale behind
it. The anonymity and privacy of each response was assured to the participant. All questions, as found in the survey or the interviews, were written to ensure no personal or identifiable information was captured. The author had sole access to all data obtained. No vulnerable groups were used in this study.

The author had sole access to any and all notes and data files generated from the research conducted, appropriate data disposal methods were used, a freeware software tool called File Shredder (available from www.fileshredder.org) was used on all electronic resources, that securely, erased them from the hard drive, and made them irrecoverable using a 35-pass Guttman Algorithm. All paper-based files and notes were destroyed using a cross-cut shredder.

3.11 Limitations of Research

The investigative nature of this study, specifically in order to meet the aims and objectives has imposed a complex methodological approach onto the researcher. In order to provide a conclusive answer to the research question, the mixed research method was chosen to collect data from multiple sources, this proved time-consuming, with the researcher needing to become adept at using qualitative and quantitative research methods.

The questionnaire provided a method to question research participants in a short timeframe; however the design of the questionnaire with the lack of a single scale may have lacked a clear definition to the purpose of the research, as it didn’t have an introductory page with a clear explanation of why the research was taking place. A number of questions within the questionnaire allowed for a written answer as opposed to ticking a box, although the aim of these questions was to extract a more meaningful and personalised answer, this would appear to have made the questions more qualitative in nature, with the proceeding
data analysis proving troublesome, as the researcher had to code qualitative data, and match each written answer as closely to a single quantitative code, which may have lost some of meaning and interpretation of each written answer. The sampling method provided the information as to how many questionnaires to print and to distribute amongst the research population; however the sample was calculated based on the number of people who use all the libraries within Blaenau Gwent, with the final sample number being divided by the number of libraries within Blaenau Gwent, this made the sample size fixed in each library and didn’t accommodate fluctuations within library user numbers with each day, as such a wider range of library users, including those who do not access the library, could not be reached, had the quota sampling method been applied to each library as opposed to globally, then it may have better represented the library population.

The interviews were considered to be more successful, however as Creswell (2004), notes that successful data collection depends on the quality of the questions and the skills of the interviewer. The interview questions were designed to motivate respondents to provide a detailed, and verbose answer, however as the questions were based on the themes identified in the literature review, a few leading questions was added to provide a directional, narrow-type response based on each theme, this may have influenced certain results. A significant limitation existed insofar that the researcher had limited experience of using qualitative research, such as interview training and skills; however this limitation was mitigated through use of various texts on interviewing techniques, and a practising session on a few individuals prior to the actual research interviews taking place. The distribution of the interview questions, although written in a neutral language, the answers given may have been biased, as explained by Horrocks (2010) who shows that individuals tend to base their
answers on what is socially desirable when the interviewer is present. The interview schedule was designed to limit the number of questions so that the interviewee could give a longer response, however care was given to avoid interviewee fatigue by keeping the timeframe for each interview to a minimum, these constraints may have prohibited a more exhaustive interview which may have yielded more in-depth responses.

3.12 Conclusion

This chapter has outlined the methodological approach that underpins the research for this study, it has also outlined the ethical considerations that the study followed and most critically detailing the method used to obtain permission from the relevant authorities to carry out the study.

The mixed method approached used by the author has allowed the research to add greater depth and better understand the issues involved, however it has required the author to become more adaptive to different modes of interpretation given the varied datasets that the mixed method produces. The use of predominately qualitative research to explain the quantitative research has both addressed the weaknesses of either research method when used alone, and has added greater clarity and personalised responses that quantitative research may have missed, however this has added complexity to the overall study which has forced the researcher to be selective about the appropriate way to display and discuss the results of the research.

The next chapter presents the results that were collected from the primary data collection. The results have been split into two parts, with quantitative data being displayed graphically, and qualitative data being display with direct quotations from research participants.
Chapter 4: Results

4.1 Introduction

This chapter aims to display the results of primary research on the public library system of Blaenau Gwent, with its primary purpose to meet the research aim as stated in Chapter 1: Introduction by which the reader is reminded of as being;

- The aim of the research is to identify and explore the methods used by users of public libraries within the Blaenau Gwent area and evaluate how library services can be adapted to future uses.

As discussed in the previous chapter, a mixed research method is chosen, by which quantitative data will be acquired through use of a survey, and qualitative data will be acquired by use of semi-structured interviewees with willing participants.

The first section deals with describing the research participants such as the characteristics and response rate of those who participated in the survey, and the makeup of the interviewees.

The findings section is split into two, based on both research methods, with the quantitative data being displayed and discussed first, followed by the results of the qualitative interviews.

Finally the chapter ends with a summary of the results obtained from both research methods.
4.2 The Research Participants

The following section, describes the makeup of the research participants who participated within each research method.

4.2.1 The Survey Statistics

The first section of the survey, presented to participants, dealt exclusively with personal questions relating to each participant, collected data includes; gender, and age. This section presents the response rate, along with the initial findings of the survey in a tabular form, before the analysis of the separate issues found in the survey.

4.2.1.1 Response Rate

The response or completion rate of each survey deposit group within each of the named library is presented below as Table 4.1.

<table>
<thead>
<tr>
<th>Library Name</th>
<th>Number of Surveys Completed</th>
<th>Number of Surveys Deposited</th>
<th>Response Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abertillery</td>
<td>26</td>
<td>30</td>
<td>86.7%</td>
</tr>
<tr>
<td>Blaina</td>
<td>25</td>
<td>30</td>
<td>83.3%</td>
</tr>
<tr>
<td>Brynmawr</td>
<td>26</td>
<td>30</td>
<td>86.7%</td>
</tr>
<tr>
<td>Cwm</td>
<td>24</td>
<td>30</td>
<td>80.0%</td>
</tr>
<tr>
<td>Ebbw Vale</td>
<td>27</td>
<td>30</td>
<td>90.0%</td>
</tr>
<tr>
<td>Tredegar</td>
<td>25</td>
<td>30</td>
<td>83.3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>153</strong></td>
<td><strong>180</strong></td>
<td><strong>85.0%</strong></td>
</tr>
</tbody>
</table>

Table 4.1 Response Rate of Surveys

The response rate is calculated as a percentage of surveys that were void of any errors or discrepancies and those which were answered fully and correctly. A total of 180 surveys were printed, with 30 unmarked surveys deposited in each public library of Blaenau Gwent. 153 surveys were completed successfully, achieving a response rate of 85%. A total of 27 surveys (15%) contained errors and were disregarded for the purpose of statistical analysis,
with 13 participants (48.1%) failing to answer one or more questions, 10 participants (37.1%) putting lines or other forms of pen marks through the survey, whilst 4 participants (14.8%) only answered the first section of the survey.

### 4.2.1.2 The Sample’s Age and Gender

The table presented below as Table 4.2, shows the gender and age makeup of the sample, along with the number of individuals who fall into each age group.

<table>
<thead>
<tr>
<th>Age</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-20</td>
<td>9</td>
<td>7</td>
<td>16</td>
</tr>
<tr>
<td>21-30</td>
<td>7</td>
<td>10</td>
<td>17</td>
</tr>
<tr>
<td>31-40</td>
<td>10</td>
<td>8</td>
<td>18</td>
</tr>
<tr>
<td>41-50</td>
<td>13</td>
<td>15</td>
<td>28</td>
</tr>
<tr>
<td>51-60</td>
<td>12</td>
<td>15</td>
<td>27</td>
</tr>
<tr>
<td>61-70</td>
<td>7</td>
<td>11</td>
<td>18</td>
</tr>
<tr>
<td>71-80</td>
<td>7</td>
<td>10</td>
<td>17</td>
</tr>
<tr>
<td>81 and over</td>
<td>2</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>67</strong></td>
<td><strong>86</strong></td>
<td><strong>153</strong></td>
</tr>
</tbody>
</table>

**Table 4.2 Cross tabulation of Gender against Age**

Out of the 153 surveys that were deemed valid, a clear majority are female, and who make up 86 (56.2%) participants, whilst the remaining 67 (43.8%) participants are male. However surprisingly, 102 (66.6%) participants are 41 years of age or older, whilst the remaining 51 (33.3%) participants are aged between 18 and 40. It would also appear that participants aged between 41 and 60; make the most use out of public libraries within Blaenau Gwent, making up 35.9% of the total sample.
4.2.2 The Interviewees

The table presented below as Table 4.3, shows the ages of each interviewee within the qualitative data sample, along with the total number of interviews conducted within each library, and total number of interviewees within each age group.

<table>
<thead>
<tr>
<th>Age</th>
<th>Abertillery</th>
<th>Blaina</th>
<th>Brynmawr</th>
<th>Cwm</th>
<th>Ebbw Vale</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-20</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>21-30</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>31-40</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>41-50</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>51-60</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>61-70</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>71-80</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>81 and over</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>18</td>
</tr>
</tbody>
</table>

Table 4.3 Cross tabulation of Number of Interviewees, Interviewed within Each Library

A total of 18 interviews were carried out, with 3 library users from each of the public library found within Blaenau Gwent. The interviews were carried out over a period of 7 working days, between the hours of 09:00 and 17:00. Each library user was approached by the author and asked “Are you willing to participate in an interview, regarding your use of a public library in Blaenau Gwent?” by which the interviewee responded either yes or no.

Within the interviewee sample, a total of 10 were female, whilst 8 were male. 15 interviews were carried out in the language of English, whilst the remaining 3 interviews were carried out in the language of Welsh; all Welsh responses were translated into English for the purpose of this chapter. The average length of the interviews was 23 minutes; the longest interview lasted for 34 minutes, whilst the shortest interview lasted 18 minutes. The interview format consisted of the author, asking each interviewee the semi-structured interview schedule as found in Appendix D.
4.3 Quantitative Research Results

For the purpose of quantitative statistical analysis and figure graphical production, IBM Statistical Package for the Social Sciences (SPSS) Data Collection, Version 19.0, was used, for table production, Microsoft Word 2010 was used, and both software were installed on a computer running Microsoft Windows 7 Professional x86-64 Service Pack 1 (Windows NT 6.1.7601) operating system.

4.3.1 Connecting People to the Information

As noted by authors from previous chapters, it can be argued that the main purpose of a library is to connect people to information; Table 4.4 below shows a frequency table as to the main purpose of a participant to visit a public library within Blaenau Gwent.

<table>
<thead>
<tr>
<th>Purpose of Visit</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Borrow books</td>
<td>12</td>
<td>7.8</td>
</tr>
<tr>
<td>Borrow multimedia items (talking books, music CDs, DVDs, Blu Ray)</td>
<td>9</td>
<td>5.9</td>
</tr>
<tr>
<td>Read magazines or newspapers</td>
<td>10</td>
<td>6.5</td>
</tr>
<tr>
<td>Read journals or other print media</td>
<td>9</td>
<td>5.9</td>
</tr>
<tr>
<td>Find something out / look for information</td>
<td>10</td>
<td>6.5</td>
</tr>
<tr>
<td>Research something of interest</td>
<td>11</td>
<td>7.2</td>
</tr>
<tr>
<td>Study or homework facilities</td>
<td>12</td>
<td>7.8</td>
</tr>
<tr>
<td>Use the computer and internet facilities</td>
<td>13</td>
<td>8.5</td>
</tr>
<tr>
<td>Attend a reading group or author talk</td>
<td>11</td>
<td>7.2</td>
</tr>
<tr>
<td>Attend an exhibition or community meeting</td>
<td>10</td>
<td>6.5</td>
</tr>
<tr>
<td>Follow a course offered by the library</td>
<td>10</td>
<td>6.5</td>
</tr>
<tr>
<td>To return a borrowed item</td>
<td>14</td>
<td>9.2</td>
</tr>
<tr>
<td>To renew a borrowed item</td>
<td>10</td>
<td>6.5</td>
</tr>
<tr>
<td>Other</td>
<td>12</td>
<td>7.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>153</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 4.4: Frequency Table Showing Purpose of Visit

The table above shows the most common reason for visiting a library was to return a borrowed item, which returned 14 (9.2%) responses, the least responded answer was to borrow multimedia items with 9 (5.9%) responses. However these results show that there is a fairly equal distribution across all answers, with the range of highest and lowest number of
responses being only 5. Within the “Other” category, of which there were 12 (7.8%) responses, out of them, 6 (50%) responses were to “deliver items to library”, 3 (25%) responses were to “transport items from one library to another”, whilst 2 (16.6%) responses were to “meet a friend or relative”, whilst 1 (8.4%) response was to “provide transport for library staff”.

4.3.2 Seeking for Information within the Library

This section presents the results obtained from the survey based upon the theme surrounding the issues revolving around information seeking.

4.3.2.1 Search Methods

Out of the total 153 participants who completed the survey, 82 (53.6%) of the sample, used resources available within the library. The pie chart below shows how the sample acquired those resources.

![Pie Chart showing Search Method in Relation to Resources in a Library](Image)

Figure 4.1 Pie Chart showing Search Method in Relation to Resources in a Library
The pie chart shows an almost equal distribution of the two main methods for searching library resources, with 37 (45.1%) respondents favouring searching the library catalogue, whilst the remaining 35 (42.7%) respondents favouring browsing the shelves. A total of 10 “other” responses were recorded, 6 (60%) of those responses included “asking a librarian for assistance”, the remaining 4 (40%) responses included “asking a person passing by for assistance”.

4.3.2.2 Information Retrieval Methods

The search methods used by individuals acquiring information from library resources are shown below in Table 4.5;

<table>
<thead>
<tr>
<th>Type of Search</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keyword</td>
<td>5</td>
<td>6.1</td>
</tr>
<tr>
<td>Author</td>
<td>11</td>
<td>13.4</td>
</tr>
<tr>
<td>Subject</td>
<td>8</td>
<td>9.8</td>
</tr>
<tr>
<td>Title</td>
<td>6</td>
<td>7.3</td>
</tr>
<tr>
<td>Through synonyms</td>
<td>6</td>
<td>7.3</td>
</tr>
<tr>
<td>Defining the subject in one sentence</td>
<td>8</td>
<td>9.8</td>
</tr>
<tr>
<td>By concept</td>
<td>7</td>
<td>8.5</td>
</tr>
<tr>
<td>ISBN</td>
<td>3</td>
<td>3.7</td>
</tr>
<tr>
<td>ISSN</td>
<td>4</td>
<td>4.9</td>
</tr>
<tr>
<td>Publisher</td>
<td>6</td>
<td>7.3</td>
</tr>
<tr>
<td>Unique System Number</td>
<td>9</td>
<td>11.0</td>
</tr>
<tr>
<td>Barcode</td>
<td>6</td>
<td>7.3</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>3.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>82</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Table 4.5: Frequency Table showing Type of Search Method in Relation to Resources in a Library

The frequency table above shows that search by “Author” is the most common, making 13.4% of the search methods used, the single biggest group, with individuals searching for the “ISSN” number occurring least frequently, only 3.7% of the sample used this method.

The range between search methods totalled 8. In the “Other” category which recorded 3
(3.7%) responses, 2 (66.6%) responses were “asked the librarian for directions to information”, 1 (33.3%) response was “selected a text at random”.

4.3.3 The Digital Methods of Information Acquisition

Out of the 153 participants used for statistical analysis, a total of 71 (46.4%) of the sample used an electronic resource to acquire information, Figure 4.2 below shows a dual axis bar chart showing the average experience of using a computer (in bars) against the electronic methods they used to acquire information (a line) within the library.

![Dual Axis Bar Chart showing Average Computer Experience Against Electronic Resource Used](image)

Figure 4.2 Dual Axis Bar Chart Showing Average Computer Experience against Electronic Resource Used

The above chart shows, that the Internet was the single most used electronic resource, contributing 14 (19.7%) responses, Google Scholar, e-Books and e-Resources made up the lowest number of responses, each totalling 4 (5.6%) of the sample. Contained within the “other” category, a total of 4 (5.6%) responses were recorded, 3 (75%), responses included “using an internet forum”, 1 (25%), responses was “using social media”. However the chart
also shows, that users, using Google Scholar, possessed the greatest experience of using a computer, having an average of 8 (out of a maximum of 10), whilst those using the internet had an average experience score of 6.4, however, individuals using “other” electronic resources, possessed the least experience by scoring an average of 3.5.

### 4.3.4 The Role of the Librarian

A bar chart is presented below as Figure 4.3, showing the various roles presented to a survey participant against number of recorded responses.

![Bar Chart showing Librarian Roles against Total for Each Response](image)

**Figure 4.3 Bar Chart showing Librarian Roles against Total for Each Response**

Out of the 153 valid participants, 31 (20.3%) respondents recognised librarians as being custodians of shelves of books, with the fewest responses recognising librarians as information managers, obtaining only 3 (2%) of the recorded responses. The second highest response, with 18 (11.8%) responses, was librarians being recognised as individuals to acquire and manage electronic resources, however 13 (72.3%) were aged between 18 and 20, whilst the remaining 5 (27.7%) were aged between 21 and 30. An “Other” response was
available to survey participants; however there was 0 (0%) “Other” responses recorded, and as such were disregarded for this chart and subsection.

4.3.5 Information Source Selection

A stacked bar chart as shown below in Figure 4.4 shows the percentage of each age group’s preference for selecting the source by which they use to acquire information within a library.

![A Stacked Bar Chart Showing Method of Information Acquisition Within Each Age Group](image)

Figure 4.4 Stacked Bar Chart showing Method of Information Acquisition within Each Age Group

The above stacked bar charts shows a clear preference towards participants aged under 40 towards using electronic resources as a means to acquire information, with 100% of the 18-
20 age group favouring them, slowly declining to 82.4% within the 21-30 age group, and again to 61.1% within the 31-40 age group. A crossover point exists in the 41 to 50 age group where there is a 50% split between both methods, with those aged 51 showing an increasing majority towards preferring using the physical resources within a library. As individuals in the 51-60 age group, showing a 59.3% preference towards using physical library resources, slowly rising to 83.3% in the 61-70 age group, and again to 88.2% in the 71-80 age group and finally rising to 100% in the 81 and over age group.

4.3.6 Adapting the Library Space for the Future

The final question of the survey asked participants about how they would like their library or library services delivered in the future. Table 4.6 shows a cross tabulated table of future library scenario against age group.

<table>
<thead>
<tr>
<th>Future library scenario</th>
<th>Age</th>
<th>Count</th>
<th>Percentage</th>
<th>Count</th>
<th>Percentage</th>
<th>Count</th>
<th>Percentage</th>
<th>Count</th>
<th>Percentage</th>
<th>Count</th>
<th>Percentage</th>
<th>Count</th>
<th>Percentage</th>
<th>81 and over</th>
<th>Total</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fewer, bigger better libraries</td>
<td>18-20</td>
<td>2</td>
<td>12.5%</td>
<td>1</td>
<td>5.9%</td>
<td>7</td>
<td>38.9%</td>
<td>8</td>
<td>28.6%</td>
<td>2</td>
<td>11.1%</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0</td>
<td>22</td>
<td>14.4%</td>
</tr>
<tr>
<td></td>
<td>19-30</td>
<td>9</td>
<td>56.3%</td>
<td>6</td>
<td>35.3%</td>
<td>2</td>
<td>11.1%</td>
<td>3</td>
<td>10.7%</td>
<td>4</td>
<td>14.8%</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0</td>
<td>24</td>
<td>15.7%</td>
</tr>
<tr>
<td></td>
<td>31-40</td>
<td>4</td>
<td>25.0%</td>
<td>6</td>
<td>35.3%</td>
<td>7</td>
<td>38.9%</td>
<td>3</td>
<td>10.7%</td>
<td>2</td>
<td>7.4%</td>
<td>1</td>
<td>5.6%</td>
<td>0</td>
<td>0</td>
<td>23</td>
<td>15.0%</td>
</tr>
<tr>
<td></td>
<td>41-50</td>
<td>1</td>
<td>6.3%</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
<td>4</td>
<td>14.3%</td>
<td>2</td>
<td>14.8%</td>
<td>2</td>
<td>11.1%</td>
<td>0</td>
<td>1</td>
<td>12</td>
<td>7.6%</td>
</tr>
<tr>
<td></td>
<td>51-60</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
<td>4</td>
<td>14.3%</td>
<td>7</td>
<td>14.8%</td>
<td>1</td>
<td>11.1%</td>
<td>1</td>
<td>0</td>
<td>13</td>
<td>8.5%</td>
</tr>
<tr>
<td></td>
<td>61-70</td>
<td>0</td>
<td>0%</td>
<td>1</td>
<td>5.9%</td>
<td>0</td>
<td>0%</td>
<td>3</td>
<td>10.7%</td>
<td>7</td>
<td>25.9%</td>
<td>3</td>
<td>16.7%</td>
<td>0</td>
<td>0</td>
<td>14</td>
<td>9.2%</td>
</tr>
<tr>
<td></td>
<td>71-80</td>
<td>0</td>
<td>0%</td>
<td>3</td>
<td>17.6%</td>
<td>2</td>
<td>11.1%</td>
<td>2</td>
<td>7.1%</td>
<td>1</td>
<td>3.7%</td>
<td>3</td>
<td>16.7%</td>
<td>1</td>
<td>0</td>
<td>12</td>
<td>7.8%</td>
</tr>
<tr>
<td></td>
<td>81+</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
<td>0</td>
<td>0%</td>
<td>1</td>
<td>3.3%</td>
<td>6</td>
<td>22.2%</td>
<td>15</td>
<td>53.3%</td>
<td>11</td>
<td>33</td>
<td>33</td>
<td>21.6%</td>
</tr>
</tbody>
</table>

| Total                                                | Count | 16    | 100.0%     | 17    | 100.0%     | 18    | 100.0%     | 28    | 100.0%     | 27    | 100.0%     | 18    | 100.0%     | 17    | 100.0%     | 12    | 100.0%     | 153   | 100.0%     |
|                                                     | Percentage | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
The table above shows that, “No Change” is the highest recorded response, making up 33 (21.6%) of the total sample, however this option is clearly favoured towards the higher age groups, as 0 (0%) “No Change” responses were recorded for any participant under 40. It would appear that the lower age groups, opt for changing the nature of public libraries, as 44 (28.8%) responses, collectively were recorded for fewer, bigger better libraries, library services mostly digital and more information online, within the three age groups of those under 40. The least recorded options were “Library buildings also used as community meeting places” and “Information kiosks for access to library services and resources in local public places”, both making up 12 (7.8%) of the total responses.

4.4 Qualitative Research Results

The following section presents the qualitative research results. Each interviewee has been given a identification number which comprises of the first letter of the library in which the interview took place, the exceptions being Blaina Library which is designated “BL”, and Brynmawr Library, which is designated “BR”, followed by a number ranging from 1 to 3, corresponding to the interview number, any Welsh to English translated quotes have the suffix “W” added to the interviewee code number.

4.4.1 Connecting People to the Information

The first theme derived and identified from the interviews, was that individuals, would appear to place a link between a library and information. They tend to see a library that exists as a single entity with a purpose to provide information, or as in information hub, by which the library is able to provide a connection to information that would otherwise be unobtainable if an individual acted alone.
“When I want to know something, I go to a Library, because a library is most likely to have the information I want, because the resources available in such places, far exceeds those, of what I own or can get access to, personally.” (Interviewee C2)

It would appear that the interviewees recognise that the library setting allows for resources to be made available for a connection to new information to take place, with each respondent attending a library for a purpose.

“I see the library as a means to connect to information, for example, I don’t have a computer or access to the internet, the library here offers me access to this resource, which we both know is becoming more important for us to understand and acquire knowledge, therefore the library allows me to connect to information, of which otherwise I wouldn’t be able to access or obtain.” (Interviewee A1).

4.4.2 Seeking for Information within the Library

The interviewee’s information seeking behaviour would appear to relate to their past experiences and a personal preference, for example a recurring response was;

“I usually search for books, whilst I’m in the library, and I always look up books by its author, because I have read a book by the author in question in the past, liked it, and I would like to read current and future work by the author” (Interviewee T1)

However it would appear that most respondents also tend to rely on one specific method of information retrieval, such as books, or journals as opposed to exploring other methods and using a diverse range of information media, as stated;

“When I search for information, I must admit, I do only use journals, I can’t think of any other media that will contain the information I want, and more to the point I don’t feel comfortable using other media” (Interviewee E3).

The responses reveal that library users tend to rely on one method of information seeking, or basic information search methods, such as single keyword searching, using the simplest interface of a database or search engine. Although they acquire the information they want, the responses show that it takes time and that they are unaware of the more complex
search methods such as Boolean-type searches to increase the likelihood of acquiring seek information, for example;

“Although helpful, the internet, a search engine results, often offers too much information to be useful, even when I only single or at most two search terms, and sifting through it takes a lot of time.” (Interviewee BL2 W)

4.4.3 The Digital Methods of Information Acquisition

Common to all responses was that a computer was used to access any and all digital methods of information acquisition, however it would appear that those who use online, or digital methods do so because its readily available and easily accessible,

“All I need to do is sit down in front of a computer, and press the “Internet Explorer” button on the desktop, and within seconds, I’m connected to the internet, it’s so much easier and less time consuming than sifting through shelves and shelves of books.” (Interviewee A2)

However the responses would also indicate that those who use digital methods possess higher computer literacy skills, with all interviewees in this sample, stating that they have prior Information Communication Technology-based (ICT) qualifications or that they work within the IT field and that they all have been successful in obtaining the information they initially wanted, and often acquired extra or more detailed information than initially sought for. All responses also indicate that they prefer and will use digital methods in the future as they feel more confident using them.

4.4.4 The Role of the Librarian

All of the interviewees, made contact with a librarian during their time at any designated library, however the respondents often view the librarian as the initial point of contact, viewing them as they enter the library and to approach them in order to gain their permission to access the resources and materials available within the library, for example the following quotation was commonplace within the sample;
“I always see the librarian when I enter the library, he or she, is always at the front desk, and I always feel I must ask the librarian permission to use the resources available.” (Interviewee BR1)

A clear majority of interviewees viewed the librarian as a person who looks after the physical resources, such as books stored within the library with other tasks delegated to the librarian being the maintenance, lending out, and acquiring new physical media.

“I see the librarian as a person who is a custodian of the bookshelves, I was unaware they had other knowledge such as helping to look for information on the internet.” (Interviewee T2)

Often overlooked is the librarian’s own computer literacy skills, and most of the interviewees failed to recognise that the librarian can assist with online search parameters as well as assisting a library user to find what they want within the library.

4.4.5 Information Literacy Skills

From the responses obtained, it would appear that interviewees either show basic understanding of what the information literacy concept entails, or have low information literacy skills, it would appear that interviewees when they require information, they acquire it in the most direct and available form, first thought, for example;

“When I want to learn about something, or gain new information, I go straight to the bookshelves, as books are the first thing that comes to mind as they hold a lot of text, so it’s likely I will find what I want in them.” (Interviewee E1 W)

However when questioned about improving their information literacy skills, most interviewees would seem to recognise that attending a place that specialises in providing information, such as a library is the place to go in order to increase their information literacy skills, and learn how to increase the chances of successfully obtaining the information an individual wants.
“I have never given information literacy much thought, however I recognise that a library or similar places would be the best place to learn these new skills as I suspect the people who work here are adept in information literacy.” (Interviewee BR3)

4.4.6 Adapting the Library Space for the Future

A common undertone found within all responses, was that the library as an entity which exists today is changing, all interviewees of all ages, recognise that new and established technologies are displacing what the traditional view and role of the library is. Most interviewees state that the way library users will access information in the future will be of a digital format, and that books, or other traditional or physical media will be made obsolete. However a consensus of opinion would appear to exist in regards as to how to use digital media, with interviewees who tend to have lower computer literacy skills, preferring to resist change and the adoption of new technologies.

“I recognise that computers, are changing the way we acquire and look up information, however I am not fully confident in using a computer, therefore I would prefer to use the traditional media such as books and newspapers.” (Interviewee BR3)

Also it would appear that the library as a monolithic entity, that exists to serve one purpose such as to provide information, may not hold true in the future, with many interviewees expressing a preferring for more services available within a single building, for ease of use or for convenience.

“I like to think that libraries of the future will encompass more than just stores of information, what about if more services such as, I don’t know, a GPs surgery were to exist alongside, that would be more convenient for me” (Interviewee A2).

4.5 Conclusion

The aim of this chapter was to display the results undertaken from primary research within the public libraries of Blaenau Gwent; the combination of quantitative and qualitative research methods has allowed the results to appear three-dimensional by using the
quantitative data to provide a broad overview, whilst obtaining greater depth and understanding by using the qualitative method.

It would appear that the library exists to connect people to information, as the research respondents always go to a library for a purpose, although their search method would appear to primarily relate to their past experiences and preferences.

Digital methods of information acquisition would appear to be displacing the more traditional methods we think of and use the libraries, and it would appear that newer methods of information acquisition are gaining traction within the library space.

The respondents would appear to take a more conservative view of the role of the librarian, as rather unsurprisingly a clear majority saw them as custodians of the book shelves, and often overlook the more diverse range of skills, librarians possess.

Information source selection would appear to be linked to age, with younger participants opting the electronic resource route, whilst traditional methods of information acquisition are used are increasingly favoured by older age groups.

Information literacy would appear to be a poorly understood concept, with most respondents holding poor information literacy skills, as when the need for research arises they obtain information by the most direct and easily obtainable resource possible.

Finally, it would appear that a substantial majority, of library users, expect library services to change of the course of the next 10 to 20 years, with digital technologies, advancing the need for change and adaptation of library services.
The next chapter will discuss and further analyse the results obtained from the primary data collection and will attempt to use it to compare, along with highlight and any gaps and discrepancies found within the secondary data collected as part of the literature review.
Chapter 5: Discussion

5.1 Introduction

The previous chapter, presented the results, collected as part of the primary data collection, which aims to both, answer the research question, as well as meet the aims and objectives of the study. As evident from using a mixed research method, the author had to become more selective about the results to present, which in turn may have better focused the results to meeting the themes associated with this study.

The primary aim of this chapter, is to discuss the results obtained, and compared them, systematically, to the secondary research, as reviewed in Chapter 2: Literature Review. In line with the aims and objectives of this study, the author will evaluate, current uses and trends, of the public libraries in Blaenau Gwent. This chapter is organised based upon the themes that underpin this study, but also follows a perceived route and process, from start to finish, library users, could take, in order to acquire the information they seek.

5.2 The Connection to Information

One of the more interesting aspects obtained from the primary data collection revolves around access and to understand its meaning within the context of library users. Modern literature such as, Vincent’s (2005) research tends to focus more on what library service delivery will look like at the expense of understanding how the initial connection is made to information by library users, as such it may make it more difficult to design and manage future libraries without first knowing the information retrieval methods of its users.
Judging from the interpretations from the interviews, library users may appear to acknowledge the library as the appropriate setting to obtain information, with the resources and opportunities to acquire it by using its resources as opposed to their own resources, therefore it would appear that library users may have reached the stage in which they may have identified that information is required, and may have formed a broad overview of their needs but without necessarily formulating a detailed strategy of their needs, this could in turn make the library user overwhelmed with the varying and numerous amount of information resources available to them.

As such the interview responses correlate with Buckland’s (1991) literature who conceptualised the notion that information exists to be consumed, whilst library users may appear to desire information, it is unclear as to what methods they may acquire it, instead they appear (at this point) to form a generalised need for information as opposed to a forming a query or even selecting an appropriate resource in order to gather specific information, however the library may help facilitate the information need of its users, by offering a multitude of differing information resources, with interviewees often stating that the library may give them access to resources that are unavailable to them by any other means, as such may allow access to new or different means of obtaining information.

Within the survey cohort a total of 76.3% of library users, made the initial connection to information by using the resources available to them within a library, which suggests library users are highly adaptable in the means to connect to information, which appears to corroborate what Goodyear (2011) discussed in relation to the state of the library, acting as a guide to the information seeker, whilst the library user fills in the gaps of the needed information, with the survey results indicating a preference towards 11 different modes of
connecting to information, which may suggest library users have an expectation of library service delivery or may possess a higher degree of information seeking skillset that was anticipated, as such it became apparent that by questioning library users on their initial information needs, it has begun to answer the research question, as to how library users acquire information, but also shows that information acquisition is a process not a single event.

5.3 The Role of the Librarian

Secondary research such as Fourie (2012), regarding the role of the librarian appears to suggest that the role itself, is either archaic or may become redundant in light of the diffusion of information, with it being made available on many, often mobile devices, and the increasing skill sets library users may develop and display with regards to their information acquisition habits as they become familiar with the devices they use, they may forego asking other people either how to use them or how to get information on them, however by interpreting the results obtained from the survey, 79.7% of library users recognised the diverse role a librarian has to offer, showing a preference towards 14 different roles, in this instance it would appear that Fourie’s (2012) research, may appear to have overlooked the adaptability the role contains, or high regard library users have for the librarian. Also disputing the primary research is the notion that library automation has gained traction for many decades, previous, as such, certain trends may already be highlighted within the library space such as access from multiple locations, making more resources available, making information available in raw or diverse forms, and a diminishment in the role of intermediaries, which may be an unintended consequence of library automation, by which library users may increasingly interact with online systems, and
have less reliance upon library staff, for example a libraries bibliographic system may allow
users to check bibliographic information without ever contacting the library staff.

Upon questioning, library users appear to recognise the established view of the librarian as
a member of the front desk, either by helping out with general enquires or to borrow or
renew items, however further questioning appears to show that when a library user is
unable to obtain information either because the amount of information obtained is too
generalised and irrelevant or because they can’t use the specific resource they turn to the
assistance of the librarian, with many interviewees stating that they offer decisive and
conclusive results. Here, it would appear that the library user may now begin to plan and
think carefully about the resources required, which could include making a preliminary look
at indexing and collating relevant documents or could formulate a search query, in this
instance the library user may, now begin the means to narrow down their search
parameters, thus allowing to progress to select appropriate resources.

The results would therefore appear to correlate with the literature reviewed by Parker and
Jackson (1998) who discussed that library users often show a general unawareness of the
skill set librarians have to offer, which is backed up by the survey results that showed 20.3%
of library users indicating a preference of seeing the librarian in the traditional role as being
the custodian of the bookshelves, further questioning also highlighted the apparent
indifference library users show towards the librarian, which could be indicated by library
users tending to place less emphasis on the materials they collect and may place more
importance on the kind of material they can obtained based upon their individualised
requests, as such libraries may not be anticipating the change from collecting information
"just in case" someone will need it, to the shifting paradigm of delivering the information from elsewhere “just in time” to answer a user’s needs.

5.4 Information Source Selection

Looking back upon the research data, the relationship between age group and type of research used to acquire data appears interesting. Within the research cohort who participated in the survey, the results show a strong negative correlation, as age group increases, the usage of electronic resources decreases, showing a decline of 11.83% on average per age group.

Further analysis would appear to highlight that when interviewed, library users, may base their information source selection on the resource they feel most comfortable using, however this in this instance library users would appear to formed a query, but may not know how to initiate a search, or what the appropriate method or device to acquire their information, as such they may ask themselves how do I get the information I want, which also supports Budd’s (2001) literature, by which library users at this stage may often appear unsure about what exactly it is they are looking for, thus matching their information needs to a specific medium may prove difficult, as such, when answering the formulated query, library users may either choose to use an information resource they have experience with, for example older people vastly outnumber younger people in using the traditional search methods such as books, or they could choose an information resource they is more readily available, which could explain, that all age groups over 21, opted to use in-library resources as opposed to using electronic media, as within a typical library in-library resources such as books and shelves, tend to occupy at least half the floor space available, however given the static nature of traditional resources, it may become apparent that librarians or other
information professionals may overestimate the research skills that library users possess, however what remains unclear is whether or not the formulated search query, is compatible with the organisational structure contained within a library, with any such incompatibility may fail to facilitate either a move towards matching documents to an appropriate information resource or utilising a library’s resources to its full effect.

As stated from the previous chapter’s subsection regarding information literacy, library users would appear to show little understanding of its concept, however without realising it, they may appear to be engaging with the concept, as when interviewed, library users, appeared to show locating, evaluating, managing, and using information based upon a varied set of resources, which may suggest that instead of linking information with one resource, they could have the means to use multiple different methods with the specific aim of obtaining the information based upon their formulated query, which appears to support Morrison and Vancouver’s (2010) literature, who suggests placing a link between information literacy and information acquisition, however this could place pressure on libraries not to duplicate the services of other libraries, but instead for all libraries to rely upon a core set of central services.

5.5 Acquisition of Information within a Library

As discussed in previous subsections, the library may have an uncertain future, however what is certain is that public libraries will continue to exist as a physical place, by which they will serve the role of a gathering place and a community information centre. Judging by the results from those surveyed, library users would appear to employ a variation of the search methods needed to acquire information stored within a libraries traditional media set, with the search methods grouped together, and when interviewed, library users would appear to
base their search preferences on what they are familiar with, for example, if they have read a book by a named author, they may be more likely to base their searches on the same named author in the future, as such library users, may have moved further along the information acquisition process, as evident by after forming and finalising their query, they could engage in a search process to attempt to match their query to a document, however the interviews would appear to indicate that library users could be matching their documents based on past familiarities such as author, or a unique number they may have remembered.

As such the results would appear to correlate with Agosto’s (2010a); and De Rosa (2005) research who stated that the library catalogue makes it easier for library users to search for specific information, here the library users would appear to be using the catalogue to search for specific search terms, which may return a broader set of search results by which they could select based on either the original search parameters, or they may find other items that are related and relevant to their search query, however this could highlight a potential feedback loop which may exist within the information acquisition process, if a library user is satisfied with their search results, they have acquired the information sought for, thus completing the process, if they are dissatisfied then, they may need to reconnect to information, and restart the process from the beginning, which may take additional time, and consume additional library resources, which may in turn lead to the library user abandoning their search, resulting in a failure to acquire information, and thus a general dissatisfaction with a library, this model also applies to the subsequent section regarding digital methods of information acquisition.
The results may dispute Shenton and Dixon (2003) literature who argue library users, engage in rich and complex search methodologies, in this instance it may indicate that library users want their information presented to them in more raw forms, as library users could perceive the indexing and abstracting services, as a move away from providing searchable index terms or descriptors, to searchable abstracts, to full-text of articles and books and library catalogues, which may move from bibliographic descriptions and subject headings to providing tables of contents information, to full-text and page images. This may have a profound impact on information retrieval methods, as these newer “enhanced records” could provide the means for abstracted material to become a truer representation of the material they are abstracted from.

5.6 Digital Methods of Information Acquisition

Digital methods of information acquisition, generally remains an unexplored area, with little literature on the given topic, however a general consensus may exist, within the information science community, pertaining that individuals who use these methods, could have access to a vast repository of information, that far exceeds what traditional, printed media can offer, what remains unclear is the skillset a library user could use, in order to acquire information through digital media.

Judging by those surveyed, library users would appear to fit the consensus insofar they would appear to employ a variety of methods that utilising a computer to gain access to information, this in turn may dispute Pullinger’s (1999) research who attached the notion of information seeking behaviours being limited to traditional settings, such as books, here the results, indicate that any information seeking behavioural model could indeed be extended into any space that compels the individual to search for information regardless of its form.
However this could also indicate a potential demand from library users, towards augmenting traditional library users with that of digital information services, but this may imply that significant investment may be needed in equipment, such as the addition of infrastructure that supports remote document delivery, which may fail to address the questions and doubts that surround the authenticity and reliability of material stored off site. However in return, this augmentation of library services, may lead to the underestimation of the potential skillset a library user has, as the results would appear to indicate, that library users who possess higher computer literacy skills, tend to opt to use information repositories that require more complex and detailed search methodologies, this would appear to support Pivec’s (2007) research shows, there may be an apparent link between the computer literacy skills and the methodology used to obtaining digitalised information.

When interviewed, however, library users, tend to place emphasis on the ease of access to acquiring information digitally, often citing a few basic steps in order to being their search, and the basic steps in order to complete their search, this corresponds to what Case (2011); Combes (2008) and Zhang (2012) literature presents, as in this instance, the library user, by instantly obtained search results, could be overlooking the validity and reliability of acquired material at the expense of saving time, as such the information presented, could be out of date, biased to one point of view or just plainly wrong, however for many variables that are artificial or difficult to measure, the concept of validity could become complex, as the results indicate, library users would appear to want information instantly, as such it may become unlikely that they are willing to engage in extra steps, to ensure information is valid, instead
library users could forego the formulation of complex search queries, that may help them better obtain the information they seek.

5.7 The Future Role of the Public Library

Perhaps one of the most striking aspects obtained from the results is how library users could perceive what the library will look like in future years. What is clear from the results is 78.4% of those surveyed expected the library and its services to change or to adapt to the changing circumstances of its users, which may indicate that libraries are no longer a static concept and may be forced to change the way they deliver their services, along with other social institutions, such as a bank or a bookstore, which now look vastly different than they did in previous decades, as such the results show support for Ashcroft’s (2007) literature, who stated the emergence of a variation of the methods used to acquire information in the future, may determine what library services will look like, however what could be overlooked is the variety of forces that require our library to adapt such as economic changes and technological developments, however in return this could reshaped and redefined our notions of what constitutes a library. Therefore, the changes in libraries as institutions could have profound changes in the roles of librarians, with the proliferation of networked digital information; the librarian’s role could shift from caretaker of a physical collection to someone who identifies resources in collections housed elsewhere.

The results may also appear to show that concerns raised by Johnson (2011), who questioned the role of public libraries in a future dominated by web and online search methods to be warrantied, as a clear trend may exist within the results by showing an increasing use of digital, or internet-based technologies to acquire information, which is acutely evident from questioning younger library users, this in turn supports Hepworth and
Clayton’s (2011), who suggests that libraries and librarians should become aware of this evolution, this may raise questions as to the reliability and access, with libraries could need to provide access to materials that they don’t themselves own and control, with information available on the internet, may undermine the validity and reliability of the information obtained, furthermore the online information resource may not exist indefinitely.

However it would appear the library of today exists in a state of uncertainty, trying to maximise their user base, in essence may be trying to provide a broad service, by having traditional and digital technological methods of information acquisition coexisting within a single building as opposed to a quality service, which may aim to provide specific and detailed information to a given query, as such what is remains unclear however is how satisfied library users are with this fusion of old and new technology, however in this instance when interviewed, library users, would appear to express a strong desire in having library buildings encompass a variety of different public services, or the diffusion or outsourcing of library services to other public buildings, this could indicate that libraries may need to move away from the traditional "one size fits all" model and move towards reliance upon local communities who will have to develop the diversity in services, and in materials, which could sustain the core aim of public libraries as a guarantor of public access to information.

5.8 Conclusion

The aim of this chapter was to discuss the results, in relation to the secondary research collected as part of Chapter 2: Literature Review. As such it may have become apparent that, the concept, of information acquisition exists as a process, as opposed to a single event, which contradicts, the notions, that certain researchers in this field, advocate that
revolve around information being static, and existing in monolithic forms, with individuals engaging in quick and simple search processes to acquire it.

How individuals connect to information, could mean the start of the information acquisition process, here individuals, may understand the need for information, but could have a basic understanding of how to get it, however they do appear to link certain social institutions such as libraries to information, this making the initial connection easier.

The role of the librarian could become harder to define in future years, with the emergence of a variation of media to store and read back information, however library users of all ages, may appear to value and understand the information literacy skillset they have, and recognise the assistance they can give to acquire information.

How a library user, selects their preferred information source, would appear to be based on ease of access or familiarity and experience with the source, however the link, some authors place, on information literacy and information source selection, remains inconclusive with a majority of library users failing to understand the concept of information literacy.

A surprising aspect from the results is how library users, are willing to engage in using a multitude of different resources, or search methods to acquire the information they seek, however this would only appear to occur after a library user has formulated a defined and narrow search query.

The future role of the library as a singular institution remains uncertain, library users appear to want a host of different public services to share library buildings, mainly because of ease of access, but this could have the unintended consequence of diluting the core aims and missions of the library.
The next chapter brings this dissertation to a close, by reviewing both the research question, and the aims and objectives that underpin this study, as well as taking a reflective stance on the key sections such as the themes identified within the literature review, the research method, and what lessons may have been learnt.
Chapter 6: Conclusion

6.1 Introduction

The previous chapter, discussed the results, in relation to the secondary research, as evidenced in the literature review, and as a result of this study, it was found that the methods individuals, or library users, use to acquire information, may exist as a process, as opposed to a single event.

This chapter, rounds off this dissertation, by assessing whether or not the aims and objectives that underpin this study were met, along with a summarisation of the main points of the previous chapters, and suggestions for further research.

6.2 Research Aims and Objectives

The aims and objectives that underpin this study were;

1. To explore various methods, by which an individual can acquire and gather information, in the context of a library.
2. To identify key issues arising from the research of literature into the methods individuals acquire information.
3. To explore the current perceptions, regarding, the role of the information provider (i.e. the librarian).
4. To investigate the perceived information acquisition methods of individuals, through the querying of the users of public libraries, within Blaenau Gwent.
5. To explore future possibilities and trends that may exist within the general library space.
6.3 Literature Review Synopsis

A review of the literature was conducted from various information resources, in order to gain an understanding of the current research, surrounding information acquisition, the role of the information provider, along with the current identification of future trends and possibilities the public library sector faces, thus its main aim was to meet the second objective, however, the secondary research collected added detail and insight into to the first, third and fifth objectives.

The literature points out that the library would appear to be seen by individuals as a means to make the initial connection to information, as such individuals, may link the term library with an increased changes of obtaining information they wanted at a specific point in time.

Secondary authors, point out, that information, as a singular entity, is a vast and broad concept, as such it requires individuals to both define specific search terms, and refine, their methods to acquire it, however the myriad of differing methods to acquire information, makes this process more complicated, which in turn feeds into an information seeking behavioural framework.

Displacement, cohabitation, or simple change, would appear to be occurring, as libraries adopt digital technologies to accommodate the younger age groups desire to acquire information via the internet or similar media, whilst keeping their older age group user base satisfied with traditional, printed media.

The information provider, or the librarian, is often an overlooked element, as secondary authors, note their more complex skillset surround information seeking and acquisition are ignored by library users, who tend to view them as a front-desk or customer service role.
Conflicting theories exist as to the future of the public libraries, with certain authors, stating the obsolescence of the library, whilst others, speculate, a greater diverse range of public services being incorporated into library buildings, either way a common undertone exists, insofar that libraries will need to adopt an “adaptive to their user needs” strategy in order to stay relevant.

6.4 Research Methodology Overview

In order to meet the fourth objective, an explanatory mixed research method, was employed, by which a predominantly qualitative study was used to explain the preceding quantitative study. Quantitative data was gathering, through the use of a printed survey on A4 paper, which was sent to all the libraries within Blaenau Gwent, the aim of which was to provide a broad overview, of the study’s subject matter by including questions that related to the themes identified within the literature review. This was followed up by interviewing library users, with the aim to gain a more in-depth and immediate understanding of the responses given in the survey, which ultimately produced qualitative data. The use of the mixed-method approach, may have helped to address the weaknesses of each research method when used alone, however required the author to be more selective and focused in regards to the results to present.

A survey response rate of 85% was achieved which is both surprising, and very high, for an unsolicited printed questionnaire. However the limitations, arise from the usage of a global quota sampling method, which was divided by the number of libraries within the geographic region, as such the author would recommend any similar future studies, to focus the quota sampling method on each library, which may increase the sample size, and complexity of
the study, but will allow a greater variation of the research participants, which may make the study gain greater external validity.

The nature of the semi-structured interviews, allowed for a greater investigative insight into the subject matter. The wording of the questions, was such to allow for a personalised, and verbose answer, in order to extract the maximum possible of information to be obtained from the interviewee. The ease of access, the author had to library users, ensured the convenience sampling method was used, to an extent where interviewees encompassed the range of age ranges used in this study.

6.5 The Findings

The findings have provided an insight into the information acquisition methods the users of Blaenau Gwent’s public libraries use to acquire the information seek, and also given an indication of the perceptions around the information provider, and the possible future role of the library and the delivery of library services, as a result, the findings have attained the fourth objective, as well as adding detail to the remaining objectives, through the collection of primary data.

The results, show good internal validity, as the research sample, was matched exclusively to variable being tested. A causal inference, based upon temporal precedence, may be applied in the form, of relating, age group to preferred method of information acquisition. However as time progresses, internal validity is likely to decline, given the maturation of the research participant, as the results show, how the youngest age group, favouring exclusively one method of information acquisition over the other, as such, future related studies may need to exclusively define the dependent variable, by performing an investigation on the different
types of digital information acquisitions methods, as opposed to analysing digital and traditional methods as found in this study.

This study however, displays, poor external validity, given the use of non-probability sampling methods, each research participant may superficially resemble the population along the dimensions that were selected. Systematic bias may exist within the results, as within a library setting, changes in the environment, can occur during experimentation, with the addition and subtraction of library resources, which are difficult to eliminate and minimise, and may have influenced the type of library resource, a library user, acquires. The research participants are also narrow in scope, insofar, that the population tested, was obtained from a small geographic region, which may have introduced a cultural bias, resulting from narrow ranges of socio-economic and/or educational backgrounds. Further replication of this research design, in a different geographic region, and through the use of random sampling methods, may help to strengthen the generalisation of the findings.

6.6 Suggestions for Further Research

Although the aims and objectives were met, the findings, point out an area that may warrant further investigation, which is the area of information literacy. The responses obtained, would appear to suggest, that this concept is poorly understood amongst the library users of Blaenau Gwent, and yet according to the literature review, it could play a vital part in securing the precise information a library user wishes to acquire, the common consensus around information literacy is broadly linked to the ability to recognise information needs and identify, evaluate and use information effectively, as such developing these skills, could aid the library user into developing and utilising higher cognitive functions
such as critical thinking and higher reasoning skills, which may provide a practical benefit to them.

The findings, may also show an apparent digital divide, that is opening up, with the older age groups appearing to be averse to the usage of digital technologies, and given the proliferation of such technologies, a possible future scenario could exist by which they are excluded from accessing information. Further probing into the discovery or the meaning of what is it about digital media, that causes misgivings amongst, the older age groups, could allow for a better understanding of this aspect, which in turn allows for a more holistic view, and gains a deeper understanding of the perceptions of library users and their relation to digital information acquisition methods which may lead to the creation of new library services, that revolve around teaching the older age groups to become more confident in using digital technologies, which in return could emphasise the importance of developing high quality services that consider the information requirements and expectations of all library users.

6.7 Conclusion

This study has set out to investigate the methods of information acquisition and the perceptions of how the library could exist in future years, from the view point of the library users of Blaenau Gwent, it has become apparent from the research that the way individuals acquire information is changing, the large, monolithic proprietary information systems, which revolve around books, and the traditional print media, are being displaced by newer, digital or more mobile forms of information acquisition. However it may be too simplistic to assume that merely providing an Internet connection to people will obliterate all potential access differences among users. As such a more refined approach to the “digital divide”,

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such as a more comprehensive understanding of digital inequality is necessary if an increase in the inequalities among different segments of the population, due to disparities in effective access to all that the Internet has to offer, can be avoided.

As such the library space, itself, could be seen as being at a pivotal point in its history, that will force it to adapt to changing circumstances, however the methodologies employed by libraries and librarians, will need to ensure that the potential significant change that is on the horizon, doesn’t jeopardise the central role of the library that has existed for many decades previous, as a provider of information to those who seek it.

Libraries of all sizes, will also need to keep a close eye on the technological developments and the needs of an increasingly dynamic user base, to ensure its relevance and to make efficient use of their budgets, in order to both keep their users satisfied, but also to attract new users, in the increasingly demanding and competitive information acquisition sector.
References


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Bibliography


Appendix A: Permission Letter to Perform Research within the Public Libraries.

Oliver Salter
[Address Line 1]
[Address Line 2]
[Address Line 3]
[Post Code]

Tuesday 21st August 2012.

[Name of Head of Library Services]
Blaenau Gwent County Borough Council Library Services
Civic Centre,
Municipal Buildings,
Ebbw Vale,
NP23 6XB.

Re: Permission to Carry out Research on the Public Libraries of Blaenau Gwent.

Dear [Name of Head of Library Services]

I am currently a student at Aberystwyth University, studying towards the M.Sc. (Econ) International Archives, Records and Information Management course, however as part of the requirements for the degree, I am required to undertake a dissertation that includes a research element. The study is entitled “An Investigation into the Use of Public Libraries within Blaenau Gwent, Wales”, the study has been granted approval, and a supervisor has been allocation, therefore I am writing to you, in order to request permission to conduct research within all the public libraries of Blaenau Gwent.

The research design, will include a paper-based survey, which will be followed up by a series of interviews of individuals, who use a public library within Blaenau Gwent, the aim of the research is to ascertain what methods individuals, or more broadly library users, use to acquire information whilst in a library. If approval is granted, the library users will complete a 4-page printed survey (a copy has been attached), during their visit to a library and return it to the person conducting the research, which is myself. This will be followed up by conducting a series of interviews, again on library users, in order to gain more detail responses. The interviews, will take place at a time that is deemed convenient for the library user, and will not interfere with either the library user or with routine work of library staff.

The estimated costs associated with the study include;

| Printed survey | 158 (research participants) x 4 (number of pages) x 0.46p | £2.90 |
| Printing materials | Cost of printing 632 pages | £18.32 |

Black and white laser printing at 100% coverage HP Laserjet 1020 (2.9p per page)
The research will be conducted over the following timeframe;

Week 1: 3rd to 7th Sept  Surveys to be printed and sent out to Brynmawr, Abertillery, and Blaina Libraries.
Week 2: 10th to 14th Sept  Surveys to be sent out to Ebbw Vale, Cwm and Tredegar Libraries.
Week 3: 17th to 21st Sept  Interviews to be conducted on 3 library users of Brynmawr, Abertillery, and Blaina Libraries.
Week 4: 24th to 28th Sept  Interviews to be conducted on 3 library users of Ebbw Vale, Cwm and Tredegar Libraries.

All research will be conducted during workdays of Monday to Friday, work hours of 09:00 to 17:00, and will terminate at 17:00 on Friday 28th September 2012.

The results, obtained from the research, will be collected and input into computer software packages, and all responses, from the interviews and the survey, will remain completely confidential, and no costs will be incurred from the research participants, and will be securely destroyed upon completion of the dissertation. The results will also assist the libraries, to gain feedback from their user base, and will assist in developing and better tailoring library services.

I would be grateful for permission to be granted, to carry out this study within the public libraries of Blaenau Gwent, and I would be happy to answer any queries you may have.

Yours sincerely

Oliver Salter  
B.Sc(Hons), Pg.Dip  
Library Assistant  
Ebbw Vale Library
Appendix B: The Survey Used for Quantitative Research.

The Use of Public Libraries in Blaenau Gwent Survey

The following questionnaire forms part of the research for a Master’s degree dissertation at Aberystwyth University. The aim of the survey is to explore the use of library services and facilities within Blaenau Gwent. You should be aware that all responses given in this survey will be treated with confidentiality and your anonymity will be preserved. All data gathered in this survey will be destroyed upon completion of the dissertation. By completing this survey, you give consent for the answers and data provided be used for the research process.

Section 1: About You

(Please tick ONE box that applies to you)

Q1. Gender
- Male
- Female

Q2. What is your age?
- 18-20
- 21-30
- 31-40
- 41-50
- 51-60
- 61-70
- 71-80
- 81 and over

Q3. In the past year which of the following library/libraries have you used? (Please tick ALL that apply)
- Abertillery
- Blaina
- Brynmawr
- Cwm
- Ebbw Vale
- Tredegar

Section 2: Questions about Your Experiences of Using a Public Library

Q4. How often have you visited a public library in the last year? (Please tick ONE box)
- At least once a week
- At least once every three months
- Rarely (less than 5 times in past year)
- Occasionally (between 6-11 times in past year)
- Frequently (more than 12 times in the past year)

Q5. What was your purpose(s) for visiting a public library today? (For example, to obtain a book, use the internet, find something of interest, as a meeting place etc...) (Please use the space below to provide your answer)

Q6. How do you prefer to search for information within a library? (Please tick ONE box)
- Through the resources available within the library (Please complete Question 7)
- Through an electronic resource (Please complete Question 8)

Q7. In the past year how often have you used the library resources available through Blaenau Gwent Public Libraries? (Please tick ONE box)
- Rarely (less than 5 times in past year)
- Occasionally (between 6-11 times in past year)
- Frequently (more than 12 times in past year)
How do you search for resources whilst in the library?  (Please tick ONE box)

☐ Through the library catalogue
☐ Browse the shelves
☐ Other (Please state: __________________________________________________________________________)

What resource(s) do you usually collect within the library? (For example, books, CD’s, journals, newspapers etc…) (Please use the space below to provide your answer)

What method do you use to search for resources contained within the library? (For example, by keyword, by subject, title, author etc…)
(Please use the space below to provide your answer)

How would you describe your experiences of using the resources available to you within the library? (For example, you are able to find what you want, the resources are appropriate for my search needs, up to date and relevant, are easy to find etc…)  
(Please use the space below to provide your answer)

Thank you for your answers, please proceed to Question 9.

Q8. In the past year how often have you used the Electronic Resources available through Blaenau Gwent Public Libraries?  (Please tick ONE box)

☐ Rarely (less than 5 times in past year)  ☐ Occasionally (between 6-11 times in the past year)
☐ Frequently (more than 12 times in the past year)

What electronic resource(s) do you use, to acquire information? (For example, electronic journal, e-books, audiobook download, the internet etc…)  
(Please use the space below to provide your answer)
How do you use electronic resources? (For example, to acquire something I couldn’t get within the library, search engines, internet forums, etc…) (Please use the space below to provide your answer)

How would you rate your experience of using electronic resources? (Please place ONE tick in the appropriate box)

<table>
<thead>
<tr>
<th>Very difficult to use</th>
<th>Somewhat difficult to use</th>
<th>Average difficulty level</th>
<th>Easy to use</th>
<th>Very easy to use</th>
</tr>
</thead>
</table>

What was the reason for you giving the above rating? (For example, computer crashed, hard to find requested information, found what I was looking for instantly, easier to use, more convenient etc…) (Please use the space below to provide your answer)

On a scale of 1 to 10, 1 being inexperienced, 10 very experienced, how experienced are you at using a computer? (Please write a number in space provided) __________

Thank you for your answers, please proceed to Question 9.

Q9. During your time in a public library, have you made contact with a librarian?

☐ Yes ☐ No

(If you answer Yes, please answer Q9a and Q9b, if you answer No, please answer Q9c)

Q9a. What was your reason for making contact with a librarian? (Please use the space below to provide your answer)
Q9b. How was your experience of using a librarian? (For example, are professional in their dealings with me, take an interest in me and my needs, give my enquiries appropriate time and attention, are difficult to approach etc...) 
(Please use the space below to provide your answer)

Q9c. How do you perceive the role of the librarian? (For example, as Information providers, to assist with general queries, to obtain material, as a gatekeeper, an intermediary etc...) (Please use the space below to provide your answer)

Q10. Thinking about public libraries of the future, describe the scenario that best appeals to you? (For example, fewer, bigger, better resourced libraries, other public services sharing library buildings, library services available in digital formats etc...) 
(Please use the space below to provide your answer)

Thank you for taking the time to complete this survey, please return this survey to the front desk.
Appendix C: Semi-Structured Interview Guidelines

Introduce the interviewee and provide an ethical statement.

Thank you for taking the time to participate in this interview, you will be asked a series of questions, relating to your use of this library, and about the methods you use to acquire information, the responses you give, will be recorded (show them the recording device) and will be used as research towards a Master’s degree dissertation at Aberystwyth University, all your responses, will treated in the utmost confidence, and no identifiable information will be included.

Main Topic List:

Theme 1: Connecting People to Information

- 1a. How often do you visit a public library in Blaenau Gwent? Why do you use a library?
- 1b. How would you describe your experience of using [name of library] library?

Theme 2: Seeking for Information Seeking

- 2a. How do you search for information? (For example, using a computer, using library resources?) Try to illicit an exact answer.
- 2b. What information or type of information did you need? Why?
- 2c. What resources did you use to acquire information?
- 2d. How did you use the resources to obtain the information you wanted? Why?
- 2e. What did you do next? [Try to learn about their information seeking process and how they used the information they found]
- 2f. Did you successfully obtain the information you wanted?

Theme 3: The Online Acquisition of Information

- 3a. Have you used an electronic resource to search for information? Why (what purpose, to search for what?)? (If the answer is no, then skip this section, and move to the next theme)
- 3b. How did you use [name of electronic resource] to search for information? Why did you use......?
- 3c. Did you obtain the information you wanted? Were you satisfied with the outcomes? How did you use the information?
- 3d. Would you do it this way again?
- 3e. How would you describe your computer skills?
Theme 4: Providing Access to Information

- 4a. During your time at [name of library] library, have you approached a librarian, or member of staff? Why did you approach them?
- 4b. How do you perceive the role of the librarian? Why?

Theme 5: Selecting an Information Source

- 5a. Information literacy is defined as “the ability to know when there is a need for information, to be able to identify, locate, evaluate, and effectively use that information for the issue or problem at hand.” How would you describe your information literacy skills?
- 5b. How would you improve your information literacy skills?

Theme 6: The Changing Nature of Public Libraries

- 6a. Thinking ahead 10, or 20 years, how would you define and describe the library of the future?
- 6b. How would you personally want library services delivered in the future?
Appendix D: Semi-Structured Interview Transcript

A transcript of an interview, conducted with a library user of Abertillery library, on 14th September 2012.

Colour coded themes:

Red - Connecting People to Information
Purple - Seeking for Information
Blue - Providing Access to Information (librarian)
Green - Selecting an Information Source
Orange - Information Literacy
Brown - Changing Nature of Public Libraries

In the transcript, the interviewee is designated, "A3".

Interviewer: How often do you visit a public library in Blaenau Gwent?

A3: About once or twice a month, on average, although at certain times of the year I attend a library more, usually when I'm researching something of interest.

Interviewer: Why do you use a library?

A3: To find information that relates to the stuff I'm researching at a specific point in time. The resources available to me within this library, are far more numerous, than I can get access to at home, or at work. I am not well versed or comfortable in using computers, so a library is the first place I think of when I need to locate information. Sometimes though, there is also a social element to my visit here, I feel comfortable within this environment as I can meet, like minded people, or meet acquaintances I haven't seen in years, or friends I can have a chat with, after I met them we usually help each other out with our searches through this jungle of resources.

Interviewer: How would you describe your experience of using Abertillery library?

A3: In one word, great. It has a friendly, and pleasant atmosphere. which makes it nice and easy, to get information, listen to music, or simply do some research. I feel fortunate to have access to a great book and magazine resources, which are free to use and well maintained, and clean, the librarians are helpful, knowledgeable and pleasant to deal with. The collection is vast and spectacular, which far exceeds what I could obtain, if I collected my own information resources, and if its currently unavailable then, you request and have delivered to your local library, whatever book available in the collection. If it's out, you can be wait listed and they will call,
text or email you to let you know when it's in - you choose your mode of communication. It's something our community can be proud of.

Interviewer: How do you search for information?

A3: I always make use of the resources that are available within the library, either browse the bookshelves, or use the catalogue search tools available within the library, that allows me to find a specific item, on a specific media.

Interviewer: What information or type of information did you need? and why?

A3: I came here today, to look for information, that relates to a personal research interest. There is just a load more information here, books, magazines, journals, and a whole load of other resources, such as CD-ROMs, tapes, DVDs, which vastly outnumber the information resources, I have available at home, and it's all in one place, so it's convenient and quicker for me to search for information here, than go to multiple locations to search for research on the same topic.

Interviewer: What resources did you use to acquire information?

A3: I used the resources available within this library, I have often found what I wanted within the vast information resources available here, and more to the point, I have never used a computer, so I don't know how to use something the internet or email, to acquire information.

Interviewer: How did you use the resources to obtain the information you wanted? and why?

A3: As soon as I walked into the library, I approached the bookshelves first, which I browsed, and walked through, randomly, in order to get a good feel to what is on offer, then I started to think specifically about what information I wanted, then I went to the library catalogue, which allows for quicker access to resources, by inputting specific search terms, such as book title, genre, or part of the ISBN number I sometimes remember, which helps guide me to specific information, that is available here.

Interviewer: What did you do next?

A3: At first I become aware of a lack of knowledge or understanding, then I get feelings of uncertainty and apprehension, At this point I recognise a need for information, then I start to contemplate the problem, comprehending the task, and relating the problem to prior experience and knowledge. After thinking about where can I get the information I want, I start to identify and select the general topic to be investigated or the approach to be pursued, during this I tend to feel optimistic, and I feel a readiness to begin the search. Then I begin to weigh up perspective topics against the criteria of personal interest, or what is demanded at the time, for example a report that's needed for work, then I select the information resources that I feel, greatest potential for success, sometimes I confer with other people, sometimes I make preliminary search of information available, and skim and scan for
an overview of alternative topics, however sometimes I can feel bogged down with information, then I start to feel anxious, that I can't get what I want. Then I start to explore the information resources available, to investigate information on the general topic in order to extend personal understanding, here I feel the need to be oriented and sufficiently informed about the topic to form a focus or a personal point of view, by locating information about the general topic, reading to become informed, and relating new information to what is already known. At this point I start to collect information, to gather information related to what I originally set out to research, using a variety of resources, books, magazines, whatever is available to me at the time. I usually feel relief, after I have found some information that relates to the research, which usually results in the culmination of the search, with notes or some synthesis of the research that I have personally written, such as a summary of all the information resources that I consulted, after which I tend to obtain the single most important resource, such as a book, then obtain permission to take it out the library for a few days, so I can read it from cover to cover.

Interviewer: Did you successfully obtain the information you wanted?

A3: Yes, I found exactly what I wanted, although the information, exists in books, magazines and journals, magazines and journals here are offer snippets of information, which cumulate in a large volume of paper, so I decided just to go for the book, as the information I wanted, exists in one volume, so it's easier to transport home and keep safe.

Interviewer: Have you used an electronic resource to search for information?

A3: No, I was never brought up using computers like the younger generations of today, I feel more comfortable using traditional search methods, like looking through books and printed media, that's how I was always taught to find information and so many years on, I still use them.

Interviewer: During your time at Abertillery library, have you approached a librarian, or member of staff? and why did you approach them?

A3: Yes, I had to approach the librarian, upon arrival to the library, and to sign out this book, I wanted. As a regular user of this library, I have always found them to be efficient.

Interviewer: How do you perceive the role of the librarian? and why?

A3: I perceive the librarian, as a customer service role, but that's just how I view them, as a regular user of this library, I have come to know my way around, I feel able and competent in utilising the resources here to acquire the specific information I want, however when I first started using this library, I often approached the librarian with matters regarding the search for information, and they were helpful, and knowledgeable with regards to finding information, such as search terms, or finding a specific book or even teaching me on how to search the library catalogue and so on, so although I perceive the librarian as a customer service operator now, I
recognise and remember them being far more useful and helpful, in just using them for a single role.

Interviewer:  Information literacy is defined as “the ability to know when there is a need for information, to be able to identify, locate, evaluate, and effectively use that information for the issue or problem at hand.” How would you describe your information literacy skills?

A3:  Although I have never heard of information literacy, before you stated that question, I would deem my information literacy to be adequate, I often find the information I want, which is specific and to my needs at the time, without having to go to anyone else for assistance in finding it.

Interviewer:  How would you improve your information literacy skills?

A3:  If I had to improve them, I would probably, take a course at a local college, that helps to refine search terms, or maybe even, thinking about it, learn how to use the internet in acquiring information.

Interviewer:  Thinking ahead 10, or 20 years, how would you define and describe the library of the future?

A3:  I would hope there would be minimal change, although I doubt that will be the case, as I see, now, when looking over to the computer desks, there is a lot of young people, there using the internet or the computer to find information, so I suspect, there will of an emphasis on computer-based methods to locate and acquire information, compared to using the books and printed media of old.

Interviewer:  How would you personally want library services delivered in the future?

A3:  I am satisfied with the library services as they are delivered today, as I doubt I will still be around in 20 years time, however I could envisage more public services, co-existing within library buildings, such as payment of council tax, or collecting state payments being made here as well, as that would be more convenient for me, but my biggest concern, would be the impact, that additional services would have on the core identity of the library, as long as the library's central purpose is to provide information, to all of us, the community and to those who lacks a decent education then I don't really mind what exists here.