

**The Encyclopaedia as a Form of the Book**  
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for the degree of Doctor of Philosophy

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**Declaration of originality**

I, Katharine Schopflin confirm that the work presented in this thesis is my own work and that, to the best of my knowledge and belief, it is comprised of original research and ideas, except as acknowledged in the text.

[signed]

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PhD Candidate

**Abstract**

The field of book history is concerned with exploring the physical form of the book and the circumstances of its creation and reception, in order to gain insight into the societies and industries which produced and consumed it. Hitherto, comparatively little attention has been given to the encyclopaedia as a generic form of the book. The purpose of this thesis is to apply the research approaches taken in book history to the encyclopaedia in order to define it as a type of book. Original research was undertaken in three parts: review literature was analysed to identify the encyclopaedia's functional attributes, a selection of titles were examined to discern their physical features and surveys and interviews were carried out in order to gather the opinions of the main participants in its communications circuit. Once a definition was formed, it was applied to online forms of encyclopaedia to consider whether the encyclopaedia has a generic signature which carries beyond the material form of the book.

The findings show that the encyclopaedia has a distinct identity, both in terms of the characteristics for which it is valued, and its physical components. This identity distinguishes it not just from familiar, much-studied forms of the book such as the novel, but also from other reference books such as dictionaries. The findings also demonstrate that many of these characteristics are present in the online forms of the encyclopaedia, even where technology might have made them unnecessary or irrelevant.

While the definition formulated of the encyclopaedia is not a challenging one, it demonstrates that it is possible to formulate a toolkit for the identification of literary forms, and to apply it to new forms of book types, such as online versions. Refinement of this toolkit and application to other forms of the book could reveal new insights into the nature of different literary genres and their relationships to each other and to their readers' expectations.

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**Thesis outline**

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<b>Chapter 7: The encyclopaedia communications circuit</b>	Research surveying the producers and consumers of encyclopaedias for their opinions as to what physical and abstract characteristics they associate with encyclopaedias
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<b>Chapter 9: Identifying the encyclopaedia: Conclusions</b>	Conclusions in answer to the research questions, achievements of thesis and further research based on thesis findings

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## **Chapter 1 – Introduction**

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### **1.1 Introduction**

This thesis examines the nature of the encyclopaedia, using the methods of the discipline of book history<sup>1</sup>. The study distinguishes between traditional, printed works and their contemporary, digital counterparts. Although the purpose of the study is to define what we understand to be an encyclopaedia, and it is important not to pre-empt its discovery, the study requires a starting point to clarify the kinds of documents that are the subject of the investigation. Traditional encyclopaedias are, in this study, understood to be printed books; items which have been through a formal publishing process. The encyclopaedia is a reference work, one which provides in-depth information. This is in contrast to digital works, such as *Wikipedia*. This is defined in more detail below.

According to *Chambers dictionary* (Chambers, 1998), an encyclopaedia is “the circle of human knowledge; a work containing information on every department, or on a particular department, of knowledge, generally alphabetically arranged”. This definition does not make a distinction between electronic and hard copy encyclopaedias. However the fact remains that, without negating the validity of online versions, the concept of the traditional encyclopaedia exists as a hard copy book. As a response to this, this thesis first constructs a definition of the nature of the encyclopaedia in its traditional, printed form, and then comments on how contemporary, electronic formats compare to these.

### **1.2 Scholarly background to the thesis**

The field of book history seeks to explore books’ physical form and the circumstances of their creation and reception, in order to find out about the societies and industries which produced and consumed them. As a discipline, it has sought “to understand textual production as part of human social communication structure” (Finkelstein and McCleery,

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<sup>1</sup> Throughout this thesis, the terms ‘book history’ and ‘book studies’ are used interchangeably.

2005, p4) and “Its practitioners think about the reception, the composition, the material existence, and the cultural production of what is called the book” (Howsam, 2006, p46). One aspect of this is how “... the material form of a book affects (and to some extent effects) the meaning attached to it by the recipient” (Howsam, 2006, p48). It has led book historians and bibliographers to take a fresh look at this "bewilderingly beautiful technology that we take for granted" (Stevenson, 2010) and consider how the component parts out of which books are made influence their users' expectations.

As Finkelstein and McCleery put it, “different material forms can prompt readers to read a text in different ways” (2005, p3). Most readers take the forms of the book with which they are familiar for granted. They expect, for example, that a good example of an academic monograph will be divided into chapters and contain references and an index. A typical novel, however, would be unlikely to have an index and many are not divided into chapters. According to Howard (2005) “the book presents ... culturally understood representations of knowledge that are being preserved and transferred” (p x). These characteristics have been formed over time: “The structuring of books, however, is anything but ‘natural’ – indeed it is thoroughly unnatural and took all of 4,000 years to bring about” (McArthur 1986, p69). One of the roles of book history, therefore, is to understand how books - individual books, books as categories of objects and particular types of books - have acquired their characteristic forms and structures.

Book history traditionally turned its attentions to celebrated literary works by famous authors. Indeed, book studies' origins are in the discipline of analytical bibliography which sought, among other things, to examine “the composition, formal design and transmission of texts” (McKenzie, 1985, p4) in order to discern important information about them ascribed to notable literary figures (for example, studying the so-called ‘First Folio’ of Shakespeare in order to discover the ‘authentic’ voice of the playwright). Walter Greg (1966, p241) identified bibliography as a ‘science’ concerned with the analysis of ‘literary documents’, an adjunct to the formal study of literature, rather than a means to its own end. With time, this focus changed. Jerome McGann (1991, p71) identified a key argument between those editors who sought “the text closest to ‘when the artist was in control’ of his own work” (his quotation marks), that is, the manuscript form, and those who are interested in texts in their various different states of publication. As the “material conditions of textual production” (Price, 2006), that is, the circumstances under which books came into being, became as important a consideration as the text itself, book history began to analyse not just what was created by individual authors, but how these contents became presented in book form. If the mark of a

literary work is that it transcends the medium in which it is presented, the work of book history is to consider the medium in particular. And, as the medium began to be examined with as much consideration as the text, so a wider range of texts became the subject of scholarship than the key literary works which had been the focus of bibliographic work. This can be seen as marking the emergence of book history as a discipline.

A further distinction might be made between ‘book history’ and ‘publishing history’. In his 1988 article on the relationship of the latter to literary sociology, John Sutherland discussed the “newly defined subject area known provisionally as publishing history (in Britain) or history of the book (in America)”. At this stage, it appeared the two were interchangeable although, as he later points out the former draws on a tradition of ‘house histories’ commissioned and paid for by publishing houses themselves. For Sutherland, if there is a distinction, it is that he expects publishing history to answer questions around how published items actually were written, brought into being, sold and made a living for those who did these things, against the wider investigations of the new scholarship into what the published output tells the scholar about the society which produced it. John Feather, updating his original 1988 history of British publishing, acknowledges that since that time “scholars of the history of publishing have been working with the broader context of the history of communications in general, or the history of books in particular” (p2). His new edition aimed to take on the new scholarship at the same time attempting to avoid ‘loss of focus’ (p3) away from “the commercial process of putting books and other printed matter into the public domain”. Publishing history cannot be seen in isolation from the wider field of book history, but it is a distinct part of it. Nevertheless, where a work such as Darnton’s *Business of enlightenment* is seen as one of book history, despite describing itself as a ‘publishing history’ and being based largely on a publishers’ archive, the distinctions have yet to be made clear.

The modern approach to book history has engaged a range of methodologies (see Chapter 2.2.1 for more details) to examine not just how books were created, but also their role in the societies which produced and consumed them. Yet few writers have taken this approach on works primarily designed for consultation rather than end-to-end reading, that is, reference books. They have been explored from other angles. For example Philipp Blom’s *Encyclopédie: the triumph of reason in an unreasonable age* (2004), which uses a history of the Diderot and D’Alembert’s 18<sup>th</sup> Century title to explore the history of enlightenment scholarship. Certain authors have also looked at the history of particular titles with particular cultural significance, notably the Oxford English Dictionary (for example, Simon Winchester’s *The Meaning of Everything*, 2003). Publishing houses also sometimes issue administrative histories of



prominent reference titles (see Chapter 3, section 3.4). However, these books cannot be considered to be part of the academic field of book history as they do not engage with its central questions: what does this book, or this publishing process, tell us about society's engagement with literary or published works?

Communications studies, particularly that concentrating on the history of information storage and retrieval, has also produced a small but growing literature relevant to the history of reference books. Titles such as *Encyclopaedias: their history throughout the ages* (Collison, 1966), *A history of information storage and retrieval* (Stockwell, 2000), *Worlds of reference* (MacArthur, 1986) and *Glut* (Wright, 2007) enumerate the different means by which knowledge has been organised so that users can find it again. However, these writers do not examine in depth the nature or form of reference books, other than as vessels for storing information. To these writers, reference books like encyclopaedias (and perhaps even all hard copy books) were simply a type of information storage used by human beings at a point in history. Their interest is not the history and cultural identity of a particular form of the book. Thus, these writers too cannot be considered to have taken a book historical approach to the encyclopaedia.

Of the prominent writers in book history, there is a significant exception to the lack of interest in reference works. Robert Darnton's *The business of enlightenment : a publishing history of the 'Encyclopédie', 1775-1800* uses the methodologies associated with the field to tell the story of how one very significant work of reference. However, it is a case study of a single, exceptional work, credited to a celebrated author and which has come to be considered a work of literature in its own right. Darnton's study examines a one-off publishing phenomenon in the context of its time, rather than as an example of a specific form of the book. While, unlike Blom, his primary interest is in the interaction between the communication process between publishers and their readers, one of the central issues of modern book history, it is in a sense a coincidence that he has chosen a reference book to tell this story. *The business of enlightenment* is the history of a particular book and set of cultural circumstances which led to it, rather than as an example of a literary genre.

Yet reference works are an intriguing part of the history of the book simply because of that which makes them distinct from other forms of published books. Far more than fiction or monographs, they are identified by their format and physical appearance as much as by their content and are immediately recognisable as reference books because of how they look. Instead of continuous pages of text, reference book readers can expect to find individual articles or entries arranged under title headings. Typographical features such as use of

paragraphs and white space, bold and italic fonts and running headings mean that works of reference bear a physical appearance distinct from monographs. Reference book readers engage with them differently from other types of book. Defined as books designed to be consulted rather than read (Stevens, 1987; Attwooll, 1986) they differ from literary works in being identified by their use rather than intention. A particular type of reader-behaviour is associated with them. Although scholars do use monographs and their indexes (intended to be read in a linear fashion) to refer to individual pieces of knowledge, reference books are specifically designed to meet this usage by facilitating access to their knowledge in the way they are arranged. Thirdly, their function – by intention if not reception - is exclusively one of information rather than entertainment. This does not make them unique, but it means they lack a characteristic associated with such prominent forms of the book as the novel. A broad definition of a reference book, therefore, might be a work that is both designed and used to enable the reader to find specific items of information, whether factual or discursive. This would encompass works ranging from lexical (word-defining) dictionaries and thesauri (where words are arranged according to subject) to in-depth collections of essays, accessed alphabetically or by topic.

The encyclopaedia is a form of reference work particularly demanding study, which I attempt to define later in this chapter. The term is applied to an extremely wide range of titles providing organised access to larger or smaller portions of knowledge. Some of these are “Grand projects like the *Encyclopaedia Britannica*, *The Encyclopédie* and *The Oxford English Dictionary*” which “have all had tremendous social and cultural effects, acting as guardians of accuracy, setters of standards, summarizers of important and intellectual material” (Finkelstein and McCleery, 2005, p4). Others exist as familiar objects in a domestic or paedagogical setting, but are no less important as a means of understanding how we choose to access knowledge. And while the term ‘encyclopaedia’ is widely applied, books with other terms in their titles are equally understood to be encyclopaedias. Notably, the term ‘dictionary’ is applied by publishers to non-lexicographical (understood here to mean word-defining, linguistically-oriented) works. However, “The distinction between a dictionary and an encyclopaedia is one that can easily be made by most people, even if the encyclopaedia happens to be a one-volume affair or the dictionary has spread to several volumes; even, moreover, if an encyclopaedia is called a ‘dictionary’, or a dictionary an ‘encyclopaedia’” (Collison, 1960, p4). Other terms associated with works which meet the definition of encyclopaedia provided below are ‘Handbook’, ‘Glossary’ and ‘Companion’.

The encyclopaedia is a particularly interesting form of reference book, not just because it includes highly celebrated examples such as those mentioned above but because its contents and the ways they are divided up clearly reflect the world-view of those who compiled it. This is perhaps true of all reference books, but the depth of information in an encyclopaedia, and the range of subjects embraced, mean that it reveals, in a discursive manner, material reflecting changing attitudes towards knowledge and its organisation. The complex story of how it came to take the form it did (which will be explored in Chapter 4) tells us much about our attitudes towards authorship and authority over the centuries, how we have embraced (and rejected) the accessibility of knowledge and the extent to which we have attempted to capture and record all that we believed to be true and accurate. Inexplicably, those interested in the forms which books take have chosen to ignore it. It is the purpose of this thesis, therefore, to identify how we know we are looking at an encyclopaedia when we use one, to consider what particular features characterise our understanding of encyclopaedias, and make us think they are fit for the purpose for which they are designed, and which of the ‘economic, political, social and cultural forces’ (Eliot and Rose 2007, p1) have combined to produce them in the form they exist now.

Finally, the second decade of the twenty-first century is a significant time to take stock of the physical encyclopaedia, as the behaviour of both producers and consumers suggest it may be a form of the book with a limited future. “We are now in the middle of a transition period and the way in which encyclopaedic knowledge, as a form of public knowledge, is changing profoundly (Sundin and Haider, 2013). A five-year old study suggested “the encyclopaedia and many technical manuals have virtually been replaced by electronic formats” (Cope and Phillips, 2006, p5). Yet who is to say if certain works in electronic formats – alternatives to the traditional hard copy volume offered by publishers or used by consumers – are not ‘encyclopaedias’. This thesis aims to test its definition of ‘encyclopaedia’ by considering how far digital works, consulted in the way encyclopaedias have traditionally been used, continue to meet it.

### **1.3 The definition of ‘encyclopaedia’**

The purpose of this thesis is to discover the nature of the encyclopaedia and, as part of the process of discovery, it is important not to pre-empt the answer, or assume prior knowledge which might skew the research. Nevertheless, it is impossible to consider the object of

discovery without in some ways having defined it. I therefore propose a loose working definition of the subject of the thesis:

1. **The encyclopaedia is a book.** Although this thesis acknowledges the reality of electronic encyclopaedias and, indeed, includes them in some of the research findings, it is concerned with the encyclopaedia as a form of hard copy book.
2. **The encyclopaedia is published.** For the purposes of this thesis, ‘encyclopaedia’ refers to an item which has been through a formal publishing process. The thesis does not, however, ignore items which are part of the encyclopaedia’s history before the modern notion of publication came into being. Nor does it sidestep the fact that less formal mechanisms for publication have increasingly become available.
3. **The encyclopaedia is a reference book.** As mentioned above, reference books are books intended to be consulted rather than read in a linear fashion. To facilitate their use in this way, the information contained within them is arranged into smaller or larger nuggets of information using a systematic or alphabetical arrangement. In many cases (but by no means universally) they are available in the ‘reference’ section of publishers’ catalogues or of a library and those working on them are specially trained in this area of publishing.
4. **The encyclopaedia provides a depth of information.** The definition of encyclopaedia in opposition to other types of reference book is inherently problematic. The gazetteer, the commonplace book - perhaps even the recipe book - all provide information in small pieces arranged systematically. This thesis does not exclude *a priori* the possibility that they might actually be encyclopaedias. The grey areas between them, notably the difference between the encyclopaedia and the dictionary, are part of its topic. Yet we do understand them as distinct forms of the book. The encyclopaedia is the published reference work intended primarily to provide information in a certain depth, even while its approach is to break topics down into smaller pieces. In a larger sense, encyclopaedias aim for a comprehensive coverage of a topic, or range of topics (although what constitutes comprehensivity is questionable: it would be impossible for any published volume to include all that was available to be written on a topic). There is depth in the contents too, however. Encyclopaedia entries are more likely to be written in sentences than other forms of reference book and to be ‘about’ the headword at the top of the entry. They might be considered the least ‘referencey’ of reference books, containing the largest chunks of text and least reliance on page layout.

As will be seen in Chapter 3, this definition is both supported and contradicted by those who have written about encyclopaedias. Similarly, the research in Chapters 5 to 7 provides evidence both for and against its validity. Nevertheless, it is a starting point to establish the subject of this thesis:

**The encyclopaedia is the published reference book offering depth of information divided into entries and arranged systematically or alphabetically.**

Further clarity will be added to the definition in the context of this thesis in the ‘Scope’ section, below.

#### **1.4 Statement of the problem**

The encyclopaedia is one among many forms of the book that appear on the bookshelves of libraries, bookshops and homes. Publishers use the term to title their books, indicating that, as a label, it has meaning for those who buy them. Yet why it takes the form that it does has yet to be examined. As a form of the book which is consulted rather than read from end to end, it has a significantly different function in the lives of its readers than does the novel, monograph, or play, not to mention poetry or short stories. Moreover, while those who write about, publish and read encyclopaedias are for the most part certain they know what they are, the definition is problematic. At what stage does a ‘dictionary’ (or ‘Handbook’, ‘Companion’ or ‘Glossary’) become an ‘encyclopaedia’? Is it related to its size, its scope, its arrangement or its subject matter? Or does the term itself have desirable connotations which particular knowledge sources wish to associate with themselves?

A significant body of research in the field of book history has emerged in the last 40 years, attempting to establish why books take the form they do and what this tells us about those involved in their production and consumption. The work of such significant writers as Lefebvre, Eisenstein, McKenzie, Johns and Darnton has helped to elucidate how the circumstances under which books have been produced, the tools available, the intellectual context and the audience available, have influenced the form they have taken. Yet, with the exception of Darnton’s *Business of Enlightenment* (Darnton, 1979), rarely has any book historian looked at the encyclopaedia in any detail. This may be because the physical encyclopaedia is more than a book. Titles like *Encyclopaedia Britannica* have a cultural significance and an identity as a knowledge source beyond the bounds of their physical leaves. They are also familiar domestic objects, used to furnish rooms regardless of their actual contents. They might, therefore not have been seen as a ‘typical’ example of the book, in a way that a novel might be. Moreover, as Blair (2010) suggests, because in many cases reference works are

owned by institutions rather than by individuals, book history scholars do not value them as containers of clues to their place in their readers' lives (p230). Book historians therefore have left the encyclopaedia to the historians of information storage and retrieval to study. And these writers see them simply as a method of holding information so that it can be found again.

The history of knowledge sources and knowledge organisation includes observations about encyclopaedias, yet for the most part they have taken their format for granted. Significant work has also been produced by historians such as Richard Yeo (2001) on the encyclopaedia developments between the early modern period and the enlightenment, but their conclusions only apply to this specific historical context, that is, what an encyclopaedia meant to the scholars of the 17<sup>th</sup> and 18<sup>th</sup> Centuries. We are missing a definition of what form the encyclopaedia takes now, and as a type of book, how it communicates its knowledge to its readers.

Finally, the way that both experts and general users access knowledge has undergone significant changes since the emergence of first, online data sources, and secondly the world wide web. While this thesis does not have the scope to undertake an in-depth study of online users or producers, it is important to compare our understanding of the characteristics of the encyclopaedia to the digital information sources increasingly being produced by publishers and used by those seeking information.

## **1.5 Motivations for this study**

There are, therefore, three main objectives for this study:

1. To apply the research approaches used in the field of book history to the encyclopaedia, a form of the book with distinct cultural significance, but neglected by this field
2. To establish a detailed identity for the form 'encyclopaedia' referring to existing literature and carrying out original research using a three-pronged approach:
  - a. examining review literature to discern its functional attributes
  - b. examining its physical format
  - c. analysing the opinions of participants in its communication cycle
3. To examine how this definition stands up against selected electronic information sources which describe themselves as encyclopaedias. By doing so, to suggest

whether or not there are defining elements to the encyclopaedia which transcend the hard copy book form.

## 1.6 Main research questions

The overall research question for this thesis is:

### **What are the characteristics which distinguish an encyclopaedia as a book?**

In order to achieve these aims, the following research questions will be answered

- How has the existing literature addressed the nature of the encyclopaedia?
- How did the form come to exist?
- What are the marks by which an encyclopaedia is considered to have succeeded as an example of the form?
- What are the paratextual elements which identify an encyclopaedia entry and volume as a whole?
- How do the principal creators and consumers of encyclopaedias judge a successful example?
- Is there an inherent substance to the encyclopaedia which can survive the transition to electronic formats and publishing on the web?

## 1.7 Scope

This study aims to produce a definition of the encyclopaedia as we understand it today in the publishing markets of Western Europe, the US and the UK and its associated English-speaking diaspora in the commonwealth and former empire. It will focus principally on hard-copy books, formally published and purchased by individuals or libraries. According to the definition above, they are understood to be encyclopaedias because they are arranged into entries, providing information in some depth, and accessible in an alphabetical or systematic way. As part of the understanding of how the modern encyclopaedia came into existence, works will be cited which do not fulfil these criteria, but which can be considered the ancestors of the contemporary notion of ‘encyclopaedia’, anticipating or influencing the form. Other items were included in the sample which test this definition. The study concentrates on a broad definition of the encyclopaedia as a single book form, rather than attempting to develop a typology of different forms (see Chapter 2 for the reasons for this).

Contemporary titles examined during the research collection for this thesis span a rough timeframe of ten years from about 1999 to 2009. It is worth noting that some encyclopaedias

are updated annually, while others represent the fruition of decades of research, meaning that, while all published information sources are in danger of being out date (whether electronic or hard copy), some titles are of contemporary use even when some years old. The timeframe during which the research was carried out dictated a cutoff date of 2009. While the rate of change in publishing and communications technology means that changes have taken place in reference publishing since then (and these are covered, where possible, in Chapters 7 and 8), the physical encyclopaedias examined are consistent with those found at the time of thesis completion.

The intellectual background against which this thesis wishes to explore the encyclopaedia will be examined in detail in the literature review which makes up the third chapter. However, it is worth reiterating that the field of book studies, which draws methods and intellectual paradigms from a variety of disciplines, includes within its field of enquiry the question ‘how does the form of a book influence how the content within it is transmitted and received?’ Finkelstein and McCleery (2005) identify the sources of modern book studies as analytical biography (defined above), the sociology of knowledge, history, English literature and English language (p12). What distinguishes book history as a field is its concentration on the aspects of books which are not about their contents *per se*, but are instead about the form they take and the circumstances of their creation, distribution and consumption. It is this which dictates the scope of the research questions identified above.

### **1.8 Thesis outline**

This thesis is divided into eight chapters. The methodology used in each chapter is summarised in Chapter 2. Chapter 1 introduces the background to the research, the motivations for the study, its aims and objectives and scope. Chapter 2 covers the methodology used in the thesis.

Chapter 3 is the literature review for this thesis. According to Blessing and Chakrabarti (2009) “The literature review provides a review of the relevant contributions from the existing body of literature. The literature review should identify the theoretical foundation for the research, identify the level of novelty and relevance of the research described in the thesis” (p217). A primary purpose of Chapter 3 is to establish how far scholarship has addressed the research question, and so establish a focus for research. Chapter 3 reviews the relevant literature on encyclopaedias, drawn from the fields of book history, history of knowledge and science and metalexigraphy. It will also attempt to draw from this literature a common working



definition of ‘encyclopaedia’ as it is understood in the existing intellectual context. Chapter 3 also provides some of the methodological models (see Chapter 2.1) used in the research chapters in this thesis. In particular, the writings on metalexigraphy (section 3.8) provide part of the research approach taken in Chapter 6.

Chapter 4 is a history of encyclopaedias, charting their origins and development to the form we understand today. It describes how the encyclopaedia came to take the form it does today from a range of secondary historical sources. This is drawn from several types of secondary source. Historical surveys of reference works provide a basic chronology, enumerating rather than analysing the titles they include. General histories of the book outline milestones which are part of encyclopaedia’s history, for example the development of paper, the codex and literacy. Analytical histories of knowledge and the sciences use encyclopaedias’ history to illuminate how they influenced the development of scholarship at a particular moment in history, providing in-depth analysis for specific periods of the encyclopaedia’s life. The history of libraries and information sources also provide relevant detail to the story of how knowledge is collected and disseminated.

Chapters 5, 6 and 7 analyse original research carried out for the thesis. The methodology used in these chapters is examined in depth in Chapter 2. Chapter 5 examines reviews of encyclopaedias in order to discern the functional attributes understood as common to a successful iteration of the form. These reviews were taken from a mixture of specialist publications (from within the librarianship, publishing and education communities which comprise reference publishing’s main markets) and mainstream newspapers and periodicals (where reviews of reference works are rarer) published between 1998 and 2003. Using a content-analytical approach, every statement of value about the publication reviewed was extracted and categorised, both those attributes their critics praised and those they criticised the books for containing or lacking. Examples include comprehensivity, authority, currency, ease of use and provision of extra matter such as illustrations. The aim was to establish a consensus, according to those who wrote and read the reviews, of what a successful example of an encyclopaedia looks like.

Chapter 6 analyses encyclopaedias as objects in an attempt to identify the structural elements out of which they are made. It consists of inductive research aiming to identify the physical components which make up an encyclopaedia and which, in combination, can be considered as encyclopaedia-defining. It examines a sample of encyclopaedias or other similar reference books (see section ‘Scope’ above) published within a limited period to see which features are

held in common and whether differences can be traced to features such as the book's title, the nature of the subject matter or their intended audience. The aim was to discern physical features which they have in common or which distinguish them, for example, the nature of the front matter, length of entries, presence or absence of author credits, arrangement of information under headings. By identifying those features shared by the sample, and those which are missing in some titles, the aim was to build up a preliminary picture of the building blocks from which an encyclopaedia is physically comprised.

Chapter 7 explores the characteristics valued by the producers and consumers of encyclopaedias by analysing and synthesising data from a variety of written and oral sources. It examines what those who participate in the creation and use of encyclopaedias consider the form of the book to be. Using Darnton's concept of the communications circuit as a basis, it looks at all the points of the encyclopaedia production and consumption process. Sources, including interviews and surveys, were used to establish what those who participate in the circuit consider an encyclopaedia to be. Evidence from writers and editors explored the decision process they use in selecting and arranging the material enabling an encyclopaedia to assume its final form. Interviews with acquisition and reference librarians identified the grounds on which they make decisions to acquire or reject particular titles. Finally, interviews with users from the academic community provide evidence of how encyclopaedias are actually valued by the end-users for whom they are written, and why they consider them useful.

This is supported by written evidence from studying encyclopaedia prefaces and evaluative guides aimed at librarians. Prefaces indicate what encyclopaedia editors themselves consider to be the 'selling points' of their work. Guidance on the evaluation of reference works indicates the selection criteria used by librarians to establish a useful reference collection. Chapter 7 thus produces an overview from the principle areas of production and consumption in the communication cycle of the encyclopaedia, and establish a consensual definition an encyclopaedia.

Chapter 8 adds further depth to the conclusion. If Chapter 7 has produced a picture of the physical features and valued functions of an encyclopaedia, Chapter 8 tests it against three instances of the encyclopaedia in the digital context. These are, first, the electronic version of *Encyclopaedia Britannica*, secondly the editorially-mediated but not formally-published *Stanford Encyclopaedia of Philosophy* and thirdly, the socially-produced website *Wikipedia*. It addresses the question of whether there are inherent elements of an encyclopaedia which

transcend the physical form of the book and/or the editorial process of publishing. Examining how far these sources are consistent with the previously-posed definition, enables a conclusion as to the nature of encyclopaedias and the robustness of book form definitions in general. It also enables a possible future to be posited for the form of the book we call the encyclopaedia.

Chapter 8 looks back on the structure of the thesis and pulls out final conclusions from which a definition of an encyclopaedia posited.

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## **Chapter 2: Methodology**

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This chapter examines the methodology used in the thesis. It examines the conceptual background to the research questions asked and the approaches used to answer them. It aims to highlight the strengths and weaknesses in the different methods used and suggest some mitigating actions taken. It begins with a summary of the overall research approach and then deals with the methodology used in each of the research chapters in turn.

### **2.1 Research approach**

This thesis derives its research approach from book history. However, the field is associated with no single methodological approach. Indeed, according to Finklestein and McLeery “Competing methodologies are a feature of modern book history” (2005, p12). Book history is a modern discipline, although the authors identify a long pedigree of studying significant books as unique artefacts as part of history, art history or literary studies (p8). Its immediate ancestor in the study of books, bibliography, developed as an adjunct to literature. It used distinct methodologies for studying books with the object of identifying ‘good and bad’ versions of published works. Leading bibliographers such as George Tanselle and Walter Greg advocated formal surveys of individual works, examining texts for features such as type and colophons which tell the expert bibliographical scholar about the circumstances of its production. As Greg put it (1966) “what the bibliographer is concerned with is pieces of paper or parchment covered with

certain written or printed signs”. Interpreting the signs was the art and expertise of the analytical bibliographer, but their external knowledge of the circumstances of the book’s production were important too. Howard-Hill (2007) describes using “the bibliographer’s knowledge of those processes [of book production] and social conditions and the ability to apply them to the material object at hand”. The methodologies attached to bibliography were close study and analysis of the objects, allied to knowledge of social and publishing history of the time of publication.

A different methodological approach was pioneered by book historians following the French *Annales* school of history during the 1950s. As the *Annales* historians aimed to challenge traditional historical approaches by looking at events from social, economic and cultural viewpoints, some scholars began to break away from the traditional author-centred approach to book studies. These writers brought ‘quantitative social history methods to the study of textual production and reception’ (Finklestein and McLeery, 2005, p11). That is, they examined the historical record for data which could tell us not simply about the book itself, but about how it was produced and received. Donald McKenzie (1985) similarly redefined Anglo-American bibliography as studying “texts as recorded forms, and the process of their transmission, including their production and reception” (p4) and doing so specifically by using external historical evidence. The following generation of book historians, dominated by those of the *Histoire du Livre* school and Robert Darnton, applied quantitative and qualitative methodologies to sources external to the text itself, such as catalogues, bibliographies and regulatory records to learn about how books operated in the lives of their creators and readers. This might cover broad brush surveys and longitudinal studies (macroanalysis) or more intimate studies of the holdings of private libraries (microanalysis) (Darnton, 1990, p162). Data relating to print runs, employment records, bibliographies, library catalogues and censorship lists could tell scholars much about popular taste, literacy, use of foreign languages, size of the industry and nature of the reading public at any time in history.

Such methodologies are not without problems, as Weedon (2007) has pointed out, as the ‘sample is often small’ and the ‘historical record is fragmentary’. Until the modern era, consistent measurement over time, enabling longitudinal study, was absent. A publisher’s archive needs to have recorded the same things, in the same ways, over a period of time to be analysed in such a way that trends can be observed. It is significant that much of the pioneering work of this kind (by Darnton and the *Histoire du Livre* school) used records

from periods of French history where publishing was strictly regulated and thus far easier to count (although Darnton's study was largely based on the archives of a Swiss publishing house which was free of the French censor). More chaotic worlds of print and publishing are more difficult to study in a consistent manner. Darnton himself was doubtful of the uses of quantification which he felt had "not yet produced answers to the basic questions about reading and writing in the past" (1982b, p182). For him, much of the value of his research was qualitative (something about which Sutherland, 1988, is critical). The scholar examining an auction catalogue may not know how representative it is of reading taste, or of what greater number of books it is a percentage, but they can discern important descriptive data about a particular population's buying and selling habits.

The research approach in this thesis is not primarily historical. Its subject is the form of the hard copy encyclopaedia as it is now. The focus is primarily exploratory: to establish the form and nature of the encyclopaedia as a book genre. The core methods of modern book history, examining sources external to the text to discern patterns in encyclopaedia production and use, would make a suitable approach to answering the research questions. However, accessing contemporary sources can sometimes be harder than historical ones. Information from publishers' records regarding the sales, reading habits and characteristics of the encyclopaedia user and the circumstances of their use would be highly relevant to this thesis's research questions. Unfortunately, they are not the kind of information that a publisher would be happy to make available for public use. And of the industry-wide data which is made public, very little is specific to encyclopaedias or even reference books. For example, The Publishers' Association yearbook publishes statistics about academic and professional book sales and trade book sales, but encyclopaedias cover both markets. All this limits the data available for analysis and forecloses the possibility of using this type of research as the basis for answering the research question in this thesis.

As an alternative, Chapters 5 and 7 examine other sources of data as clues to the nature of the encyclopaedia. In these chapters, book reviews, encyclopaedia prefaces, librarians' evaluation guides and interviews and surveys with significant encyclopaedia creators and users. While not all providing the data that sales records or bookshop inventories, or better still, marketing plans and publishing strategies, might have provided, they are sources of opinion from those who produce and use encyclopaedias. In addition, Chapter 6 examines the encyclopaedias as physical objects. As will be outlined below, the methodology from

this chapter borrows partly from sources covered in the literature review and partly from the methodologies of traditional bibliography.

For all three chapters, the encyclopaedias examined were not broken down by type. That is, the nature of different types of encyclopaedia (by topic, by reading level, by market) were not examined and the various results not broken down. This was partly because the focus of the research question is on the encyclopaedia a form of the book overall and partly because the scale of the task would have produced a very much longer and more time-consuming research study. A rationale for such a typology, stating why a title belonged in the particular category, would have needed to have been developed and in many cases it would have been impossible to ascertain that a title belonged there. For example, in Chapter 5, the analysis was done from encyclopaedia reviews, rather than examining the volumes themselves, which did not necessarily offer sufficient information to decide what type of encyclopaedia was being reviewed. However, further research, noting the differences between different types of encyclopaedia, using the research approaches and methodologies outlined below, would provide an interesting development of the research.

A brief step-by-step account of the evolution of the research for this thesis can be seen in the list below:

1. Introduction
2. Methodology
3. Literature review, producing
  - a. an overview of existing scholarship, to identify the gaps in the existing research and therefore to produce a focus for this thesis
  - b. a picture of the approach to research taken in the field of book studies, to enable a similar approach to be used in the thesis, including the concept of the communications circuit of the book
  - c. a set of tools provided by the field of metalexigraphy to facilitate the examination of encyclopaedias as physical objects carried out in Chapter 6
4. Chronological account of the development of encyclopaedias taken from existing scholarship to produce a historical picture of how it came to take the form it does
5. Analysis of reviews of encyclopaedias to discern the qualities valued in an encyclopaedia. Titles were used as basis for the sample then used in the research in Chapters 6 and 7.



6. Examination of encyclopaedias' physical features to produce an answer to the question 'What does an encyclopaedia look like'. The research approach draws from writers examined in Chapter 3 (particularly around b. and c.)
7. Examination of what the encyclopaedia user and creator value in an encyclopaedia and expect it to look like. Survey and interview methods allowed both open questions and used pre-set categories established by the research results in Chapter 5. Conclusions drawn from results of research in Chapters 5, 6 and 7.
8. Testing of the definition of encyclopaedia established in Chapter 7 against three examples of non-hard copy encyclopaedias and further conclusions drawn from this.

The following sections examine the methodologies used in each of the research-based chapters, suggesting a scholarly warrant for the methodologies adopted, the problems they involved and the efforts made to mitigate them.

## **2.2 Chapter 5 methodology**

### **2.2.1 Content analysis as a methodology**

The aim of this chapter is to answer the question "What qualities are valued in an encyclopaedia" by examining reviews of reference books. Although almost all the books reviewed in the selection (see section 'Sample' below) match the definition of encyclopaedia established in Chapter 1, a wider group of reference books was selected than those which were obviously encyclopaedias (for example, as indicated by their title). This was in order to explore whether or not other reference books may, in fact, qualify as encyclopaedias. The principle method of research used was content analysis. This can be applied in either a quantitative or qualitative manner depending on the nature of the data and the research questions asked. Content analysis has been defined as "a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use" (Krippendorff, 2004, p18). It examines communicative material for answers to research questions. In this case, the material examined was reviews of reference books. The research infers that the type of text, the reference book review, is a source of answers to the research question 'What are the marks by which an encyclopaedia is considered to have succeeded as an example of the form?' because they are largely composed of evaluative statements about encyclopaedias. The aim was to use the data to discern the judgements on what a good example of an encyclopaedia should be as made by the community of reference book critics.

According to the definitions given by White and Marsh (2006) the method used in Chapter 5 was qualitative rather than quantitative. Rather than proposing a hypothesis such as ‘An encyclopaedia is valued when an evaluative statement suggests that it is accurate’, the research and data gathering were guided by the open question ‘What do the encyclopaedia reviewers value in an encyclopaedia’. The reasons for this choice are given below. The sampling unit and unit of analysis, the book review and statement of value were identified in a similar manner as might be found in quantitative research. However, the coding of the units of analysis was drawn out of the text inductively rather than pre-determined beforehand and the categories were determined iteratively. The validity of the data depended not on externally-validated statements but the transferability of the context in which they are made, that is the book review, to statements about what is valued in the type of book being reviewed, in this case the encyclopaedia. This makes the conclusions somewhat contextual and it is a feature of content analysis that it presents a tension between the words as used in their original context and the rules of inferences used to make them answer research questions. The sections below examine the problems presented by this method and attempts to mitigate them.

By its nature, content analysis removes the words in a particular text from their original context. As Krippendorff suggests, this makes validating the meaning of the statements analysed “difficult and unfeasible, in not impossible in practice” (2004, p39). The single unit of data in the research in this chapter is the value statement, as used by critics about encyclopaedias. It is highly characteristic of the writing of reviews and thus a suitable unit to extract from this type of text. The value statement, according to Weber (1990, p19) demonstrates one of the following three things: evaluation (positive or negative), potency (strength or weakness) or activity (active or passive). The statements counted for this chapter were included whether they displayed any of these categories in either form, as long as the reviewer considered them worth mentioning. Working from the analytical construct that if a characteristic has been mentioned and demonstrates the qualities of a value statement, then it is considered important in a reference book, there is a reproducible correlation between the words in the text of the review and the unit of data being counted.

However, value statements are problematic because they tend to be made up of adjectival concepts or abstract nouns (for example ‘comprehensive source’, ‘contains accurate and lucid entries’ or ‘everything a good reference work should be’). McKee (2003, p6) suggests that such forms of language “vary markedly from culture to culture” not just in terms of

the vocabulary used but in the understanding of underlying concepts. What one critic means by ‘comprehensive source’ could be very different from what another does, meaning the content analyst’s interpretation of the original reviewer’s term is more likely to be flawed than concepts which are more stable across cultures. In mitigation, it could be argued that reference book reviewers, the reviewed and their audience share the same culture. The publishing, review and use of certain types of texts can be assumed to have a certain consistency: publishers and reviewers of reference books work for the same community of users, who can therefore be expected to use concepts and language in similar ways to both groups. Kippendorf (2004, p314) suggests that judgements as to the meanings of any statement will be “largely rooted in common sense, on the shared culture in which such interpretations are made”. This does not render them invalid, rather, we can assume that publishers, reviewers and users understand the comments made in reviews in similar ways.

The sample of texts analysed is key to the validity of the analysis as the more limited the range of texts, the more consistent the use of language will be across them. However, a wider range of texts, embracing more heterodox approaches to language, may give a more complex and rounded picture. The content analysis in this chapter was carried out on review literature, which is a highly purposed type of journalism and therefore likely to use language in a particular way. The reviews were originally drawn from a small number of source titles, chosen for the richness of their contents, that is, the numbers of reviews regularly carried by them. They were limited by a time period. However, the numbers and types of periodicals looked at was expanded from the original selection, in order to better match the sampling population aimed at. That is, newspapers and other journals were added to the original library professional literature, where available, because their intended audience is different and might therefore reveal richer results. However, the way that they use language was consequently likely to be less consistent. The section ‘Sample’ below gives more detail on this.

After analysis, the analyser codes the data, that is, structures the units of analysis into categories. A quantitative approach normally uses externally-validated categories (for example, an existing taxonomy of terms or list of subjects). This removes the content analyst’s biases from the categorisation, but adds a different and possibly entirely artificial one. Moreover, using ready-made categories can render the data invalid through circularity: the analyst will only find answers which will fit the data or, as Marshall and Rossman (2006,

p54) put it, using pre-ordained categories “destroys valuable data by imposing a limited worldview on the subjects”. Thus a qualitative approach was preferred for Chapter 5. The aim was to render the categories from the data themselves by defining a particular unit of data, that is, the value statement, and grouping them into similar categories. To the extent that the data was ‘inductively derived from the phenomenon it represents’ (Wisker, 2008, p189) the method here is close to that of grounded theory. However, the research contains prestructuring limitations a grounded theorist would reject. The choice of literature type was limited to book reviews and I chose only to identify (and count) statements of value found in them.

The reliability and consistency of the classification procedure (or coding) is another problem identified in content analysis (Weber 1990 p12, McKee 2003 p127, Krippendorf 2004 p213). Every categoriser using an internal warrant (as opposed to an externally predetermined set of headings) for their categories will be faced with a series of choices over how to ensure that categories are mutually exclusive and whether to ‘lump or split’. The tendency in quantitative research is to lump: to count as a single category things which are similar without providing the detail of what makes the unit (in this case, a statement of value) most characteristic or interesting (Krippendorf, 2004, p324). Qualitative research tends to be more interested in the descriptive detail than the numbers involved. However, as the mentions were in fact counted, some level of lumping was necessary to produce and tabulate results. To mitigate against the loss of quality inherent in this, the original statements are provided in Appendix 1 to the thesis. The analysis of the data is both quantitative and qualitative.

Common methods of validating quantitative content analysis include carrying out the coding a second time, either by the same analyst at a later date, or by another person, with a pre-agreed process for combining the results, or to support the categories created by analysing a different set of texts for the same qualities. Although a methodical second coding did not take place on this data, each statement was double checked before tabulation, to ensure that they had been classified most closely to the final set of categories. Moreover, the examination of alternative texts in Chapter 7 (section 7.6) for similar units of value operates partly as means of validation. Finally, while the aim of the analysis was to examine the reviews without predetermining the categories into which the statements were sorted, they do in fact resemble (and were no doubt influenced by) categories identified by various writers mentioned in the literature review. Collison (1987), Stevens

(1987) and to a lesser extent, Barzun (1962), Van Doren (1962) and Steinberg (1950) all enumerate qualities they expect a good encyclopaedia to have, supporting those found in Chapter 5's research. Given that an attempt was made to avoid circularity, the similarity this can be seen as further validation for the categories chosen.

### 2.2.2 Chapter 5 Sample

As mentioned above, the sample of works examined for content analysis is key to its validity. The titles examined for Chapter 5 aimed to represent a range of reference works covering a random selection of topics within a specific date period. All the reference reviews published in three journals between February 2005 and August 2006 were sampled and, subsequently, all those of another between January 2001 and December 2005. The titles chosen were *Library + information update*<sup>2</sup>, *Library journal* and *Refer*. The latter was given a wider reference period as it is less frequently published and is a smaller-scale publication containing fewer reviews, but is highly valuable as its audience is exclusively librarians buying and using reference books. All three are specialist publications aimed at professional librarians, including those making acquisition decisions for reference collections. *Library and information update* and *Refer* are UK titles, *Library journal* is based in the USA. They were selected as being more likely to carry reviews of a range of reference works of all prices, topics and expertise level than more mainstream publications such as newspapers. I preferred these journals as a source for encyclopaedia titles, over one entirely devoted to reviews, in order to maintain a manageable number of titles from over a longer period of publication. In retrospect, a selective sampling could have been used from a more comprehensive title. However, the range of publications used as a result of the sampling method used resulted in an interesting range of titles.

In order to provide a wider range of critical opinion, reviews of the titles found in the initial sample were also sought from the publication *Reference reviews*. According to its publisher "Reference Reviews (RR) presents reviews of new reference materials prepared by librarians for librarians. It reviews and evaluates a wide variety of publications having reference value within academic, public, school and special library settings." (Emerald, undated). It is thus aimed at providing near-comprehensive coverage, primarily for Librarians making acquisition decisions, albeit at the cost of speed of publication (reviews can be published between six months to a year after the publication of the book). Most of

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<sup>2</sup>At the time of analysis *Library + information update* was this journal's title. It has since changed to *CILIP update*

the titles reviewed in the first three publications were also reviewed in *Reference reviews*. It was not taken as the primary principal source for reviews simply because its coverage was too comprehensive. *Library journal* and *Library and information update* were preferred because they review fewer, more significant, reference works. Finally, in order to ensure that a wider range of opinion was covered, that is, from journals aimed not only at librarians, but at end-users, such as consumers and academics, reviews of the existing titles were sought and examined from newspapers, literary reviews and subject specialist academic journals. Because there is often a time lag in the review of reference publications, the titles reviewed were published over a period of roughly six years, from the start of 2000 to early 2006, which is when the research took place.

In all, 31 titles of reference works were identified from these reviews. It is worth noting that research carried out by Covey in 1972 suggested that encyclopaedias were the most regularly reviewed of reference publications at this date (p65), and this may still be true. However, the reasons for selecting reviews of titles which were not simply entitled ‘encyclopaedia’ were twofold. First, as mentioned in Chapter 1, a book’s title is not always an adequate indicator of what type of reference book it is and, although a working definition of an encyclopaedia had been established, the content of the reviews could not be expected to ascertain if the book matched it. Secondly, by using an objective method which might include books not meeting the criteria set by the definition, I allowed it to be challenged. If a title reviewed did not appear to be systematically organised and contain in-depth informational content, yet was valued in the same way as others which apparently did, then this raised the possibility either that the valued characteristics were not unique to encyclopaedias or that in fact, the qualities recognised in them made them encyclopaedias regardless of the previous definition.

## **2.3 Chapter 6 methodology**

### **2.3.1 Chapter 6 research approach**

Where Chapter 5 aimed to uncover the valued features about encyclopaedias, by examining reviews, Chapter 6 sought to establish what an encyclopaedia should look like by examining titles from the sample taken in Chapter 5. It is arguable that an audience’s perception of a cultural object like an encyclopaedia could suffice as a definition. If it is recognised by the reviewers of encyclopaedias that an encyclopaedia has particular characteristics, then this alone might count as a definition. However, this thesis also seeks

to identify what an encyclopaedia should look like physically. Thus it was necessary to examine a sample selection and enumerate the features observed.

Although there is no clear model in book history for defining a literary genre from the physical features of books within it, the methodology used in Chapter 6 is akin to a descriptive bibliographical survey. Rather than examining books for clues to the nature of their publication and use, as a bibliographer does, this chapter examines them for indicators of the physical features they share. In particular, it aims to follow Gérard Genette (1997) in looking at a book's paratextual elements, that is, the features of the page and the bound book which are additional to the text. Although the methodology was experimental, the framework of analysis drew heavily from work carried out by Henri Béjoint (1994) on lexical dictionaries. Where Béjoint identifies the structure of a lexical dictionary by considering the typical features they might be expected to have, Chapter 6 does the same to encyclopaedias. Unlike in Béjoint's research, where he imagines an archetypal dictionary, backed up by some illustrations, evidence is taken from named titles in what aims to be a representative sample.

According to Genette, paratexts are the features of a book which are additional to the main text and serve as part of the mediating function between text and reader. While bibliographers had studied features such as colophons, bindings and print types in order to make conclusions about the circumstances of a book's publication, Genette (1997, p2) was the first to see them as 'zones of transaction', that is, the means by which the text is made available and accessible to the reader. As a highly mediated form of the book, the encyclopaedia has more such 'zones' than others, that is, the typography and layout is heavily used to control how the content is conveyed to the reader via such features as headwords, special typefaces, manicules and blank space. Genette is largely concerned with showing how paratexts mediate the authors' literary intentions, for example, how a subtitle or preface added between completion and publication might tell a reader to understand a novel in a particular way. In an encyclopaedia, the paratextual elements are a key part of the structure of the book from its inception.

Bonnie Mak uses the paratextual approach slightly differently. She sees them as 'visual and version cues for critical examination' (2011, p17) and examines them to explore how the presentation of a single text changed in various different formats. The 'multiple, varied and overlapping identities' of her text indicate how it was received and perceived at

different periods of its history (p21). Rather than considering the paratexts as a simple mediator (facilitator or enabler) between the author and the reading public, she identifies them as signs of how a text changes in purpose and function over time. As this thesis is not a longitudinal study of encyclopaedia development, its methodology differs, but Mak's work shows that examining paratexts can be a key to making conclusions about the nature of books, be they individual volumes, texts over time, or wider generic groups.

The methodology used in this chapter relates in some ways to descriptive bibliography, aiming as Tanselle (1992) puts it to “set forth the physical characteristics and production history of the objects we call book”. The motivation for enumerating the physical characteristics of the books in the sample is not to consider the circumstances of production and consumption<sup>3</sup>, but to identify which physical features are characteristic to the form of the book. It is in this sense a bibliographic survey of paratextual features, with an aim of quantifying those that are most common to the encyclopaedia. The application of descriptive bibliography to a book genre, rather than an individual title, and with the aim of defining the genre, rather than learning about its readers, appears to have no precedent in the field of book history. As detailed below, a framework for observation was developed using the work of writers about lexical dictionaries. But the research was fundamentally without a model. Thus the methodology was in some ways experimental, and underwent refinement in the course of the research.

### **2.3.2 Chapter 6 Sample**

As with content analysis, the titles selected for in-depth examination were crucial to ensure that they were representative of the form of the book. The selection for Chapter 6 needed to be a random and representative sample from the full range available in contemporary hard copy encyclopaedia publishing. The initial sample of titles was based on that used for Chapter 5 (see 2.2.2 above). Of the original 31 titles, 12 were selected for Chapter 6. The reasons for exclusions were as follows: first, only those which could be examined physically were included, which meant that titles which were not available had to be excluded. Other titles were published in electronic form only, which put them out of the scope for Chapter 6, which considered hard copy encyclopaedias only, in order to be able to compare material features (how far an electronic encyclopaedia meets the definition is explored in depth in Chapter 8). These 12 formed the core of the sample for Chapter 6.

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<sup>3</sup> The circumstances of production and consumption are studied in depth, using data gathered externally to the book itself, in Chapter 7



The selection was then expanded, for two reasons. First, the original sample included no large-scale multi-volume encyclopaedias. Such encyclopaedias are significant publishing events and it is not unusual that one did not coincide with the research timeframe. In fact, one major reference publishing phenomenon appeared in the original selection, the *Oxford Dictionary of National Biography* but it is significant that, while the initial publication did include a limited run of hard copy sets, it was not possible to find a set in a mainstream academic or reference library. This indicates the title was launched primarily as an electronic one and I did not, therefore, seek out one of the few hard copies available. It also underlines the point made in Chapter 1 that the period covered is a transitional one for encyclopaedias as some new titles were experiencing their primary iteration in digital format (more detail on this transition is given in Chapter 7). Nevertheless, multi-volume reference works remain on the shelves of academic libraries (at the times of data-gathering and of writing) and, anecdotally, appear well-used<sup>4</sup>. With this in mind, I felt my selection would not be representative without one. From the limited number of large-scale encyclopaedias published in the timeframe, I chose the *Grove Dictionary of Art* as a recent example of a large-scale title available in hard copy.

Secondly, the selection of titles had a marked bias towards the arts and humanities. As the available statistical data does not list reference publishing sales divided by subject (reference publishing is a category in its own right) it is difficult to see how far this is unusual (it is worth noting that according to the ONS figures for 2007, 18.5 million non-reference books on social science and humanities topics were published as opposed to 14.5 in science, medical and technology, see LAMPOST, 2008)<sup>5</sup>. However, while the purpose of the study was not primarily to compare the works of different disciplines, I decided to add two science and technology titles in order to ensure a balanced coverage. Both titles were chosen from the general reference shelves of an academic library as being science titles from the same publication period as the other titles which loosely met the established definition of being encyclopaedias. Having a balance of topics was important to the research because different disciplines potentially approach knowledge organisation in different ways. Name entries, for example, seem to be more common to reference books

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<sup>4</sup> Gathering data about hard copy usage of books for reference purposes is by definition difficult. Until Jane Bradford's 2005 study very little research on either hard copy or online use of reference works had taken place and much evidence remains anecdotal.

<sup>5</sup> It should be borne in mind that the publication patterns are likely to be different across monographs, journal articles and reference works in different disciplines

concerning the arts and literature, than those from science and technology. This would be logical to a form of study where the individual human being is by definition more important than in the sciences.

As a means of cementing both issues, I decided that it would be useful to add examples of publications from the same research stable in larger and smaller formats. I thus included both the concise and full versions of the *Macmillan encyclopaedia of science and technology* and, as an addition to the *Grove dictionary of art*, the *Grove encyclopedia of materials and techniques*, which uses the research corpus behind the multi-volume work to provide a reference guide to a specific aspect of art. As with Chapter 5, the selection process deliberately did not exclude titles which did not bear the title ‘encyclopaedia’ (or its variant spelling<sup>6</sup>).

### 2.3.3 Enumerating physical features

A survey of a sample of reference books presents particular challenges. To say that the selected books were simply examined and as much noted about their physical appearance as possible is to ignore the subjectivity inherent in any type of examination. The challenge was to identify which features were worth mentioning and which could be taken for granted. Any given item on a page might be significant and worthy of note. It is literally impossible to record all the component parts of which a book is made without reproducing the entire book. It could become impossible to reject features such as the white space on a particular page or placing of running heads as significant to the nature of an encyclopaedia’s identity. Selection was therefore inevitable. Moreover, although the assumption is that a physical feature represents a ‘yes/no’ or qualitative decision made by publishing production staff, without having an insight into each book’s production process, it is not possible to know if a physical characteristic was premeditated or simply came about by chance.

Secondly, without carrying out precisely the same exercise at a later date, it is possible that the environmental and personal circumstances of a particular day might cloud the researcher’s observations and cause them to miss something of significance, leaving a greater margin for human error. Finally, examining the books without having an *a priori*

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<sup>6</sup> Although this thesis uses the spelling ‘encyclopaedia’ throughout for the generic form, the title form of spelling is used when referring to individual books and, in fact, ‘encyclopedia’ is currently a more common spelling

notion of their construction makes it very difficult to compare like with like. For example, unless there is a previously-created category for ‘how entries in the book are arranged’, it is impossible to compare how this feature varies in different titles. Yet doing so might skew the results and leave other physical features unobserved. Nevertheless, an observational method was essential to produce an unpremeditated list, which could then subsequently be mapped across the different publications. This was particularly the case where the characteristic was binary, for example, the presence or absence of an index or cross references rather than descriptive (for example, whether an entry could be considered to be ‘long’ or not). The observational approach was more straightforward when establishing what the work *had* rather than what it was *like*. It was more of a challenge to record and compare descriptive features.

Using an observational approach, rather than previously-set categories, meant it was possible to avoid a purely circular set of results, whereby I only saw the things that I was looking for. However I backed up my neutral observations by employing a framework in order to ensure some consistency and continuity of method across different titles. This framework was influenced Henri Béjoint’s writings on metalexigraphy (1994, see Chapter 3 for more detail). Béjoint, examining lexical dictionaries specifically, identifies two structures in dictionaries: their macrostructure, that is, their overall arrangement, and microstructure, the arrangement of information in individual entries. The macrostructure does not refer simply to whether the information is presented alphabetically or by subject in the book, but to the underlying organisation of the information. An encyclopaedia, for example, might choose to channel the nuggets of information it contains in longer or shorter entries, depending on how its editor thinks its readers will look for them. A long essay in one book might contain the same information scattered throughout another under different headings. Macrostructures also differ as to whether they display information in entries by a person’s name, the title of a work, or by a subject or topical entry. One might, for example, find substantially the same information under the headings ‘Alban Berg’, ‘Serialism’ and ‘the New Vienna School’ in different classical music reference titles.

Microstructure is perhaps more important to lexical dictionaries. There the structure of an entry, indicated in typographical terms, may provide an economical means of informing the reader about, for example, pronunciation, linguistic origin and part of speech, as well as the actual definition. In a dictionary, it can be conveyed in a couple of lines entirely through differences in text, layout and use of punctuation. However it is also important in

encyclopaedias. The typographical relationship between headings and entries vary between different kinds of work. It is possible to ask, does the title stand clear of the text or is it flush with it? Are there subheadings and, if so, what do they tell us about the relative importance of the text below? Are different types of entry distinguished by different physical features? Many encyclopaedia entries do contain a subtle structure. It is unusual, for example, for a biographical entry not to begin, after the name heading, with a sentence describing the occupation, designation or other significance of the person in question. In some titles, for example, *The Oxford dictionary of national biography*, this is represented by a single word (“Trollope, Anthony (1815–1882), novelist,”<sup>7</sup>). In others, the introductory information is absorbed into a sentence, as in *The social science encyclopedia* (“Jeremy Bentham was undoubtedly one of the most important and influential figures in the development of modern social science”<sup>8</sup>). The latter is almost hidden as a formatting feature and it is only comparison with other biographical articles that shows its use is consistent throughout the book.

Although this structured approach enabled me to establish criteria to be compared across individual books before examining them, most features were identified from observation. As such, the analysis encountered the same problems with subjectivity as in Chapter 5, whereby how they were categorised depended on my judgement as to when to ‘lump’ and when to ‘split’ observations (for example, is a foreword the same as a preface?). Moreover, as each book was examined, more potential types of feature appeared and I could not be certain that they were not present in titles which had already been examined. In order to ensure that every title was examined consistently, every title was examined a second time against the full list of characteristics as they had appeared. It is to be hoped that this helped mitigate some of the human subjectivity, in that perceptions of the previous books were ‘brought up to date’ on the basis of the new features identified. The second survey also acted as a further validation of the original observations. It is also arguable that observed features can be more consistently categorised than verbal statements. When categorising physically observed features we follow the early scientific taxonomists. Ogilvie (2003) describes the process by which Renaissance natural historians grouped plants on the basis of their parts; what they saw that the plants had in common, and what distinguished them.

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<sup>7</sup> N. John Hall, ‘Trollope, Anthony (1815–1882)’, *Oxford Dictionary of National Biography*, Oxford University Press, 2004; online edn, May 2006 <http://www.oxforddnb.com/view/article/27748> [accessed 2 April 2011] It is worth noting that while this appears as a sentence integrated into the text, the electronic markup is highly structured and this article can be retrieved by searching or browsing on the profession ‘novelist’.

<sup>8</sup> Frederick Rosen ‘Bentham, Jeremy (1748-1832)’, *The Social Science Encyclopedia*, Routledge, 1996 p52-3

Although many taxonomists differed, and their classifications do not always correspond to the genetic information we now have about plant families, the principle of grouping objects by shared observed characteristics is a valid means of establishing the defining features of a genre.

## **2.4 Chapter 7: surveys and interviews**

### **2.4.1 Chapter 7 research approach**

The purpose of the research Chapter 7 was to gather opinion on the nature of the encyclopaedia from those involved in producing and consuming it at all points in its communications circuit. This additional research provides an illustration of what an encyclopaedia is considered to be by those who are mostly familiar with this form of the book. It additionally provides both contradiction and validation for the results found in Chapters 5 and 6. Details of the nature of the communications circuit of the encyclopaedia are to be found in section 7.2.

The main research methods used were the survey and the interview. These are considered appropriate research methods for describing and measuring the beliefs of a community (Marshall and Rossman, 2006, p125). In this case, the community in question was that of the encyclopaedia communications circuit, those involved in the creation and use of this form of the book. Surveys tend to be used where a small amount of information from a large group is needed. Interviews are preferred for more detailed, qualitative research. Both forms were employed in pursuit of the same set of data in the research in this chapter. The choice of whether to use survey or interview was taken partly from ease of access to the subjects, but also because of the differences in prior knowledge of the topic within the different groups sampled. The sections below identify the problems involved, and mitigating actions taken, in providing an accurate measurement and a generalised finding from the sample groups.

### **2.4.2 Chapter 7 Sample of interviewees**

Interviews and surveys rely, as a research technique, on the assumption that generalisations can be made about a group by obtaining information from a sample. Finding a representative sample which can be relied upon to provide honest answers to questions asked is a key challenge. In Chapter 7, the starting point for identifying likely interviewees was the communications circuit of the book proposed by Darnton (1982) and elaborated

by Adams and Barker (1993). These diagrams (reproduced in Chapter 7, Figures 1-4) seek to illustrate the journey a book takes from producer to consumer and how this then influences the production of further books. Although the different authors disagree on whether the book's communication circuit should be represented by actors (the people involved) or processes (the actions which take place), both sources validate the notion that a book has a cycle of production and consumption. While not ignoring the importance of the processes involved in the life of the book, interviewing people from across the circuit is a means of ensuring a balanced view is represented.

The stages of the communications cycle merge and blend into one another. However, for the sake of clarity, three types of participants were identified: 'publishers' (which includes writers and researchers who participate in the creation of the book), 'librarians' and 'end-users'. The sample from all three groups needed to have a direct relationship with encyclopaedias which limited the possible numbers in each group likely to be able to provide responses. The numbers which comprised a representative sample varied from group to group: 12 responses (out of 20 approached) in the 'publisher' category', 13 (out of 24 who began the survey) librarians and 85 end-users. The comparatively small number of publishing industry professionals interviewed was nevertheless a large proportion of those working within the reference publishing industry as a whole. The much larger number of end-users interviewed indicated the larger community from which they came. The librarians were a small but vocal sample of the community who engage with encyclopaedias as part of their work. More would have been preferable, but were unobtainable in the time available. This was mitigated by the fact that, in the cases of both the librarians and publishers, a good spread across different functions (editing, marketing, acquisition, research) was achieved.

Because of their comparative differences in numbers and nature, I took a slightly different approach in gathering each type of potential interviewee. The reference publishing sector is not a large one and it has contracted in the last decade with the decline of the industry overall and cuts in library budgets. In order to find publishing industry interviewees with sufficient experience within the sector, it was necessary to approach people directly and source further contacts through word of mouth. In order to ensure all parts of the cycle were represented, it was more important to ensure that, for example, subjects included at least one person who worked in marketing, rather than five editors. This affected my

decision in whom to solicit interviews from. Around 20 people were asked, of whom 12 agreed to be interviewed.

I was able to take a less self-selecting approach when interviewing librarians. In this case, I solicited responses from a number of professional mailing lists to which librarians from a range of sectors were known to subscribe. The lists were all hosted by the academic mailing list service Jiscmail. One, LIS-LINK is a general list with a wide membership across different sectors. The others, LIS-UCR and LIS-RESEARHSUPPORT, were aimed at librarians who work in the academic and research sector and who perform a research role respectively. Of the ten people who responded, eight picked up my query via LIS-LINK, and one each from the other lists. Eight completed questionnaires. Although not pre-selected, the respondents fortuitously represented librarians working both in the education and public sector and in acquisition, research and subject specialist roles. However, I felt this was not a large enough sample of the population of librarians who use encyclopaedias. I thus subsequently distributed an online questionnaire to librarians using my own Twitter social media network. At the point of distributing the online survey, 117 of my followers identified themselves as librarians. 14 of them started the survey and 5 of them completed it. This brought the total sample of librarians up to a more respectable 13.

A slightly different method was needed to sample from encyclopaedia end-users. There were two principal challenges: first, to find a sample of people who considered themselves encyclopaedia users, and secondly, to find end-users capable of articulating their thoughts about the encyclopaedia, which they may have taken for granted as a form of the book or domestic object. This is particularly the case given that many users associate the encyclopaedia with the print book while themselves largely using online sources for their research. While print is topic of this thesis, the opinions of those who primarily use online encyclopaedias are also valid in this case, because they are as likely as users of print encyclopaedias to have an opinion on what an encyclopaedia is.

While the survey would ideally have had responses from users at all academic levels and those not affiliated to academic institutions, I anticipated that non-affiliated individuals who identified themselves as encyclopaedia users and would be capable of articulating their thoughts about them would be hard to find. In addition, it would have been extremely difficult to ensure that any selection of ‘ordinary members of the public’ was random. They

would by definition be people accessible to me and prepared to answer a survey. I therefore decided to find the sample from a distinct group of users, postgraduate University students, with the acknowledgement that they were representative only of their own grouping, not of the end-user category as a whole. In addition, this sector was more likely to have used reference works and formed an understanding of what an encyclopaedia is. Therefore, the questionnaire was distributed among graduate students at University College London, a large multidisciplinary higher education institution in central London. It was further distributed among graduate students at two other UK institutions. 85 people completed the survey (although not all answered every question).

To an extent, therefore, all three sets of answers represent the opinion of an ‘elite’, in this case, those most identified with the encyclopaedia as creators and users. This is mitigated first, by the fact that in answering the research question ‘What is an encyclopaedia?’ it is legitimate to ask those best able to answer it, by virtue of their experience and articulacy. Secondly, from Donald McKenzie and Jerome McGann, through Marshall McLuhan and Walter Ong, to Roger Chartier and Robert Darnton there is a recognised tradition that published texts belong to specific communities. The form that they take and the role they play in the lives of their users are intimately connected. The absence of an ordinary end-user from the survey data is to be regretted, but use of the principle players in the life of the encyclopaedia accurately represents the opinion of the most engaged part of its community.

### **2.4.3 Chapter 7 survey and interview method**

This section outlines the methods used in Chapter 7’s research. The problems with the construction and interpretation of survey and interview data, and the attempts made to tackle them, are examined in sections 2.4.4 and 2.4.5 below.

A different approach was taken in gathering answers from each of the three groups. The publishers were all interviewed either in person or on the telephone. The end-users’ answers were all gathered in survey form and the librarians were divided between the two. The reasons for this were partly to do with the number and accessibility of the subjects: it was possible to interview every publisher, but not every end-user. It was therefore important to ensure that the content was essentially the same for each group (see Appendices II to VI). Each subject was asked some background on their use of encyclopaedias (this was in several stages with the end-users because of a perceived greater



need for prompting to think about the nature of this type of book). They were then asked to name physical features they expected in an encyclopaedia, and then abstract characteristics or values. Having given their free choice of words, they were then asked to rank the characteristics identified from the research in Chapter 5 one to nine. Although externally-validated variables are valued in quantitative research, Marshall and Rossman (2006, p54) stress the importance of giving survey subjects freedom to answer. The challenge, as they put it is that “The lab, the questionnaire and so on have become artifacts, subjects are either suspicious and wary or they are aware of what the researcher wants and try and please them”. It was therefore important to give subjects the opportunity for a free answer before being given multiple choice options.

Publisher interviews were carried out in person or by telephone and all subjects were subsequently emailed and asked to read and amend the record of the interview to ensure it was representative of their opinions. The aim was to gather an accurate impression of their beliefs about encyclopaedias, even if they changed their mind between the original interview and subsequent reading, and even if this actually gathered what they felt they ought to have said, rather than their first impressions. Their answers remained valid because the opinions sought were those of their professional personas, something which in itself contains a quantity of artifice. The potential danger that they would simply rubber stamp my interpretation of their answers was mitigated by the fact this group would have, by the definition of their jobs, already articulated their opinions on the nature of encyclopaedias.

Like the publishers, the librarians who responded all had a high degree of awareness of the role of the encyclopaedia and were thus able to provide useful qualitative data. The questions put to them regarding their opinions of encyclopaedias (but not their experience) were identical to those put to publishers. Most completed questionnaires by email, but two were interviewed in person. Again, they were all allowed to correct my record of the interview.

The end-users were surveyed online. The survey was first tested on a selection of postgraduate students to ensure that the questions made sense and the answers produced would be usable. As a result of this pilot stage, some changes were made to the introductory page. Initial questions were introduced, not to gather data, but to prepare the subject for the questions that followed. For example, they were initially asked about the

types of reference books that they used or owned. This data was not used, but was aimed to help them identify in their minds what they understood a reference book to be. They were also asked what they considered to be the distinction between a dictionary and an encyclopaedia. This gained interesting results which are not analysed in this thesis. However, the purpose of the question was to help the subjects consider what it is that makes reference books distinct from each other. Page breaks were also introduced following the pilot stage to ensure that subjects did not see examples of characteristics or qualities before making their free text choices. The survey was then ready to distribute online.

#### **2.4.4 Problems of survey construction**

As Case (2002, p166) suggests, there is a balance to be struck between validity and reliability when gathering survey and interview data. This is the distinction between applying the same research technique to every form of evidence, and varying the approach depending on the object being analysed. Having a restricted choice of possible answers ensures that research is consistent, and allows for easy production of quantitative data. But a looser approach enables maximum value to be drawn from the evidence in question and hence provide greater depth. While the criteria established in Chapter 5 provided a structured method for asking respondents what thought an encyclopaedia should be like, it was important not to presuppose their answers. This meant that new value statements additional to those identified in Chapter 5 could be noted. Moreover where there were features mentioned by reference reviewers but absent from the survey and interview results, the question could be asked why different groups of users appear not to value the same characteristics, enabling a richer picture of encyclopaedia evaluation.

Questioner bias is a recurrent danger in survey and interview methods. As a professional librarian and PhD researcher of a particular age and educational background, my own opinions will inevitably have biased both my questions and interpretation. In a sense, I am already 'situated' in the world of both the librarians and the postgraduate researchers interviewed. Moreover, I will have drawn underlying assumptions about the encyclopaedia from the research carried out in previous chapters. However, a cultural artefact like an encyclopaedia benefits in some ways from a shared language and understanding to enable the interviewer to communicate better with the respondents. Moreover, subjects were given the opportunity to express themselves in their own words. In the case of those interviewed rather than surveyed, they were able to correct my account of the interview,

meaning my own biases will have been balanced by their own interpretation. Face-to-face prompting was avoided where the subject filled out an online survey.

Respondent bias is another danger. In all surveys, the respondent group is essentially self-selecting within the larger category of those who were approached. While it is impossible to mitigate this entirely, efforts made to ensure that the sample was of a representative size may have lessened the impact. As mentioned before, using the communications circuit as a basis for recruiting subjects, limits the possible perspectives. They are to some extent “elite interviewees”, able to provide an informed overview and sophisticated outlook, but potentially a restricted one. For example, the publishers may have had an agenda (they were, for example, unlikely to criticise or contradict the outlook of their own employers). However, interviews with publishers were nearly all done in-person and at some length. This allowed them the freedom to expound on a topic about which they were well-informed, even while the need to collate and compare responses required a structure to be imposed on the interview. In addition, any limitations in the perspectives of any part of the circuit are mitigated by having results from different points around it.

Other possible biases were introduced by the person-to-person contact where relevant, the environment within which the interviews took place and whether they were primarily face-to-face, by telephone or by email. My subjects were all aware that they were being interviewed for a specific purpose (whereas the data used later in Chapter 7 was surveyed in an ‘unrevealed’ manner). In particular, although I aimed not to coach any of my respondents, those I interviewed in person may have had a small measure of prompting when they were at a loss for an answer (for example, some respondents in the publisher category had not thought before prompting that ‘being divided into entries’ was worth mentioning in an encyclopaedia, as they took this for granted, but were grateful for the opportunity to suggest as much). The surveys used for the end-users, by contrast, involved no personal contact. This encouraged a candid response and made them easy to convert into quantitative data. However, the very structure of the questions will have compromised some of the qualitative value of the answers, as the respondent attempted to ‘fit’ their opinions into the question structure, although here too, free expression was encouraged before any tick boxes were introduced.

Survey data is inherently problematic because it relies on a possibly entirely erroneous understanding between the questioner and respondent. There is no real way of knowing if

the question has been understood as asked and efforts to ensure it by the questioner may predispose particular answers in the respondents. However, the sample groups surveyed share a reality of experience of the cultural object about which they were being questioned. What is described within post-structural critical theory as ‘sense-making’, the interpretation of statements from the communicator by the communicated with, requires generalisations and consensus<sup>9</sup>. McKee says (2003, p14) “All of us reach a broad consensus about sense-making practices within the variety of vested cultures in which we live” and the respondents here share a culture of encyclopaedia production and consumption. McKee later says “There’s always an element of subjective guesswork about sense-making” (2003, p129) depending on the type of communication, the use of open or closed questions, the design of categories and the final interpretation. The aim of the research is to build up a picture of understandings about a particular community, not to establish universal truths. Thus, in Chapter 7, the results can be assumed to be an accurate portrayal of the community of encyclopaedia users.

#### **2.4.5 Problems of interpretation**

The mismatch between interviewer or surveyor and respondent applies equally at the questioning point and when the interviewer attempts to interpret the data and apply meaning to the answers. Krippendorff (2004, p324) describes two extremes of interpreting interview data: some researchers ‘consider meanings as universal and as defined in general dictionaries’ whereas ethnologists “delegate decisions on meanings to the authors of given texts” so that each individual’s meaning is considered to be unique. The interpretation of results in Chapter 7 offer a compromise between the two: each subject’s answer has an ethnological value, both for the individual and the group they represent, but commonalities were sought between the answers to provide an overall picture of the encyclopaedia according to those on its communications circuit. Inevitably, however, the analysis is filtered through the researcher’s subjectivity. It is impossible to ascertain whether one individual’s answer describes the same thing as another’s. Even where the subject used identical language, there is no guarantee that the two subjects meant the same thing in their use of the words. And often the words varied or concepts were quasi-synonymous, but were grouped together because the underlying concept intended was interpreted as being essentially the same. For example, I grouped together responses where

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<sup>9</sup>This type of ‘sense-making’, which refers to how people communicate with each other, is distinct from that described by Brenda Dervin, which explores the motivations for those seeking information to look for just enough information to make sense of the world

some end-users identified ‘brief’ as an encyclopaedia feature, with those where the respondent expected to see ‘summaries of information’. The two are related concepts and, in my opinion, contextually close enough to be grouped together. The data thus reflects my own prejudices in identifying and labelling.

Chapter 7 aimed to identify the features and characteristics more or less consciously associated with the encyclopaedia by its users. As mentioned above, those interviewed were part of a community of users and makers and the encyclopaedia is a familiar shared cultural object. It could be assumed that a common language, what Howard (2005, px) describes as “culturally understood representations of knowledge”, is to some extent shared by this community. Moreover, Kippendorf’s alternative, to assume that every answer, no matter how similar, has a different meaning to each respondent, would produce a long and unwieldy list of terms and descriptions, with limited scope for analysis across the answers. It is by grouping them together that conclusions can be drawn. Finally, efforts were made in interpretation to identify differences in subjects’ answers and to value the atypical as much as the common. The subjects’ original answers are also available for observation (see Appendices II to VI).

## **2.5 Chapter 7: written evidence**

In addition to the survey and interview evidence, Chapter 7 also gathered written evidence from the encyclopaedia communications circuit. The two sources used were prefaces to encyclopaedias and library reference guides. The former provides a written source of evidence as to what publishers think an encyclopaedia should be, the latter, the criteria a librarian should use when selecting them. Like the reviews examined in Chapter 5, and unlike the interviews in Chapter 7, these two sources could be examined without intruding on the subject and thereby avoiding both questioner and responder bias. However, the data is similarly taken out of context. The original purpose for which the content was written will have affected the choice of terms and nature of the wording and the results in this chapter only represent an interpretation for the specific purposes of the research question. Like the reviews, however, these particular texts were selected because of their tendency to make statements of value about encyclopaedias. As free expressions of how particular sections of the encyclopaedia communications circuit value the form of the book, they are worth studying.

The methodology used was very similar to the content analysis in Chapter 5 (see 2.2.1, above). The sections below outline the issues in gathering and interpreting information specific to the preface and library reference guide.

### 2.5.1 Prefaces

Gerard Genette (1997) identifies several different types of prefatory material, occupying different functions (p161-2, 196-7). The sample taken for Chapter 7 includes both original authorial prefaces and those added to subsequent editions where appropriate. In all cases the preface operates to, as he describes ‘*ensure that the text is read properly*’ (p 197, his italics). Where Genette only ascribes this to the original authorial preface, this applies universally to the prefaces studied in Chapter 7, some of which are prefaces to new editions.

The sample of prefaces was taken from the titles examined in Chapters 5 and 6. All the publications cited in Chapter 6 had a prefatory section, sometimes called ‘introduction’ or ‘foreword’. Sometimes it had multiple sections, some acting as an introduction to the nature of the work and others offering advice on using it. Although it was necessary to be able to access the physical book in order to see the preface, the selection also included introductory sections from the four electronic titles in the review literature, as these pages held substantially the same purpose: to provide an overview and justification for the reference work.

As with the content analysis in Chapter 5, the text was searched for statements of value. For those publications which separated out overviews of the work’s purpose from a guide to its use, value statements were largely found in the former, but some were found in the latter, in particular in opening statements, for example, ‘*The Internet Encyclopedia is a comprehensive summary of the relatively new and very important field of the Internet*’ (Bidgoli, 2004, pxxvi).

Some content areas within the prefaces were not included in this analysis because they did not include statements of value. The first was background on the subject. While an inference can be drawn that, for example, statements such as “Children’s books reflect and are bound up in cultural changes” (from *The Cambridge Guide to Children’s Books in English*, Watson, 2001, piii) suggests the importance of the topic, unless the review then went on to make a connection with the statement and the production of the book, it was not counted as a value statement. Secondly, instructions on how to use the book or online

source may have included implications as to its ease of use, but this was not noted unless it was explicitly stated. Finally, as mentioned above, some acknowledgements sections included value statements, which were noted, but others were simply thanks appended to a list of names. These were not included in the analysis.

### **2.5.2 Library reference guides**

Twelve library reference guides were examined. This cannot be said to represent the full range of guidance material published to aid librarians in evaluating reference books for purchase and use, but it does represent a sampling from the previous 25 years. Moreover, they are likely to have been consulted and used by thousands of librarians over the years and many of the titles remain in print. Where the guides refer specifically to encyclopaedias, as opposed to other forms of reference work, this is the data which is examined. However, this was often not the case. While this means that the data is less useful than data gathered specifically about encyclopaedias, it does provide an objective record of the qualities associated by librarians, writing for librarians, in a good work of reference.

Most of the guides included a list of qualities the librarian should seek in a good reference work, without putting them into order of importance. Therefore, each of these qualities was counted exactly once per author, even where it appeared to straddle two categories (for example, Kister's question 'Is the encyclopedia comprehensible to you and others who will be using it?' in Kister, 1986, p209) which straddles both questions of the encyclopaedia being pitched at the correct level and of how well it is written) or where two categories appeared very similar (such as Smith's 'relation to similar works' which might be considered quasi-synonymous to her 'distinguishing features', Smith, 2001). The qualities being itemised in list form, for the most part, meant that they were easily identified as individual entities. This also made it easier to group them, potentially avoiding some of the interpretation biases inherent in content analysis. However, in order to tabulate the results, and ensure that qualities like each other were under the same heading, the categories could not be exactly in the words of the original authors. Great efforts were made to find headings which represented the authors' meanings, but it was necessary to 'lump' together categories. Moreover, although the data was gathered with an intention potentially to find new categories of valued features, those already identified in Chapter 5 will have influenced the categorisation.

Nevertheless, the addition of both these areas of data provided further evidence as to the communications circuit's definition of the encyclopaedia and, moreover, external validation for the results in Chapter 5. The results of all three research chapters were combined in a definitive listing of qualities and features at the end of Chapter 7.



## 2.6 Chapter 8 methodology

At the end of Chapter 7, a list is presented of the physical features and valued qualities in an encyclopaedia. Drawn from all the research in the thesis, it is the answer this thesis offers to the research question ‘What is an encyclopaedia as the form of the book?’. Chapter 8 seeks to test these results against three websites which describe themselves as encyclopaedias: *Britannica Online*, the *Stanford Encyclopaedia of Philosophy* and *Wikipedia*. Each website was examined for each of the features in the list and a conclusion drawn as to whether, by the conclusions taken from the rest of the thesis, they qualify as encyclopaedias. It cannot be considered an exhaustive piece of research. But if the features noted in Chapter 7 can be considered as a toolkit in encyclopaedia identification, applying it to three prominent forms of digital encyclopaedia is a legitimate test of their validity in the form.

This chapter has outlined the methodologies used in each of the research chapters in this thesis. It has identified the problems they present, which are in most cases inherent in the methodology itself, and the mitigating actions taken to produce valid results. The next two chapters turn to external, secondary sources to answer the research question ‘What is an encyclopaedia as a form of the book?’, looking first at the established literature related to the question and, secondly, at the history which relates to the encyclopaedia’s emergence.

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#### **3.1 Introduction**

In conducting a literature review on the topic of encyclopaedias as a form of the book, I have chosen two approaches. The first looks at the topic from the point of view of the discipline within which I propose to study it, that is, book history. Very little has been written specifically on encyclopaedias within this field, but there have been some significant observations which illuminate the study of encyclopaedias. The underlying assumptions are that issues affecting books in general apply to encyclopaedias, and where they differ, this helps to illuminate what makes encyclopaedias distinctive. Moreover, the failure of much book history scholarship to address the encyclopaedia provides this thesis’s motivation.

The second approach examines disciplines which have looked at encyclopaedias from other angles, for example, history (where they are seen in the context of their time), librarianship (where they are seen in the context of their practical use), communications studies (where they are seen as one of many media for storage and communication) and publishing (where they are seen in the context of the industry or organisational histories). A third area, distinct from all of these, is metalexigraphy, the study (within the field of linguistics) of how dictionaries are constructed and used. This work includes the most detailed scholarship on any reference works and, while its concerns reflect the discipline’s primary interest in language use, it serves as a model by which encyclopaedias can be studied. In each category a consensus is drawn, where possible, on the field in question’s definition of the encyclopaedia as a form of the book.

Because the scholarly approach was derived from the field of book history, but other areas of literature have been included which have discussed the encyclopaedia specifically, it was not possible to take a thematic approach to the literature review. Although certain themes

did recur (for example, a relationship could be drawn between the paratext in book history and the construction of dictionaries in metalexicographical writings), the different types of literature differed hugely in both approach and subject. It was important to include both the scholarly background, which was not specifically about encyclopaedias, and other writing which specifically was, but in practical terms this necessitated a typological, rather than thematic, breakdown to the review.

### 3.2 The encyclopaedia in book history

Until the late twentieth century, the field of book studies was primarily interested in establishing the authenticity of printed texts. Scholars examined books to see how close they came to the intentions of the author, for example, by finding clues to the place and time of the book's production from printers' marks. From the mid-1970s onwards, writers, notably McKenzie (originally published 1981, 1985 edition referred to here) began to challenge the very idea of an 'authentic' text. The modern field of book studies was born from the notion that the variation in texts (for example, of a work produced by different printers) is a valid topic worthy of study in itself, creating a relationship between the text and the production process by which it becomes an object called 'a book'. Invoking "an increasing body of work in literary criticism (including the history of reading), philosophy and sociolinguistics" McKenzie also suggested that "intention – the key to understanding the meaning of a text or statement – must always be understood 'against a background of human conventions, expectations, practices and procedures' and 'in terms of the function it has by its conformation to that wider context'" (1985, p91). The text cannot be seen as emerging untainted from the author's individual genius. Rather, the author and printer combine to produce a text which will fulfil the expectations of the consumer.

As mentioned in Chapter 1, the writings of Jerome McGann also challenged the notion that the key to a text was to find that closest to the author's original intentions. As he says "Authors do not have, *as authors*, singular identities: an author is a plural identity" (1991, p75). Although he only sees the published book form as equivalent to the art gallery in which we might see a painting (p83), he nevertheless understands the importance of context: each time somebody engages with a text, they do so only in the context of its current published form. He felt that any scholarly engagement with literary texts must acknowledge their indeterminacy and their relation with "writer, reader and critic" (p93). He does not mention the publisher, but once the published form of the book became an object of equal interest

to the original manuscript, their work too became an intrinsic part of book history scholarship.

As reference works are not generally considered to be ‘authored’, it was essential for this change to take place in the field of book studies for there to be any significant study relevant to encyclopaedias. Scholars stopped concentrating on the book as the output of a single mind, intermediated by a production process which only served to hinder access to the authentic text and began, instead, to consider the role of the editorial and production processes in shaping the book. This allowed works which, for example, have multiple authors, or which have a practical rather than literary intent, to become a legitimate subject for study within the field. In effect, the book could be considered as an object independent of the text held within it. Thus this work was essential as a precursor to any study of encyclopaedias which, except in rare cases, are not studied for the literary value of their content.

While McKenzie’s work was key to establish the research problems book historians came to address, the French writers Lucien LeFebvre and Henri-Jean Martin’s 1976 work *The coming of the book* is mentioned (for example, by Spadoni, 2007) as the first work of modern book history. This work is essentially a straightforward broad-brush chronological account of how the book emerged in its current form. However, it draws connections between book production and readership and their role in the lives of their readers. This became an important approach for many book historians. Notably, if controversially, Elizabeth Eisenstein suggested that printing press brought about ‘typographic fixity’ (1979, p116), whereby ideas became durable because they had been fixed into print, and appeared to be objective because different readers now experienced the same version of the text. The paedagogical nature of encyclopaedias and (as we shall see) the key quality of the trustworthiness of their content would seem, therefore, to stem directly from the advent of the printed reference work. However, Eisenstein’s contemporaries and successors, in particular McKenzie and Adrian Johns (1998), established that variations in printing practice and the prevalence of piracy meant that the early modern and even enlightenment text was a less consistent item than she suggested (Finklestein and McCleery, 2005, p18). Yet this too, provides a background against which the reception of encyclopaedias can be discerned. If their readers knew that the ‘truths’ conveyed in a single edition of an encyclopaedia might be somewhat different in a pirated or later edition, it is natural to assume they were not considered totally reliable and, moreover, to draw a relationship between the reader’s trust of an encyclopaedia’s contents and stability of printing practices.

Other book historians have developed this line of thought to look at how publishers developed publishing conventions to meet readers' expectations. Consumers have grown to understand intuitively what to expect when they pick up a book packaged in a particular way. Finkelstein and McCleery (2005, p20) suggest "As technology has grown increasingly sophisticated, and society has developed institutional and social filters to control and assess print outputs (publishing houses, editorial staff, periodical and literary reviews and reviewers) we have grown accustomed to placing trust in corporate identities and brands". Yet this issue is more complicated in what Leslie Howsam (2006, p70) describes as 'post-print culture', that is the world where writers can publish on the world wide web, or even in print, without the intermediation of the industrial process of publishing. Not only does that imply that items can be seen 'in print' without necessarily having any stamp of authority, but 'truth' becomes more ephemeral as the former 'typographical fixity' is transformed into something which can be changed from hour to hour. Howsam was writing before social media applications such as the wiki were common enough to challenge the fixity of print yet further. He also observed that readers bring different experiences and understanding to their interpretation over different generations (p71). The issue of the permanence and trustworthiness of the printed encyclopaedia will be a key one to this thesis.

Concurrent with the development of these strands in book history were publications in communications studies and cultural anthropology that were highly influential on the field<sup>10</sup>. These have been particularly important in identifying the technological and societal changes which have made the encyclopedia possible, in particular around literacy and printing. The work of Marshall McLuhan and Walter Ong (and others, such as Jack Goody) in the 1960s and 80s was highly influential on the book history discipline through providing a basis for considering the relationship between the form communication takes and the message it attempts to convey. All three writers, working from an essentially anthropological starting point, considered how different forms of communication affect the way different societies understand the world and so shape the content of their 'messages'. In *The Gutenberg Galaxy* (1962) McLuhan argued that alphabetic notation, where the letters represent sounds rather than standing for concepts, as with pictographic alphabets, caused a disconnect between the world and the writing which described it. Walter Ong's *Orality and Literacy* (1982) traced changes specific to the development of the book, examining developments in

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<sup>10</sup> Although McLuhan, Ong and Goody did not consider themselves book history scholars, the aspects of their work discussed here are those which became an extremely influential part of the discipline

communication across oral, written and print cultures. Ong suggests that the emergence of script, particularly once it was intended for private consultation rather than reading aloud, made possible a wider dissemination of more complex ideas. While oral societies need repetition of more straightforward concepts to ensure they are remembered, complex written ideas can be read and re-read to ensure comprehension.

Both McLuhan and Ong identify a relationship between literate societies (by which they mean those primarily transmitting information in writing rather than orally) and new ways of thinking, acquiring and storing knowledge, ways which are prerequisites to the arrangement of information in an encyclopaedia. Ong considered writing the “most drastic of the three technologies [ie writing, print and computers]” in its effects (1982, p82). One of its outcomes was the use of books for consultation. Oral communication is by definition evanescent and not saved for future use (p31) and “an oral culture has no vehicle as neutral as a list”. It is only once knowledge is recorded in script that it becomes possible to separate it from context and emotion and codify, list and categorise it (p42). Ong saw that reference books consider language and its concepts in an abstract manner “light years away from the world of oral cultures” (p107). The development of the reference book was thus a manifestation of the move from an oral, to a literate and ultimately to a print culture.

Richard Lanham’s *The Economics of attention* (2006) develops the idea further, by identifying the patterns and conventions which underlie so much of ordinary speech and text (2006, p86). In particular, he highlights how the transformation of reading from a performative action to a solitary one necessitated the deployment of typographic methods in order to replace the intonation and gesture that accompanied reading aloud (p107). The development of more economic printing and paper technologies facilitated the spacing of text on a page in order to accomplish this (105). For him the development of “spatial and punctuation” conventions was the “fundamental change in notation ... that made rapid silent reading possible” (p127). Such typographic conventions also took the place of the place of the pedagogue in transmitting knowledge to the reader, and are a particular feature of how the knowledge in encyclopaedias is made available.

Other writers who have continued work in this area are Neil Rhodes and Jonathan Sawday, whose eponymous opening essay in their collection *The Renaissance Computer* (2000, p1) discusses the arrival of the ‘paperworld’. They note that even the practice of manuscript creation “had begun to develop a series of conventions by which large volumes of



information could be stored, indexed and re-found. With the advent of printing, these conventions were expanded on an enormous scale, becoming ever more sophisticated or powerful” (p6). As we shall see, the modern encyclopaedia has its origins in the early print world, and unlike certain other forms of the book, was specifically formulated to facilitate the location of individual items among larger bodies of knowledge. Its origins can therefore be traced to the emergence of this ‘paperworld’ culture. Rhodes and Sawday refer to the emergence of the printed page “with its systems of sections and subsections, footnotes, marginal notes and paragraph divisions” which they suggest, following Eisenstein, “developed a standard spatial display” (p7). Their point, that standardisation in print “taught readers what to expect of a book, and enabled them to pass with ease from book to another”, underlies one of the missions of this thesis, that is, to discern what is it that encyclopaedia readers have come to expect when they turn their pages.

A number of French writers in the 1980s and 1990s examined the conventions of the printed book as a means of transmitting information. In 1987 the structuralist literary critic Gerard Genette introduced the notion of paratext. Finkelstein and McCleery define it as “The liminal devices that control how a reader perceives the text, such as front and back covers, jacket blurbs, indexes, footnotes, tables of contents, etc” (p14). Genette was looking for evidence, not of how the text was produced, but the ‘zones of transaction’ between the author and reader, and how these devices work “at the service of a better reception for the text” (Genette, 1997, p2). As a literary critic rather than a book historian (something to which he honestly admits, p16), he is more interested in the text and the author than how the publisher decided to place the paratexts, and his zone of reference is almost entirely French literary works by authors such as Flaubert, Balzac and Zola. However, his work is valuable to those thinking about the book and page as objects, because he examines the physical features of the book, rather than just its written content, as carriers of meaning. This is particularly relevant to reference works, which are not intended to be read in a linear fashion. Instead, access to the information contained within them is facilitated by a myriad of printing conventions such as headings, text size, page numbers, marginal marks and running heads. In order to study how the information in a reference book is transmitted to its reader, it is essential to become aware of its paratextual elements.

French book historian Roger Chartier (1994, p28) built on the idea that book typography and layout affects the way its readers will understand the contents, suggesting that:

“the way in which the physical forms through which texts are transmitted to their readers (or their auditors) affect the process of the construction of meaning. Understanding the reasons and the effects of such physical devices (for the printed book) as format, page layout, the way in which the text is broken up, the conventions governing its typographical presentation, and so forth, necessarily refers back to the control that the authors but sometimes the publishers exercised over the forms charged with expressing intention, orienting reception, and constraining interpretation”.

He points out that such devices are not blockages between the author and the reader (as a traditional bibliographer might have seen them) but serve to “reconnect the text with its author”.

Chartier was one of several writers providing a new perspective on book studies in the 1980s and 1990s as part of the *Histoire du Livre* movement. A leading non-French exponent was Robert Darnton, whose model for the book production cycle (1982) was influential in discussions about the circumstances of production. His “communication circuit” examined the roles of all the stakeholders in the production and consumption process, from author to publisher to reader, and considered how additional social, economic and political factors influenced how books came into existence. Darnton’s model was critically expanded by Thomas K Adams and Nicolas Barker (1993), who aimed to place the experience of book production and consumption (as artefacts and daily life objects as well as texts) further into the context of readers’ lives. They plotted the lifecycle of the book at the stages of publishing, manufacturing, distribution, manufacturing, reception and survival against the ‘zones of influence’ – intellectual, political, legal and religious, commercial and social – which dictate its trajectory. Although the authors primarily considered literary works, communications circuit models are a useful way of studying the encyclopaedia. This is explored in depth in Chapter 7 of this thesis. As will be seen in the next chapter, a change in one part of its cycle of production and consumption could influence what an encyclopaedia looked like, how many were produced and how it was read.

The approach to seeing the book within the context of its production history, rather than simply as a bearer of text, was also expanded by Chartier (1994). Inspired by historian Michel de Certeau, he moved from analysing the text of a book, through examining the book – or indeed any text-bearing work – as an object, to considering the role of the book in the lives of its readers throughout history (p2-3). Because “authors do not write books: they write texts that become written objects...” (p9) the book historian needs to look at how the

publisher, bookseller or typesetter applied mediating factors to produce the book as it came to be. He placed particular importance on how author and publisher perceptions of their market influenced the form of the book, the perceptions which ‘underlie strategies for writing and for publishing that were governed by the supposed skills and expectations of the various target publics’ (p21). Yet Chartier, challenging the notion proposed by the sociologist Pierre Bourdieu that certain cultural objects are only used by those within a particular social milieu, asserted that readers do not necessarily follow the reading practices they might be expected to; where they live or their sex may mean their habits cross class boundaries. “Cultural divisions are not obligatorily organized in accordance with the one grid of social divisions that supposedly commands the unequal presence of objects or differences in behaviour patterns” and in fact “other and equally social principles of differentiation might explain cultural divisions even more pertinently”(p7).

This is important as it places limitations on the assumptions we can make about the readers of any given text by looking at it as an object. Thus, while this thesis will consider the intended audience as one of the defining features of certain types of encyclopaedia, and will attempt to discern this from examining the encyclopaedia as an object, we cannot assume books are used as intended by their creators. Howsam (2006) points out that “instead of readership, reception is a term perhaps broad enough to embrace the possibility of using the book for purposes other than reading” (Howsam, 2006, p63). Put another way, we cannot assume that encyclopaedias were not read in a linear fashion, even while they were intended for consultation. We can also assume that texts will be understood in different ways depending on who reads it, how and in what form (p69). However, Howsam points out that the form of the book is shaped by readers’ expectations, as those who produce the book will do so in a way which will ensure readers are not disappointed when they pick the item up in a shop or library. So even if an encyclopaedia of a particular size, layout and length of entry may be consulted in ways the publisher never imagined, the shape it takes reflects publisher perceptions of who would be most likely to use or buy the book.

Although modern book history’s special concern is the form, rather than the content of the book, characteristics attached to their content are also key. As we shall see, for an encyclopaedia, the authority, accuracy and consistency of its contents are almost defining features of its success or failure. Readers know that a fact is true because they have looked it up in an encyclopaedia. But questions of accuracy are complex in the field of book history. Encyclopaedias’ supposed aim to convey ‘truth’ to the readers becomes problematic, because

each reader interprets their contents in different ways, according to their social and cultural assumptions. This is not to say that real, objective truths do not exist, but it means that the key characteristics of accuracy and authority in encyclopaedias become difficult to establish objectively. As earlier observations about the unreliability of pirated and otherwise reprinted texts in the early modern age indicate, readers have not always assumed encyclopaedias' accuracy. They too accept that 'truths' change over time. The changing nature of truths can even affect the physical appearance of encyclopaedias. The increasing length of encyclopaedias over the 18<sup>th</sup> and 19<sup>th</sup> centuries (see Chapter 6, section 6.2.8) reflects the emergence of more accepted knowledge on scientific topics. Book history scholarship on reception and readership is thus particularly interesting when applied to the encyclopaedia, where the notion of unchanging factual accuracy is central.

Book and cultural historians, therefore, have much to say of relevance about encyclopaedia development. With the exception of Darnton, none of those mentioned above examined the encyclopaedia and there are limitations in Darnton's essentially historical approach. However, their work provides an important foundation to studying encyclopaedias by asking why books take the forms they do and how that relates to their circumstances of production and consumption. It is these scholarly approaches which this thesis seeks to apply to the encyclopaedia as a form of the book. It complements the writers in the following sections who, while taking a more historical, practical and, in some cases, less scholarly approach, write specifically about encyclopaedias and other reference works.

### **3.3 The encyclopaedia and the history of knowledge and the sciences**

While book historians have neglected the encyclopaedia, it has been a topic of interest to a number of mainstream historians. As Paolo Cherchi (1990) puts it, many encyclopaedias in history "besides providing information, may aspire to shape a view of the world and the disciplines which study it". Divisions between historical disciplines are not always clear cut. Academic book historians to this day are to be found in Departments of History, Librarianship and English as often as Book Studies or Publishing. Robert Darnton's work, for example, can be found in both the History and French Studies sections of libraries. LeFebvre and Martin's 1976 work, the prototypical book history, is in many ways a simple chronological history rather than a work of analysis, as were many of those which followed and was inspired by it. The historians below are primarily concerned with the encyclopaedia

because of what it can tell them about knowledge communities in their time and place of interest.

Darnton's work on the *Encyclopédie* of Diderot and D'Alembert, *The Business of Enlightenment: A Publishing History of the Encyclopédie 1775-1800* (1979) studies the trajectory of a single encyclopaedia publication at all stages of its writing, publication and reception by readers. Its data is drawn directly from primary historical documents such as booksellers' lists, library records and personal accounts of reading, a mainstream historical methodology made popular by McKenzie. Darnton uses the history of a single title to uncover new insights into the intellectual movement of the Enlightenment, the thoughts of the *Philosophes* and the roles played by literary, commercial and technological players in cultural communication. His choice of title on which to make these observations probably has more to do with the scale, influence and authorship of this specific encyclopaedia than because of the book type it was. In effect, that it was an encyclopaedia rather than a monograph could be considered a coincidence.

However, the *Encyclopédie* is not only an encyclopaedia, but a work considered to have established the form and the role of the large-scale multi-volume encyclopaedic work. *The Business of Enlightenment* describes the lifecycle of a reference work, including how it was commissioned, edited, printed, distributed, read and influenced other works. It therefore demonstrates much about how the encyclopaedia came to take the form it did. Moreover, by choosing a non-fiction educative work containing the contributions of multiple authors, Darnton was able to explore the nature of the communication of knowledge from a diverse group of scholars and experts to the wider public in a way that he could not have, using a monograph as an example. Thus, while detailed facts about, for example, the *Encyclopédie's* contemporary sales, prices and distribution figures do not tell us about the role of the encyclopaedia today, they indicate a shift in the consumption of knowledge held in encyclopaedic works from a restricted scholarly elite to a wider literate public, an important development in the history of encyclopaedias and thus in how they have evolved. And Darnton's observations of the influence of the work on other reference works, notably Pancoucke's *Encyclopédie Méthodique*, but also less ambitious, smaller-scale publications, allow one to draw a line from the *Encyclopédie* to the modern multi-volume encyclopaedia. The next chapter follow this progress in more depth.

Darnton's later 'Philosophers trim the tree of knowledge' from *The great cat massacre and other episodes in French cultural history* (1999) examines one specific aspect of the *Encyclopédie*, that is, its subject structure as laid out in the prefatory tree of knowledge, a literal diagram of a tree indicating the various branches of knowledge represented in the book and the underlying structure of the topics covered before they were rearranged into alphabetical order. Such pictorial representations had been common in encyclopaedic works since the middle ages. In an alphabetical work they provided a means of discerning how subjects separated by alphabetical order relate to each other. Darnton concludes that this tree of knowledge aimed as much to indicate the secular paedagogical underpinnings of the work, which had an avowedly anti-clerical stance, as to make the knowledge within it accessible. Indeed, he notes that the headings used in the diagram do not match those in the encyclopaedia. The *Encyclopédie's* anti-clericalism, among certain other features is evidence that even a reference work can be considered to demonstrate authors' worldview, or at least that of the 'structures' of their historical era, mode of publication and readership. We know much of Diderot and D'Alembert's intentions from their writings (including the prospectus, preface and article 'Encyclopédie' from the work itself) in a way we do not about other encyclopaedists, but Darnton's essay indicates that they can be discerned from statements of knowledge organisation like prefatory trees of knowledge. In fact, the distribution of knowledge across subject headings in the *Encyclopédie* does in fact largely echo the prefatory diagram and this too indicates the authors' concerns, notably in their detailed inclusion of technical articles and their foregrounding of philosophy over religion.

Numerous other historians have written about the *Encyclopédie*. Philippe Blom's *Encyclopédie: the triumph of reason in an unreasonable age* (2004) is typical of those which concentrate on the personal actions of Diderot and the other contributors in creating the work. Although offering detailed pictures of enlightenment France, such works have little to say about the nature of different types of book or the evolution of the encyclopaedia. Frank Kafker's *The Encyclopedists as a group : a collective biography of the authors of the Encyclopédie* (1999), is less biographical than a picture of the intellectual climate from which the *Encyclopédie* emerged (and the extent to which it can be seen in homogenous terms). Although not a central part of his argument, Kafker makes significant observations about the nature of encyclopaedia contributors. His point, that the motivation for many of the talented amateurs who wrote for the book was "to spread learning, to support beleaguered causes, to help out their friends and to gain personal recognition" (p50), rather than to earn money, indicates the evolving nature of scholarly authorship. As Darnton (1987) observes "These amateurs and generalists

disappeared almost entirely in the [*Encyclopédie*] *Méthodique*” (p466) as they were replaced by the professional subject experts who write encyclopaedia articles today. As we shall see, the nature of authorship and the perceived authority it provides, is a key quality appreciated by those who review works of reference.

A subdiscipline of history which has produced significant work on the history of encyclopaedias is the history of science, itself an interdisciplinary field, essentially taking a humanistic approach to the subject, but often studied by scientists and taught in scientific faculties (at some Universities<sup>11</sup>, it is possible for medical students to take an intercalated BSc in the History of Medicine before beginning their clinical studies). Many historians interested in the emergence of scientific knowledge, and the means by which scientists communicated between the Renaissance and Enlightenment, have found studying encyclopaedic works illuminating. The term ‘science’ had a less restricted meaning than it does now, being in many ways a synonym for knowledge. As Kafker says at the start of the work mentioned above “The pursuit of knowledge in the 1750s and 1760s was not nearly so specialised as it became by the 1780s” (Kafker, 1996, p15) and the emergence of modern scientific disciplines after the enlightenment is a topic of interest to historians of science.

Most relevant to this thesis are the works of Richard Yeo. His 1982 article ‘Reading encyclopaedias’ examined the 17<sup>th</sup> Century dictionaries of arts and sciences as early examples of scholarly knowledge conveyed in an alphabetical format. Their authors grappled with the problem of making knowledge accessible alphabetically while maintaining its place within an overall scheme of scholarly knowledge. As the *Encyclopédie*’s prefatory diagram indicates, the need to underpin encyclopaedias with a systematic subject structure was a way for early encyclopaedists to demonstrate their works’ scope and their own understanding of knowledge as a whole. Yeo’s in-depth study of 2001, *Encyclopaedic Visions* explored this in more depth, among many different aspects to the circumstances of the production of 17<sup>th</sup> and early 18<sup>th</sup> century encyclopaedias. The means of production, the need for patronage, copyright and the role of editors and contributors in adding scientific authority are important to understanding how the encyclopaedia came to take the form it did. However, Yeo is as much a mainstream historian as a book studies specialist. Like Darnton, he is more concerned with what some encyclopaedias say about the times in which they were produced (in this case, the early modern age) than how they characterise a specific form of the book.

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<sup>11</sup> For example, see <http://www.ucl.ac.uk/histmed/teaching/bsc> [page accessed 26th June 2010]

In his article ‘Unifying knowledge and dividing disciplines’ (2006) Jeff Loveland explores the issue of alphabetical order in early encyclopaedias in more depth. Encyclopaedists have to compromise between examining a topic in depth, in the context of parent and related disciplines, and allowing easy access to the content through use of the alphabet. As will be seen in the next chapter, this issue was a key one in encyclopaedia development. Loveland’s article highlights the treatment of knowledge in the early *Encyclopaedia Britannica*, both the usage of ‘treatises’ (long articles outlining the whole of individual scientific disciplines) and the publishers’ “concern for the diffusion of knowledge in society”. As with Darnton’s writing on the *Encyclopédie*, Loveland is most interested in how *Britannica*’s knowledge organisation and paedagogical interests reflect the changing nature of intellectual life in Britain (in this case the Scottish Enlightenment). However, his comments on the changing nature of *Britannica*’s typography, whereby treatises became less and less distinguished from the shorter ‘article’ entries, are significant in indicating the relationship between page layout and the development of the encyclopaedic endeavour. Successive editors clearly felt that there was a decreasing need to mark out the treatises as special entities and this might be seen as a feature of the form of the book as it entered the nineteenth century.

In this article, Loveland picks out other key elements in the encyclopaedia which changed over the course of the early editions of *Britannica*. He observes changes in how regularly the articles were updated, the proportion of long to shorter articles, the nature of the contributors, the changing expected audience, how the distinctions between disciplines were reflected in the reorganisation of articles and the emergence of historical, biographical, geographical, “social, political and economic issues” as subjects fit for treatment. The implication is that, as the scope broadened, *Britannica*’s lost its intellectual pretensions and this is indicated by the subordination of the in-depth treatise to the shorter article. He concludes that *Britannica* pioneered certain elements we now see as typical of encyclopaedias, for example, articles on the basic principles of science.

It is perhaps significant that historians of the Victorian era have not given encyclopaedias and dictionaries of their age the attention which those of the Renaissance, Early Modern and Enlightenment periods have. One possible explanation is that the general encyclopaedia, as typified by *Encyclopedia Britannica* and its many imitators and rivals, was seen to have taken a recognisable shape by the early nineteenth century. The next chapter will examine this question in more detail but, if it is true, it would suggest that mainstream historians are less interested in examining forms of the book once they have taken a familiar form. Another



possibility is that, although (as Loveland describes) 19th century encyclopaedias advertised the expertise of their contributors, they cannot be seen as part of scholarly communication in the way they could in earlier centuries, making them of less interest to a mainstream historian. The huge expansion of the educational system, the industrialisation of publishing and mass literacy means that other literary forms than the encyclopaedia better illuminate the intellectual life of the 19th century.

### 3.4 The encyclopaedia in publishing history

The formal history of publishing houses has produced a number of works about companies responsible for significant works of reference. They tend towards the celebratory, rather than critical in approach. As Gordon suggests (2004) “Histories of publishing houses tend to reflect the pride of those who built them and the devotion of those who worked in them”. Sutcliffe’s *Oxford University Press: an informal history* (1978) is fairly typical of the genre in offering up a chronological account of the development of the institution under its various administrative leaderships. Such works are interesting in detailing the circumstances under which encyclopaedias were produced but as their primary interest is in the organisation, rather than its output or customers, they offer little to the argument of this thesis.

An exception because of the debate it sparked is Herman Kogan’s *The Great EB* (1958). Like others of its ilk, this is an uncritical institutional history, outlining positively the achievements of the organisation it profiles, under whose imprint it is also published. This work’s significance comes from the reaction it sparked in one reader, physicist Harvey Einbinder (1964) who, after meticulous study, produced a riposte. *The Myth of the Britannica* painted a clear picture of why he felt that the work was not fit for the purpose in which it claimed supremacy, that is, to provide authoritative encyclopaedic information in the English language. According to Einbinder, *Britannica* was not kept up-to-date, paid its contributors too little to ensure good quality, was editorially incoherent without any overall structural or editorial purpose with, moreover, an aggressive sales technique, whose success had led the publishers to neglect the content. His principal point was that so much of the encyclopaedia represented out-of-date scholarship and superseded ideas that it had become inaccurate and could not be considered authoritative (p348). Einbinder used *Britannica* as a layperson (albeit a well-educated one) and found it did not meet his expectations. For him, the lack of authority, currency and accuracy meant that *Britannica* could not qualify as a ‘good’ example of an encyclopaedia. Few other writers so critically attacked a named encyclopaedia for its

shortcomings although, as the next section indicates, Einbinder's contemporaries were much concerned with what a good encyclopaedia should be.

### 3.5 The 20<sup>th</sup> Century 'encyclopaedic' movement

A number of literary authors and social thinkers in the early and middle 20th century were provoked to consider the nature of encyclopaedias and what their readers should expect from them. Expressing an optimistic world-view that modern technology and mass literacy could make all knowledge easily accessible to those who need it in the form they would find most useful, large-scale projects for controlling knowledge were imagined in works by such luminaries as H.G.Wells, Vannevar Bush and Paul Otlet. These writers sought technological answers to penetrating the contents of what was seen as an uncontrolled growth in information and, specifically, to link up the knowledge confined within a single work to content of a similar nature held elsewhere.

Paul Otlet did not write about encyclopaedias in particular, but aspired to nothing less than the joining up of global information sources through international co-operation (he himself founded the Union of International Associations in 1910) and technological developments in information organisation. His own significant contributions to the latter included the development (with Henri LeFontaine) of the Universal Decimal Classification (UDC) and the standardised index card. Otlet's main efforts towards mass encyclopaedism was around the European Documentation Movement and its attempts to assemble a microfilm set of the world's knowledge, indexed, and classified using UDC. Although he perceived the encyclopaedia as something beyond a book, his utopian visions of a world of knowledge made accessible through a single classification system underlay much 20<sup>th</sup> century thinking about encyclopaedic knowledge.

In his book *World Brain*, (1938), H.G. Wells envisioned a "World Encyclopaedia" bringing together existing knowledge from around the world using modern fast communications technologies. According to W. Boyd Rayward (2008) Wells "saw himself as a member of a newly emergent technocratic elite in whom 'science' had vested access to the simplification and absoluteness of truth". For him there was a single, accurate world-view and, like Otlet, his aims were ambitious. He imagined a "permanent world encyclopaedia" (Wells, p14) which "would bring together into close juxtaposition and under critical scrutiny many apparently conflicting systems of statement" (p98) but succeed in "unifying mankind's affairs"

(p57). This could not be achieved without better information management: “A great new world is struggling into existence. But its struggle remains catastrophic until we can produce an adequate knowledge organisation” (p111). He envisioned all knowledge categorised under a shared, standardised list of headwords, each associated with an expert from “every University and research institution” (p14) responsible for providing authoritative information on it.

While most 20<sup>th</sup> Century writers stop short of imagining that the entirety of the world’s knowledge could be contained within a single information source, many writers saw international comprehensivity as a defining feature of the encyclopaedia. Yet Wells does not discuss the encyclopaedia as a form of the book, because his vision perceived that the world’s knowledge could not be contained in a published work, even one made up of many volumes. The tension between the growth of knowledge and limitations of the bound volume underlies much post-war writing on encyclopaedias. The writings of US wartime scientist Vannevar Bush explicitly stated that technology now had the means to supplant the limitations of books. As he says in his 1945 *Atlantic Monthly* article ‘As we may think’ (1945) “The Encyclopaedia Britannica could be reduced to the volume of a matchbox. A library of a million volumes could be compressed into one end of a desk.” Through the use of microfilm and the development of communications technologies, scientists could access a selection of useful information, which might even be indexed automatically in the future. Although Bush’s solution is not an encyclopaedia in book form, the problem he (and Otlet and Wells) seek to solve is to make the sum of authoritative knowledge available and accessible, the same thing which occupied encyclopaedists from the middle ages onwards.

Reflecting this concern, but directing their attention to the existing form of the book, a number of post-war writers directed their attention towards the problem of what makes a good encyclopaedia. Encyclopaedist S.H. Steinberg outlined the defining features of his subject in his 1950 survey ‘Encyclopedias’ as follows: “The term ‘encyclopaedia’ then is used here to apply to a general work of reference, accessible to the average educated layman, dealing with subject-matter arranged alphabetically, and trying to impart unbiased information”. His imagined encyclopaedia covers a range of topics, is not aimed at a specialist audience, is in alphabetical order and aims to be impartial. The latter point is interesting as among the national encyclopaedias included uncritically in his survey were *Enciclopedia Italiana* (1929-37) in which the article on ‘Fascism’ is signed by Benito Mussolini, and the *Great Soviet Encyclopaedia*, both recognised as works with a propagandist aim in countries without freedom

of speech at the time. Thus, even a single author's concept of an encyclopaedia can be contradictory within the same article. Steinberg thought that an encyclopaedia should have a general rather than specialist readership. Comprehensivity is important too and he suggests that between the various items called encyclopaedia "The only common denominator is the ever-repeated attempt to present a comprehensive conspectus of the accumulated knowledge of an age", an aspiration which reflects those of Wells and Bush.

Steinberg explicitly discusses the terminology used to describe different reference works. He makes a distinction between 'the lexicon' which he sees as the model for the modern general encyclopaedia, and 'the dictionary'. For him, 'dictionaries' "now serve special purposes and a limited public". However, his examples for 'dictionary' include titles such as "Encyclopaedias of theology, medicine, law, etc", unabridged general lexical dictionaries such as the *Oxford English Dictionary* and the German *Wörterbuch* and, inexplicably, the discursive and analytical *Grove's Dictionary of Music*. There appears to be little that these types of reference work have in common which they do not also share with the general encyclopaedia. Moreover, a later description of 'dictionaries': "indispensible aids to scholars in their particular fields of research but ... not intended to appeal to the general public" should exclude many specialist dictionaries useful to scholars from a range of fields or which aim at a broader readership (such as the *New Grove Dictionary of Music* for example, which is to be found in both academic and public libraries) and indeed could apply to some of the weightier general encyclopaedias, which he defines under the heading 'lexicon'. Steinberg's inconsistency in applying the terms 'encyclopaedia', 'dictionary' and other terms such as 'lexicon' is not unusual. Like him, writers distinguish haphazardly between the terms to indicate sometimes their format, sometimes their scope and sometimes their intended readership. It should be added that Steinberg felt the ideal encyclopaedia took features from both the dictionary and the encyclopaedia: "The model of the systematic encyclopaedia has ... kept the alphabetical type from becoming a mere agglomeration of unrelated and isolated entries" meanwhile the origins of the alphabetical encyclopaedia in lexical dictionaries "has acted as a stimulus to precise and concise definition, and works against woolliness and wordiness".

Another encyclopaedist, later *Britannica* editor Charles Van Doren (1962), considered the characteristics of the ideal encyclopaedia in his essay on the *Encyclopedie Francaise* "The idea of the encyclopedia'. He ascribes "... the authority that at least some American encyclopedias have behind them" to "a tradition of dedication to truth and completeness". Accuracy,

comprehensivity and authority are thus entirely achievable in an enlightened, educated society. He acknowledges that the emergence of new disciplines have caused fragmentation in the study of what were once solid monoliths of knowledge, but still feels it is possible for an encyclopaedia to encompass all significant areas of study. The key to ensuring that nothing is missed is to relate the contents to an underlying subject structure, possibly predicated by discipline “We are not really sure where [for example] Linguistics ought to go in an ideal encyclopedia but it ought to go somewhere ... it becomes necessary to evolve a method, to construct a synthetic formulation of ‘all knowledge’. The creation of this structure is the most important task that faces the editors of an encyclopedia”. Like Wells, he feels that all that is worth learning can be arranged in accordance to a single category system, because there is only one means of dividing up the world’s knowledge.

When considering how encyclopaedias should serve the purpose of their intended audience, he admits that “Most encyclopedias...have little or no idea of themselves. They just grow, they are not created”, as if they are published without a predefined scheme. Yet, he outlines solid aims for the *Encyclopedie Francaise*: “to teach first, inform second”, “to exist as a work of art first, of reference second” and to concentrate on “Primarily human... only secondarily historical and/or scientific and/or literary” topics”. Its ideal reader was envisaged as a curious everyman, rather than a specialist or student, someone “not familiar with the terms of discourse of the subjects about which he is reading. He only knows that he wants to understand them, and their relation to other things he knows.” However, the work should aim ‘to change the world for the better’ rather than just describing it. Van Doren emphasises the need to provide information which is not merely correct but amusing and easy to read, but making knowledge accessible to ordinary people is not unambitious “...an encyclopedia is more than a business enterprise. Any encyclopedia is, more or less, an instrument of enlightenment”.

Van Doren therefore has lofty expectations for the encyclopaedia. It should be comprehensive, accurate and authoritative, have an underlying subject structure and a pedagogical purpose, but should also be an authored work of art and aim to change society. Yet the encyclopaedia is ultimately limited because the knowledge it contains at the moment of publication is caught within the confines of the two covers. As he says “A printed and bound dictionary is like a fossil”. Like his predecessors, therefore, Van Doren sees the encyclopaedia as a significant work in its own right, and capable of comprehensive coverage.

However, he acknowledges the limitations of the published work without envisaging any alternative.

Cultural historian Jacques Barzun (writing in the same special edition of *American Behavioral Scientist*, 1962) attempts a comprehensively inclusive listing of those things which an encyclopaedia might contain: “a set of answers to questions about matters of historical or scientific fact – names, places, dates, relationships, titles of books, terms of art, definitions of ideas and principles, formulas, distinctions between cognate systems, compendious records of lives, deeds, and their consequences, descriptions of methods of inquiry and delimitations of fields of knowledge”. As a menu from which an encyclopaedist might choose his or her content, this list covers a range of content types which one might expect in many types of reference work, such as a bibliography, chronology or almanac. But Barzun is imagining a specific type of general ‘world encyclopaedia’ covering a multitude of topics. He recommends that the encyclopaedist should be selective, however, and only include ideas which “have engaged the protracted attention of mankind”, that is stood the test of time and come to be accepted as a consensus. An encyclopaedia should hold up a mirror to the best of established thought at the time that it is published.

He describes an encyclopaedia as a “set of answers to questions about matters of historical or scientific fact”, suggesting that an encyclopaedia can be recognised because it is designed to be consulted for the answers to specific questions rather than read from beginning to end. But these answers should not “obtrude a didactic intention beyond that of supplying answers to questions of fact and meaning”, that is, should not include bias and opinion. Yet Barzun feels the ideal encyclopaedia should be written by a single person “for then the editorial plan can be sustained from immediate internal knowledge” and the imagined audience will remain consistent. He later goes on to encourage the encyclopaedist to be “no longer a compiler and a contributor, he is an author and a symposiast”. Like his contemporaries, therefore, he has a conflicting view of the ideal encyclopaedia being both unbiased, but having all the power of an authored work. Similarly there should be a superstructural plan for the encyclopaedia, following “editorial fiat”, but treatment of issues should avoid partisanship.

The key to how these conflicting ideas can be resolved lies in his statement “Switzerland is worth more study than Liberia”. This value judgement clearly seemed self-evident to him at the time of writing, but might be questioned in later, more relativist times. It seems an unbiased statement to him, because he knows he is right. Thus it becomes possible to be

simultaneously unbiased and exercise a strong authorial presence, if the author in question is well-informed enough in time-honoured, accepted ideas. To put it more kindly, Barzun and his contemporaries felt there was a legitimate body of shared, understood knowledge which had, as he said, “stood the test of time”. Both the editor and contributors can show flair without damaging the encyclopaedia’s authority as long as they are selected carefully enough. It is possible to combine ideas and facts without a danger of inaccuracy or bias, because the encyclopaedia’s contributors are “men who understand their subject, its external relations and also the mind of the reader”.

Barzun goes on to define what an encyclopaedia is and is not, that is “not a set of instructions but an object of contemplation”, aimed at the layperson not the specialist and “all the established kinds of art and science and their chief terms have to be included”. Like the other authors in this section, he thinks the encyclopaedia should be a comprehensive and reliable source of knowledge. But he provides more detail about the actual form of the book. It should have a “clear and defensible” superstructure “brought together by indexes and cross-references” and its tone and overall aims should be laid out in a prospectus and writers’ guide, enabling contributors to work to the same end. The length of entry is determined by the “degree of subordination or autonomy and proper place within the scheme of knowledge” which should be constructed inductively, by subdividing existing academic disciplines, and deductively, from examining how books are arranged in libraries. There should be a mixture of shorter and longer articles, and they should be written by authors of equal authority. He feels that encyclopaedias should interleave entries for people and places, rather than relegate them to separate volumes. Above all he warns against allowing encyclopaedias to look like other publications. “Typographically, the aim should be to express clearly the subordination of topics, to furnish aids to finding one’s place and to please by the general harmony of the double spread and its margins”. Barzun paints a clear picture of the ideal encyclopaedia as one arranged for the easy location of facts, authored, yet unbiased and comprehensive in coverage.

Robert Collison’s *Encyclopaedias: their history throughout the ages* (1966) is primarily a survey of different encyclopaedias, rather than a polemic on its role in society or book history. However, at different times in the book, he attempts to define the encyclopaedia: “Not all the works that include the word ‘encyclopaedia’ in their title can be assumed to be encyclopaedias in the true sense of the term, and, on the other hand, there are a number of important specialist encyclopaedias that more modestly call themselves ‘dictionary or

‘handbook’ etc.” (Collison, 1966, p218). The suggestion here is twofold; first that there is indeed a ‘true sense’ which some books called ‘encyclopaedia’ fail to match and secondly, that whether a book is really an ‘encyclopaedia’ or ‘dictionary’ cannot necessarily be learned from its title. His approach is to explore various forms of reference work without making hard and fast definitions of what is and is not an encyclopaedia and he does not, in fact, define why particular titles are included or excluded in his history. But, like his contemporaries, he assumes that there is an accepted idea of what an encyclopaedia is. He elaborates this further in his later *Encyclopaedia Britannica* article on the subject (see below).

Mortimer Adler’s ‘Circle of learning’ (1974) makes up part of his introduction to *Encyclopaedia Britannica*’s *Propaedia*, the companion volume to the in-depth *Macropaedia* and short-article collection *Micropaedia*. In it, Adler lays out the aims of this particular encyclopaedia and, in particular, the tension between alphabetical access to its contents and its underlying subject structure. Adler says that “... while deciding to retain the alphabetical ordering of the articles” the editors wanted “to overcome the defects of an alphabetical organization by giving the reader a truly topical and unalphabetical table of contents”. Yet Adler’s choice is an uneasy compromise. His reasoning for why a topical structure was not chosen for the encyclopaedia as a whole, reveals an uncertainty and relativism not present in previous essays on the subject. He rejects arranging the encyclopaedia by subject because he imagines the reader “provoked to ask, ‘does this order, volume by volume and article by article, reflect the only proper exposition of the whole of human knowledge?’”. Yet, the main reason for the provision of the *Propaedia* volume is to give the reader a topical ‘outline of knowledge’. He is concerned that a topical arrangement would “conceal, a commitment to one set of organizing principles”, yet does exactly that with the *Propaedia*. Adler’s ascribes his authority for the subject outline in the *Propaedia*, to its large number of scholarly contributions and corrections. Yet, if that is enough to avoid the accusation that the structure represents an arbitrary worldview, then surely this would be enough to justify subject arrangement in the first place? Adler additionally promotes alphabetical arrangement as offering easier access than topical arrangement with an alphabetical index, and this reason seems more convincing. However, his initial thoughts on the subject clearly indicate that there be more than one set of “organizing principles” for an encyclopaedia arrangement, a contrast to the picture painted by the other encyclopaedists in this section.



Robert Collison's entry for 'Encyclopaedias and dictionaries' in the 1987 edition of the *Encyclopaedia Britannica* outlines the characteristics of an encyclopaedia, as he felt had been established by the start of the twentieth century:

- a) "written in the language of the country in which it was published;
- b) contents arranged in alphabetical order;
- c) articles of any substance written by specialists;
- d) subject specialists employed either wholly or part-time as sub-editors;
- e) inclusion of living people's biographies;
- f) inclusion of illustrations, maps, plans, etc;
- g) provision of bibliographies appended to the longer articles;
- h) provision of an analytical index of people and places and minor subjects;
- i) provision for the publication of supplements to bring the main work up to date;
- j) provision of numerous and adequate cross references in the text" (p199)".

Yet Collison does not exclude from his survey works which do not meet all these criteria, suggesting that they are perhaps more of a menu, rather than formal qualifications. He does not insist that all encyclopaedias are alphabetical, and adds that alphabeticised encyclopaedias conceal a thematic structure. "Even though nearly all encyclopedias are arranged alphabetically, the classifications of Bacon and Coleridge still enable editors to plan their work with regard to an assumed hierarchy of the various branches of human knowledge". In fact, he states the aims of his article to survey "not only the great general encyclopaedias of the past but all types of work that claim to provide in an orderly arrangement the essence of "all that is known" on a subject or group of subjects".

He also attempts to make a distinction between the dictionary and an encyclopaedia: "a dictionary explains words, whereas an encyclopaedia explains things". This recalls the subtitle of John Harris's prototypical encyclopaedia *Lexicon Technicum, or, an Universal English Dictionary of Arts and Sciences: Explaining not only the Terms of Art, but the Arts Themselves*. As will be seen later, Harris aimed to expand on the terminological definitions provided by previous dictionary compilers by including explanations and discussions of the words he defines. This additional explanatory material could, therefore, be identified as one distinction between the purpose of a 'dictionary' and an 'encyclopaedia'. Collison notes that the distinction between the two terms is problematic because words are the means by which those 'things' are defined, so that the difference between a lexical definition and a short encyclopaedic one is not always

easy to distinguish. Moreover, the use of the word ‘dictionary’ in a book’s title is not the defining distinction between the two forms of work: “The word dictionary is also extended, in a loose sense, to reference books with entries in alphabetical order, such as a dictionary of biography, a dictionary of heraldry, or a dictionary of plastics”.

However, he notes that readers are not necessarily confused by the inconsistent use of terms. As quoted in the first chapter “The distinction between a dictionary and an encyclopaedia is one that can easily be made by most people, even if the encyclopaedia happens to be a one-volume affair or the dictionary has spread to several volumes; even, moreover, if an encyclopaedia is called a ‘dictionary’ or a dictionary an ‘encyclopaedia’”. Although he states that this is not the defining criterion, his mention of the size of the work is significant, as it suggests that there might be an expectation that a dictionary should be in a single volume but an encyclopaedia longer. He adds “Nonetheless, while a modern encyclopaedia may still be called a dictionary, no good dictionary has ever been called an encyclopaedia”. The implication here is that a dictionary, perhaps meant here only in its lexical, word-defining form, is something specific, whereas an encyclopaedia is something broader and can be called a dictionary if necessary. As a compromise between the two, he goes onto identify an intermediate form, the ‘encyclopaedic dictionary’. All three forms appear to be books which facilitate access to stored knowledge using alphabetical order. Although Collison certainly thinks it is important that what an encyclopaedia is should be made clear, his observations suggest that the importance now lies as much with reader expectations as with the terms used by publishers and editors.

This section has traced a change over the course of the twentieth century in thinking about how encyclopaedic information should be made available to users. Where Otlet and Wells felt that it was possible make the totality of knowledge accessible universally by arranging it according to a single subject structure, Adler’s writing shows a new concern that there is no single means of dividing up the world. As Cherchi (1990) puts it elsewhere “Nobody believes any more that an encyclopedia can reconstruct the world for us”. Where Steinberg, Van Doren and Barzun had clear pictures of what an encyclopaedia should be, albeit one that was not necessarily consistent, Collison, shows an understanding that the terms used to define reference works are unstable in their application. This will be revisited when we look at the writings of the metalexigraphers.

### 3.6 The encyclopaedia in communication studies

McLuhan's writings about communication and the media gave rise to an interest among many writers (popular as well as scholarly) in the history and social significance of communication. A number of writers have examined encyclopaedias as part of a succession of communication and recording tools, including the earliest forms of which we are aware (for example, cave paintings), through the development of writing, to the invention of the printing press, spread of literacy and the domestic computer. That there has been a recent proliferation of titles examining the forms of information storage and communication can be attributed to a reassessment of the role of so-called traditional media (not just books, but films, television and newspapers) in the light of the ubiquity of the world wide web. The works below all consider the encyclopaedia among a range of methods used to retain and transmit knowledge. Few of them attempt to define what an encyclopaedia is, but their observations are illuminating on how its role and purpose has developed throughout history.

Tom McArthur's *Worlds of Reference* (1986) is able to sidestep the issue of defining what an encyclopaedia is by evaluating the history of reference works in general. His study attempts to tell the story of how human beings enabled facts to be remembered by grouping them with other things they are like (McArthur, 1986, p32). Unlike others in this section however, he does consider the question of what an encyclopaedia specifically should look like. For example, he discusses the "... widespread and largely undiscussed conviction that, somehow a 'good' encyclopaedia does (or ought to) encompass all knowledge" (p68). The mediaeval notion of an encyclopaedic work allowed that a finite quantity of knowledge, made available by God to man, could be contained within the covers of a book or books. McArthur feels that this is not possible in a modern encyclopaedia. As he says, "Any compiler of any large scale reference work knows the mixed feelings that go with establishing the limits of that work" (p68). The editor decides to include and exclude material with the intended readership in mind and there is almost the suggestion that the exclusion point may even be arbitrary or dictated by time, cost or resource limitations.

McArthur also explores how the knowledge within an encyclopaedia should be made accessible via thematic and alphabetical arrangements. "The alphabet is convenient ... every literate person knows it, therefore it must be used and the world fragmented if necessary so that its convenience can be benefitted from" (p152). Authors and editors must also choose how much content to put into a single entry and how much to disperse it alphabetically across the publication. He suggests that "...encyclopedists... regularly come up against the

frustration of knowing how much to encapsulate in a particular entry, [or instead] how much in another cognate entry half the alphabet away, and how much to cross-refer.” (p155). For McArthur, *Britannica* set the pattern for encyclopaedia arrangement, with plenty of short entries, some longer entries, cross-references and alphabetical arrangement (p156). In particular, he commends the 1974 15<sup>th</sup> edition for blending alphabetical and thematic modes through its new structure. McArthur acknowledges that Adler’s plan faced the problem of providing absolutes in a relativistic world “...a path of faith and dogma when such thematic formats were the norm and not the exception”. He suggests that “... there is every reason to suppose as we progress into the electronic age all sorts of permutations will be tried out as regards the fundamental options available in the storing, accessing and display of information” (p161). He presciently recognises (writing in 1985) that the emerging computer age will see: “...books...escape their bindings”. “The work of reference up till now has been a holdable, openable, consultable single product, but in future such an item need only be one of a number of possible end-products emerging from a properly maintained ‘lexicentre’ which is neither a book nor a library, but instead a network of information points”. He does not specify, however, if these future products can be considered reference books in the same way.

Bill Katz’s *Cuneiform to computer* (1998) immediately predates the ubiquity of the world wide web. He traces the history and evolution of reference works from recording a finite quantity of existing knowledge, through the enlightenment, to mass publication, education and literacy in the 19<sup>th</sup> Century. Along the way, he identifies a relationship between the increase in number of academic disciplines and emergence of specialist dictionaries and encyclopaedias. He also notes the emergence of the popular consumer reference work. By the time of his writing, the modern encyclopaedia included such features as continuous revision, annual supplements, subject-specialist encyclopaedia sets and new technology such as CD-ROMS. Katz never at any point attempts to define what an encyclopaedia is, and the book deliberately leaves its subject fuzzy enough to include commonplace books, biographies and travel guides, as well as things consistent with the encyclopaedia definition provided in Chapter 1 of this thesis. However he does build a picture of what a good encyclopaedia should be. Its purpose should be to, “to offer authoritative, usually relatively easy-to-understand answers to questions about every conceivable topic” (Katz, 1998, p19). Modern encyclopaedias should use developments in publishing to provide “more attractive layouts, easy-to-understand articles, numerous and current illustrations, and accurate indices” (p41). And he outlines the importance in a world of multiple publishing markets of making each

publication fit for its intended audience, saying that “Depending on the size of the encyclopedia and the age-needs-sophistication of the reader the entries may be short or detailed”.

The title of Foster Stockwell’s *A history of information storage and retrieval* (2000) indicates its focus on reference books as information stores. Like the two previous works, it is a survey of the means by which human beings have attempted to organise knowledge so that they can find it again. Its date means that it brings the debate directly into the world of end-user access, search-engines and publication via the world wide web. Stockwell claims that “...it has always been a utopian dream to assemble all knowledge in one place so that an individual can have it ready at hand. It was with this purpose that encyclopedias were first compiled.” (Stockwell, 2000, p1). He traces the different means by which literate societies have attempted to encompass the totality of knowledge through the establishment of libraries and Universities, as well as the publication first in manuscript and then in print of encyclopaedic works. In his last few chapters, Stockwell looks at the opportunities provided by the computer’s memory and processing capabilities. As he says “Never has the cost of collecting, processing, and transmitting information been so low” (p166) and adds that “We need computers and hypertext today if for no other reasons than to digest the mass of records that proliferate throughout our society” (p172). His last chapter ‘Using the great electronic encyclopedia’ begins “It is conceivable to view printed encyclopedias as early attempts to produce hypertext on paper” (p177) and is a survey of electronic information sources of the time, including encyclopaedias published on CD-ROM and search engines. For him, the embodiment of encyclopaedic knowledge in book form was simply a historical event, brought about by a confluence of the emergence of the printing press, greater literacy and the need for storage of greater quantities of knowledge. He does not examine the encyclopaedia as a book, because, for him, that is simply the form which the universal urge to store knowledge took between the 16<sup>th</sup> and 20<sup>th</sup> Centuries.

Alex Wright’s *Glut* (2007) again looks at the history of recorded information and, in particular, its classification into categories as a means of retrieval. Among his examples are pre-literate information storage and early libraries, but he cites the codex, enabling random access to text and creating the notion of the page, as an important step in the means of accessing knowledge in non-linear fashion (Wright, 2007, p79). He sees this as part of the process of the transformation of the book from being an object to a conveyor of intellectual content (p121). Alongside this is the emerging trend to manipulate written knowledge so that it can be

selected and retrieved in pre-ordained ways (p122). He describes library classification schemes and encyclopaedias as ‘new literary technology’ (p143) and a democratising one, as they provided a guided route into knowledge for those without access to a classical education and large personal collections (p147). Although in many ways *Glut* resembles Stockwell and Katz’s approaches, his fundamental interest is the means by which we seek information either through hierarchical structures, such as those which underlie the arrangement of encyclopaedias, or through networks which connect related facts through text or semantic matching. Wright states that the modern approach to information seeking is nodal and unstructured (p236) implying a limited use for the hierarchical printed encyclopaedia, where information is corralled into subjects, albeit with cross-references. However, he does not think that the networking world has freed us from subject hierarchies or even that this is a good thing: “Hierarchies and networks are constantly spawning each other” (p238). Like the other writers in this section, he primarily observes how certain trends, that is to gather knowledge, to select on various criteria, to arrange according to a system, relate to the information storage technologies of their time. As the most recently published, he has more to say about new means by which access knowledge outside of the physical or traditional online formats. Yet he comes to no conclusions about the purpose of the modern published encyclopaedia in this context.

### **3.7 The encyclopaedia in library and information studies**

The literature produced by the field of library and information studies on encyclopaedias is primarily practical, advising librarians on how to make acquisition decisions. Chapter 7 analyses a number of these publications. For the purpose of the literature review, a typical example from the last 50 years has been selected. Norman Stevens 1987 guide to evaluating reference books takes a more analytical look, outlining the differences in theory and practice of what a reference book is. He acknowledges the theoretical idea of a reference book as one designed to be consulted rather than read, but notes that in reality many monographs and books of essays in research libraries are consulted in this way. His feeling, therefore, is that librarians should look to customer use rather than editorial intention when evaluating their reference purchases.

He identifies the following 17 features which should be used by a librarian when selecting purchases:

1. Accuracy – by reference to expert knowledge and to sources used

2. Appropriateness – for the particular users/ contexts of use, plus arranged in such a way appropriate to the content
3. Authority – supplied by authors and contributors experience and qualifications
4. Bibliography
5. Comparability with existing reference works
6. Completeness
7. Content –the value of material contained in book
8. Distinction - what sets it apart from previous books
9. Documentation – how far content is sourced
10. Durability as a physical object
11. Ease of use – accessibility by subject organisation and cross references
12. Illustrations – where appropriate and of what quality
13. Index – presence of and quality if supplied
14. Level – appropriateness to intended audience
15. Reliability – accuracy and accessibility: can you rely on it to tell you what you need ?
16. Revisions – How up to date is it?
17. Uniqueness – what is the reason that it has been published?

This list, while intended to apply to reference works in general (which could, after all, include recipe books or atlases) applies most obviously to those specifically concerned with factual knowledge. As such, without providing a definition of what an encyclopaedia is, it outlines what a reader might expect – or, as in this case, what the purchaser should consider – when choosing a good example of its kind. Stevens does not seek any scholarly conclusions in his recommendations. However, he introduces a set of qualities (both physical and abstract) which one might consider essential in a good encyclopaedia. The notion of a set of criteria which would define a successful encyclopaedia is the basis for the research carried out in Chapters 5, 6 and 7.

### **3.8 Metalexigraphy**

Metalexigraphy has been defined as “literature about dictionaries” (Béjoint, 1994, p1). It covers history and analysis of lexical dictionaries, their purpose in users’ lives, how they are produced and what comprises a good example. As such it offers a toolkit with which a related but different reference book, the encyclopaedia, can be analysed and differentiated from dictionaries. This section concentrates on the writings of Henri Béjoint and Sidney Landau, but the same issues have appeared in books by Collison (1986), Green (1996), Hartmann (1983) and Householder and Saporta (1967). One concern in particular which they address

is central to the definition of the dictionary in opposition to the encyclopaedia: that is, the relationship between an entry's headword (called by some the 'sign'), the definition provided and the object to which they refer (the 'referent').

Although analytical work had previously been published on dictionaries, Henri Béjoint's *Tradition and innovation in modern English dictionaries* is a defining work in this field. Béjoint's approach is in many ways that of the book historian. He notes that "Our general purpose dictionaries as we know them are the result of a complex interaction between several factors that have solidified over the centuries and our deeply ingrained in our society" (Bejoint, 1994, p178). Among the conventions he notes are those in common with encyclopaedias, for example, the emphasis of the entry word (p162) and the use of "extensive front matter explaining how to use the dictionary" (p167). Béjoint attempts to define the dictionary, drawing on the work of lexicographer Josette Rey-Debove. He includes a number of defining characteristics some of which one might expect to find in other reference works, including encyclopaedias (p9-11). According to this definition, a dictionary is:

1. "a list of separate graphic statements"
2. a book designed for consultation, as evidenced in the ways that paragraphs are "coded" by typography
3. has both a macrostructure, that is the way that word headings are arranged throughout the book, and a microstructure, how the individual entries are laid out typographically
4. "classified by form or content" that is, items are arranged alphabetically (by form) but related to other items in the list which have the same subject (by content)
5. information in the entries is 'linguistic': that is about the words, not the things to which they refer.
6. contents are designed to be didactic, and also reflect "the community in general" rather than the biases of the lexicographer
7. dictionaries give information about 'signs' that is the words in the graphic form they take, rather than the concepts behind them
8. although alphabetical, the word-list corresponds to a pre-determined structured set

With two exceptions, all of these characteristics could apply to encyclopaedias and in some cases (for example, number 8) potentially apply more strictly to them than to dictionaries. Only points 5 and 7 seem only to apply to dictionaries and even here there is some controversy.



For example, Béjoint suggests that the dividing line between a word defined in a lexical dictionary and the concept to which it refers is a fine one as ‘much of what a dictionary definition says, particularly about concrete nouns, actually applies to the referent [that is the thing which is being defined]’ (p22). The extent to which dictionary entries are ‘about’ the words which appear in the heading appears to be a key issue for metalexigraphers. Béjoint later makes the distinction between dictionaries and encyclopaedias that “The entrywords of an encyclopaedia are always nouns” (and, indeed, this may include proper nouns which one would not expect in a dictionary), that “they are subjects of the microstructural information contained in the entries” (that is, the words which comes after the entryword are ‘about’ the entryword, whereas in a dictionary these words would be ‘about’ its grammar and use in language) and even that “for many entries, a different entry-word might have been chosen” (p30). For him encyclopaedia definitions are “explicitly about the world, rather than about words”. He adds that “Encyclopedias contain information that is also to be found in dictionaries”, but they contain more than this (p31).

Other distinctions between encyclopaedias and dictionaries concern the purpose and function of the book. Béjoint notes that dictionaries shifted between the 18<sup>th</sup> and 19<sup>th</sup> century from prescribing the words which people in society should use and describing those they already did (p95). As will be seen in the next chapter, the early nineteenth century is the point that it becomes possible to identify the lexical dictionary, describing the meanings of the words rather than the things to which the words refer, as a form separate from the encyclopaedia. It is at this point that the ‘corpus’ (also known as ‘citation files’), a collection of example quotations showing where words have been used in written or spoken language, emerges as a lexicographical tool (p98) although Samuel Johnson’s 18<sup>th</sup> Century definitions were based around real uses of words in context.

According to Béjoint, the modern typical dictionary user has different aims to those consulting encyclopaedias, including for example, foreign-language speakers or the ‘ordinary user’ seeking the correct form of a word (p108). Moreover, they judge them according to different criteria, valuing the numbers of entry-words above the length of the entry (p114). Objectivity is a quality seen as less possible in dictionaries than in encyclopaedias, because conciseness in a dictionary entry is valued more highly than discursive analysis. It is more important to be succinct than fair to all points of view. Béjoint describes objectivity as “certainly impossible” (p136) and not even desired by the dictionary user: “Dictionary users do not necessarily want objectivity: they want their dictionary to transmit what is generally

considered to be good or bad in society”. Encyclopaedias on the other hand are assumed to aim for accuracy and authority, that is, to discover the ‘truth’.

Béjoint identifies a common origin between the dictionary and the encyclopaedia, but finds differences between them in the modern form of the book. For Sidney Landau (2001), the problems arise with the misuse of publishers’ nomenclature: “Authors and publishers have found that if they call a reference book a dictionary it tends to sell better than it would if it were called by another name because the word suggests authority, scholarship and precision” (Landau, 2001, p6). For him, the distinction is less clear, particular when applied to technical or subject-specialist works: “subject-field dictionaries often have a normative purpose as well as an informative one” (p32), that is, that they establish the meaning rather than reflecting usage as we might expect a general lexical dictionary to do. He adds that definitions in general lexical and specialist vocabulary dictionaries are produced in different ways. The former use the evidence of the corpus but “The meanings of scientific entries, on the other hand, are imposed on the basis of expert advice” (p32). Whereas large ‘citation files’ exist to demonstrate usage of general words, dictionaries of technical terms rely instead on the factual knowledge of experts to indicate their meaning. For Landau, while an encyclopaedia might be called a dictionary, there exists a separate entity, the lexical dictionary, which should be compiled by a lexicographer using citation files. Indeed he criticises as ‘amateurish’ dictionary entries ‘compiled by people who may be expert in their subjects but who are often ignorant of the basic principles of writing definitions’ (p34).

At the centre of the writings of metalexigraphers and semantic linguists on the topic of dictionaries and encyclopaedias is the notion of whether a dictionary entry can be considered complete unto itself or whether, to avoid circularity, it must refer to something in the real world. For example, Haiman (1979) rejects what he describes as ‘the article of faith ... that knowledge of (the semantics of) a language – properly codified in a dictionary – is distinct from that knowledge of the real world which belongs in an encyclopedia alone’. Nevertheless, while he seeks to demonstrate that all dictionary definitions, in order to provide value, must refer to something outside the confines of the language, he concludes that “the distinction between dictionaries and encyclopedias, while theoretically untenable, has the happy property of working very well in practice”.

Thus, problems distinguishing between dictionaries and encyclopaedias (raised by Collison in 1986 as well as these writers) are in some sense irrelevant to the existence of the two forms in the modern bookshop or library. Clearly there are features which exist in lexical

dictionaries which do not apply to encyclopaedias in our modern understanding of them, notably the nature of the entries, the way that they are compiled, and some of the reasons for which they are consulted. Yet the notion of the ‘encyclopaedic dictionary’ and lexicographical traditions in, for example, the USA, indicate that some objects straddle the two forms of the book. The connection between the two will be seen clearly in the next chapter which traces the common ancestors of both.

### **3.9 Analysis of literature review**

The field whose research approach this thesis wishes to use, that is book history, has spent little time looking at encyclopaedias specifically. However, scholars in the discipline between the 1970s and 1990s devised paradigms which can be used as a basis for studying a range of books or texts. Theories and techniques covering the relationship between book production and consumption (for example, between printing technology, page layout and reader expectations) can be used to illuminate why the encyclopaedia takes the form that it does and will be used as a model for the evidence-based studies in this thesis. More specifically, existing scholarship has produced insights on such topics as how authority is created in the printed text, how metatextual elements facilitate readership and the complex relationship between publisher expectations and consumer behaviour, all of which are relevant to the study of encyclopaedias.

The body of writing specifically about encyclopaedias has not primarily been concerned with establishing the nature of this form of the book, nor how it came to take the form that it did. The interest of academic historians such as Darnton, Yeo and Loveland, lies primarily in what early encyclopaedias can tell us about the intellectual, cultural and economic life in the period in which they were written. Encyclopaedias provide a means of exploring the nature of scholarship and publishing in the 17<sup>th</sup> and 18<sup>th</sup> centuries. However, the history of encyclopaedias is in some ways the history of scholarship and the intellectual marketplace and the work done by these writers illuminates how encyclopaedias developed at particular points in history. This will be examined in more depth in the next chapter. Less useful than histories of knowledge, are institutional histories of reference publishing houses. While they may tell the story of how significant reference publishing enterprises came into being, their interest lies in what that can tell us about the development of the institution, not the generic nature of their product.

Other literature is more directly concerned with the question of what defines an encyclopaedia. Surveys designed to help reference librarians select for their collections highlight the features for which a prospective purchaser should look. However, they are the inheritors of the mid-twentieth century inclination to dictate the qualities of the ideal encyclopaedia. Encyclopaedists included in section 3.5 write specifically about what makes

an encyclopaedia fit for purpose, such as structure, tone, authority, scope and lack of bias. They are less interested in the physical form that the encyclopaedia should take (other than the overall subject arrangement of entries) than in the qualities it should carry, such as accuracy or quality of language. Following the tradition of modernist writers such as HG Wells, the post-war encyclopaedists were assured that the delivery of comprehensive encyclopaedic knowledge was possible in the civilized and technologically sophisticated society in which they were writing, although many foresaw that comprehensive knowledge might expand beyond the confines of the physical book. These writers are not always consistent in their definition of encyclopaedias, even within a single article. This can be attributed to the fact that their articles were journalistic rather than academic in intent, offering up informed or interested opinion on what they felt an encyclopaedia should be, but not attempting to provide scholarly evidence. Nevertheless, certain writers, at a time when the encyclopaedia can certainly be said to have come of age, clearly felt it was both possible and desirable to pin down the essential nature of the form.

The recent abundance of writing on information storage as part of the history of communication can be related directly to the ubiquity of the world wide web and how it has changed the way we seek and retain knowledge. Although these texts do look at the development of encyclopaedias, they consider the physical container of the book as simply one means by which information has been stored, made possible because of technical and social developments (such as the codex and literacy). More recent writers imply that new technology (and accompanying social change) has rendered the physical form obsolete. Because their interest in encyclopaedias is essentially only as vessels for storing knowledge, the titles looked at in this section offer limited scope for considering the nature of the encyclopaedia as an object. However, the literature makes essential observations about the changing role of encyclopaedias over time.

Finally, the study of lexical dictionaries known as metalexigraphy has produced valuable literature in which experts in this area have sought to define dictionaries in opposition to encyclopaedias. While the difference between an encyclopaedia and a dictionary can only provide limited insight into the nature of the former, it nevertheless has produced a revealing set of characteristics, notably around the function of encyclopaedia entries and the nature of their authorship. Moreover, the approach to analysing the physical page and text taken by metalexigraphers is consistent with that of the book historian, and provides an essential model for the research undertaken in Chapter 6.

This chapter has aimed to cover the existing relevant literature on the encyclopaedia as a form of the book and information source. It offers a broad and varied picture of how different disciplines see this form of the book. Yet it also produces a consensus, whether overtly stated or by implication, on certain features considered to be physically present (such as alphabetical order, the presence of multiple entries, informational content and arrangement for consultation rather than linear reading) or functionally active (such as lack of bias, expertise or suitable intellectual level) in an encyclopaedia. That this has taken place outside of the scholarly methods used in the field of book history leaves a place for these assumptions to be tested. Chapters 5 to 7 will attempt to apply evidence-based techniques similar to those used in the field to produce a definition of the encyclopaedia. The next chapter uses the literature to produce a historical overview of how the reference source we understand today as the encyclopaedia came to take the form it did.

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## Chapter 4: Historical development of the encyclopaedia

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### 4.1 Introduction

Many of the writers reviewed in the previous chapter had a clear idea of what they meant by the term ‘encyclopaedia’ without necessarily considering how the concept emerged as part of the history of the organisation of knowledge and of the book in particular. It is beyond the scope of this chapter to produce a comprehensive history of encyclopaedias<sup>12</sup>, yet a brief survey will highlight some of the necessary developments which enabled the form to come into being. Such a survey is necessarily selective and the emergence of the modern form appears to be incremental rather than linear. Steinberg (1950) suggests that the encyclopaedia emerged as “the result of a gradual development during which various combinations have been tried out” and, indeed, there is evidence that aspects of the modern form existed at times throughout history without being taken up by succeeding generations (Blair 2010, p153). Nevertheless this chapter aims to identify from secondary literature the appearance in book history of features associated with encyclopaedias and therefore to trace their emergence from numerous predecessor forms. Later chapters will identify these features from direct examination of the object and the opinions of its users.

I have chosen to trace the history of the modern encyclopaedia through two of its principal ancestors, the *summa* and the *glossa*. The first comprises those works which attempted to

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<sup>12</sup> For general bibliographic surveys, see Collison (1966 and 1987) and Steinberg (1950), for broader histories of the storage and retrieval of information in reference works and elsewhere, see Stockwell (2000), MacArthur (1986) and Wright (2007). For the emergence of the modern encyclopaedia during the enlightenment, see Yeo (2001) and Loveland (2006). For subject encyclopaedias see Layton (1965).

compile a large, or even comprehensive, body of knowledge in a systematic order, normally for an elite scholarly community. These items were in existence from antiquity, but increased in number in the late middle ages and the early years of printing. The second predecessor can be found among those works providing access to knowledge in alphabetical order, also in existence from antiquity. Other early works of reference, notably *florilegia* and *loci communes* are also mentioned. The history largely concentrates on Western Europe as, although encyclopaedic works of both kinds were produced in Asia, it is hard to trace a direct influence of these works on the modern conventional form.

#### **4.2 The ancient world**

According to Haider and Sundin (2010) “The wish to gather and organise all human knowledge in one ‘information system is not a new one”. Part of the urge to store information so that it can be found again relates to the human limitations of memory. Even pre-literate societies, largely reliant on transmitting knowledge orally, required methods of information storage and retrieval. According to Howard (2005, pX) “In an oral culture, the closest equivalent to the book was memory” and Alex Wright (2007) suggests “In all likelihood, cave paintings served more than just a ritualistic or an aesthetic purpose they may also have functioned as informational tools, the preliterate equivalent of a how-to manual or encyclopedia” (Wright, 2007, p46). Howard also observes that “Books act both as physical objects ... and preservers and conduits of information” (2005, p1).. The convenience of recording knowledge so that it can be referred back to on a later date, meant that stone, clay, papyrus and paper have been used for this purpose regardless of whether most people in any society could read or write.

As Ong (1982) points out, a society requires an artificially codified script to enable information which has been stored to be communicated to other people, so that distinct individuals know that they are reading the same thing (Ong, 1982, p84). Most early scripts were pictographic which, Lanham (2007) suggests, distract the reader by making them aware of the script as an image and its relationship to the object represented (Lanham, 2007, p115). Alphabetic writing, where letter stands for a sound, rather than a pictograph for a concept, appeared around C1500BC among Semitic peoples. It meant that those who aspired to literacy needed to learn far fewer characters to master reading and writing, particularly after the introduction of vowels enabled the reader to discern exactly what the writer had intended rather than requiring background knowledge of the topic (Ong, 1982

p89). Knowledge storage in the Ancient World was for most, however, largely oral and the emergence of what we might term reference books now was limited to the literate few.

The term ‘encyclopaedia’ derives from the Greek either *Enkyklios*, meaning ‘circular’ or ‘complete’ or *Enkuklios* meaning ‘common’ or ‘general’ and *Paedeia*, meaning education. In the ancient world, this suggests a form of education, a curriculum covering all the necessary or useful subjects, rather than a physical item. This curriculum was embodied by what came to be known in the middle ages as the ‘seven liberal arts’ the *trivium* (grammar, rhetoric and logic) and the lesser *quadrivium* (arithmetic, geometry, astronomy and music). Until the 17<sup>th</sup> Century the term was not associated with a type of book, but with a discussion about the nature of the disciplines (McArthur, 1986, p 43; Blair 2010, p12, 168). However, as Collison (1966) suggests, books existed with “the intention ... to provide an all-round education within the bounds of a single work” (Collison, 1966, p21). This encyclopaedic urge, from the ancient world onwards, resulted in a range of works with a paedagogic aim. Blair identifies a secondary aim, that of storing knowledge that each generation of mediaeval and Renaissance writers felt had grown to excessive proportions and needed to be managed (Blair, 2010, p11).

The most famous of the large-scale accumulations of knowledge from the ancient world is the 38-volume ‘*Historia Naturalis*’ of Gaius Plinius Secundus or Pliny the Elder (AD 23-79). It was conceived as a compilation of relevant items drawn from Pliny’s library, thus providing convenient access to knowledge in a single work. He compiled it through reading or being read to and flagging passages of interest which were then copied onto wax tablets by slaves (a system not unlike that used by Samuel Johnson in the 18<sup>th</sup> Century) (Blair 2010, p81). McArthur (1986, p42) identifies the ‘*Historia*’s characteristics thus: “clearly divided into sections or themes, openly states where the information comes from, and tries – however oddly to us now – to be objective and comprehensive”. The aim to provide accessible, authoritative, comprehensive and objective knowledge matches the principal criteria against which modern reference works are judged. ‘*Historia Naturalis*’ was not alone among ancient works summarising material to facilitate learning (Blair, 2010, p20). However, McArthur suggests the ‘*Historia Naturalis*’ is as much the forerunner of the scientific monograph or textbook as the modern encyclopaedia (p43). In the ensuing centuries, the reference work, monograph and textbook emerged as distinct forms in their own right.

Objects more closely resembling the modern encyclopaedia emerged during the early Christian period in Europe. The invention of the codex between the 2<sup>nd</sup> and 4<sup>th</sup> centuries CE (Blair) was a key development in the development of the reference work. The ability to turn pages rather than unfurl scrolls was a necessary precursor to accessing knowledge in any other than a linear fashion as “it was impossible to jump to various places in the scroll the way we skip to a particular page of a book” (Howard, p10) (although Blair, 2010, p18 suggests there may have been external finding aids on scrolls which have now been lost). As Wright (2007, p79) suggests “The new technology of the book ushered in a whole new way of reading: random access”. The codex also enabled the development of the page (which had its origins in the *pagina* sections of the scroll, Mak, 2011, p12). It was now easier to add marginalia and use different layouts or text sizes to provide visual clues to the meaning of the words. These became essential means in guiding the reader to non-linear content such as is found in works of reference.

### 4.3 The Middle Ages

In the middle ages, it was believed that all acceptable learning could be contained in a single work. Such compilations of scholarly knowledge were known as *compendia* and later *summae*. Defined as “compendiums of theology, philosophy, and canon law which were used both as textbooks in the schools and as books of reference during the Middle Ages” (Turner, 1912). They reflected a desire to spread learning from books held at remote locations all over Europe (Blair, 2010, p34) and to preserve selections from manuscripts vulnerable to fire, war, plague, political change or simply physical decay (Katz, 1998, p26). The 20-volume ‘Etymologiae’ of Isidorus Hispalensis (c560-636), also known as Isidore of Seville, aimed to explain the meaning of the entire world through the language used to describe it (Katz, 1998, p27). By the 12<sup>th</sup> Century scholars such as Hugh of St Victor (‘De Sacramentis Christianæ Fidei’) and Peter Lombard (‘Quatuor libri Sententiarum’) produced multi-volume works which covered all matters related to theology, from the nature of God and the divine, through the practice of the sacraments, to the destination of souls after death. The foundation of the mendicant orders and universities in the 13<sup>th</sup> Century is associated with a growth in teaching, preaching, learning and more written works (Blair, 2010, p37). However, it was still believed that all knowledge was in reach of the scholar (McArthur, 1986, p54). Hugh advised his students “Learn everything: sooner or later you will see that nothing is superfluous” (‘Didascalium’, VI, 3, quoted in McArthur, 1986, p53).

Early mediaeval European compilations of knowledge were produced largely in religious foundations and aimed to provide an established canon of knowledge which was safe for Christian societies to believe (McArthur, p46)<sup>13</sup>. But the notion of total comprehensivity is complex. 13<sup>th</sup> Century compiler Vincent of Beauvais suggested to readers of his *Speculum Maius* that he had summarised the best parts of the best authors, rather than all authors. Compilers were necessarily selective because of the great labour involved in copying manuscripts. Moreover, the totality of knowledge changed throughout the course of the middle ages. Hugh of St Victor's 'everything' was restricted to the Holy Scriptures and writings of the early Church Fathers (Blair, 2010, p45). Increased scientific discovery and learning from Greek and Arabic texts became part of accepted knowledge, included in *summa* such as the 13<sup>th</sup> Century *De Proprietatibus Rerum* of Bartholemew of Granville, which included sciences such as medicine, astronomy and zoology. Vincent even suggested that the reader would find contradictions among his sources (Blair, 2010, p45). Writers observed that there was too much accepted learned knowledge to be contained in a single encyclopaedia, although it was a problem which could be tackled (Katz, 1998, p31). Yeo (2001, p7) suggests that the mediaeval scholars saw knowledge as containable, but not necessarily comprehensive, defining it as a "summary of the most significant branches of knowledge from an esteemed course of study". Moreover, the *summa* and other scholarly works had the object of allowing scholars "to reach concordia through textual study and subtle discussion of details" (Katz, 1998, p28). This refines the notion that they simply recorded an established version of the truth, as it was recognised that an agreed understanding emerged from scholarly debate.

We assume that mediaeval scholars read *summae* from end-to-end, rather than using them to 'look up' individual facts, although they may also have needed to locate particular passages. But some of the features associated with modern reference book typography, which facilitate non-linear access, like alphabetical order, citations by book and chapter number, textual subdivisions, letters of different sizes, indexing and consultation-friendly layouts, originated in the manuscripts of the middle ages (Blair, 2010, p5, 33). However, these features were not universal and it cannot be assumed that mediaeval scholars used the *summa* for consultative purposes instead of end-to-end study (Katz, 1998, p28). Scholars did discuss the best means of arranging the knowledge contained within a work

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<sup>13</sup> McArthur (1986) also suggests that Asian texts such as the I-Ching of classical China and the Hindu Vedas were similarly "guides, precedents and standards" to solidify religious doctrine

which suggests an expectation of being able to locate pieces of information, rather than reading in a linear fashion. But it is likely that a shared understanding of scholarly arrangements helped scholars find the knowledge they were seeking.

Changes throughout the mediaeval period altered the way information was produced, disseminated and consumed. Eisenstein (1979, p12), who is otherwise keen to emphasise the specific changes brought by the printing press, describes a “book revolution” of the 12<sup>th</sup> Century brought about by the development of the universities and scribal workshops, which took book production out of monasteries and developed the role of the professional scribal pieceworker. Howard (2005, p24) observes that “Beginning in the latter half of the fourteenth century, books would be transformed both inside and out”, becoming physically lighter (and thus available to more people; most books in libraries were large and cumbersome and thus difficult to take away) and with more secular content. The arrival and spread in Europe of paper, much cheaper than parchment, from the late 13<sup>th</sup> Century encouraged scholars in copious note-taking and facilitated their organisation alphabetically or thematically (Blair, 2010, p63), increasing the production of books (Eisenstein, 1979, p11; Blair, 2010, p46).

These developments encouraged the production of *summae* and enlarged the potential for them to include non-religious knowledge. Long before the invention of printing, a new interest in the dissemination of knowledge, even in works by pre-Christian writers, had emerged and encouraged increasing numbers of people to read. Existing forms of book production began to change to reflect this. Finklestein and McCleery (2005, p46) identify a late mediaeval mechanisation of scribal practice, using production-line approaches to make their output more efficient. Eisenstein (1979, p73) observes ‘a desire to master original tongues and an encyclopedic urge to comprehend every part of creation’ in the middle ages, although she suggests that it took the development of printing to enable the desire to be fulfilled.

As the desire for knowledge increased, and the range of topics addressed of the *summa* expanded, there was less consensus on how a *summa* should be arranged. Some writers addressed in turn higher and lower orders of knowledge or practical and theoretical subjects (Yeo, 2001, p23). Others (including Vincent of Beauvais) echoed the cosmological chain of being, beginning with “God and the angels”, then the creation of the world and

the individual characteristics of man (Stockwell, 2000, p39). As the *summa* expanded beyond its theological origins, secular schemes, such as the seven liberal arts or the hierarchy of subjects taught in early universities, were adopted. Blair (2010, p127) says “In practice, of course, there was little agreement on how best to represent those relationships [ie between topics] or on the optimum systematic order”. Even the *trivium* and *quadrivium* were redefined and reordered by scholars (Darnton, 1999). This may explain the increasing popularity of prefatory trees of knowledge in 13<sup>th</sup> Century *summae* (Blair, 2010, p144). If writers had agreed on what a *summa* should contain and how it should be organised, then they would have had no need to provide an introductory outline to the present volume.

Over time, the ways that scholars engaged with books changed too. Until the 13<sup>th</sup> Century, the small number of people who read, scholars in religious foundations, did so aloud in a linear fashion and in slow contemplation (Mak, 2011, p43). The establishment of Universities encouraged an analytical engagement with texts common in the ancient world and a return to consultative reading. Library design started to reflect this, offering shared spaces in which works of reference would be chained to lecterns, including *summae*, concordances and biblical commentaries, to be referred to as need arose. The notion of reading a text from beginning to end as it might have been experienced by scholars in a primarily oral society was undergoing a change.

This was reflected in developments in typography and punctuation which facilitated accessing the information stored in books. Some of these, such as running heads at the tops of pages, had existed in the ancient world, but returned to fashion only when reading became less passive and linear. As Saenger (1997, p71) describes it “sense-conveying signs, juxtaposed with text, emerged on the mediaeval page [to] provide supplementary information to guide the reader to the meaning”. In the 12<sup>th</sup> and 13<sup>th</sup> Centuries, page numbers as a means of finding ones’ place (rather than for the ease of codex assembly) became the norm, as did “resume notes” (Saenger, 1997, p79), that is, marginalia designating points of entry into particular texts “providing an alternative to reading texts from beginning to end”, which later developed into the introductory tree diagrams described above. Other finding aids which appeared in the later middle ages were parchment and paper tabs appended to significant pages, chapter headings and subdivisions (Blair, 2010, identifies the *Polyantha* of 1503 as an innovator in the consistent use of main and sub-heading, p158) and prefatory tables of contents, sometimes in alphabetical order. Although the reference book as we know it had yet to emerge, as Parkes



(1992, p42-44) indicates, the use of books for reference was being made easier through the use of punctuation on the page.

Notions of authorship and authority in the middle ages were somewhat different to how they became after the advent of copyright law and the emergence of the professions and subject experts. According to Marcus (2000, p12), facts were not considered to be the property of any single individual. However, acknowledging trustworthy sources was important in works which aimed to offer a summary of true accepted knowledge. As early as Pliny's 'Historia Naturalis', the dedication states that "In comparing various authors with one another, I have discovered that some of the greatest and latest writers have transcribed, word for word, from former works, without making acknowledgement" (Book 1, Section 22, Dedication, quoted in Katz, 1998, p60). This indicates that unattributed quotation was widespread in written works but that Pliny considered it to be wrong, because authors should be credited for their work and because correct attribution provides an honest summation of the authority of the knowledge recorded. However, by the age of manuscripts, copying was a means of reproduction, and to do so without attribution continued well into the age of print (Stockwell, 2000, p40). Until books became a means of making money, and expert authorship became a selling point in a mass market (see section 4.7.5) plagiarism was almost encouraged as a means of dissemination.

The *summa* was not the only form of work which gathered together useful knowledge for the reader. Blair (2010, p33) identifies several other forms of mediaeval reference work: Commonplace books, *florilegia* (summaries of the 'flowers' of the best writers), alphabetical dictionaries, compendia, biblical and other concordances and alphabetical indexes. The commonplace book's purpose was to provide an appropriate quotation or reference for speeches, writings or erudite conversation. They existed both as private volumes and published works, somewhat like the modern dictionary of quotations (Katz, 1998, p53). Blair (2010, p118) suggests that the earliest use of the term 'Reference book' was in connection with the home-made commonplace book. Commonplace books were used by literate laypeople, not exclusively scholars, as was the case with the *summa*. Users arranged the references under appropriate thematic 'heads' which were usually chosen by themselves but with an attempt to be systematic. By the Renaissance, the arrangement of commonplaces had become a topic of interest for scholars who produced instructions for the lay reader, some of whom recommended existing reference book headings as an arrangement (Blair, 2010, p90). The term *florilegia* was used to describe books of a range of

sizes and expense containing extracts from particular works or writers or the Bible. Usually in some form of alphabetical order, they varied in their provision of finding aids (Blair, 2010, p124). The distinction between the *florilegia* and commonplace book was that the former included not just excerpts but ‘precepts or examples’, that is moral tales or fables (Blair, 2010, p131). In both cases they provided the reader with access to excerpts that “one did not have the time or the opportunity to read or that one had read but no longer mastered” (Blair, 2010 p160).

Important changes took place during the course of the middle ages which affected who accessed books, how they engaged with them, the physical form they took, their contents and how they were arranged. Notably, there was an increase in scholarship and a thirst for knowledge in the 14th and 15<sup>th</sup> centuries. This preceded the key development associated with the spread of knowledge in the Renaissance, that is, the invention of the printing press. By contrast with what was to come, the changes outlined above were small-scale, iterative and not always consistent across time and place. However, Howard (2005, p56) suggests that Johannes Gutenberg’s innovation was less an invention than a response to a demand for increased book production from “a growing literate audience: educated men – and in some cases women – who had adopted the ideals of Renaissance humanism”. The appetite for more learning had emerged, but it took the technological developments of the Renaissance to satisfy it.

#### **4.4 The Renaissance**

It is commonly accepted that the invention of the printing press in the 1450s contributed to a massive increase in recorded knowledge. “Even as early as 1500 more than eight million books had been printed and by the end of the sixteenth century something like 200 million had come off the busy printing presses of Europe” (Stockwell, 2000, p47). Its introduction is attributed to Johannes Gutenberg, whose Latin bible used ‘movable type’, letters made of lead which could be set in combination to create columns and pages and then inked and printed. The market was spurred by the rediscovery of ancient texts, of the knowledge of the existence of new lands and new habits of critical and rational thinking encouraged by religious schism (Blair, 2010, p47) as well as a new commercial financial model which benefited from large print runs of longer works (Blair, 2010, p177).

Many writers have commented on the ways that printing facilitated changes in scholarship and the ease of spreading knowledge. Ong (1982, p122) suggests that greater legibility (and

more consistent typographical layout) made rapid silent reading possible, leading to more easily transmitted knowledge. Blair (2010, p46) suggests that “printing spread familiarity with the trappings of consultation reading to large and more diverse audiences and facilitated the production of larger and more numerous books”. Printing coincides with a growth in literacy, although Wright (2007, p116) suggests there was a transitional period during which a literate elite emerged while the masses continued to pass on information orally. Some scholars regretted the increase in the number of people who could read. They felt that standards of learning dropped as more people could study and the quality of the books suffered. Vernacular and reference books in particular were singled out for facilitating access to knowledge to those without true scholarly aims (Blair, 2010, p254-5).

The increasing numbers of books printed embraced a far wider range of topics than hitherto. As printing was “beyond the control of both the Church and the Universities” (McArthur, 1986, p72), it became possible for a larger pool of people to innovate and produce new forms of the book. As the market increased, books began to be produced for profit. New literary, non-religious forms and vernacular languages appeared because it was recognised there was a market for them. Eisenstein (1979, p47) identifies a direct connection between print and the spread of technical knowledge because the printing press could exactly reproduce ‘tables, diagrams and unfamiliar terms’ which a scribe would have difficulty copying without understanding the topic. Scribal production, even at its most efficient, depended on learned scholars carrying out meticulous copying, where print enabled the development of technical works in far greater numbers.

Although printed books were initially produced to appear like handwritten manuscripts, with time they developed new typographical and physical features distinct from those found in manuscripts. By 1500, printed books had taken on an original form of their own and “Reference works in particular were the site of ... innovations, which aided consultation” (Blair, 2010, p49). According to Eisenstein (1979, p52), it was print that enabled existing typographical features to become conventions. Blair (2010, p8, 14, 117) highlights the increasing use and experimentation with finding aids in Renaissance Latin reference books, which facilitated consultation reading and adds that they were far easier to use than in manuscript (Blair, 2010, p133). Some features, such as use of blank space and heading size, replaced the use of colour for emphasis in manuscripts (Blair, 2010, p46, 153). The number of indexes increased, as the indexer’s task was made worthwhile because

it could be used across multiple copies of a printed book with identical page numbers (Ong, 1982, p125).

In the later 16<sup>th</sup> century, new ideas emerged what should be included in encyclopaedic works. The writings of Francis Bacon (1561-1626) were particularly influential on the subsequent generation of encyclopaedists, because he felt encyclopaedias should cover a range of practical topics for a wide audience. His plan for an encyclopaedia, published in 1620 as *Instauritio Magna*, concentrated on “practical matters on a universal scale” (Collison, 1966, p82). Moreover, Bacon did not consider the encyclopaedia to be primarily a means of preserving existing knowledge, but wanted it to act as a record of new observations of the world, communicating new knowledge to a wider audience. This departure became the model for encyclopaedists of the 18<sup>th</sup> Century (Yeo, 2001, p10). “In Bacon’s vision, science was conceived as pre-eminently public knowledge because it revealed the design and order of nature, ‘God’s second book’” (Yeo, 2001, pxiv).

There was a growth in Latin reference books in this period, which Blair (2010) identifies as a response to ‘a newly-invigorated info-lust that sought to gather and manage as much information as possible’ (p6). Writers discussed the nature of reference works, often critically, in a way which indicates an awareness of them as a distinct category (Blair, 2010, p120). In the same year as Bacon’s *Instauritio*, the *Scientaria omnium encyclopaedia* by Johann Alsted was published in Germany. This is considered to be the first book of this kind to actually bear the title ‘encyclopaedia’ and thus the first explicit connection made between the *encyclopaedia*, cycle of knowledge used as a basis for teaching, and a physical book. This should not, perhaps be overstressed. In the middle ages all kinds of titles were used for *summae*, usually expressing either a collection of some kind (for example, ‘hortus’ or garden) or a means of encompassing the world (for example ‘speculum’ or mirror), yet sharing enough in physical features, contents and stated aims to be considered the same type of book. As we have seen, the relationship between titles of books and the expectations of their readers is complex and, although the literate world remained small in the Renaissance, books in Latin were read across a huge geographical area, encompassing a variety of experiences of reading. Yet, the choice of a word specifically connecting the educational curriculum to a work in the *summa* tradition appears consistent with such books’ aim to spread new knowledge. Alsted’s aim was not simply to outline the disciplines in a circuit of knowledge, but to provide detailed information on them (Blair, 2010, p170).

Despite the expansion of subject matter in encyclopaedic works, Bacon still felt that “all knowledge could be captured, organized and presented in his compilation” (Yeo, 2001, p10). However, more thought was needed as to how this increased body of knowledge should be arranged. Bacon suggested that compilers of encyclopaedic works should follow a progression from the natural world, through observations about human life to a study of the objects they produced. Blair (2010, p152) suggests that the use of subject tree diagrams in the early modern period indicates that however complex, the totality of knowledge could be summarised and therefore mastered. However, as Grafton (1985) points out, the encyclopaedists of the 17<sup>th</sup> Century, fascinated as they were by charting the relations of the various disciplines to each other, rarely agreed as to how knowledge should be classified and even “generally revealed no great measure of internal coherence” within their own works. Thus, while many felt that the totality of knowledge was possible to summarise, they differed on what it consisted of.

As was the norm in the 16<sup>th</sup> and 17<sup>th</sup> centuries, Bacon expected encyclopaedia readers to find the information they sought through a systematic arrangement rather than under alphabetical headings. However, even during the Renaissance, some encyclopaedias had alphabetical indexes (sometimes alongside lists of headings in the order in which they appeared in the work). Some reference works arranged systematically also included prefatory lists in alphabetical order. The inclusion of such finding aids perhaps reflects an emerging type of reader who did not have the education of previous generations (Werner, 2002; Blair, 2010, p137). They suggest a loss of confidence in encyclopaedia readership. Their wider audiences might not now be familiar enough with recognised systems of organisation to locate the information they needed without additional finding aids. Or perhaps the lack of consistency among systems of arrangement, or the diversity of subjects, meant that readers could not be expected to know where to look. Whichever, the appearance of the index marks a crisis in the *summa* tradition and a decisive move towards the alphabetical arrangement we now consider typical in an encyclopaedia. The emergence of alphabetical order will be examined in more detail the next section.

#### **4.5 Alphabetical arrangement**

According to Lloyd William Daly (1967, p11), “Alphabetization depends upon the existence of an established sequence of letters of the alphabet itself”, that is, readers needed to have a shared understanding of a random sequence of letters for it to be useful

as a finding aid. Although the use of a set order for the letters which represent the sounds recorded in writing originates around 15 centuries BCE, it is less clear when it became used as a method of ordering information. Rhodes and Sawday (2005, p8) assert that “The use of the alphabet as a classificatory system was known 250 years before the birth of Christ”. Ancient Greek and Roman scholars and bureaucrats used their established alphabets to facilitate the arrangement and retrieval of knowledge but, according to Daly, the practice was not universal (Daly, 1967, p16). Even where it took place, ‘A order’ (grouping items together by their first letter, without regard to any following letters) or ‘AB order’ (where the sequence of the first two letters were taken into account) was far more common than ordering sequences to take account of every letter in the word, known as absolute alphabetic order. For example, while botanical material in Pliny’s ‘*Historia Naturalis*’ is classified by type of plant, an additional section entitled “Other kinds of plants” is an alphabetic sequence of their names, in AB order (Daly, 1967, p36). Nevertheless, absolute alphabetisation did exist in antiquity despite the practical challenges in achieving it and despite the fact that its use was rare throughout the Middle Ages<sup>14</sup> (Daly, 1967, p89).

Daly (1967, p95) attributes the emergence of alphabetical order specifically to the needs of lexicography “... the sole line of continuity from antiquity to the middle ages runs through the making of glossaries”. The term (of disputed origin) was first used by the Greeks in the 5<sup>th</sup> Century BCE to describe supplements to the works of particular authors to explain the difficult words they used (Collison, 1982, p26). Specialised glossaries of technical language were also occasionally produced in the ancient and early mediaeval worlds (Nyhan, 2006, p4). Around the 5<sup>th</sup> century CE *glossae* began to appear which referred to more than a single work and published separately from the context of the work itself (Collison, 1982, p36). They occasionally contained encyclopaedic material which set the definitions into context (Collison, 1982, p42). They fully emerged as independent volumes during the late middle ages as collections of hard or foreign words, effectively bilingual dictionaries designed for readers in the vernacular. Once the lists of words requiring explanation became separated from texts in which the words originally appeared, alphabetical order was needed to help people find the word they sought.

Alphabetical order (usually AB) was used for other reference works including commonplace books and, in particular, concordances to the Bible (Blair, 2010 p40). Kuhn (1968) identifies an early fifteenth century concordance to Wycliffe’s bible using exact

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<sup>14</sup> Joannes Balbus Januensis aka Giovanni di Genoa’s hugely popular *Catholicon* of 1286 is an example exact alphabetical order

alphabetical order, probably the first of its kind in English. The book's purpose was specified in its preface as aiding writers to quote correctly from sacred texts, which suggests that alphabetical order was being used for mnemonic purposes. This concordance also displays a system for the use of headwords: nouns are in singular, verbs are in the infinitive form, a contrast to the early *glossae*, where words appeared in their inflected forms, as they appeared in the original text (Green, p56). Reference books were becoming increasingly abstracted from the texts they aimed to help people use and emerging as works in their own right.

Another contributor to the rise in alphabetization was the increasing availability of cheap forms of paper in Europe during the late mediaeval period. Mediaeval glossers had to leave a blank space under a letter heading in a notebook and add material over time, making exact alphabetical order only possible with multiple rounds of copying. The use of slips and cards enabled compilers of reference works to sort their contents exactly before they recorded them in the codex (Daly, 1967, p87; Blair, 2010, p210). Earlier texts had to resort to such techniques as leaving space between alphabetical headings, in case terms beginning with the intervening letters emerged later. Correction on the page on the page was also common “There is, in general, much evidence of revision, the writing is crowded, and arrows and balloons are used to make insertions” (Daly, 1967, p88). Very little is known of the methods of reference work compilers at this time, but it is reasonable to assume that rise in numbers of alphabetical works (see Osselton, 1995, p1 and Kafker 1981b, p8) is connected to the ease of alphabetization using slips and it was certainly common by the early 17th Century (Blair, 2010, p96, 210). Osselton refers to a manuscript fragment from the late 16<sup>th</sup> Century which used the blank (or almost blank) headed pages from an unfinished medical terminological dictionary to insert lists of English words, mostly with one-word synonymic definitions, under the correct AB alphabetic headings ( AB, AC etc) (Osselton, 1995, p105). This early lexicographer did not have the resources to produce absolute alphabetic order.

The use of alphabetical order, even at the basic level of A or AB, varied and did not develop in a linear fashion over time. Daly (1967, p73) identifies *concordia* and *summae* of the 12<sup>th</sup> and 13<sup>th</sup> Centuries using absolute alphabetical order, although this was not common. Simple A order was used as late as the 15<sup>th</sup> Century (Daly, 1967, p71) and 16th Century scholars continued to produce wordlists, *glossae* and dictionaries in thematic order, listed around themes as we might find in a modern-day foreign-language textbook (Green,

1996, p57; Eisenstein, 1979, p89). Yeo (2001, p19) notes that even as late as the 17<sup>th</sup> century some glossaries were arranged by the etymological origin of the subject. However, as indicated in the previous section, the use of the alphabet as a finding aid became necessary as recorded knowledge expanded after the introduction of the printing press. Green suggests (1996, p57) “as [recorded] knowledge grew and with it access to learning, sorting on the alphabet gained strength”. By the 16<sup>th</sup> Century, the totality of knowledge had expanded so much, as had the potential numbers of readers, that it was too difficult to arrange it thematically in such a way that all readers would be able to find what they were looking for. Nevertheless, that the use of slips was not a commonly-taught method in the 18<sup>th</sup> Century can be seen by the fact that Samuel Johnson developed its use by trial and error, writing on both sides of the slip to begin with before he realised that made sorting impossible (Blair, 2010, p228).

Eisenstein (1979, p89) associates the invention of printing and the use of the alphabetical as a means of teaching children to read: “Ever since the sixteenth century, memorizing a fixed sequence of discrete letters represented by meaningless symbols and sounds has been the gateway to book learning for all children in the West”. Green (1996, p57) agrees: “The development of printing ... with its emphasis on individual letters rather than words, let alone themes, became the basics for information processing”. Until this time, a combination of literacy and the knowledge of the order of the alphabet cannot be assumed. The introduction to Robert Cawdrey’s *Table Alphabeticall* of 1604 makes a plea: “The reader must learne the alphabet, to wit: the order of the letters as they stand” (Quoted in Green, 1996, p57). A new consensus was needed for a much wider literate world and massively increased body of recorded knowledge. The alphabet offered a convenient standard around which all readers could gather. “In the end it had one fundamental appeal: everyone knew it” (Green, 1996, p57)

#### **4.6 The emergence of dictionaries**

The *glossae* tradition had led from marginal explanations of words, to supplements, often in alphabetical order, explaining the difficult words found in the text, to something recognisable as a bilingual dictionary, a book in alphabetical list form translating entry words from one language to another. In the middle ages, this was most commonly Latin into the vernacular, but increasingly works appeared translating one vernacular language to another, or which sought to explain the meanings of new concepts. Across Europe,



dictionary numbers increased during the 1500s, with Ambrogio Calepino's early 16<sup>th</sup> Century lexical dictionary appearing in hundreds of editions (under the generic name 'Calepino') (Blair, 2010, p237).

In English, much of the vocabulary of the new scholarship was in the form of foreign loan words. As they were incorporated into the language, there was an appetite for dictionaries which did not translate foreign words, but explained foreign and technical vocabulary now considered part of the English language. Green (1996, p122) identifies "a new strain of specialist dictionaries" created specifically to deal with technical, rather than broadly foreign vocabulary, although many of the new technical words had their origins in scholars writing in Latin or French. He later observes the emergence of a "new scholarly vocabulary ... which had been infiltrating standard English for thirty years" (Green, 1996, p147). Dictionaries were the means by which the reader could prove their erudition by familiarity with it.

Robert Cawdrey's *Table Alphabeticall* (1604) is generally considered to be the first English monolingual dictionary (Landau, 2001, p43; Noyes, 1943; Lancashire, 2002). Like most of its successors over the next 100 years it provided a guide to the loan words and technical terms readers would encounter in speech and writing (Osselton, 1995, p5). Such dictionaries had a stated aim of teaching "the linguistically insecure, baffled by the highly heterogeneous vocabulary of their native language" (Osselton, 1995, p12). Layton (1965) describes "a reading public interested in science, together with a corpus of scientific knowledge, part of which, in its range and complexity, was outside the limits of the general understanding". Because more readers were interested in learning, at the same time as recorded scientific knowledge was becoming more specialised and difficult, there arose a need for books which would explain the terms of science clearly and in the vernacular.

Noyes (1943) notes that Cawdrey's title page refers to 'hard usual words', that is, that he specifically aimed to use new vocabulary already in general use in English. However, the *Table Alphabeticall* is arranged as a list of Latinised entries followed by a single-word synonym from an Anglo-Saxon root, for example "*Magnitude* - Greatness". Cawdrey is thought to have derived his list of entry-words from a schoolbook vocabulary, an undefined alphabetical list of words used by schoolteachers (Noyes, 1943). Other sources for early monolingual lexicographers were the entry words in bilingual dictionaries, which would account for the large number of romance-derived headwords in early dictionaries.

The use of ‘hard words’ from foreign or technical works remained the tradition until the *New English Dictionary* ascribed to John Kersey (1702). Its author used many everyday English terms as entry words because by this point the motivation was not to translate unfamiliar vocabulary, but to apply a correct form of spelling (Osselton, 1995, p25).

Lancashire ascribes the single-term (or synonymic) translation used by Cawdrey and others not simply to the hard word tradition’s origins in bilingual dictionaries, but to a specific early modern mindset towards words and their meanings. He quotes John Locke saying “Definition being nothing but making another understand by Words, what Idea the Term defin’d stands for”. The two terms in a definition were exactly equal to each other because they both referred to a third item, the concept or object. At this stage, compilers were not interested in the word’s linguistic function but its meaning alone. An increasing interest in etymology and usage becomes apparent in the course of the 17<sup>th</sup> Century but it was not until the mid-18<sup>th</sup> Century that “there emerged ... something near to the professional lexicographer” interested in how different words were used, where they originated and which was the best for certain contexts (Osselton, 1995, p1). To use the language of metalexigraphy, the 17<sup>th</sup> Century dictionary, like the modern encyclopaedia, concerned itself with referents (that which is described) rather than signs (the pattern of letters which produce words). In this way, they resemble encyclopaedias more than their lexicographical successors. Moreover, as the century progressed, increasing numbers of dictionaries appeared containing “substantial, and often complex” entries (British Library, 2010), such as Thomas Blount’s *Glossographia*. Blount’s work looks forward to modern lexicography in attempting to ascribe linguistic origins to the words he defines, but his definitions were substantially stories about the things to which they referred.

Another type of ‘Dictionary’ which appeared in the 17<sup>th</sup> Century was the historical, biographical or geographical work. The earliest gazetteers, such as William Camden’s *Britannia* appeared at the start of the century (Vine, 2010). Edward Phillips’ *New World of English Wordes* was avowedly part of the ‘hard words’ tradition, but he also aimed to interpret “the significations of proper names, mythology, and poetical fiction, historical relations, geographical descriptions of most countries and cities of the world” (quoted in Green, 1996, p76). Increasing numbers of alphabetically-arranged dictionaries carried entries on people, places, mythological figures and historical events, and not necessarily from the ancient or biblical world, but which readers might have encountered and wish to learn about (Blair, 2010, p166). As with the hard words dictionaries, they were intended to

appeal to the new category of the literate and curious, but not necessarily scholarly, reader (Yeo, 1996). Encyclopaedic works of this time did not carry information about people and places (Yeo, 2001, p108) (except, occasionally, indexes of proper names, such as that contained in Zwinger's *Theatrum vitae humanae*, Blair, 2010, p140), even when discussing the scientific achievements of an individual, “because they were seeking to record knowledge, not lives”. Moreover, “Biography, together with geography and the mechanical arts, was a subject outside formal university studies” (Yeo, 1996). These historical and geographical dictionaries were closer in origin to the *glossa* tradition, explaining vocabulary, than to that of the *summa* or *encyclopaedia*, teaching a course of knowledge.

Although reference works in the 16<sup>th</sup> and 17<sup>th</sup> Centuries appear heterogeneous and very unlike their modern counterparts, Blair (2010, p258) identifies several common features which were established during the period which went on to appear in a new breed of works from the late 16<sup>th</sup> Century onwards. Large reference works had become a viable source of income for printers and were widely consulted. Collaborative authorship, the use of slips in compilation, new presentation and finding devices and an audience who recognised that some books were to be used for consultation rather than reading from beginning to end became more common during the Renaissance. The next section traces the development of the encyclopaedia during the period along thematic lines, until a form of the book had emerged which we might recognise as the modern encyclopaedia.

## **4.7 The formation of the Encyclopaedia up to 1800**

### **4.7.1 Introduction**

Few could have drawn a relationship between *summa* tradition and alphabetical dictionaries in the middle of the 17<sup>th</sup> Century. Yet in the course of the next 150 years the two combined to produce the prototype of the encyclopaedia. Reference book authors of these years can be characterised as “torn between addressing theoretical issues about the proper hierarchy of the disciplines and the practical difficulties of making available large quantities of information” (Blair, 2010, p171). The principle titles of these years, the works of Moréri, Furetière, Harris, Chambers, Rees, Diderot and D’Alembert, Smellie and Pancoucke, represent different manifestations of reference works, combining features of their predecessors, and attempting to marry systematic coverage of educational study with facilitating its access through arrangement. Progress was by no means linear and, as the succeeding section indicates, different combinations of features can be found throughout the period. However, by the 19<sup>th</sup> Century the form had coalesced into one that was not

only understood by contemporaries as a distinct form of the book but is also recognisably the form we understand today. This section examines different features of the encyclopaedia and observes their presence or absence in titles of the period.

#### 4.7.2 Presence of encyclopaedic or lexicographical content

17<sup>th</sup> Century dictionaries included works with encyclopaedic (that is factual or informational) as well as linguistic content, whether through definitions with descriptive content, or through entries about people and places. Louis Moreri's *Grande Dictionnaire Historique, ou mélange curieux de l'histoire sacrée ou profane* of 1674 is thought to be the first reference work "to summarise a range of subjects in strictly alphabetical order" (Yeo, 1996). The *Grande Dictionnaire* contains access to knowledge through entries about people and places and as well as topic, and did not attempt to explore science in any depth. But the fact that nearly half of its content provided information under subject headings means it was more than a historical or biographical dictionary (Yeo, 2001, p16). It is certainly not a *Summa* in its ambitions and, as Yeo (2001, p18) suggests, his choice of alphabetical order seems consistent with this, but it was a step towards the alphabetical encyclopaedia.

In 1690, Antoine Furetière produced a *Dictionnaire Universel* designed specifically in opposition to the linguistic dictionary of the French Academy. Furetière compiled his dictionary out of frustration at long delays to the latter's publication, largely attributed to academicians' disagreements about correct forms of spelling (Ross, 1981). When the Academy accused him both of plagiarism and publishing a dictionary without a licence, he claimed that where their work was principally concerned with providing correct definitions of words, he was interested in providing general knowledge on a range of subjects. Notably, while the Academy's entry words were the root form of a word, with derivations listed underneath regardless of alphabetization, Furetière used absolute alphabetical order. Nevertheless, the *Dictionnaire Universel* is considered to be a dictionary with encyclopaedic elements, as it contains very little practical detail on the mechanical arts and no entries under proper names, historical topics or geographical locations. In the preface to his own *Dictionnaire historique et critique*, Pierre Bayle certainly identified his predecessor's book as a French monolingual dictionary. However, Furetière largely excluded Latin entry words and his sources were not grammars or bilingual dictionaries, but included many works of science and scholarship (Ross, 1981).

A distinction was forming between types of dictionaries. By the last edition of the *Dictionnaire de Trevoux* (1704) the preface distinguishes between dictionaries defining ‘vocabularyes’ (the words themselves) and ‘les choses indiquee par les mots’ (the items indicated by the words), indicating that even in a work which bore signs of its bilingual dictionary origins (many headwords in *Trevoux* are in Latin) a distinction was being drawn between the language and the encyclopaedic dictionary (Miller, 1994). Later in the century, when compiling the *Encyclopédie*, Diderot uses both the words *Dictionnaire* and *Encyclopédie* to describe his own work, uses both *Dictionnaire* and *Vocabulaire* for ‘straightforward’ lexicons, but never uses the latter to describe the *Encyclopédie* (Stewart, 2002). Although the terms were in flux throughout the century, a distinction was already being made between dictionaries offering encyclopaedic and lexical content.

Hybrid works continued to appear into the 18<sup>th</sup> Century. Dyche’s *New General English Dictionary* (1735) has been described as a ‘combination dictionary and encyclopaedia’ (Bradshaw, 1981c). It contains both dictionary definitions (notably translating slang terms into standard English) and encyclopaedic material, including literary and scientific content. The latter was drawn from a mixture of classical, mediaeval and contemporary sources which meant it was inaccurate and contradictory. Layton (1965) suggests this was not unusual in writers copying from a range of sources without acknowledgement (or possibly even real understanding) and Johannes Zedler’s *Universel-Lexicon* (1732-50) is also criticised for this (Carels and Flory, 1981). Green (1996, p199) identifies in Dyche’s dictionary ‘a good deal of technical terminology and encyclopedic material, albeit reduced to the simplest of definitions’. His interest as a scholar was certainly as a linguist, having a particular interest in correct forms of spelling (Goodwin, 2004). Whether it can be considered scholarly or not, the inclusion of factual description in an alphabetical dictionary is significant, and shows that some dictionaries were evolving from their *glossa* origins. Yeo (2001, p21) and Steinberg (1950) see fluid boundaries between dictionaries and encyclopaedias at this period and remark that the entries in the former offer far more content than simple definitions, but instead aim to explain the nature of the thing defined.

#### **4.7.3 Presence of scholarly information**

That writers were producing alphabetical dictionaries with factual, rather than linguistic, content at the end of the 17<sup>th</sup> Century is indisputable. The extent to which the facts had a basis in scholarship grew more slowly over the period. The common view is that while

they reproduced the works of previous writers, they did not explore scientific facts in depth and took no scholarly analytical approach themselves (Layton, 1965). However, the entries in Furetière's *Dictionnaire* were more than simply entries in a terminological dictionary. Partly in response to what he saw as a shortcoming in Moréri's work, the articles provided summaries of whole topics, including new subjects entering the academic curriculum. They also recorded new scientific discoveries (Loveland, 2006).

The defining work in the development of the terminological dictionary into the modern alphabetical encyclopaedia was John Harris's *Lexicon Technicum* (1704), identified by some as "the first general scientific dictionary" (Layton 1965) and "the first general encyclopedia to emphasise science" (Bradshaw, 1981a). Although alphabetical, and called a 'lexicon' which implies the definition of words, Harris intended to educate his readers rather than simply define words:

"That which I have aimed at, is to make a Dictionary not only of bare Words but Things ; and that the Reader may not only find here an Explication of the Technical Words, or the Terms of Art made use of in all the Liberal Sciences, and such as border nearly upon them, but also those Arts themselves; and especially such, and such Parts of them as are most Useful and Advantagious to Mankind" (From his preface, quoted in Layton, 1965).

As well as terminological definitions, the single-volume *Lexicon* included articles as long as 22 pages, allowing the dictionary's user to learn an entire discipline, as they would if they used a traditional encyclopaedia, but accessing the knowledge alphabetically. The subjects included 'Logick, History and Chronology, Heraldry' as well as topics we would understand as technical and scientific and drew on (and referenced) not just the contents of previous dictionaries and textbooks but monographs representing the latest thinking in science.

Others followed, notably Ephraim Chambers' *Cyclopaedia, or, An universal dictionary of arts and sciences ... compiled from the best authors* (1728) which was both financially successful and hugely influential "The mid-eighteenth century saw the production of several other similar dictionaries and encyclopaedias of science, and increasingly the aim of these became the reduction to order and the systematization of what was regarded as the vast body of scientific and technical knowledge" (Loveland, 2006). The contents of these early encyclopaedias included topics, traditionally included in the *summa* like philosophy and natural sciences, but these so-called Dictionaries of the Arts and Sciences also covered the mechanical arts and technology. The coverage of practical matters like these, should not

be seen as evidence of a low ambition consistent with their use of alphabetical order. Technical discoveries, while never included in the mediaeval or Renaissance *summa*, were at the forefront of 18<sup>th</sup> Century scholarship.

Werner (1994) identifies a progression in the level of scholarship between Chambers' *Cyclopaedia* and the revision by Abraham Rees (1778). Rees's own preface suggests that he saw it as a move from a collection of facts in alphabetical order to a "Dictionary of science". Rees was an eminent scholar, subsequently elected to the Royal Society, with particular expertise in mathematics and physical sciences (Woolrich, 2004). But his single-volume work is forgotten compared to the two prototypical encyclopaedias of the later 18<sup>th</sup> Century, the *Encyclopédie* of Diderot and D'Alembert (1751 to 1765) and *Encyclopaedia Britannica*.

The *Encyclopédie* has been written about widely, not least by the editors themselves and its aims were ambitious. The work can be seen both as encyclopaedic in its ambitious scope (35 volumes were produced) and in their desire to use the work as a teaching aid. Haider and Sundin (2010) see it as manifesting the desire "to give people access to ... knowledge in order to help them make rational choices and lead a more enlightened life". Diderot himself said that an encyclopaedia should supplement the learning produced by academies: "synthesize it, illuminate it, concentrate it, order and publish treatises in which each item would take up only the space it deserves". He felt that an encyclopaedia should change "the common mode of thinking" but acknowledged that most of the material had already appeared elsewhere (Diderot, 2002). The exception was their coverage of the practical technical arts, including copious illustrations. This is now recognised as an attempt to allow the literate working and middle classes to educate themselves. "They had rearranged the cognitive universe and reoriented man within it, while elbowing God outside" (Darnton, 1979, p7). The range of topics covered changed the definition of what could be included in an encyclopaedia: 'by the early nineteenth century ... it was generally accepted that articles on such subjects as candle-making and carriage-building, looms and forges, etc., were legitimate candidates for inclusion' (Collison, 1966, p12). As Katz (1998, p36) suggests, this was influential on an entire generation of thinkers, not merely the encyclopaedic movement: "the encyclopedic movement was an attempt by what has been called French capitalism of the second half of the eighteenth century to legitimize the gains of the technological and intellectual revolutions, for free thought and free trade were not

unrelated”. The *Encyclopédie* included the latest in scientific scholarship, but it was aimed at the eighteenth-century equivalent of a mass market.

By contrast, William Smellie’s *Encyclopaedia Britannica* (1768), the first edition of the work which later came to epitomise the encyclopaedia, was not known at the outset for its scholarship. But by the Macfarquhar and Gleig third edition (1788-1797) the quality of the scientific content was commended by its reviewers. Kafker and Loveland (2009, p245) describe this edition as “a forum for the dissemination of up-to-date, even unpublished research and for some readers, accordingly, it functioned like a learned journal”.

The inclusion of biographical and historical material was another innovation which changed during the period. As Moréri’s work indicates, the 17<sup>th</sup> Century alphabetical dictionary might contain biographical or geographical material filed with subject definitions, but their inclusion would imply a lack of scholarship in the work (Miller, 1981). Yet, nearly two-thirds of the content of Pierre Bayle’s *Dictionnaire* is biographical (Burrell, 1981), despite the scholarly ambitions of the work, represented by long entries covering science in its purer form (Burrell, 1981) The huge scale of Zedler’s *Universal-Lexicon* meant both biographical and subject entries could be encompassed. The biographies included those of living people (Collison, 1966, p105)<sup>15</sup> although they were short and poorly referenced by comparison with subject entries (Carels and Flory, 1981). The scholarly ambitions of Harris and Chambers precluded any entries of this type, but Yeo (1996) observes that “By the late eighteenth century some lines of demarcation between historical dictionaries and encyclopaedias had collapsed”. Their inclusion in encyclopaedic works could be controversial; many felt they had no place in a dictionary of scholarship (Yeo, 1996). William Smellie resigned his editorship of *Encyclopedia Britannica* because of the decision to include biographies. By the 19th century editions of *Britannica* biography had a recognised place: “In Napier’s *Supplement*, the [biographical] emphasis was on the contribution to the story of scientific progress” (Yeo, 1996). Short biographical entries were now part of a scheme complementing the longer articles about the sciences, which were themselves more historical and less about current discoveries. “Under this arrangement, biography was subservient to the history of science” (Yeo, 1996).

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<sup>15</sup> Collison (1987) notes a trend in German encyclopaedias towards biographical access to information seen in Friedrich Brockhaus’s *Konversations-Lexikon (1796–1811)* and its rival Joseph Meyer’s *Der grosse Conversations-Lexikon (1840–52)*, possibly influenced by Zedler’s work



The presence of illustrations has come to be seen as another indicator of scholarly intention. While dictionary-makers of the generation of Furetière and Dyché included no explanatory plates for their content (Ross, 1981), Harris's dictionary contained some and Chambers was noted for the superior quality of his engravings. These mostly accompanied scientific and technical entries, for example, both authors used "the same diagram of a machine using the principle of an axis" (Bradshaw, 1981c). Gianfrancesco Pivati's *Nuovo dizionario* was noted for the high-quality plates which illustrated his scientific articles (Garofolo, 1981). However, Kafker suggests that the costs involved prevented most encyclopaedists from including many plates. Certainly the 2500 included in the *Encyclopédie* were out of scope for most single-authored works (Kafker, 1994b). However, the quality of the *Encyclopédie's* illustrations was influential. Later encyclopaedias aiming for prestige recognised the value of abundant, good-quality engravings. Notably, the third edition of *Encyclopaedia Britannica* was "Britain's most amply illustrated general encyclopaedia to date" (Kafker and Loveland, 2009, p172).

#### **4.7.4 Connection of entries to wider scheme of knowledge**

The increasing use of alphabetical arrangement for content of a scholarly nature was criticised by those who felt that it removed nuggets of knowledge from the context of the discipline from which they emerged (Blair, 2010, p252). Writers felt that alphabetical encyclopaedists must have omitted important elements of their subject, because it was divided up under headings, and were exposing their readers to a labyrinth of knowledge to which they were given no guidance. The implication was that it was being done to satisfy a wider book-buying market (Yeo, 2001, p30-31). The division of topics could lead to problems in later editions. Moréri's *Grand Dictionnaire* was criticised for errors and contradictions which appeared when he added new articles, based on new scientific research, into the alphabetical scheme without revising related topics. His critics implied that if he had kept material together thematically, it would all have been updated. (Miller, 1981).

For Yeo, the use of alphabetical order not merely for terminological explanations, but to explore scientific subjects in depth, "implied a radical break with respected assumptions concerning proper relations between subjects" (2001, p25). Yet this form of arrangement, which "allows indefinite additions without the pressure to insert these into a pre-established system" was highly appropriate to record the emergence of new knowledge in

the sciences and “offered the practical advantage of accessibility to a wider group of readers” (Yeo, 2001, p26). These early writers occasionally ameliorated the scattered nature of the knowledge they provided, by including longer articles among the short, paragraph-long entries. Antoine Furetière (1690) provides extended information on certain topics, particularly in the natural sciences (Ross, 1981). The articles in Bayle’s *Dictionnaire historique et critique* vary in length between less than half a page and more than a dozen pages (Burrell, 1981). Dyche’s articles (Bradshaw, 1981c) vary from a single line to several pages.

Other 18th Century encyclopaedists acknowledged that the alphabet scattered disciplines across the alphabet and sought different means of mitigating the loss of unity. Chambers wrote his 1728 *Cyclopaedia* partly as response to Harris’ work. He aimed to prove that scientific knowledge could be arranged alphabetically, at the same time as reflecting where in the overall system of knowledge any individual article appeared. He did this by including, as the mediaeval *summa* writers had, a prefatory tree of knowledge, an outline of the subject structure that underlay the alphabetical arrangement. Diagrammatic overviews of the totality of knowledge had been a common feature in early modern *summae* and other pedagogic works, but were an innovation in an alphabetical dictionary (Loveland, 2006). As well as telling the reader how different topics related, creating an underlying structure for the dictionary as a whole helped to avoid duplication and repetition, thus keeping the size of the volumes under control (Loveland, 2006).

Chambers apparently had a ‘passion for organisation’ (Bradshaw, 1981b) and in addition to his tree of knowledge, provided the reader with copious cross-references between entries, cross-listings for individual words within entries and consistent microtextual organisation within the entry. Chambers’ long explicatory preface was an innovation which became the hallmark of any encyclopaedia with any serious intentions: “encyclopaedias of the eighteenth century onwards devote prefaces to explanations of ways in which the particular publication exemplified logical or systematic relationships between the parts of knowledge scattered throughout its pages” (Withers, 1996). Diderot and d’Alembert also provided readers with a prefatory diagram and a long explanation for the plan for the work in their ‘Discourse préliminaire’. In his article ‘Encyclopédie’, Diderot also described the purpose of cross-references, that is, as a mitigation against the scattering qualities of alphabetical order (Diderot, 2002).

The early editions of the *Encyclopaedia Britannica* were a notable exception in lacking both a preface and systematic diagram of the topics covered. Their editors took an alternative approach, pulling together knowledge which in other publications would have been scattered across alphabetically-arranged terminology into longer treatises, covering broad disciplines roughly representative of academic disciplines<sup>16</sup>. The treatises were alphabetically interleaved with “cross-referenced subordinate articles to explain the technical terms” (Layton, 1965). Use of treatises were supposed to have solved the problem of the ‘traditionally fact-centred framework of the alphabetic encyclopaedia’ (Kafker and Loveland, 2009, p3). But their use was controversial. Kafker and Loveland (2009, p150) quote the preface of the *New Royal Cyclopaedia* (1788) which criticised their use as inappropriate to a “CYCLOPAEDIA, or Dictionary of Arts and Sciences”. It is also quite possible that there was no overall structure to the second edition as Gleig, who took over the work after Macfarquar’s death, said in his preface that his predecessor had left “no index of what had been covered and little backlog of forthcoming articles” (quoted on p162). Eventually, *Britannica’s* publishers gave in to what had become an expectation of the encyclopaedia reader. The second and third editions increased their use of cross-references and the 1815-24 McVey-Napier *Supplement* had both preface and tree of knowledge (Kafker, 1994b, p165).

#### 4.7.5 Authorship and authority

This period marked a change in the nature of authorship and expertise in relation to the encyclopaedia. Marcus (2000, p12) suggests that it was not until the start of the 19<sup>th</sup> Century that authors’ and contributors’ expertise had become an important selling point<sup>17</sup>. Marcus primarily discusses the emergence of the author in literary works and scholarly monographs; reference works are by their nature collaborative, meaning their authority can be less easily ascribed to an individual genius. Yet Blair suggests that even in the middle ages, readers recognised the value of the compiler identifying and collating different sources on the same subject (2010, p175). In 1616, William Camden’s gazetteer *Britannia* actively elicited responses and contributions from collaborators who had knowledge of parts of the country he was unable to visit. According to Vine (2010) however, he only used those from those he judged ‘right learned’ and he ignored much material which was sent to him. Thus Camden himself recognised the authority assigned by well-chosen sources. This early sign of quality control was probably not unusual in the history of

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<sup>16</sup> Loveland (2006) observes that *Britannica* was the only British 18<sup>th</sup> Century encyclopaedia produced in a city with a University

<sup>17</sup> Blair (2010) notes that practice of including the names of scholarly sources in ancient or mediaeval texts declined in the 16<sup>th</sup> Century, perhaps because the canon of prestigious authors had widened so much (p135)

encyclopaedias (one can imagine the mediaeval compiler choosing certain sources over others), but Camden's example makes it explicit. It is logical that authors aiming to facilitate access to knowledge would want to use sources they trusted.

The attribution of articles to named individuals remained unusual in the early 17<sup>th</sup> Century. Zedler's articles were unsigned but compiled with the "co-operation of several contributors in the Leipzig and Halle regions" (Carels and Flory, 1981). His contributors, unusually for this period, were assigned special subjects (Steinberg, 1950). The practice of acknowledging sources became more common in the 18<sup>th</sup> Century. Harris's *Lexicon* mentions a variety of published sources both in his preface and individual articles (Bradshaw 1981a). Chambers includes lengthy bibliographies, for example nearly fifty references in the article 'Paper' (Bradshaw 1981b). Chambers defends himself in the article 'Plagiary' that no dictionary-maker (as such he describes himself) is completely original, that they take from others, 'avowedly and in the open sun'. His mitigation is that he is honest about his sources and that he is performing a public service in disseminating information. The *Cyclopaedia* cited the most up-to-date sources on many scientific topics which, at this era's speed of scholarly communication, offered many the earliest access available to this information. Acknowledgement was by no means universal however. Dyche's *New general English dictionary* contains no bibliography and few citations. Most of his sources appear to be previous encyclopaedias such as Chambers, but also Nathan Bailey's *Dictionnarium Britannicum* (1730) (Bradshaw, 1981c).

In the main, even as respected a work as Abraham Rees's *Cyclopaedia* contained neither signed nor attributed articles and we know of only one other named contributor (Werner, 1981). Diderot and D'Alembert's *Encyclopédie* is credited with the use of multiple named contributors producing original content. The range of contributors in itself has led to criticism, because even with editorial control, differences in opinion between the various authors make for a conflicting whole (Kafker, 1981b) (and also contradict the notion that this work came out of a unified philosophical or political movement). Diderot himself acknowledged (Diderot, 2002) that editorial concerns overrode those of individual experts who might "sacrifice our opus to his own" and stressed that they wished to draw on multiple sources, rather than any single academy of scholars. Kafker (1996) demonstrates that his contributors were remarkably heterogeneous in their backgrounds, and included people who practised the trade about which they wrote as well as aristocratic enthusiasts. Yet the majority of articles were written by scholars who, like Diderot and D'Alembert

themselves, were learned across a range of subjects, rather than being experts in the subject of the article in hand.

The use of multiple contributors, even with a prescriptive editorial environment as with the *Encyclopédie*, was an innovation which took time to be adopted. Kafker and Loveland (2009, p15) suggest that William Smellie wrote most of the 1771 edition of *Encyclopaedia Britannica* himself, but its attribution to a ‘society of gentlemen’ indicated that prestige (something Smellie himself lacked) was important to the sale of an encyclopaedia. Few of his articles contained citations and suits for plagiarism were brought against *Britannica*, itself revealing that many authors were not content to have their work copied. It was not until MacFarquhar’s editorship (April 1788-1793) that it “began to be written by specialists instead of a few generalists” (Kafker and Loveland, 2009, p159). Moreover, by the third edition, most contributors were paid for their articles (Kafker and Loveland, 2009, p171). Indeed Gleig boasted that all items in the third edition taken from published sources were acknowledged (Kafker and Loveland, 2009, p261). The trend of commissioning specialists, now the norm for all large-scale encyclopaedias, really took hold in the nineteenth century. The development was intimately connected with increasing specialisation in scientific fields, the splintering of learned societies and the emergence of the modern University faculty system. Multi-volume general encyclopaedias continued to be published, but from this time onwards they not only acknowledged contributors and sources, but boasted of their subject specialist expertise.

Increasingly, single-authored works were confined to specialist alphabetical works, written by experts in the field (they were encyclopaedic in their approach to their subject but generally called dictionaries to reflect their limited scope). Layton (1965) suggests that specialist dictionaries were written by experts at an earlier date than were general encyclopaedias. He notes the mathematical dictionaries by Joseph Moxon (*Mechanick Exercises, or, The Doctrine of Handy Works*, 1678), Edmund Stone (*New Mathematical Dictionary*, 1726) and Charles Hutton (*A Mathematical and Philosophical Dictionary*, 1795–6), all of whom were specialists in the field. Early subject-specialist volumes mostly covered new developments in the sciences such as physics and mathematics, where terminology was new and difficult. Layton (1965) connects their emergence to the splintering of general scientific societies to learned groupings around single disciplines such as chemistry and physics. He quotes the preface to Joseph Priestley’s monograph *History and Present State of Electricity*: “The business of philosophy is so multiplied, that all the books of general

philosophical transactions cannot be purchased by many persons or read by any person. It is high time to subdivide the business.” By the 19<sup>th</sup> Century, the increasingly fragmented learned societies were no longer open to the enthusiastic amateur yet the interests of the latter had similarly become more specialised. They provided a new market for subject-specific alphabetical scientific dictionaries.

#### 4.7.6 Audience

As previously mentioned, there arose a need in the 17<sup>th</sup> Century for dictionaries which would help an enlarged literate public understand the words they encountered. By the middle of the 18<sup>th</sup> century, it is suggested that a large body of readers were using dictionaries not simply to find out the meaning of a word, but to acquire new knowledge (Layton, 1965). Furetière and Moréri’s dictionaries were translated into many languages and there was significant demand for encyclopaedias in vernacular languages (Vilst, 2007). Yeo (2001, xii) sees the emergence of works such as Harris’s and Chambers’ as a response to the increasing numbers of books and growth in scientific knowledge, as they “made science public in the form of explanations and accounts of terms and concepts”, also producing a consensus on a common terminology. It was not simply the half-educated who needed to be guided through this new knowledge. Kafker (1981b, p3) remarks that even when the educated tried to read original scholarly works, they would require help to understand complex theories such as “Newton’s and Leibniz’s calculus or ... a technical account of the improvements of the steam pump”.

The audience was not homogeneous however. Kafker (1994a) suggests that the choice already existed by the mid-18<sup>th</sup> Century between encyclopaedias containing erudite language and challenging scholarly information (such as Harris’s *Lexicon Technicum*), and those designed for the less educated (such as Dyche’s *New general English dictionary*). The audience for Chambers’ *Cyclopaedia* seems to have been an educated one, as evidenced by the “Greek, Latin, Hebrew and Arabic terms” used and quotations in foreign languages. By contrast, Dyche, describes his dictionary as ‘an ordinary man’s reference book’ (Bradshaw, 1981c). This is unsurprising given the more sophisticated content of the former. Zedler’s immense work also shows evidence of a scholarly readership, as it contained many untranslated Latin, Greek and Hebrew phrases, references and quotations although most of the entries were in the vernacular (Carels and Flory, 1981).

Another sign of intended encyclopaedia audiences was book format. Darnton (1979, p273) indicates that subscribers to the folio edition of the *Encyclopédie* were far outstripped by the subscribers to the publication of the octavo and quarto versions. Doig (1981b) estimates that 14,000 of the 25,000 sets were in these smaller formats and thus the version that most European readers saw. To some extent, this was a deliberate choice (by the publishers, if not Diderot himself) to increase the reach of the work. By contrast, the editors of William Smellie’s *Encyclopaedia Britannica* switched to a larger format because of a desire for greater prestige (Kafker and Loveland, 2001, p16). Yet the preface refers to intended audience of “any man of ordinary parts” and sources were “popular textbooks and introductions to the sciences” rather than a scholarly readership (Kafker and Loveland, 2001, p25). There was an increase in standards of proofreading across the editions of the *Britannica*. With the aforementioned advertising of their expert contributors, this indicates a desire for a more scholarly (and possibly moneyed) audience. By the time of Gleig’s *Supplement*, entries contain a significant quantity of untranslated French and Latin.

We cannot assume that this indicates a universal move towards the cultivation of a more erudite audience for encyclopaedias. Certainly, the standard of scholarship expected in the readers of the works mentioned above appears to have become higher during the course of the 18<sup>th</sup> Century. Layton (1965) suggests that the inclusion of treatises with shorter entries in the early editions of *Encyclopaedia Britannica* was an attempt to meet the needs simultaneously of a scholarly and less-educated audience. Many minor encyclopaedias in octavo continued to be produced with less scientific or formally-attributed content and, with the advent of mass literacy in the 19<sup>th</sup> Century, the markets for reference works became fragmented. Moreover, despite having “more detailed and sophisticated” content, the third edition of *Britannica* “continued to be directed to a broad educated public as well as to scholars, and its sales indicate that it succeeded in finding a large readership” (Kafker and Loveland, 2001, p247). In this way the publishers appear to have reached the ideal situation by the start of the 19<sup>th</sup> Century, to combine a prestigious product with a wide readership.

#### 4.7.7 Size

The following table compares the varying sizes of a selection of works produced during the period:

Author / Work	Date	No of Vols *	Notes

Moréri	1674	1	Subsequent editions were longer, up to 10 volumes in 1759
Furetière	1690	3	
Bayle	1697	2	Up to 5 volumes in later editions
Harris	1704	1	
<i>Dictionnaire de Trévoux</i>	1704	3	Last edition
Chambers	1728	2	
Dyche	1735	1	21cm octavo edition
Zedler	1732-50	64	
Pivati	1746-51	10	
Diderot and D’Alembert’s <i>Encyclopédie</i>	1751-1765	35	
Smellie’s <i>Britannica</i>	1771	3	
Rees’s <i>Cyclopaedia</i> revision	1778 - 88	5	
<i>Encyclopédie Méthodique</i>	1782-1832	102	
McFarquhar and Glieg’s <i>Britannica</i>	1797	18	
Rees’s <i>New Cyclopaedia</i>	1802-1820	45	
Bell’s <i>Britannica</i>	1810	20	
* all folio format unless specified			
<i>Data collected from Kafker (1981a) and Kafker (1994a)</i>			

Figure 4.1 Numbers of volumes of notable encyclopaedias in the 17<sup>th</sup>, 18<sup>th</sup> and 19<sup>th</sup> Centuries

A broad tendency towards an increase in length of general encyclopaedias during the period can be discerned from this table. This is consistent both with the vast expansion in recorded knowledge which occurred over the period and the move, after the success of the *Encyclopédie*, to solicit works from multiple authors. As noted in the section on scholarly content, above, Dyche’s choice of a small format indicates his avowed intention of a broad readership, against Harris’s and Chambers’ more lofty ambitions (Bradshaw, 1981c also observes this). All three were far smaller in length than the *Encyclopédie*. Collison (1966, p104) notes a growth in time of encyclopaedia length and suggests that “There has always been a tendency for encyclopaedias to exceed the size originally planned for them”. Steinberg (1950) notes that “the range of human knowledge has been steadily widening



and deepening” to the extent that it could not be contained within a single volume. Moreover the rising standard of education meant that a dictionary offering simple facts in alphabetical order did not meet the needs of those who sought scholarship and analysis as well. While the single-volume general encyclopaedia became rarer during this period, it did not die out. During the 19<sup>th</sup> Century, it evolved into a domestic single-purchase mass-market publication, notably under the *Penny Cyclopaedia* title, as we shall see in the next section. Moreover, while general encyclopaedias tended to grow in size (even leaving aside the colossal and failed *Encyclopédie Méthodique*), single-volume subject specialist titles increased in number, reflecting that as knowledge grew, it had also been subdivided further.

By the start of the 19<sup>th</sup> Century, the general encyclopaedia had emerged into a consistent and recognisable form. Alphabetically arranged and encompassing a number of volumes, its content was likely to be scholarly and to give attribution to named experts. Audiences were reassured that the knowledge within was not random, but was connected to a comprehensive topical system and expected this to be explained in prefatory notes. Collison (1966, p178) suggests that Samuel Taylor Coleridge’s *Encyclopaedia Metropolitana* (prospectus published 1817) failed to find a market because it was arranged by subject rather than alphabetically (the other notable failure of the era, Charles-Joseph Pancoucke’s *Encyclopédie Methodique* (1782-1832) also arranged its knowledge by topic<sup>18</sup>). Scholars and experts were keen users of encyclopaedias, particularly since at this stage they still played a part in the dissemination of new knowledge, but a wider audience also used them. More specialist knowledge could be obtained from subject specialist volumes. There remained controversies. Kafker and Loveland (2009, p244) quote reviews of *Encyclopaedia Britannica*, commending its coverage of a large body of scientific information, but criticising its arrangement. The appropriateness of the headings under which knowledge was arranged had become a topic upon which critics felt able and entitled to judge. That biographical material was considered the norm can be seen in *Britannica*’s imitators such as Alexander Aitchison’s *Encyclopaedia perthensis* (1806) which employed articles, treatises, biographies and multiple authors. Perhaps most significantly, the title ‘Encyclopaedia’ had become ubiquitous (Kafker and Loveland, 2001, p302). As the 19<sup>th</sup> Century began, a reading public had emerged which knew what to expect from book of that title.

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<sup>18</sup> On its failure, see Watts (1958)

#### 4.8 The nineteenth century

Although the form had taken shape during the 18<sup>th</sup> Century, the encyclopaedia naturally evolved in response to the enormous social changes of the ensuing centuries. In the 19<sup>th</sup> Century, these were centred around the transformation of the publishing industry and book market. Lefebvre and Martin (1976, p61-2) attribute the great changes to the following seven main causes:

- Education acts leading to mass literacy and growth of textbook market
- Increased population producing larger markets
- Increased travel and communication, exposing readers to a wider range of ideas
- The emergence of leisure time to allow more reading
- The professionalisation of book trade and separation of publisher and printer
- The emergence of books produced for poorly-educated mass markets
- The primacy of the author with the emergence of enforceable intellectual property rights

Collison (1966, p174) observes a boom in encyclopaedia publishing in the early 19<sup>th</sup> Century, largely as a result of the financial success of the *Encyclopédie* and *Encyclopaedia Britannica*, which proved that there was a large, middle-class market for such works. The huge general encyclopaedias which were produced and successfully sold in domestic markets and abroad included Pierre Larousse's *Grand dictionnaire universel du XIXe siècle*, Friedrich Brockhaus's *Konversationslexicon*, the later editions of the *Encyclopaedia Britannica* and Noah Webster's encyclopaedic *Dictionary of the English Language*<sup>19</sup>. Books in general were both highly in demand and easier to produce in Western Europe and Howard (2005, p114) places the two phenomena in symbiosis with each other: "The mechanization of book production was also encouraged by explosive growth in the market for books". In fact, as Cachin and Mollier (2007) observe "the development of dictionaries and encyclopedias is one of the most obvious characteristics of societies in which a mass [book] market appears quite early". Professional editors were "business men of little or no scholarship" (Collison, 1966, p10) who employed scholars to write and commission articles and had a keen sense of their market. Thus a healthy market was fed by an expanding reference publishing industry. It is in these years that the term 'Reference book' was first used in its modern sense (Blair, 2010, p118).

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<sup>19</sup> As mentioned in Chapter 3, the US has a tradition of the 'encyclopedic dictionary', where dictionary entries contained information of factual, rather than a linguistic nature

Finkelstein and McCleery (2005, p112) identify the popularity of encyclopaedias as part of a 19<sup>th</sup> Century trend towards self-improvement through the acquisition of knowledge: “People read to educate themselves about the world around them; reading could slake a thirst for knowledge unsatisfied by more formal institutions of education”. Brake (2001, p37) observes that *Britannica* and other encyclopaedias were advertised in works of popular fiction. As demand increased among working people, publishers needed to find ways to make the encyclopaedia, which even in quarto and octavo volumes had been out of the price range of most workers, more affordable. Brake (2001, p32) identifies serialisation of both fiction and non-fiction works (with payment by the part) as a means “to maximise distribution through cheap access... It divided the cost over time into moderate for middle-class and often working class purchases.” Serialisation had of course been available to subscribers in the 18<sup>th</sup> Century, but only at the cost of an initial substantial outlay. An entirely new innovation was represented in the *Penny Cyclopaedia*, published in parts between 1833 and 1843 by the Society for the Diffusion of Useful Knowledge (mostly known for their distribution of cheap bibles). This work was specifically aimed at a less wealthy market. Perhaps inevitably it was criticised for the level and authority of its knowledge (Brake, 2001, p34). The increasingly large numbers of professional subject specialists and academics had no desire to see their expertise become redundant. Katz (1998, p41) also notices that publishers served these customers with “more attractive layouts, easy-to-understand articles, numerous and current illustrations, and accurate indices”. Collison (1987) concurs and suggests that expertise in the layout of reference pages was developed in the 19<sup>th</sup> Century with such innovations as features boldness, inseting, running titles, alphabetical notations at the top of pages, standardisation of forms of name (to aid the easy distinguishing of those of the same surname or even name), thumb indexing and the formatting of cross-references with, for example arrows or small caps. In his earlier work (1966, p15) he also identifies an improvement in the quality of encyclopaedia indexes from the 1830s.

The 19<sup>th</sup> Century then marks two main innovations in the form, both connected with the massive expansion of encyclopaedia readership. First, cheaper forms of encyclopaedia and more affordable ways of paying for them emerged. Secondly, improvements in layout to make them easier to use. While great scholarly reference works continued to be produced, publishers recognised that a mass market for encyclopaedias existed and aimed to meet its need. Collison (1987) reports that the level of the 11<sup>th</sup> edition of *Encyclopaedia Britannica* was intended for “the mental range of the average man”. However, he adds that it also

aimed to act as a bridge towards more complex works of scholarship. These still existed, particularly in increasing numbers of subject specialist titles produced by experts employed in the field. It should be noted, however, that the growth of journal publishing in the 19<sup>th</sup> Century weakened the role of the encyclopaedia as a means of scholarly communication. By the time most encyclopaedias reached publication, scholarly controversies had already been aired in numerous periodical publications. The encyclopaedia, therefore, even at its scholarly end, had become a mediator between the world of scholarship and the mass market which was keen to acquire it.

#### 4.9 The twentieth century

The 20<sup>th</sup> Century was the great era of the encyclopaedia salesman, particularly in the US, whereby publishers (notably *Encyclopaedia Britannica* which moved its production to Chicago in 1899) were able to sell multi-volume encyclopaedias to the less wealthy through hire purchase schemes. Purchasers would obtain access to all the knowledge they might need in their lives through a single transaction, spread over many payments (for many this was the only non-religious book in their house, and it is notable that encyclopaedias with dictionary supplements sold particularly well under this model, thus negating the need for two purchases). Although much criticised, notably by Einbinder (1964), Ashmore (1982) defends the practice of “doorbell distribution” as preferable to the huge subsidy which would otherwise be necessary to keep such large projects viable<sup>20</sup>. He insists that the sales process did not corrupt the editorial process on any encyclopaedia, although, as mentioned in Chapter 3, Einbinder attributed the out-of-date and inaccurate contents of the 20<sup>th</sup> Century *Britannica* to the neglect of editorial standards at the expense of successful sales techniques. Shores (1975, p171) emphasises that sharp practices (such as the sale of out of date or poorly-printed sets at the same premium as *Britannica* or *Americana*) were the province of a few companies and became rarer across the century. Hire purchase was common in both the US and UK, although more titles were sold through bookshops in the latter (Shores, 1975 p116).

Shores emphasises that quality improved over the century, although in the late 1940s “too many of the works that were beginning to flood the market looked like somebody had just matched topic for topic in some previous set. As well as continued innovation in page

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<sup>20</sup> The two great reference publishing projects of the era, the OED and the DNB were indeed subsidised loss-leaders for their publisher

layouts and improvements in indexes, the twentieth century saw developments consistent with a time when the encyclopaedia had to compete with speedily-transmitted mass media like newspapers, radio and television. Notable was ‘continuous revision’ whereby supplements and yearbooks would be issued to update the content of encyclopaedias which had already been purchased, as an alternative to issuing an entirely new edition every decade or so (Katz, 1998, p41). These supplemental publications made buying an encyclopaedia worthwhile, but also introduced the idea of the encyclopaedia as a world of knowledge rather than a book (Collison, 1966, p372). The notion of continuous revision reached its apogee in *Encyclopaedia Britannica*’s continuously-revised 15th edition (1974 onwards) (Shores, 1975, p116). But the process also provided efficiencies in compilation. Until 1929, encyclopaedias were produced by “periodically assembling a temporary staff to bring out a new edition, keeping the set in print until it became hopelessly dated, and then starting all over again” (Ashmore, 1982). Maintaining a permanent data collection enabled new editions to be easily updated, particularly after the introduction of electronic databases from the late 1970s onwards. By the end of the 1990s publishers were under pressure to carry out and publish more frequent revisions for a currency-hungry public. For language-related reference, a tendency new words and concepts establish themselves in the language much more quickly produced a similar challenge (Dahlin, 1999).

The Library market flourished in the post-war era as the higher education sector expanded. Although multivolume sets were bought by all types of libraries, the post-war publishing market embraced the specialist encyclopaedia (Collison, 1966, p218). Much as journal publication increased to meet the needs of vast numbers of new academic disciplines in an expanding tertiary sector, a large body of subject-specific reference works were provided for professional and academic specialists, reflecting their language and information needs. Katz (1998, p41) sees these as providing ‘in-depth coverage of items that might be of only limited interest in general works’ and catering for ‘every discipline from science and art to sociology and the humanities’.

The 1990s saw a boom in reference publishing especially at the consumer end “a growing demand for English-language reference books worldwide” and, in particular, the encyclopaedia (Anthony, 1991). Production methods meant that encyclopedias were better put-together, better-looking, more frequently updated, included more colour illustrations and covered a wider range of subjects for a more diverse audience (Anthony, 1991; Dahlin, 1999). Publishers were expanding their reference programmes and even selling multi-

volume encyclopaedias in bookshops (Anthony, 1991; Heidkamp, 1992) as well as the traditional library markets and book clubs. In particular, at this time, the one-volume subject encyclopaedia sold well in bookshops in the US and many companies spoke of a 'broader market for encyclopedias (Anthony, 1991) perhaps boosted by a new appetite for information. It was generally felt that reference was an 'unexplored niche' (Anthony, 1991) and a new way of making profit. Database production methods facilitated the publishing of spinoff volumes from multivolume sets, sold in bookshops in single-volume encyclopaedias at considerable profit (Dahlin, 1999).

#### **4.10 The electronic encyclopaedia**

The final development of the twentieth century was the development of the encyclopaedia in electronic formats. David Attwooll (2006) and Marks and Janke (2009) both describe their early history. From the 1990s, publishers started to produce their encyclopaedias using large database structures (Stevenson, 2011, asserts that the *New Palgrave Dictionary of Economics* was the first to be built in this way). This allowed continuous revision and easy updating. As one editor put it "the need for constant diligence is beginning to render the idea of a "finished" article obsolete" (Pang, 1998). Aside from introducing efficiencies in production, this allowed the contents to be more easily reused for spin-off publications and, eventually, products such as CD-ROMs. Producing electronic products was not straightforward, as the companies rarely had the technical expertise in-house and were concerned about both protecting their content and managing pricing structures. In addition, according to Attwooll, CD-ROMs "never secured a decent retail distribution channel" and had to be underpriced, because retailers wanted them to be equivalent to music CDs, which devalued their investment in the content. However, some titles did sell reasonably well on CD-ROM, not least to libraries who appreciated their enhanced searching possibilities, and who had been subscribing to online databases since the 1970s (Fraser, 2001).

With the advent of the world wide web new models of subscription, sales and delivery came into being. Encyclopaedias were among the earliest successful forms of online-accessible book, their granular structure entirely suitable to being searched in a database (Pang, 1998). Now that end-users with internet access could find information of some kinds using their web browsers, encyclopaedia producers became aware of both the threat to their print sales and the opportunities for enhancement with web access. Although

many publishers sought to emphasise the authority offered by print publishing against the ephemerality of the web, larger publishers invested in online products and profit-making subscription models aimed at libraries. Britannica initially offered their content for free but, following drops in advertising income (Fraser, 2001) established a tiered system (Zeitchik, 2001) whereby advertising-supported content was available for free, but only subscribers could see full articles. By the mid-2000s, most reference publishers had some kind of online offering and most library collections were a hybrid of print and electronic materials. Librarians saw the advantage of offering their users direct and constant access to quality information resources, but it was a challenge for publishers to find a version of electronic products which the consumer wanted (Fraser, 2001). Consumer reference tended to sell in quantities in print (Bond, 2008). For a variety of reasons therefore, the development of online reference did not mean the end of print reference at this date.

As the section on the encyclopaedic movement in the previous chapter described, the 20<sup>th</sup> Century was a time when the nature of the ideal encyclopaedia was much discussed. Yet, aside from some cosmetic improvements, and increased efficiencies in production and sales, the hard copy encyclopaedia changed very little during the century. Effectively its form solidified during the 19<sup>th</sup> Century and it is this ‘classic’ form that is being primarily considered in this thesis. Nevertheless, the emergence of the electronic encyclopaedia, against a background of ready consumer and academic access to information via the web, can be seen as a challenge to its form and status. Chapter 8 will explore how it responded to the challenge and the further developments which ensued in the 21<sup>st</sup> Century.

This chapter has drawn from published literature in order to describe how the modern encyclopaedia came into being. The next three chapters use original research to examine the encyclopaedia as an object and information source. Chapter 5 explores the qualities valued in an encyclopaedia. Chapter 6 examines it as a physical object and Chapter 7 turns to its creators and users to establish what it is considered to be by its community of interest.

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### **5.1 Introduction**

The last two chapters examined the scholarly background to the question of ‘What is an encyclopaedia?’ and the history of how it emerged as a distinct form of the book. The next three chapters use evidence-based research to establish objective criteria by which this form of the book can be defined. Chapter 6 will examine physical specimens of encyclopaedias to see if a set of shared features can be discerned. Chapter 7 will consult the community of encyclopaedia creators for their opinions of what an encyclopaedia is. The current chapter analyses reviews of encyclopaedias for statements offering clues as to what their functional attributes are.

Review literature is an important tool through which purchasing decisions about books are made by librarians in particular (Parker, 1989). This is particularly important with regard to large-scale encyclopaedias, which acquisitions librarians rarely see before they order them (Turner, 2012). Existing analyses reviewing practice, particularly in a scholarly context (for example, Hyland, 2000; Moreno and Suarez, 2008) have identified how ingrained practices can influence approaches taken by reviewers. What Moreno and Suarez describe as “the disciplinary-bound, subjective, implicit and sometimes ambiguous nature of evaluation” which takes place in book reviewing means that the nature of evaluative language can have different purposes and meanings in specific communities, particularly in a scholarly context.

With this in mind, it is worth noting that the bulk of the reviews examined in this chapter were written by librarians for librarians, and published in trade publications. The motivations of the reviewers, can, therefore, be presumed to be to give fellow-professionals guidance in making library acquisitions. This is not to assume that bias does not exist – after all, some encyclopaedias are written or edited by librarians – but the pressures on the reviewer are different from those of academics working at particular levels of seniority or within particular disciplines. For reasons of space and focus, the analysis in this Chapter does not break down the results by type of review (for example, trade publication, scholarly journal, newspaper) but it may be that the functions valued vary between them, perhaps related to the different pressures on different types of reviewers. This could potentially provide scope for further research.

Chapter 5 aims to answer the research question ‘What are the marks by which an encyclopaedia is considered to have succeeded as an example of the form?’ It identifies the abstract attributes or values by which an encyclopaedia can be identified; the characteristics which are deemed to be suitable to a healthy specimen of the genre. In the results, the values identified are referred to as ‘functions’ or ‘functional attributes’. This is partly to distinguish them from the physical features which are the main object of research in Chapter 6, and partly to reserve the term ‘quality’ for the specific definition used in the coding applied in this chapter, that is, not ‘qualities in general’ but a notion of ‘quality’ of a certain kind as a positive attribute of an encyclopaedia. While ‘function’ might be considered to refer to the purpose or effect of an object, rather than its positive or negative characteristics, it illustrates that the values being observed and counted in this chapter are not simply physical features, but active demonstrations of how an encyclopaedia may be deemed to work. In the next chapter, the features examined are static, anatomical units. In Chapter 5, they are the values which should demonstrate how well or badly the encyclopaedia succeeds in what a good example sets out to do.

## **5.2 Methodology**

As discussed in Chapter 2, this chapter uses content analysis as its principle methodology. The texts analysed here are reviews of reference works, examined to infer the values reviewers consider important in an encyclopaedia and, therefore, provide one set of answers to the research question ‘What are the marks by which an encyclopaedia is considered to have succeeded as an example of the form?’. The analysis was made manually, on an intellectual basis, not using textual analysis software or statistical methods. Full details of the methodology and sample can be found in Chapter 2, section 2.2.

The method used was to take a sample of encyclopaedia reviews (see below, and for more detail, section 2.2.2 for the justification of the sample) and count the number of statements of value about the title made within each of them. The sampling unit was therefore the book review, and the unit of analysis the statement of value. Units of text were counted if they displayed any of Weber's definitions of a value statement (1990, p19), that is, that they were evaluative (suggesting positive or negative attributes), they described the potency (strength or weakness) of the attribute and/or they expressed a judgement on how far it actively achieves its aims. Although the approach involved counting and coding units of text, using the definition given by White and Marsh (2006), the approach was fundamentally qualitative rather than quantitative. No prior hypothesis such as 'an encyclopaedia is considered a success if it is judged to be accurate' was proposed. Instead the research question was left open. The categories into which the units of analysis were arranged were not defined before the analysis was made, but drawn out of the text inductively.

Underlying the research is an assumption that the functional attributes which encyclopaedias display match those valued by their reviewers. That is, we can say that encyclopaedias have certain abstract values because that is what their reviewers have assessed them for. As reviews are largely composed of value statements, they are a clue to what is considered important as a positive or negative attribute in an encyclopaedia. This makes the conclusions somewhat contextual, but the relationship between the text and conclusion is logical, in that reviews are part of the process of communication between the publisher and the purchaser. The reviewer acts as an intermediary (as will be seen in Chapter 7, an important one) between the publisher and the user. Underlying all three participants' actions are shared assumptions as to which functions make a good encyclopaedia. It is the hope of the publisher that the reviewer will convey to the user that their title has desirable characteristics and the need of the user (who, in the case of many encyclopaedias, is unlikely to see the book before purchase) to find out if they do. The value statements are the tool the reviewer uses to inform the prospective purchaser whether or not the title is a worthwhile addition to their collection. They are therefore a valid unit of analysis to answer a research question about what functional attributes are valued in an encyclopaedia. A potential weakness in using value statements as a unit of text is that reviewers are looking for positive features in their subject regardless of whether it is a good example of an encyclopaedia. A good sample is therefore essential to ensure a valid relationship between the reviewers' opinions and conclusions drawn as to what an encyclopaedia is.

The relationship outlined above, between the review and the value assigned to an encyclopaedia, goes some way to mitigate the artificiality of the coding, or categorisation, process. Coding units of analysis is necessary if any patterns are to be discerned from the results but it removes the words from their original context, in this case the book review, in order to force them into categories. Because the encyclopaedia review is made up of value statements, themselves a rich source of opinion as to what makes a good encyclopaedia, it is possible to extract from them a number of adjectival terms or phrases, which can be more easily sorted into type. And because the categories were drawn out from the text, rather than applied from a pre-ordained list, they can be assumed to be a close match to the context in which the words were originally used. Thus the nature of the encyclopaedia review lends itself to the extraction of similar types of textual unit which can be more easily grouped into categories.

Nevertheless, coding, here deciding which statements of value were like each other, and which therefore belong in the same category, and which should be separated off into new categories ('lumping' or 'splitting'), is ultimately subjective. The tendency in quantitative research is to produce clean, easily analysed-results by ignoring detail and putting more or less similar items in a smaller number of categories. Qualitative research prefers to emphasise the differences, yet 'lumping' is still necessary, particularly in quasi-quantitative research such as this where items are counted and ranked. This chapter takes a mixed approach: the summarised results are presented in tabular form below but, in mitigation against the researcher's subjectivity, examples are quoted to illustrate results and Appendix I provides a full listing of every statement extracted from the reviews. Moreover, research using alternative texts in Chapter 7 (section 7.6) produced a similar, if more nuanced, list of functional attributes, which validates the results in this chapter to some extent. The process by which the final list of categories into which the value statements were sorted is outlined below.

As discussed in Chapter 2, the choice of a good sample is essential in content analysis to ensure that the literature is not simply relevant to the research question, but is a good representative selection from it. The 64 reviews examined were largely centred on professional literature aimed at librarians, as the richest and most relevant source of reviews of encyclopaedias. All the reviews of works of reference from an 18-month publication period from three publications, *Library + information update*<sup>21</sup>, *Library journal* and *Refer* were

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<sup>21</sup>At the time of analysis *Library + information update* was this journal's title. It has since changed to *CILIP update*



selected for analysis. The journal *Refer* is published less frequently than the other two, and has particularly relevant content as it serves an exclusively reference-librarian audience. Thus a longer period of publication, of four years was covered. The selection included both those entitled ‘encyclopaedia’ and those with other titles because, as mentioned in Chapter 1 (section 1.2), the use of the title ‘encyclopaedia’ by reference publishers is inconsistent. Many titles which match the *a priori* definition in Chapter 1 (section 1.3) do not carry the name ‘encyclopaedia’ or ‘encyclopedia’. As the works themselves were not at this stage being examined physically, it was not possible to select only those which matched the definition and thus every review was selected. For convenience, however, the titles of works reviewed will be referred to in this chapter as ‘encyclopaedias’ rather than ‘reference books’.

31 reviewed titles were identified from the reviews. To add to the sample for content analysis, reviews from a fourth publication, *Reference Reviews*, were added, but only of those titles already identified. The decision was taken at the time because the comprehensivity of this title would have produced too many reviews, although in retrospect, a random sampling could have been introduced (for example, a review starting on every fourth page). In order to widen the range of views expressed beyond that of the librarian (who are both the reviewers and readers of all four publications), examples of reviews of identified titles were also sought from other types of periodical. Although encyclopaedias are rarely reviewed outside the library trade press, examples were found in national newspapers, literary journals and even some academic journals concerned with the encyclopaedia topic. The purpose of these reviews was the same as that in the library press: to evaluate the title being reviewed to see whether it was a good enough example of the type of book in order to recommend it to readers. The difference is that the readers in question might not be purchasing the book themselves (although trade publications of the sort sold directly to the general public in bookshops did appear in the sample, as these are also of interest to librarians) but might instead request the purchase of the book for their public or academic library. Opening up the reviews in this way gave the potential for results which more richly represented the presumed needs of the encyclopaedia user.

Once the reviews were selected, every statement of opinion or judgement they contained on their subject was recorded. 366 statements (a total of 412 judgements, as some contained more than one opinion) on the 31 titles were counted and used as a basis for a broad list of functions which reviewers considered the titles to have or to lack.

The initial list of functions was as follows:

- Accessibility and findability
- Consistency of headings
- Authority
- Expertise level
- Lack of bias
- Traceability
- Completeness
- Comprehensivity
- Date range
- Length/ Detail of entries
- Number of contributors
- Subject coverage
- Up to date
- Variety of contributors
- Extras
- Illustrations
- Intentions
- Ambition
- Fitness for purpose
- Physical features
- Layout, printing
- Length
- Weight and size of book
- Price
- Quality
- Style
- Enjoyability
- Usefulness
- Versatility
- Electronic access

Although rich and interesting, this list contained many functions (for example, comprehensivity and completeness) which had close relationships with each other. Kippendorf suggests (2004, p324) that coders can take either an ‘ethnographic’ or ‘universal’ approach. Had I followed the ethnographic route, every statement would be considered unique, even where identical wording was used, as the meaning of its original content would be considered only relevant within the context of the review. Close relationships between functions would not be considered relevant. By contrast, a universal approach would have chosen an external list of attributes and assigned each statement to the one that described it the most. While the latter would have lost much of the qualitative value of the results, the former would have missed similarities between functions that are worthy of note. The results would, moreover, have been unwieldy. Note that although this thesis primarily concentrates on the hard copy encyclopaedia, electronic issues was among the functions identified as it appeared in some of the reviews and no value statement was excluded.

This initial list of attributes was therefore sorted into a more concise taxonomy of functions:

- Reasons for existence (Intentions / Ambition / Fitness for purpose / Suitability for expertise level / Versatility)
- Authority (Expertise / Traceability / Range and number of contributors)
- Accuracy (Facts checked / Bias)
- Currency (Up to dateness / durability)
- Comprehensivity (Completeness / Length and detail of entries / Subject coverage / Date range)
- Quality (Style / Physical features eg layout, print quality, physical weight and size/ Readability and enjoyability)
- Extras (Illustrations / Bibliographies / Introductions)
- Accessibility (Findability / Sufficient number of indexes / consistency of headings)
- Electronic issues

The statements were then indexed against these headings and provide the data used in this chapter. Note that some statements contained opinions which fitted into more than one category, for example “The 1500 contributors are not well-known in the field of musicology but do a fine job overall of presenting the material in a well-organized, readable format” (Lipkiss, 2006). This statement includes two opinions, assigned to the categories of authority (“The 1500 contributors are not well-known in the field of musicology”) and quality (“but

do a fine job overall of presenting the material in a well-organized, readable format”). Most statements, however, do contain a single opinion.

The sections below present the results found from counting value statements in the identified sample of reviews. Each of the functions identified is examined in detail and trends across the different titles identified.

### **5.3 Results**

#### **5.3.1 Functions identified from the reviews**

The aim of this chapter’s analysis was to see which functions encyclopaedia reviewers considered to be important in an encyclopaedia. Although I have ranked them in Figure 5.1, it should be understood that all of them are relevant to the definition of the encyclopaedia. Functions were counted whether the opinion expressed was positive or negative. Both give a sense of how important the attribute was judged to be by the reviewers.

#### **5.3.2 Results by function: overview**

Figure 5.1 ranks the functions identified in 5.2 in order of numbers of mentions it received across all reviews of all the titles. Additional columns illustrate how many and what percentage of the 31 titles had the function mentioned in their own reviews. The final column shows how each function would rank if the list were in order of the percentage of the titles for which reviews mentioned the function.

*Functions of encyclopaedias ranked by number of mentions*

<b>Function</b>	<b>Number of mentions in reviews</b>	<b>Number of titles with reviews mentioning function</b>	<b>Percentage of titles with reviews mentioning function</b>	<b>Ranking by number of reviews mentioning function</b>
Comprehensivity	80	26	84%	=2
Reasons for existence	79	27	87%	1
Quality	77	23	74%	4
Accessibility	54	26	84%	=2
Extras	45	22	71%	5
Authority	30	18	58%	6
Currency	18	12	38%	7
Accuracy	15	9	29%	8
Electronic issues*	14	6	100%*	n/a

\*Applies only to titles in electronic form

Figure 5.1: *Encyclopaedia functions ranked by number of mentions in reviews*

As mentioned above, all the functions identified in these results should be considered important to the critical perception of what an encyclopaedia should be like. As the figure above shows, all the functions (apart from electronic issues) appear in reviews of at least 29% of titles, that is nearly a third, and the top six functions appear in 58% or more. We can certainly draw from these figures that some functions are considered worthy of mention by reviewers more than others. However, their mention or otherwise in reviews might be due to a range of reasons. The paragraphs below seek to pull out what might be important about these functions, what their rankings might tell us and whether or not they constitute functions appropriate to an encyclopaedia rather than any other kind of publication which might be reviewed. As I have not carried out a similar survey on reviews of other kinds of work, I cannot prove that they are not valued in novels, poetry or non-fiction monographs. However, I have provided some comparative statements of value from non-encyclopaedia reviews, and attempted to illustrate where encyclopaedia reviews take a distinct slant in their appreciation of the function and to conjecture why it might be valued.

### 5.3.3 Comprehensivity

This function is summed up by statements such as “competitively priced given the range of subjects covered” (Mackenzie, 2006) and “Since it is difficult to encompass such a large topic in so few entries, readers are bound to find omissions” (Wrinkle, 2006). It is closely related to ‘Reasons for existence’ in the sense that it suggests that the encyclopaedia which is fit for purpose treats the topic as fully as is necessary. Comprehensivity does not necessarily imply that every piece of knowledge on the topic is contained in the book because, even if possible (and, as some of the opinions in Chapter 3 indicate, the increasing relativism of the later twentieth century would not allow it to be), such a weight of information might be unnecessary for the reader and make the title unwieldy and too expensive. As the opinions quoted in the literature review (Chapter 3) suggested, a good encyclopaedia should have the right amount of information for the topic and the reader. Encyclopaedist Charles-Joseph Pancoucke advised contributors in the prospectus for the *Encyclopédie méthodique* that “they should circumscribe their subject and well understand its limits in drawing up their plan for the handling of the science or the art that was entrusted to them” (quoted in Watts, 1958). Collison (1966, p175) suggests: “an encyclopaedia must be thorough, well written and informative and ... must be neither too small nor too large.” and Stockwell (2000, p138) notes on the development of the modern market that “A large encyclopaedia was too costly (both to publisher and reader) and took too long to complete: a small encyclopaedia failed to impress, inevitably scamped some subjects and ignored others, and usually indicated some inadequacies in planning”. There thus exists the notion that there is an ‘ideal’ encyclopaedia length which is neither too thorough nor too brief.

Comprehensivity as a critical function in encyclopaedias has a slightly different substance than it might in other works. Reviewers of all non-fiction titles look for omissions of things they consider relevant or know more about. A quick trawl of monograph reviews finds comments such as “Fastidiously researched, and with access to previously closed archives ... [the title] exaggerates some aspects of Malcolm's life ... while omitting the details of others.” (Hudson, 2011) and “Missing from the book is serious interaction with the methodological positions of the British New Archaeology” (Bell, 2008) to be common. But encyclopaedia reviewers do not simply look for gaps in coverage. They imagine the practical use of the title reviewed, and want to ensure that institutional users will find the information they need. Comments such as “... competitively priced given the breadth of subjects covered” (Mackenzie, 2006) or “Both titles make for good introductory sources to the period, but more detailed resources are needed for serious research” (Wrinkle, 2006) are common in

encyclopaedia reviews and indicate that not covering the topic thoroughly is acceptable as long it suits the intended audience. This might be less expected in reviews of other types of work (except perhaps textbooks). Comprehensivity is not a function one might expect to find in reviews of novels, poetry or short stories, unless they are highly mediated through editing or collection.

#### **5.3.4 Reasons for existence**

An encyclopaedia's justification for being published is a key theme in many reviews. Statements such as "The Dictionary, though, is a substantial achievement worthy of a place on any reference shelf" (Belfast Telegraph, 2000) are illustrative of this function. It also encompasses the notion that the reviewer considers the title suitable for its intended audience, pitching its price, level of difficulty or entry length appropriately. "Routledge's work, conversely is targeted at an academic audience, with many more detailed entries" (Fleming, 2006) and "... she compacts too much into a single volume, making the book ineffectual for any of the three groups" (Selwyn, 2005) illustrate the types of comment which judge the efficacy of this function.

The reasons for writing any book and its suitability for its perceived audience are common criticisms in reviews of non-fiction books. They often appear in the final paragraph as a form of summing up, for example, from a trade magazine "Overall, if you are looking to read a book on money and its impact then this is probably for you." (Burn, 2006) and from a scholarly publication "For those interested in the comparative history of depth psychology, this is an insightful, valuable contribution." (Hale, 2001). The huge quantity of published output requires that a book justifies its existence and potential purchase. This is exacerbated for a large reference work bought for an institution, because of its high cost and expected use by a wide audience. Examples such as "The encyclopedia is an excellent resource for the academic and research library supporting courses at college" (Hannabus, 2005) illustrate the very practical flavour of this function in encyclopaedia reviews. And they abound in this sample. Not only do the reviews contain a large number of statements which compliment or condemn the need and suitability of the encyclopaedia being reviewed (79), but such statements appear in reviews of 27 (87%) of the titles. Clearly this feature is highly valued by encyclopaedia reviewers and may have an extra level of importance to an encyclopaedia, even while it is not unique to it.

### 5.3.5 Quality

For the purposes of this research ‘quality’ refers to a general level of high standards, albeit evidenced by specific features. As the taxonomy above suggests, it is a broad term encompassing a range of issues, from general statements such as “Blackwell’s second edition of this work is every bit as impressive as the first” (Elsen, 2005) to comments on physical features and content “The book is extremely well printed, bound and illustrated and the standard of writing and editing is high” (Dunbar, 2002), to specifics which indicate the general standard of production “Furthermore, at least one article includes acronyms but fails to indicate what those acronyms represent” (Selwyn, 2005).

Interestingly, although all literary critics might be considered to evaluate quality in some way or another, this selection suggests that encyclopaedia reviews foreground it. Although the quality of the writing is sometimes mentioned in non-encyclopaedias (as it is in Hale, 2001, above), reviews of scholarly monographs concentrate largely on their content, especially controversial arguments or new scholarship. The uniqueness of the content is perhaps valued over the quality of the book as an object or even crafted piece of writing. This is perhaps, as with the previous two categories, related to the practical use of the encyclopaedia. Appearance and standard of presentation matter when a book is likely to have a long life on a shelf and be handled by many readers, none of whom are expected to read it cover to cover. Moreover, an encyclopaedia is more mediated by the publication process than a literary work such as a novel. In the latter, ‘quality’ as an abstract concept is not separated from the reviewer’s judgement of the author’s performance. The text, rather than the book is judged. By contrast, the encyclopaedia reviewer reviews the book, not the author and finds quality, particularly relating to physical features, a more remarkable feature than literary inspiration, quality of argument or satisfactoriness of conclusions, as might be found in other forms.

The first three functions, comprehensivity, reasons and quality, are by far the most mentioned in the sample of reviews and have similar scores in the ranking. The first two are also mentioned in reviews of many titles (comprehensivity is mentioned in reviews of 26 titles, or 84%, as mentioned previously, reasons in 27 or 87%). This is possibly quite simply because they are the broadest functions, most likely to apply to most titles. However, although comprehensivity, fitness for purpose and quality cannot be considered characteristics unique to an encyclopaedia, they are certainly specific to non-fiction works. Furthermore, I would argue, they are all functions more important to a work with an ongoing institutional life, consulted by many in different ways, than to a monograph expected to be



consumed at a single reading. They are, at least, functions a reviewer is unlikely to apply to fictional works of any kind, unless their editorial intervention is particularly important (for example, annotated collections) or their physical appearance (as with special bindings of literary works).

### **5.3.6 Accessibility**

The function which indicates how accessible the information is inside a book, is highly specific to reference works and, one could argue, to encyclopaedias specifically. Books designed to be read in a linear fashion do not need clear access points, although a good index might be considered desirable. Other forms of reference work, such as dictionaries, have a fundamental arrangement which meets their functional needs. The user will expect to find the word they are seeking in a dictionary in alphabetical order. Because encyclopaedias are concerned with the concept (what metalexigraphy refers to as the ‘referent’) rather than the word, users might expect to find entries in several different places. It is the special task of encyclopaedias to guide the reader to the piece of knowledge they are seeking through their fundamental arrangement, through indexes and cross-references and through introductory articles explaining their knowledge organisation. Not only can these features not be expected in a monograph, they are also not to be found together in a lexical dictionary, gazetteer, atlas or recipe book. Although it was not as frequently mentioned as were comprehensivity, reasons and quality, accessibility was important to reviewers and mentioned in reviews of a large number of titles (26 or 84%). Relevant statements include “See references are used where appropriate to bring related subjects together” (Reid, 2005), “the index is commendably helpful” (Dixon, 2006) and “The signposting is not perfect either” (Berry, 2002).

### **5.3.7 Extras**

Extras might be considered ‘bonus’ features not essential to the core role of the book, but which nevertheless facilitate its use. They include illustrations of various kinds, appendices featuring further information (for example, filmographies or discographies) and indexes offering supplementary access points. Their presence or absence is frequently mentioned in reviews. Examples include “In addition, as is the fashion nowadays, there are twenty-two ‘special entries’ which are printed within a box” (Contemporary review, 2001) and “There are no illustrations, which are not missed (and their lack keeps the price down...) while a map or two is the only lack I can point to” (James, 2006). Although it might be thought

impossible that, as supplementary by definition, this category could be a core feature of any type of book, the fact that it is mentioned so frequently in reference reviews indicates that supplementary materials are expected and appreciated in encyclopaedias. It is also logical that further means of access to the information, such as extra indexes or illustrations might be valued, and more so than in a linear monograph.

### 5.3.8 Authority

References to the source of the title's authority in encyclopaedia reviews are less common than those to previous categories, but remain important. "Turning from subjects to contributors, the roll-call is impressive" (Collini, 2005) and "Victor Watson has assembled an enormous team of contributors, many of them academics from places as far apart as Cambridge itself and the University of Tasmania" (Craig, 2001) are typical and, indeed, negative comments on authority are less common than in other categories. This chimes with a recent description of encyclopaedias as "a yardstick for what is considered accepted, public knowledge [which] depends on them being seen as trustworthy by their users and society at large" (Sundin and Haider, 2013). Even in these relativistic times, we still seek an authoritative source.

According to Collison (1966, p13) "Today, any good encyclopaedia will try to obtain an article on any given subject from its chief exponent". Authority is clearly important to a range of scholarly works (and sometimes fiction, for example where the author's experience or research are thought to make details more believable). However, authority is perhaps of greater importance in encyclopaedias than other non-fiction works for two reasons. First, it is rare for a single author to be held to account for an encyclopaedia's contents (although sometimes the editor is valued for it, for example "Clark, a UK-based faculty double-appointee who has penned several texts similar to this one", Avet, 2006). Thus, the possibility of authorial or literary warrant outweighing the trustworthiness of the content is not an option. Frequently authority is visible in features such as series title or contributor index, which can be easily discerned by the reviewer.

Secondly, encyclopaedias are purchased specifically to be consulted on matters of fact, and the authority of the contributors provides the reader with confidence that they can trust its contents. Writers of monographs use encyclopaedias to check the reliability of something they have written, trusting their authority implicitly. Even where they use an encyclopaedia for in-depth analysis, authority is valued over, for example, anecdotal detail which might

make the facts more interesting and enjoyable to absorb (as might be the case with biography or history). Now that scholarly communication takes place in forums with more regular publishing cycles than reference works, encyclopaedias are repositories for ideas which “have engaged the protracted attention of mankind” (Barzun, 1962) rather than break new ground. Whereas monograph reviews often contain phrases such as “Although it does not provide any major breakthroughs for theories on masculinity, it is an interesting addition to a body of literature...” (Joseph, 2006). Encyclopaedias aim for persistence rather than controversy. Such is their publishing cycle and length of time within a collection, they are more likely to aim for proven viewpoints than act as a forum for new ideas. As such, reviews commenting on authority are telling their readers that they can trust the contents to provide the accepted facts on the given topic.

### 5.3.9 Currency

The point above regarding the longevity of encyclopaedia information suggests that how up-to-date it is not a central concern. Collison (1966, p16) admits that an encyclopaedia “is in some measure out-of-date as soon as it is issued, for there is a time-lag between the moment it goes to press and the time it is in its users’ hands”. Moreover, encyclopaedias are both published and purchased less frequently than other types of book. Even annually-published encyclopaedias (for example, the *Europa world yearbook* or *Whitakers’ almanack*) are not purchased with the intention of keeping their users up to date on a daily basis.

Yet comments on currency were prominent in the reviews examined for this chapter. Statements such as “Many entries in this work have been updated since the first edition as evidenced by current as well as classic bibliographic references” (Elsen, 2005) and “The more than 500 A-Z entries have been updated to reflect advances in scholarship” (Fleming, 2006) indicate that where there is evidence for updating, this is considered important. Currency does not rank as high with reviewers as other categories (it achieves 18 mentions, 4% of the total, which occur in reviews of 12 titles or 39%), perhaps because evidence of it is hard to find in the time given to writing a book review. Reviewers need actively to seek examples of recent developments they believe should be mentioned in order to discover if the title contains them or not. But it is worth noting that it is not just titles related to current affairs which attract comments on currency. The second quote above comes from a review of *The encyclopedia of ancient Greece*. Reviewers now expect that even encyclopaedias will reflect the constant academic production of new scholarship. Electronic titles are welcomed because

they are updated more often, for example “The file is updated four times annually” (La Guardia, 2006).

### 5.3.10 Accuracy

The points made under the heading “authority”, that an encyclopaedia should offer facts, rather than opinions, might indicate a strong critical desire for accuracy. As Barzun (1962) suggests, encyclopaedias should not “obtrude a didactic intention beyond that of supplying answers to questions of fact and meaning” (although he adds that “ideas with a small i are part of intelligent explanation”). Yet it ranks surprisingly low by comparison with other functions and no reviewers made a link between accuracy and authority. This may be because, like currency, accuracy is more difficult for reviewers to discern than features such as accessibility. As Barzun (1962) suggests, reviewers can only discern inaccuracies if they check specific facts and they “will base their judgment of the whole on the articles in the fields they know”. Another point is that the encyclopaedia publishing tradition may inspire reviewers to assume a certain amount of accuracy and therefore not mention it in their evaluation. Eisenstein (1979, p699) writes of the era of the standardisation of printed books: “A new confidence in the accuracy of mathematical constructions, figures and numbers was predicated on a method of duplication that transcended older limits imposed by time and space and that presented identical data in identical form to men who were otherwise divided by cultural and geographical pointers”. Certainly, the shock (for example, in Arthur, 2005) which met the news that an *Encyclopedia Britannica* article had a similar number of inaccuracies as the same topic treated on a particular day on the *Wikipedia* site, indicates an expectation of accuracy in encyclopaedia articles. This suggests that reviewers take accuracy in an encyclopaedia for granted and would not think it worthy of comment unless an obvious mistake had presented itself.

Accuracy is usually only noticed when an error is noted and negative comments in all reviews are (perhaps surprisingly) rarer than positive ones (Covey found the same in her 1972 research, p80). Statements such as “I did spot a few slip-ups. Some icons are missing in the book” (Smith, 2006) and “As Watson acknowledges, it is almost impossible to achieve total accuracy” (Dunbar, 2002) are typical and indicate a fairly forgiving attitude towards error. Both these comments appear in otherwise favourable reviews. While it is clearly an issue worth mentioning, reviewers do not seem to consider a single mistake a reason not to purchase a title.

### 5.3.11 Electronic issues

Although comments on electronic features in encyclopaedias may in some cases belong in other categories, I have chosen to put them in a separate category because, even where they do, they highlight an aspect to the function specific to its electronic format. For example “The text search facility also shows the usefulness for people and places” (James, 2005) is a comment on accessibility, but only applicable to an online product. Others such as “The home screen is a nicely-balanced combination of visually stimulating elements, easy search access and well-organised structures leading into content” (La Guardia, 2006) could only apply to a reference work accessed via a web page. Certainly, this category is different from the others in that, while it cannot be considered an encyclopaedia-defining feature, at the time that the works were published, reference works were the main form of “e-books”. As a contemporary writer put it “Certain genres have been successful in electronic form and are already replacing their print counterparts - namely, bibliographies, indexes, dictionaries, encyclopedias, directories, and technical manuals” (Sawyer, 2002). Reviews of electronic works at the time, were therefore, more likely to be of reference works than e-book formats of novels or monographs.

As comments only appeared in reviews of works with online versions, the low score does not mean they should be dismissed. Of the six titles with electronic access (*Europa world plus*, *Oxford African-American studies center*, the *Oxford dictionary of national biography*, *Oxford digital reference shelf / Oxford reference online*, *All music guide* and *The NPR listener's encyclopedia of classical music*) all of them attracted some comment about their electronic access. To some extent this may be a feature of their novelty. Alternatively, the success or failure of enhanced searching features and more frequent updates may be more important to reviewers because electronic titles represent a higher investment than hard copy books. Either way, electronic features, while not encyclopaedia-defining, were deemed worthy of comments by those reviewing online encyclopaedias.

### 5.3.12 Conclusion on functions identified

As mentioned previously, all of the features mentioned in reviews must be considered to be notable indicators of what reviewers consider important features of an encyclopaedia. Given that a typical book review has a limited wordcount, it is reasonable to assume that all the values a reviewer thought worthy of mentioning are relevant to defining an encyclopaedia. This is particularly so given that even those features which achieved fewer mentions, appeared in at least a third of the total reviews (excluding electronic features). It is to be

expected that reviewers will apply much the same standards to reviewing encyclopaedias as they do to monographs. Because they are published more often, most reviewers will also review monographs and there is a limited language of critical appreciation available. With this in mind it is unsurprising that the statements examined demonstrated functions which might be considered characteristic rather than unique to encyclopaedias. It is perhaps a weakness in the research that it did not set up a comparative list of titles, not matching the definition of the encyclopaedia laid out in Chapter 1, and examine their reviews for evaluative statements.

Nevertheless, the fact that there is no evidence that the attributes identified are specific to encyclopaedias, does not negate their usefulness as a description of this form of the book. In aggregate, the functions listed here describe a very particular kind of work. A successful encyclopaedia covers its subject fully, justifies its purpose and is fit for it, is well put-together, draws on well-informed sources, is accurate and up-to-date and makes the wealth of information it contains easily available to the searcher. Absent are suggestions that that the encyclopaedia must be innovatory, imaginative, inspiring or entertaining (although there are encyclopaedias which meet these criteria). As such, the results do draw a picture of what a successful encyclopaedia should be like.

#### **5.4 Results considered by title**

In addition to the conclusions above, an attempt was also made to rank the titles in the sample on the basis of positive evaluation by the encyclopaedia reviewers. The rationale was that a high-ranked title may be more 'like' an encyclopaedia by virtue of the numbers or percentages of positive mentions. A high-scoring title would therefore provide a useful marker against which other books could be judged. It would also enable comparison of titles if they were also ranked in later chapters. However, this section illustrates that ranking the titles was problematic.

Figure 5.3 illustrates how all the titles reviewed in the sample were ranked. The titles ranked at the top received more positive mentions, out of the total number of value statements made about them, than those ranked lower down. Since the different titles attracted markedly different numbers of value statements (both within single reviews and across the total), simply counting the number of opinions or statements would not have produced an accurate ranking. Therefore, two different methods were used to count them. In Method 1 (numerical) scores of 1 or -1 were assigned to each title, depending on whether they achieved a total

positive or negative score for the function. Because it was not possible when counting to distinguish between a zero score for lack of mentions of the function, or from an equal number of positive or negative mentions, I allowed the book to score +1 in the latter case, making this method problematic. Method 2 (percentage) added and subtracted the total number of positive and statements to produce an accurate score for each title. In order to create a balance between those titles with many value statements and those with very few, these were then calculated as a percentage of the total number of statements and the titles ranked by percentage score, rather than total. This method is also flawed because a single short review which is generally positive, and did not have the space for minor quibbles, is likely to score 100%. The more statements gathered about a title, the more likely it is that a negative statement may have been picked up somewhere, particularly if the reviewer had two thousand words at their disposal.

To make the figures more readable, the following shorthand, based mostly on the first listed author name, has been used:

	<b><i>Key to shorthand used for titles</i></b>
<b>Abramson</b>	Encyclopedia of Appalachia
<b>Benson</b>	Encyclopedia of post-colonial literatures in English
<b>Chambers Characters</b>	Chambers dictionary of literary characters
<b>Chambers Facts</b>	Chambers book of facts
<b>Clark</b>	Encyclopedia of new religious movements
<b>Continuum Children</b>	Continuum encyclopedia of children's literature
<b>Cook</b>	Encyclopedia of Renaissance literature
<b>Cooper</b>	Blackwell encyclopedia of management
<b>Delahunty</b>	Oxford dictionary of allusions
<b>Dent</b>	Historical dictionary of US-Latin American relations
<b>Dobson</b>	Oxford companion to Shakespeare
<b>Dowling</b>	Encyclopedia of religious and spiritual development
<b>Duckett</b>	Know it all, find it fast
<b>Europa</b>	Europa world plus
<b>Foreman</b>	London: a musical gazetteer
<b>Gifford</b>	British film catalogue
<b>Jones</b>	Censorship a world encyclopedia
<b>Libbey</b>	The NPR listener's encyclopedia of classical music
<b>Mathison</b>	Encyclopedia of evaluation
<b>OAACC</b>	Oxford African American Studies center
<b>ODNB</b>	Oxford dictionary of national biography
<b>ODRS</b>	Oxford digital reference shelf / Oxford reference online
<b>Oil</b>	Oil paintings in public ownership
<b>Pearson</b>	Tile gazetteer
<b>Sacks</b>	Encyclopedia of the ancient Greek world
<b>Terrace</b>	Television characters
<b>Vickers</b>	A dictionary of Methodism in Britain and Ireland
<b>Watson</b>	Cambridge guide to children's books in English
<b>Whitakers</b>	Whitaker's London almanack
<b>Wilson</b>	Encyclopedia of ancient Greece
<b>Woodstra</b>	All music guide

Figure 5.2: Key to title shorthand



*Ranking of titles in sample for positive mentions*

Encyclopaedia title	Positive mentions per title	Total number of mentions	Percentage of total number of mentions	Ranking by percentage method	Ranking by numerical method
Foreman	7	7	100.00%	1	8
Abramson	5	5	100.00%	2	12
Pearson	9	9	100.00%	3	14
OAASC	7	7	100.00%	4	16
Sacks	11	11	100.00%	5	17
Dent	5	5	100.00%	6	20
Oil	7	7	100.00%	7	21
Dowling	6	6	100.00%	8	25
Cooper	10	11	90.91%	9	11
Benson	18	21	85.71%	10	7
Woodstra	9	11	81.82%	11	9
Wilson	14	18	77.78%	12	5
Chambers Char	11	16	68.75%	13	6
Clark	5	9	55.56%	14	18
Duckett	19	35	54.29%	15	15
Libbey	10	19	52.63%	16	13
Continuum Child	11	22	50.00%	17	4
Vickers	5	10	50.00%	18	23
Terrace	2	4	50.00%	19	28
Jones	13	27	48.15%	20	1
Cook	3	7	42.86%	21	19
Delahunty	4	10	40.00%	22	25
ODNB	15	39	38.46%	23	10
ODRS	5	13	38.46%	24	22
Europa	1	3	33.33%	25	27
Chambers facts	5	17	29.41%	26	2
Watson	5	24	20.83%	27	3
Dobson	11	58	18.97%	28	26
Gifford	-1	5	-20.00%	29	29
Mathison	-7	9	-77.78%	30	30
Whitakers	-6	6	-100.00%	31	31

Figure 5.3: Titles ranked by positive attributes, in order of positive percentage scores, but with alternative numerical ranking for comparison

Shown as a chart:

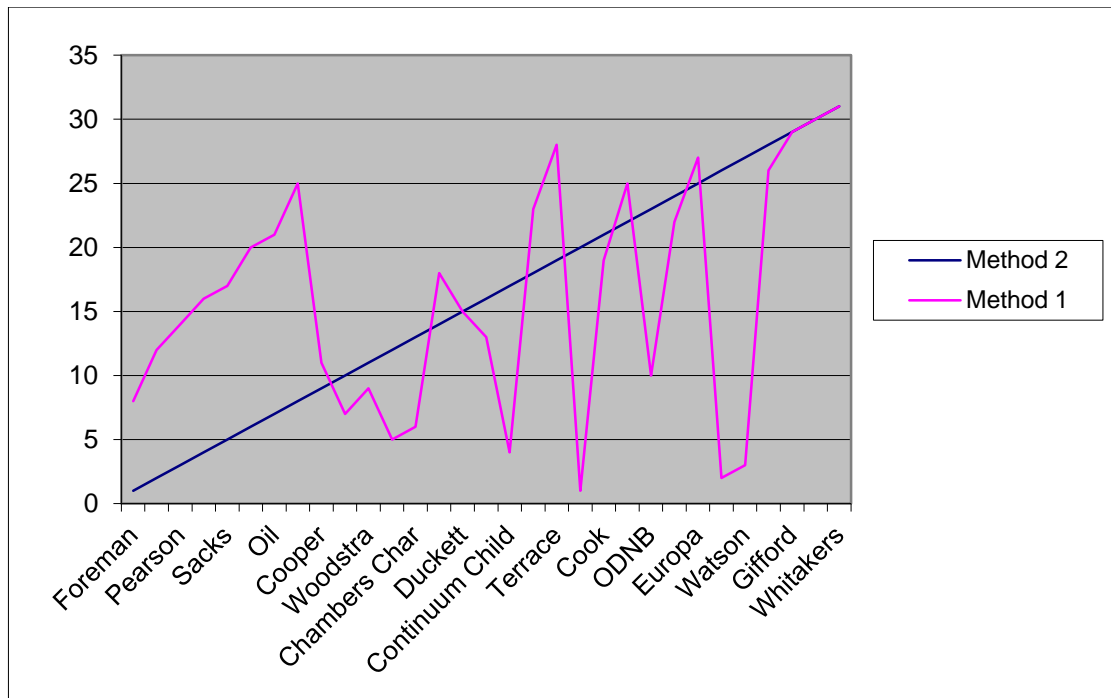


Figure 5.4: Titles ranked, showing differing rankings according to the two different methods of ranking

Unfortunately, as Figure 5.4 shows, there appears to be hardly any relationship between the rankings according to the two different systems. The only rankings which compare are those which score zero or less than zero, both in aggregate score and as a percentage of the total mentions (that is *British film Catalogue*, *Whitakers' London almanack* and *The encyclopaedia of evaluation*). This may be because of the flaws in the systems outlined above. However, it makes it very difficult to draw any conclusions regarding which titles might qualify as more successful examples of encyclopaedias than others. An attempt will be made to map the results against those found on the same titles in the next chapter, but a limited number of conclusions can be drawn from them. It is therefore safer to concentrate on the results ranking the functions across the titles overall, than to consider the success or failure of individual titles.

## 5.5 Overall conclusion to Chapter 5

Many functions noted in encyclopaedia reviews are not unique to this type of book but to reference books in general (for example, accessibility, valued in all reference works, although, as this chapter has argued, it is of more importance to encyclopaedias than other reference books) or other types of non-fiction (such as authority, valued in most scholarly works). This chapter has not attempted a systematic comparison with reviews of other types of literature.

Such a comparison may have identified some functions which are more common to the encyclopaedia than other forms, but it is not available within the scope of this thesis.

The functions listed in this chapter should therefore be considered encyclopaedic in aggregate rather individually. According to the reviews of works in this sample, an encyclopaedia should contain most of the following characteristics:

1. It should have a clear purpose and audience
2. It should be a well-put together object
3. It should cover its subject as fully as is appropriate in accordance with its price, scale and expected market
4. It will make its information easy to find
5. It will carry good supplementary information
6. It should be written by experts in the field
7. The scholarship should be up-to-date
8. The facts contained within it should be accurate.

Although these functions are not unique to encyclopaedias, they are certainly characteristic and, in combination, can be seen as a defining set of functions of the encyclopaedia. However, using a single type of source literature, the encyclopaedia review, can only produce limited results. Other literature which includes opinions about encyclopaedias may produce richer or even contradictory conclusions about what should be valued in an encyclopaedia. Moreover, it is important not to forget that as a form of the book, the encyclopaedia is an object as well as a literary form. Painting a picture of how it is perceived as functioning gives us no notion of what it actually looks like. It is important therefore to consider the encyclopaedia from other viewpoints.

The next two chapters take the research further. Chapter 6 uses the same sample of encyclopaedia titles, where available, to examine them physically for identifiable features. It thus takes the same sample of encyclopaedias, but looks at them from another viewpoint. Chapter 7 applies content analysis to sources of evidence gathered from the encyclopaedia's communications circuit. These include interviews with encyclopaedia creators, purchasers and users, those most intimately concerned with the creation and use of encyclopaedias. In addition to providing more evidence, the results in Chapter 7 also work to validate the results found in this chapter.

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Sacks, David, Murray, Oswyn and Bunson, Margaret (1995). *Encyclopedia of the ancient Greek world*. New York : Facts on File

Terrace, Vincent (2006). *Television characters: 1,485 profiles, 1945-2004*. Jefferson, NC :

McFarland

Vickers, John A. (2000). *A dictionary of methodism in Britain and Ireland*. London : Epworth Press

Watson, Victor (2001). *The Cambridge guide to children's books in English*. Cambridge :

Cambridge University Press

Katharine Schopflin – The encyclopaedia as a form of the book

Whitakers (2001). *Whitakers London almanack*. London : Stationery Office

Wilson, N.G. (2006). *Encyclopedia of ancient Greece*. New York : Routledge

Woodstra, Chris, Brennan, Gerald and Schrott, Allen (2005). *All music Guide*. San Francisco, CA : Backbeat Books

## Chapter 6 – Anatomy

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### **6.1 Introduction**

As a familiar cultural and domestic product, the encyclopaedia might be legitimately defined entirely according to evidence provided by its users and creators. The review literature in Chapter 5 does precisely this and Chapter 7 is entirely concerned with evidence of this kind. However, Chapter 6 aims to establish a more objective definition by examining examples of encyclopaedias as objects. This chapter explores the encyclopaedia as a form of the book by asking the research question ‘What are the physical parts from which an encyclopaedia is made?’ To answer it, a sample of titles was examined and observations noted. The methodology used is outlined in the next section.

### **6.2 Methodology**

As mentioned in Chapter 2 (Section 2.3) the methodologies commonly used in book history do not provide a model for defining a form of the book from its physical characteristics. The methodology used in Chapter 6 was, therefore, experimental. It did, however, borrow an approach used in traditional bibliography, that is, to carry out a textual survey of physical features. Where, as Greg (1966) put it, the bibliographer examines and analyses “pieces of paper or parchment covered with certain written or printed signs” in order to answer questions about a specific text, this chapter enumerates the physical features of a sample of

encyclopaedias, in order to identify which features they have in common. The underlying assumption is that if a sample of books identified as potential encyclopaedias share certain features, then these are the features by which an encyclopaedia can be recognised.

This ‘survey’ approach offers potential problems. The first is the danger that in selecting books to examine, the analyst selects on the basis of physical features they think might be more likely to identify them as encyclopaedias, thus creating results which are entirely circular. The second concerns the problematic nature of singling out physical features. The process of noting every single feature in a book, including such things as front cover, title page or the existence of pages at all, would be hugely time-consuming and add very little new knowledge about books. Thus, some form of selection, where it is taken for granted that certain features will be present, is inevitable. But where there is selection, there is also subjectivity, as it is the bibliographer’s choice as to which identifying marks they have noted. Finally, while such a survey might come up with features which the sample titles share, it does not necessarily follow that the characteristics are exclusive to encyclopaedias. They might be features shared by all books and, without a reference list of features common to, for example, novels, it is not possible to say for certain if the characteristics noted are encyclopaedia-defining.

The first problem was addressed by ensuring the sample was not generated by physically choosing physical specimens which subjectively ‘looked like’ encyclopaedias. Instead, it was based on those selected from reference review material in Chapter 5<sup>22</sup>. This meant that selection was made before any physical contact took place with the book itself. However, as the physical book was needed for examination, not all of the books mentioned in the reference reviews were available in the time given for the research. Some were US-based titles not stocked in any libraries accessible to the author. Others were only published in electronic format. While, as will be seen in Chapter 8, it is possible to identify physical features of online information sources, the focus of Chapter 6 is the physical book as defined in Chapter 1. From the original 31 titles, 12 were available for physical examination.

To address the concern that this sample was now too small and ignored important sections of encyclopaedia publication, further titles were added by design. These items were deliberately sought out rather than selected purely at random, but they were not selected

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<sup>22</sup> As in Chapter 5, although the titles were selected without knowing if they matched the definition of encyclopaedia given in Chapter 1, for convenience, they will be referred to as ‘encyclopaedias’ in this chapter rather than ‘reference works’ or ‘potential encyclopaedias’

because of any observed physical features, but because they were legitimate representations of encyclopaedia publishing which simply had not turned up in the initial sample. A large multi-volume encyclopaedia, the *Grove Dictionary of Art*, was added. Such titles are important publishing phenomena, representing many years of commissioning and research on behalf of their publishers. The *Grove Dictionary* was one of very few which appeared during the period covered by the other titles' publication and was available for physical examination. Its sister publication, the single-volume *Grove encyclopaedia of materials and techniques* was also included to enable comparison between titles, which had the same editorial background and similar content, but were on different scales. Because the sample included very few science and technology titles, three were selected from the quick reference shelves of a large University science library: *The Internet Encyclopaedia*, *The Macmillan encyclopaedia of science and technology* and the *Concise* version of the latter, included for the same reasons as the two *Grove* titles.

The second concern of the 'survey' approach to physical examination of the encyclopaedia, that the selection of features would be subjective, suggested that, while the books should be examined as far as possible with 'innocent' eyes, some framework drawn from existing literature could be borne in mind, providing a warrant for the technique used to select features. The two sources of reference were Gérard Genette (1997) on paratexts and Henri Béjoint (1994) on metalexigraphy. Genette identified that a published text had what he called 'zones of transaction' (p2), that is, physical devices which mediate between the reader and the text, such as introductions or chapter headings. Identifying physical features which are additional to the informational content of an encyclopaedia provides a loose starting point for examining it. As this chapter will demonstrate, there are many more such devices commonly used in encyclopaedias (for example, cross-references, subject headings and textual boldening) than might be expected in the classic French novels which largely occupy Genette's analysis.

Béjoint, writing about lexical dictionaries, identified a macrostructure (the overall method by which the contents of the text are distributed throughout the book: in dictionaries this governs choices about whether to give phrases their own entry-heading, or to bundle them under a single catchword) and a microstructure (how individual entries are structured). Thinking about the structure of encyclopaedias and their entries in the same way provided a tested approach as to how to examine the sample in this chapter.

Nevertheless, during the process of examination, decisions remained as to whether to count or ignore features observed. Thus the subjectivity of the analysis could only really be addressed by examining each title twice. The first examination produced a list of physical characteristics observed in any one volume. This was compiled into an overall list and every title was then examined a second time so that the same criteria were used to assess the features of every title. While not avoiding the possibility that some features were missed in the initial examination, it ensured that an overall picture of the most-shared physical characteristics of the encyclopaedias sampled was drawn.

The final concern was that the features identified could not be guaranteed to be encyclopaedia-specific. To ensure that this had been fully explored, it would have been necessary to compare the results with a controlled list of the physical features of other forms of literature. In the research for this thesis, I could not locate any such existing list and to compile one myself would have extended the scope of the thesis far beyond its remit. However, where relevant, the features identified in encyclopaedias have been compared with reasonable generalisations about other types of books. Moreover, while the results cannot be guaranteed to describe an encyclopaedia uniquely, they do outline the physical makeup of the encyclopaedia. It is not unreasonable to assume that in combination they describe an encyclopaedia rather than any other kind of book. Finally, Chapter 6 is one of three providing evidence as to the nature of the encyclopaedia. The overall picture of the encyclopaedia, including its functional attributes as well as its physical ones, will be drawn from a more complex set of evidence.

## **6.3 Results**

### **6.3.1 Introduction**

The figures and analysis in the sections below illustrate in depth the different features identified from examining the books in the sample. However, this section offers a summary, indicating the types of physical characteristic observed. Note that in many cases it was not possible to identify the features in a binary sense (is it present or not?) as the features were often qualitative (what type or what extent is this feature there?).

#### **Overall features**

- Title of the book (inclusion of word ‘encyclopaedia’)
- Size
- Price

- Binding (hardback, paperback or both)

### **Macrostructure**

Definition: How the contents of the book are organised

- Structure of the book: alphabetical or a subject arrangement?
- Heading type used: name entries, subject entries or both?
- Article lengths: long, short or mixed?
- Book subject: does it cover multiple or a single topic?

### **Microstructure**

Definition: How each individual entry is structured

Do encyclopaedia entries contain the following things?

- Opening ‘summary sentence’ describing the subject of the entry
- Dates (for example, birth and death)
- Sub-headings
- Use of bold in headings
- Attribution, by signature or initials
- A bibliography attached to the entry itself
- Different typography used for name entries and subject entries

### **Front and back matter**

Definition: Presence of absence of paratextual elements preceding or succeeding the main text

- Introduction
- List of contributors and/or institutions
- Index
- Bibliography
- Illustrations
- Overview of subject coverage

A more concise summary of the most popular characteristics (in ranking of the number of titles in which they appeared the most) is:

1. Hardback edition
2. Information about contributors
3. Bibliographies
4. Alphabetical order



5. Mixture of long and short entries
6. Presence of subject entries
7. Mixture of subject and name entries (except in science titles)
8. Introductory guide to contents
9. Index
10. Cross-references
11. Bold headings
12. Subheadings
13. Summary sentences opening each entry

The following three initial figures illustrate findings on the three different aspects of the books, that is, macrostructural features, microstructural features and presence of front and back matter. The rest of this chapter analyses specific notable features identified from the research and how far they establish the definitive characteristics of an encyclopaedia.

*Macrostructural features observed in the titles*

<b>Title</b>	<b>Alphabetical/ Classified</b>	<b>Heading type (name/ subject / mix)</b>	<b>Single or multiple subjects</b>
British film catalogue	c (by year)	n	ss
Cambridge guide to children's books in English	a	m	ss
Censorship: a world encyclopedia	a	m	ss
Chambers book of facts	c	m	ms
Concise encyclopedia of science and technology	a	s	ss
Continuum encyclopedia children's literature	a	m	ss
Dictionary of literary characters	a	n	ss
Encyclopedia of ancient Greece	a	m	ss
Encyclopedia of post-colonial literatures in English	a	m	ss
Encyclopedia of science and technology	a	s	ss
Grove dictionary of art	a	m	ss
Grove encyclopedia of materials and techniques in art	a	s	ss
Internet encyclopedia	a	s	ss
Know it all, find it fast	a	s	ms
London: a musical gazetteer	c	m	ss
Oxford companion to Shakespeare	a	m	ss
Whitaker's London almanack	c	m	ms

Figure 6.1: Macrostructural features of the titles, listed in alphabetical order

Key:

a= In alphabetical order

c= In classified order

n=Name headings only

s= Subject headings only

m=Mixed name and subject headings

ss =Single-subject title

ms = Multiple-subject title

*Presence of microstructural features in the titles*

<b>Title</b>	<b>Summary sentence</b>	<b>Dates</b>	<b>Sub-heading</b>	<b>Bold heading</b>	<b>Attribution</b>	<b>Entry bibliog.</b>	<b>Different typography: name/subject entries</b>
British film catalogue	y	y	y	n	n	n	n/a
Cambridge children's books in English	y	y	n	y	y	n	y
Censorship: a world encyclopedia	y	y	n	y	y	y	y
Chambers book of facts	y	y	y	y	n	n	n/a
Concise encyclopedia of science and technology	y	n	y	y	y	n	n/a
Continuum encyclopedia children's literature	y	n	y	y	y	y	y
Dictionary of literary characters	n	n	y	y	n	n	n/a
Encyclopedia of ancient Greece	y	y	y	y	y	y	n
Encyclopedia of post-colonial literatures in English	y	n	y	y	y	y	y
Encyclopedia of science and technology	y	n	y	y	y	y	n/a
Grove dictionary of art	y	y	y	y	y	y	n
Grove encyclopedia of materials and techniques in art	y	n	y	y	n	y	n/a
Internet encyclopedia	n	n	y	y	y	y	n/a
Know it all, find it fast	y	n	y	y	n	y	n/a
London: A musical gazetteer	n	n	n	n	n	n	n/a
Oxford companion to Shakespeare	y	y	y	y	y	y	y
Whitaker's London almanack	n	n	y	y	n	n	y

Figure 6.2: Presence or absence of microstructural features of the titles (indicated by y/n for yes/no, in alphabetical order); n/a is used where only a single type of entry (subject or name) is present

*Presence of front and back matter in the title*

<b>Title</b>	<b>Intro- duction</b>	<b>Contributor statement</b>	<b>Index</b>	<b>Bibliography</b>	<b>Illustrations</b>	<b>Subject overview</b>
British film catalogue	y	n	y	n	n	n
Cambridge children's books in English	y	y	y	n	y	y
Censorship: a world encyclopedia	y	y	y	n	y	y
Chambers book of facts	y	n	y	n	y	y
Concise encyclopedia of science and technology	y	y	y	y	y	y
Continuum encyclopedia children's literature	y	n	y	n	y	y
Dictionary of literary characters	y	y	y	n	n	n
Encyclopedia of ancient Greece	y	y	y	n	n	y
Encyclopedia of post- colonial literatures in English	y	y	y	n	n	y
Encyclopedia of science and technology	y	y	y	n	y	y
Grove dictionary of art	y	y	y	n	y	n
Grove encyclopedia of materials and techniques in art	y	n	y	n	y	n
Internet encyclopedia	y	y	y	n	n	y
Know it all, find it fast	y	n	y	n	n	y
London: A musical gazetteer	y	n	y	y	y	n
Oxford companion to Shakespeare	y	y	n	y	y	y
Whitaker's London almanack	y	y	y	n	n	y

Figure 6.3: Presence of different types of front and back matter in the titles, indicated by y/n for yes or no, in alphabetical order

### 6.3.2 Overall features

It is worth stating that in answering the question ‘what features does an encyclopaedia hold’, there are certain characteristics common to the titles which are taken for granted and not enumerated. By nature of their selection source (that is, reviews of reference works) all the books sampled (referred to as encyclopaedias) are reference books. They were all designed for consultation rather than linear reading. As such, they all contain information in some way separated from a narrative form, reorganised into smaller chunks with one or more access points. Referring back to Béjoint’s defining characteristics of the dictionary (1994, p9), it is right to assume that all the titles examined will primarily comprise ‘a list of separate graphic statements’, albeit of varying lengths, and begin with an entry word, heading or title. The separateness of these statements means that they have both an internal and external order, thus a microstructure and macrostructure.

However, Béjoint was writing about lexical dictionaries, which shows that these features are characteristic but not exclusive to encyclopaedias. One of the purposes of the sample was to isolate the features which might be considered most indicative of ‘encyclopaedia-ness’. A starting point towards this is indicated by Figure 6.4. This shows a summary of those features held by the titles in the selection which can be answered in a binary, ‘yes / no’ fashion. This is a crude redaction of the results as it excludes qualitative or illustrative values. The table has other shortcomings. It is possible that some features have more weight than others, in exhibiting the characteristics of encyclopaedias. For example, subject overviews might be considered unique to encyclopaedias but may not appear in all the titles in the sample. This ranking does not take this possibility into account as it had no means to weight the criteria objectively. However, it works as a starting point in assessing which of the titles might be considered most like the ideal notion of the encyclopaedia. It also provides a useful reference list to compare with some of the specific features examined. Despite its limitations, the following sections assess features held by higher-ranking titles in Figure 6.4 as extra evidence towards their being specific to encyclopaedias.

*Titles ranked in order of number of features identified*

	<b>Title</b>	<b>Number of features</b>
1	Oxford companion to Shakespeare	14
2	Censorship: a world encyclopaedia	13
3	Grove dictionary of art	13
4	Concise encyclopedia of science and technology	13
5	Encyclopedia of ancient Greece	12
6	Encyclopedia of science and technology	12
7	Cambridge guide to children's books in English	11
8	Continuum encyclopaedia of children's literature	11
9	Encyclopedia of post-colonial literatures in English	10
10	Grove encyclopedia of materials and techniques in art	10
11	Internet encyclopaedia	10
12	Know it all, find it fast	10
13	Chambers book of facts	9
14	Dictionary of literary characters	8
15	Whitaker's London almanack	7
16	British film catalogue	5
17	London: a musical gazetteer	4

Figure 6.4: Titles ranked by number of binary features observed: note this does not include qualitative features such as size

Figure 6.4 represents an agglutination of features carried by titles in the collection where it was possible to identify the presence or absence of a feature as a yes/no answer. Titles rank highly which contain more features overall and these are thus considered to be ‘more like’ an encyclopaedia than others. It therefore acts as a point of reference for observations made on specific features in others sections of this chapter. The paragraphs below provide more depth and additional detail on some of the features and how they relate to the ‘encyclopaedia-ness’ of each title.

### 6.3.3 Title of book

It has been observed (for example, by Collison, 1966, p218) that a titular use of the word ‘encyclopaedia’ does not in itself define the nature of the book. With that in mind, the selection criteria for this research were deliberately formed to allow for works which do not carry it in their title. However, where it is used, its author and/or publisher may be assumed to have chosen it to describe the type of book they believe it to be. In this selection 7/17 (41%) of the titles include the word. It is worth comparing this to the information gained from a search of *Bowker books in print*. A search carried out on 12<sup>th</sup> February 2011 indicated that 44,199 books matched the search string “Markets: All; Keyword in Title: encyclopaedia

[or] Keyword in Title: encyclopedia; Status: In Print, Forthcoming; Subject Limiter: Non-fiction; Format: Book” as opposed to 80,557 matching “Markets: All; Keyword in Title: dictionary; Status: In Print, Forthcoming; Subject Limiter: Non-fiction; Format: Book”. It must be borne in mind that the latter will include the huge foreign language dictionary market, none of which will appear in the former search<sup>23</sup>.

It is also worth investigating whether there is any relation to the features observed in Figure 6.4 to the use of the name, as this would imply a relationship between the presence of a large number of these features and the term ‘encyclopaedia’. Figure 6.4 shows that although the title with the most features listed, the *Oxford companion to Shakespeare* is not named ‘encyclopaedia’, most of the following 10 titles are. Moreover, none of the titles which score fewer than 10 features have the term in their name. This indicates that while it is not essential for an encyclopaedia to carry the title, if it is ‘less like’ an encyclopaedia, it is less likely to have this title. The term ‘dictionary’, which is the only other title with more than one use, occurs twice and, interestingly, the titles are among both the highest- and lowest-scoring in the selection. The reasons for this in one of them, the *Grove dictionary of art* will be covered in section 6.2.8. The *Oxford companion* example is worth mentioning in the context of Genette’s comments on book series as a mark of identification and quality (1997, p22). As a distinguished series in its own right, ‘Oxford Companion’ perhaps trumps ‘dictionary’ or ‘encyclopaedia’. This is borne out by notes in the preface regarding the authority of the Shakespearean texts referred to (the same as in Oxford University Press’s editions of the plays) (Dobson and Wells, 2001, p7). For its authors, it is the ‘Oxford’ not the word ‘encyclopaedia’ which is a mark of the book’s quality.

#### 6.3.4 Front and back matter: Contributor information

Information about a book’s contributors can be recorded in two places: a ‘statement’ in the front or back matter and attribution at entry level by name or initials. As we have seen, authority is a key issue in the value judgements made about encyclopaedias. How much information encyclopaedia editors choose to give us about their contributors is an index of whether they feel their readers are concerned about their expertise and integrity. Eleven of the 17 titles have a contributor statement in either their front or back matter. Of these, six additionally list the institution the contributor represents. The format varies: in *The internet encyclopaedia* the entry for a contributor in the ‘List of contributors’ section reads:

‘Amy Wray

---

<sup>23</sup> For Sidney Landau’s thoughts on why the term ‘Dictionary’ is sometimes preferred in reference work titles, see Chapter 3, section 3.8

Bentley College

Business plans for E-commerce projects’

where the name heading is in bold, the institution in plain text and the article they wrote in italics. In the *Concise encyclopedia of science and technology*, where articles are much shorter, a similar section lists the contributors and institutions, but attribution is given by initialling the articles. A separate section provides a key to the initials. Ten of the titles offer any kind of attribution at the entry level. Of these, seven name their contributors in full and the other three provide initials only (although in each case they relate to a key in the front or back matter so they can be identified). Overall, 13 of the 17 titles (76.5%) had some kind of contributor attribution, suggesting it is highly characteristic of the form.

### 6.3.5 Front and back matter: Bibliographies

Another feature which might be considered to indicate authority is the provision of a bibliography, either to the volume as a whole, or to individual entries. A bibliography implies that contributors or editors are confident in stating the sources for their information. Only three of the titles include bibliographies for the book as a whole but ten append references to individual entries. Entry-level bibliographies, such as those in *Know it all, find it fast* are most like the sources and references given in journal articles. Those attached to the end of the title, such as that in *London: a musical gazetteer* are slightly different, in offering a ‘further reading’ service to the reader. This is an important feature, as the information it contains acts as a surrogate for the more in-depth knowledge which might be found by reading monographs or journal articles. The encyclopaedia entry can, like a cataloguing record or abstract, be considered as a sign or substitute for something bigger. This is a reminder of the function of the *summa*, outlined in Chapter 4, to provide summaries of learned knowledge for those not able to access libraries of original works. Only the *Oxford companion to Shakespeare* has both entry-level and work-level bibliographies but 12 out of 17 titles (70.5%) have one or the other, a high proportion, and this includes the top six according to the Figure 6.4 ranking.

### 6.3.6 Microstructural features

The presence of a microstructure is a genre-defining element of a work of reference. The information in reference books must at some level be physically divided into ‘graphical statements’ or entries to aid consultation. Unlike the division of a novel or non-fiction literary work by chapter headings (which are, in the words of Genette, “by no means absolutely essential ... Their potential presence extends from impossible to the indispensable”, 1997, p294) entry division is essential to a work reference book because it enables non-linear access.



There should also be a level of consistency and balance between different entries. Writers of modern monographs do not necessarily need chapters to be of an equal length (although many do aim for this and it was a necessity for novelists who published in serial form). Reference books show evidence of the publishers' markup; entry-headings, sub-headings and subsequent text, special typefaces or punctuation should follow an internally consistent logic which provides the reader with clues to the nature of the information. These divisions constitute an encyclopaedia entry's microstructure and exist even if the entry itself is many pages long.

Compare, for example, the *Concise encyclopedia of science and technology*, made up of short entries, with the *Internet encyclopedia* which consists of long articles. In both, headings are emboldened, and individual entries clearly set apart from each other. The subdivisions are different (emboldened entry words in the former, left aligned capitalised sub-headings in the latter) but are consistent throughout each title. Despite the great difference in approach to delivering information, both titles share notable microstructural features such as bold headings, sub-headings, summary sentence and article attribution.

That this is echoed across the whole sample can be seen in Figure 6.2. Articles in all titles are headed up with an entry term, and the latter is a bold heading in all but two of the titles. Most (14 out of 17 or 82%) also have graphically differentiated subheadings and nearly as many (13 out of 17 or 76%) begin each entry with some form of summary sentence. Of the eight titles which mix subject and name entries (see below) six (75%) also make typographical distinction between them. This indicates homogeneity in approach across the titles and a common microstructural approach for the encyclopaedia as a form. One might expect to find the same in other reference works (and in the case of the lexical dictionary, their role more pronounced) suggesting the microstructure could be considered a characteristic, rather than a unique feature of the encyclopaedia. However, an encyclopaedia having more discursive entries than a dictionary or gazetteer (according to the definition in Chapter 1) has a harder task to convey its information. The role of the microstructural paratexts is to convey in-depth information in a format made easy for consultation and it can the role of fonts and subheadings in achieving this can be considered definitively encyclopaedic in nature.

### **6.3.7 Subject arrangement and other finding aids**

Most of the titles examined (13 out of 17 or 76%) display their information in alphabetical order (see Figure 6.1: macrostructural elements). There are four exceptions: *London: a musical gazetteer*, which arranges entries by geographical location, *The Chambers book of facts* and

*Whitaker's London almanack*, which use a subject approach, and the *British film catalogue* which is arranged by date. All rank low in Figure 6.4 and none bears the title 'encyclopaedia'. This suggests alphabetical order has come to be one of the defining features of an encyclopaedia, despite resistance to its use before the 18<sup>th</sup> Century.

As mentioned in Chapter 4, alphabetical order divides information on related topics and scatters them across the alphabet. To aid navigation around the topic, subject overviews are sometimes provided in the form of written summaries and lists of headings, providing a key to where the knowledge lies in a work. Seven of the 17 titles sampled (41%) include them, notably *Censorship: a world encyclopedia*, which has both an alphabetical list of the contents and a thematic breakdown of all topics covered. Fully enumerated lists are not universal but briefer introductions or contents summaries appear in a further five titles. *The Chambers book of facts* which, overall, has very little front matter, gives over two thirds of its brief introduction to explaining the approach and advantages of the volume's subject arrangement. Thus in 12 cases (70.5%) there is some kind of prefatory guide to the book's knowledge organisation. The fact that most of the titles included cover a single topic (as a contrast to, for example, *Encyclopaedia Britannica* which includes both diagrams and verbal explanations of its multi-topic subject structure) has not stopped them providing subject overviews.

Among the characteristics enumerated in Figure 6.4 are several which, like subject overviews, aim to help the reader retrieve information in addition to its fundamental arrangement. The index is the most common of these, and only one of the 17 titles does not have an index. This title, *The Oxford companion to Shakespeare* does, however, have one of the most complex of all introductions to its subject structure, so perhaps it was thought that this would suffice. Indexes are a common feature in many types of book. As Uschtrin (2011) puts it "As a general rule, every non-fiction book (guides, factual books and textbooks) should have an index; only very slim books can sometimes do without. This is particularly true of works with a high reference value such as manuals, handbooks and books for the practitioner". Thus, while we should certainly expect to find an index in an encyclopaedia, they are not a defining feature.

Cross-references, however, are rarely found in books designed to be read in a linear fashion. They are normally distinguished typographically by use of small capitals, italics or bold text. They can be found next to the title, for example 'Myanmar' cross-referred to 'Burma' in *Censorship, a world encyclopedia*, in the body of the entry (in *A dictionary of literary characters* the entry 'Pip', a character from Charles Dickens' *Great expectations*, includes references in the text

to other characters from the same novel which have their own entries such as ‘Havisham, Miss’) and at the bottom (for example in *The Continuum encyclopedia of children’s literature* where ‘see’ and ‘see also’ point readers to related entries such as titles by the author). Twelve of the titles (70.5%) include cross-references, including the top nine in the Figure 6.4 ranking. They can thus be considered both characteristic of the form and specific to it.

### 6.3.8 Size

Both the number of pages (book length) and length in centimetres (book size) were noted as size indicators (the width was considered less important and the depth better indicated by number of pages). Figures 6.5 and 6.6 below indicate both in ascending order. Although the exact placings are different, they share some of the top and bottom five titles. Book lengths and numbers of pages are of course related, but it is possible to publish a longer book which is not necessarily bigger in dimensions.

Standard book sizes, as indicated by their lengths and widths, originate in the size of paper-making frames and the pages formed by folding the resulting sheet of paper (for example, into folio, a single fold into two pages, quarto, two folds into four pages, and octavo four folds into eight pages) (Bann, 2011, p216). Genette (1997, p18) notes that the strong associations of a larger size with better quality up until the 19<sup>th</sup> Century have eased and, in trade publishing at least, sizes have standardised. Collison (1966, p10) notes that contemporary encyclopedias had become “comparatively small compared with many of the encyclopaedias produced up to the end of the nineteenth century.” He discusses multi-volume titles of 16 to 24 volumes (unlike the one or two hundred volume works of the previous century) occupying a mere three to four feet of quarto shelf space (p11). The reference books in this sample conform to a fairly narrow range of dimensions. All 17 titles’ heights fall between standard octavo (18.6 to 23.4cm) and quarto (24.6 to 31.2cm) sizes (Bann, 2011, p217). This suggests that number of pages has more variation than physical size.

*Sizes of titles examined*

	<b>Title</b>	<b>Length in cm</b>
1	Chambers book of facts	21.6
2	Whitaker's London almanack	22
3	Know it all, find it fast	23.4
4	London: a musical gazetteer	23.4
5	Continuum encyclopaedia children's literature	24.1
6	Cambridge guide to children's books in English	24.8
7	Dictionary of literary characters	25.2
8	Grove encyclopedia of materials and techniques in art	25.4
9	Encyclopedia of post-colonial literatures in English	25.7
10	Grove dictionary of art	26
11	Oxford companion to Shakespeare	27.7
12	Concise encyclopedia of science and technology	28
13	Encyclopedia of ancient Greece	29
14	Encyclopedia of science and technology	29
15	Internet encyclopaedia	29.8
16	Censorship: a world encyclopaedia	29.8
17	British film catalogue	30.1

*Figure 6.5: Titles in ascending size order, length in centimetres*

*Length of titles compared with other features*

	<b>Title</b>	<b>No of pages</b>	<b>Type of entry</b>	<b>Figure 6.4 ranking</b>	<b>Subject overview</b>
1	Know it all, find it fast	340	subject	12	No
2	London: A musical gazetteer	371	mixed	17	No
3	Oxford companion to Shakespeare	541	mixed	1	Yes
4	Encyclopedia of post-colonial literatures in English	558	mixed	9	Yes
5	Whitaker's London almanack	583	mixed	15	Yes
6	Cambridge guide to children's books in English	814	mixed	7	No
7	Dictionary of literary characters	818	name	14	No
8	Encyclopedia of ancient Greece	832	mixed	5	Yes
9	Continuum encyclopaedia of children's literature	863	mixed	8	Yes
10	Grove encyclopedia of materials and techniques in art	864	subject	10	No
11	Chambers book of facts	978	mixed	13	No
12	British film catalogue	1600	name	16	No
13	Concise encyclopedia of science and technology	2651	subject	4	No
14	Internet encyclopaedia	2688	subject	11	Yes
15	Censorship: a world encyclopaedia	2950	mixed	2	Yes
16	Encyclopedia of science and technology	15600	subject	6	No
17	Grove dictionary of art	32600	mixed	3	No

*Figure 6.6: Titles in page number order, compared with type of entry they hold (name, subject or mixed), the presence of a prefatory subject overview and their ranking in Figure 6.4 reference table*

Figure 6.6 lists the titles in size order by numbers of pages. Some comparative columns explore the implication that a longer work has more serious or scholarly import. The criteria chosen to indicate this are 1. use of the word 'encyclopaedia' 2. inclusion of subject entries 3. inclusion of subject overviews and 4. high-ranking in Figure 6.4.

The first column is included to ask whether longer works are more likely to be called 'encyclopaedia'? By this evidence, there is a relationship, as only one of the shortest five titles has the title, whereas only one of the longest does not (and all five are multi-volume works). The exceptions in both cases are interesting. *The Grove dictionary of art's* titular use of

‘dictionary’ rather than ‘encyclopaedia’ can be attributed to its historical lineage, as it was planned as a successor to the *New Grove dictionary of music and musicians* (Moore, 1996) itself a historical title based on the original four-volume *Dictionary* edited by George Grove between 1874 and 1889 (Young, 2006). The use of the term does not indicate a comment on its form because the ‘New Grove Dictionary’ has become a brand associated with large multi-volume sets. The use of ‘encyclopaedia’ in the title of the single-volume *Encyclopedia of post-colonial literature in English* shows that shorter works can bear the title too, although it is less common.

The second column points up whether a longer work is more likely to be organised around subject rather than name entries. As indicated in Chapter 4, subject entries have traditionally been considered more serious and scholarly than information made available by person or country name as were the historical and biographical dictionaries. The relationship is not simple, however, as there has been a tradition since the 19<sup>th</sup> Century of affordable single-volume reference works offering simple subject information. Early terminological dictionaries were also aimed at a less affluent market than full-scale encyclopaedias and were entirely subject-based in nature (this is also covered in Chapter 4, section 4.7.3). In fact, Figure 6.6 suggests that most titles, regardless of length, are likely to offer readers mixed access to the information they contain. This can, therefore, be considered a characteristic feature of the encyclopaedia. With one exception, those which contain subject access to information only are all among the longer books. They are also all science-related. It is logical to make a connection between humanities topics and the presence of name- (notable people) and title- (artistic or literary works) entries, in a way it is not for science works.

Thirdly, the presence or absence of subject overviews was noted to see if they appear more often in longer works. Surprisingly there appears to be no connection between the length of an encyclopaedia and whether or not an overview is supplied. The geography of a title is likely to be more complex the longer it is, requiring some kind of guide, particularly if it covers more than one volume. However, of the five longest titles, only two have introductions to their subject structure, and two of the shorter titles do have them. It may be that it is the depth of the topic rather than the length of the work which requires a subject overview. Another explanation is that subject overviews are simply less common as finding aids in modern encyclopaedias than cross-references or indexes.

Finally, the order of titles in Figure 6.6 is ranked against that of Figure 6.4, to see if there is a connection between the number of encyclopaedia-like features they held and their length. There would seem to be a relationship as four out of the five longest titles score in the top

six of Figure 6.4. It is true that more pages allow for more features overall, particularly in the case of front and back matter, but some of the encyclopaedic features, for example, cross-references, are marks of editorial effort, rather than provision of ample pages. It is worth considering the exceptions, however. The *British Film Catalogue* is the second lowest-ranking of the titles in Figure 6.4 and among the longest titles. It appears to be something of an outlier given that it is also the only long title without any subject access to its contents. The *Oxford companion to Shakespeare* is the highest ranked of titles on encyclopaedic features, but is among the shorter titles. Clearly length alone is not a definitive feature of an encyclopaedia, but it is associated with those with the most ‘encyclopaedic’ features.

### **6.3.9 Price and paperback editions**

Whether a book has a high or low price, and comes in a paperback or hardback edition, can be considered indicators as to whether the title is intended for domestic or more scholarly use. As with size, these features have a notional relationship with quality. Figure 6.7 examines the relationship between price, book format and the ranking in Figure 6.4. The figure also explores whether the provision of information about contributors, as an additional mark of authority, is associated with a higher price.

*Titles in ascending price order, compared with other features*

<b>Title</b>	<b>Price</b>	<b>Figure 6.4 ranking</b>	<b>Book format</b>	<b>Contributor information</b>
Chambers book of facts	14.99	13	Both	No
London: A musical gazetteer	15.99	17	Pb	No
Know it all, find it fast	24.95	12	Pb	No
Dictionary of literary characters	25.00	14	Both	Yes
Oxford companion to Shakespeare	30.00	1	Both	Yes
Whitaker's London almanack	32.00	15	Pb	Yes
Cambridge guide to children's books in English	35.00	7	Hb	Yes
Grove encyclopedia of materials and techniques in art	75.00	10	Hb	No
Continuum encyclopedia children's literature	95.00	8	Hb	Yes
Concise encyclopedia of science and technology	100.00	4	Hb	Yes
Encyclopedia of ancient Greece	110.00	5	Both	Yes
Encyclopedia of post-colonial literatures in English	250.00	9	Hb	Yes
British film catalogue	275.00		Hb	Yes
Censorship: a world encyclopedia	405.00	2	Hb	Yes
Internet encyclopedia	420.00	11	Hb	Yes
Grove dictionary of art	650.00	3	Hb	Yes
Encyclopedia of science and technology	1935.00	6	Hb	Yes

Figure 6.7: *Titles in order of price (prices accurate as of February 2011), compared against Figure 6.4 ranking, format of the book and presence or absence of contributor information*

Four of the 17 titles (23.5%) had paperback and hardback editions, three were only available in paperback and ten only had hardback editions. The five longest titles were all only available in hardback (a logical relationship as hard boards are more supportive for longer works) as were eight out of the nine with ‘encyclopaedia’ in the title. Thus, 14 out of the 17 titles (82%) were available in hardback, which suggests that this is the format in which we should most expect to find an encyclopedia, particularly a longer one, and particularly if it bears the word ‘encyclopaedia’ in the title. There also appears to be a connection with the price of an encyclopaedia and titular use of the word. Of the two exceptions, *The Grove dictionary of art’s* title is, as explained above, exceptional and the *British film catalogue* once again seems to be demonstrating its outlier status, as its length belies the fact that it is otherwise very different



from the other titles in the selection. The most expensive works are also, as might be expected, among the longest.

There is an identifiable group of lower-priced titles between £15 and £35 pounds. Although corroborating figures on consumer habits when buying reference works for the home were unobtainable, the lower costs, and notable jump to the next nearest price, suggest they are intended to be bought for home use. Most of the remaining titles cost more than £100 each which, as East notes on subject encyclopaedia prices, suggests an institutional purchaser (East, 2010). The notable exception is the *Grove encyclopedia of materials and techniques*. Although there is not space here to examine pricing models in depth, there may be a relationship with the fact that, as a title, it repurposes research used originally for the larger *Dictionary of art* (Stevenson, 2011, remarks on the profitability of such offshoots for reference publishers). That is, it is priced by comparison with the main work and could have been more or less expensive if priced on its subject matter alone<sup>24</sup>. Other than this exception, there appears to be a clear separation between low and high-priced books, rather than a sliding scale, presumably marking the difference between those aimed at the home market and those intended institutional purchase. The distribution between the categories is more or less equal, suggesting that the market for encyclopaedias is fairly evenly divided between the two groups of purchasers.

The prices in the selection are, as might be expected, consistent with the length of the work. Both the longest and most expensive titles tend to have the most encyclopaedic features. To pull out a single feature, most (13 out of 17 or 76%) of the titles have contributor statements or attribute their entries. Of the four which do not, three are the lowest-priced titles. This indicates that superior authority, evidenced by contributor information, may be something which costs money or is perceived to be worth paying more money for. Given that most contributors are paid very little if at all, the cost must be seen in editorial hours, in particular the time taken to find, commission and receive articles from qualified contributors, rather than the cost of paying for contributions.

### 6.3.10 Article length

The purpose of this section is to consider whether longer or shorter articles predominate in the titles examined. It looks at the length of articles in the different titles both in absolute

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<sup>24</sup> Three comparable titles have a cheaper list price *The HarperCollins Dictionary Art Terms and Techniques* by Ralph Mayer (HarperReference, 1991) is \$23.95, *The Thames & Hudson Dictionary of Art Terms* by Edward Lucie-Smith (Thames and Hudson, 2003) is £8.95 and *The Concise Oxford Dictionary of Art Terms* by Michael Clarke (Oxford University Press, 2010) is £9.99

and proportional terms. Length is a qualitative rather than a binary feature, needing to be expressed by descriptive values. As it was not possible to count every single article in each book, a mean was estimated from a sample of pages. The methodology used requires some explanation.

*Maximum and minimum sizes of articles*

Maximum and minimum size of article was chosen as an indicator of article size for two reasons. First, the nature of most (but not all) reference book commissioning means that articles tend towards a standard length within a title, with exceptions for particular topics. Some editors commission articles from their contributors according to a scheme, depending on the type of article (for example, two pages for a subject entry, half a page for a short biography, three to four lines for a terminological definition). This means that the size of any single article is likely to be similar to others of the same type within the volume. With this in mind, measuring the maximum and minimum size of article in order to determine what kind of article size predominates could be seen as more representative than counting the lines of a sample to calculate a single mean length.

With the very large encyclopaedias it was almost impossible to verify that the shortest or longest article had been identified, but one obviously among the longest in the volume being examined was chosen. Lines were counted for short articles and pages for long ones, that is, longer than a single page, to avoid having to count the lines in entries of several pages. In order for comparison between the readings therefore, an average lines-per-page reading was produced by counting and averaging lines across 2 pages. Lines were counted for the main text of the entry, rather than other materials such as title, date or contributor initials. With some titles this was more problematic, for example with *Know it all, find it fast*, where the substance of the page is reference material, rather than discursive text. In examples like these, the whole entry was counted.

*Short versus long articles and entries*

To investigate whether a certain number or proportion of short or long articles were more characteristic of encyclopaedias, a 'long' article was defined as being more than a single page of the volume. For each title, ten random double pages were sampled and examined twice. The first count was to ascertain the *number* of full entries of either long or short articles, (that is, excluding 'see also' references). In the second, the *proportion* of long to short articles for each title was calculated by assessing how many pages were substantially composed of either type of entry (thus, if out of 20 pages, 15 were mostly taken up with an article which was less

than a page long, the reading would be 15/20 or 75%). It was necessary to count both number and proportion because long articles, by definition, take up more space than short ones, which would distort results by number of articles alone (for example a single article might take up 20 pages, producing a count of one). With some titles, identifying an article as a distinct unit was problematic, particularly where the entries are largely listings (for example, *The Chambers book of facts*). On occasions such as these I identified distinct sections as single 'entries' from the use of heading types (bold, capitals etc). Finally certain titles only had articles which could be considered either short or long, represented by 100 or 0% scores.

Thus, Figure 6.8 compares the titles with the shortest minimum article length with their 6.4 ranking and adds columns for the highest number and percentage of short articles.

*Number and proportion of long and short articles in the titles*

<b>Title of book</b>	<b>Min length</b>	<b>Max length</b>	<b>% Short articles (by no)</b>	<b>% Short articles (by space)</b>	<b>Fig 6.4 ranking</b>
Chambers book of facts	1	53	83	90	13
British film catalogue	2	3	100	100	16
Grove encyclopedia of materials and techniques in art	3	2875	45.5	90	10
London: a musical gazetteer	4	108	19	50	17
Oxford companion to Shakespeare	4	495	55	60	1
Dictionary of literary characters	5	30	n/a	n/a	14
Whitaker's London almanack	6	200	76.5	75	15
Concise encyclopedia of science and technology	9	366	7.5	30	4
Encyclopedia of science and technology	9	1008	64	90	6
Continuum encyclopedia children's literature	11	200	23	30	8
Encyclopedia of post-colonial literatures in English	12	675	20	40	9
Grove dictionary of art	14	1472	13	65	3
Cambridge guide to children's books in English	20	180	5	20	7
Know it all, find it fast	24	48			12
Encyclopedia of ancient Greece	56	900	69	89.5	5
Censorship: a world encyclopedia	83	1328	0	0	2
Internet encyclopedia	944	18408	0	0	11

*Figure 6.8: Article length in the titles, in ascending order of minimum article length.*

*No. of short articles (ie shorter than 1 pages) counted out of total no. in a 10 random double-page sample*  
*Proportion of articles counted as no. of pages mostly made of short articles in 10 random double-pages*  
*eg 83% of articles in the Chambers Book of Facts were less than 1 page long, but 90% of the pages were mostly made of short articles.*

Figure 6.8 illustrates that there is a huge range of article lengths to be found in encyclopaedias. However certain patterns can be discerned. Longer minimum and maximum article lengths (and, thus, one can assume, longer articles overall) are more likely to be associated with the word ‘encyclopaedia’ in the title. The shorter minimum article lengths tend to be associated with the titles which rank low on encyclopaedic features identified in Figure 6.4. Both these observations suggest that longer articles are more typical of an encyclopaedia. But length in and of itself clearly is not a clear indicator. The *Internet encyclopaedia* only has long articles and some articles of extreme length. Yet its rank in Figure 6.4 was only 11<sup>th</sup>, and the title carrying the next longest article maximum, *Grove encyclopaedia of materials and techniques* ranks 10<sup>th</sup> (although the next two rank 3<sup>rd</sup> and 2<sup>nd</sup>).

Percentages of short to long articles show a similar mix. Here the clearest pattern is that those titles with entirely short entries rank low in Figure 6.4. Those with entirely long entries are less conclusive, with two ranking low but one, *Censorship*, the second highest. This is perhaps because whereas all short entries are shorter than a single page, long entries might vary between a single page and many pages. A suggestion might be that, while articles of a page or longer can be considered a feature of the encyclopaedia, very long articles are not especially typical. In fact, a healthy mix of article lengths is preferred. Twelve out of 17 (70.5%) prefer a mix of article lengths to either predominantly long or short ones.

The use of the word ‘encyclopaedia’ in the title is, however, associated with longer articles. None of those in the selection which used it had purely short entries, whereas two of the three which only have long entries use the word. In fact, the five longest maximum entries were, with one exception, all from titles using the term. The exception, *The Grove dictionary of art*, as we have previously seen, bears this title somewhat anomalously. Overall, therefore, long articles can be seen as a feature of encyclopaedias, consistent with the definition given in Chapter 1 and possibly suggests that the real difference between a non-lexical dictionary and an encyclopaedia is article length.

### 6.3.11 Types of article

As described in Chapter 4, until the end of the 18<sup>th</sup> Century, encyclopaedias did not contain biographical entries. These instead were relegated to historical, geographical and biographical dictionaries. This section seeks to prove if there is a residual connection between a preference for subject entries and more encyclopaedic qualities as indicated in Figure 6.4. Name entries are in some ways more formulaic than subject entries. All person entries, or all country entries, might be considered to resemble one another, whereas every topical entry will be uniquely

dictated by the nature of the topic. Figure 6.9 also explores whether more prestigious titles (judged here by price) are more likely to have subject entries. A caveat which slightly distorts the figures lies in the fact that entries in terminological dictionaries qualify as subject entries, although, as explored in Chapter 4, they are traditionally considered less scholarly than those books containing long discursive entries. *The Chambers book of facts* contains terminological glossaries although its price, size and lack of contributor information indicate it is not intended for a scholarly audience and therefore might be considered less prestigious.

A name entry is one in which knowledge is made accessible by the name of a person, place or title (for example of a literary work). Nine of the 17 titles (53%) contain a mixture of name and subject entries. A proportion of subject to name entries was calculated using a similar method as long to short entries, producing two different readings for proportion by space and by number. In *Censorship: a world encyclopedia*, country entries were treated as subject rather than name entries, as their approach was similar to the topical entries than the person entries, in that they did not follow any set structure and varied considerably in length.

*Encyclopaedia's subject-entry content*

Title	% Subject articles by number	% Subject articles by Space	Price in pounds	Figure 6.4 ranking
Internet encyclopedia	100	100	75	11
Concise encyclopedia of science and technology	100	100	420	4
Know it all, find it fast	100	100	100	12
Encyclopedia of science and technology	100	100	1935	6
Chambers book of facts	100	100	24.95	13
Grove encyclopedia of materials and techniques in art	100	100	25	10
Whitaker's London almanack	93.5	55	14.99	15
Cambridge Guide to children's books in English	86.5	78	250	7
Censorship: a world encyclopedia	39	70	32	2
Encyclopedia of ancient Greece	33	45	110	5
Oxford companion to Shakespeare	24	41	30	1
Encyclopedia of post-colonial literatures in English	18.5	30	95	9
Continuum encyclopedia of children's literature	10.5	35	95	8
Grove dictionary of art	6	90	405	3
British Film Catalogue	0	0	650	16
London: a musical gazetteer	0	0	275	17
Dictionary of literary characters	0	0	15.99	14

*Figure 6.9: Types of entry, sorted by number of percentage of subject articles in the title (by number of articles in a random 10 double-page sample). Percentage by space refers to number of pages mostly made of subject entries in a random 10 double-page sample.*

*eg Whitaker's London almanack had 93.5% subject entries out of the total number of articles in 10 random double pages, but only 55% of those pages were mostly made up of subject entries*

The presence of subject entries in an encyclopaedia which contains both name and subject entries appears to be associated with a high ranking in Figure 6.4. All three of the titles which have name-only entries are ranked low in this list. Additionally, none of the three bears the title ‘encyclopaedia’. Conversely, only one of the titles with *only* subject entries appears in top five ranking, suggesting that a mixture of subject and name entries is more typical. As previously mentioned all three of the purely scientific titles are in this category. Of the mixed titles, two of the most subject-heavy titles, *Censorship: a world encyclopedia* and *The Grove dictionary of art* are also ranked in the top three. However, if there is a connection to prestige, it is not represented by price. Of the five most expensive titles, two were subject-only, two name-only and one mixed. The two subject-only titles are both scientific, a scholarly community accustomed to high expenditure on research materials. Overall, a mixture is preferred although the presence of subject entries is associated with a high ranking in Figure 6.4. This is worth noting because it bars notable biographical dictionaries such as the *Oxford dictionary of national biography* from being considered to be encyclopaedias.

#### 6.3.12 Summary of results

On the basis of those features which occur the most frequently in this selection, it is possible to discern a number of common elements of the encyclopaedia. As mentioned above, the most common characteristics (all occurring in 12 or more of the titles) are as follows:

1. Hardback edition
2. Information about contributors
3. Bibliographies
4. Alphabetical order
5. Mixture of long and short entries
6. Presence of subject entries
7. Mixture of subject and name entries (except in science titles)
8. Introductory guide to contents
9. Index
10. Cross-references
11. Bold headings
12. Subheadings
13. Summary sentences opening each entry



These features are in addition to those assumed to be held by all titles (such as pages, front cover and division into entries), outlined in the section ‘Overall features’ above. Most titles examined in this sample are subject specialist rather than multi-topic in nature.

When considering the least popular characteristics, it is important to remember that the method of counting mitigated against finding things which were less common in encyclopaedias, as features that occurred more often were those that were noted down. Clearly, the lack of the most popular items found in the list above (eg index or contributor information) can be considered uncharacteristic of the encyclopaedia. But specific features which scored low included:

- Subject or classified order
- Name-only entries
- Multiple subjects
- Paperback-only editions
- Purely long or short articles
- Dates in entries
- Bibliographies to the whole volume
- Subject overview
- ‘Encyclopaedia’ in the title

The mere absence of certain features might be less important than the title in which they fail to appear. In the paragraphs above, a notional weighting was given to titles which ranked highly in Figure 6.4: the features they displayed were considered to be more indicative of ‘encyclopaedia-ness’ than those which did not. Other potential weightings explored above included the use of the name encyclopaedia and the price of the title. This is an important indication that there may be different ‘levels’ of encyclopaedias, and some items or groups of items are more ‘encyclopaedic’ than others. It suggests that further research might be possible, beyond the scope of this thesis, which might provide a weighting for certain features which occur less frequently but which are nevertheless highly typical of an encyclopaedia. The unranked figures above, however, are simply the items which were less common features, of those which were noted.

The appearance of multiple subjects in this list is worth noting. Although large-scale multi-topic encyclopaedias are rare, they are nevertheless an important phenomenon in encyclopaedia publishing. There is no doubt that such encyclopaedias exist and, by nature of

their scale and ubiquity, are important to the encyclopaedia users and publishers, but they do not appear in this sample as none were reviewed in the publications examined during the time period.

The use of the title term ‘encyclopaedia’ in the sample occurs more frequently than any other term (even ‘dictionary’ only appears twice), but was not overwhelming. However, those books called ‘encyclopaedias’ are more likely to score high in Figure 6.4. There is also a connection between those called encyclopaedia and a larger number of pages. Longer works, on the whole, also rank high in Figure 6.4. Naturally enough, longer books are more likely to come in hardback editions and be more expensive. It is both true that a high price is associated with the use of the term ‘encyclopaedia’ in the title and a low one with a low ranking in Figure 6.4. However, there are roughly equal numbers of books in the high-and low-price categories. These categories are clearly marked, rather than rising on a gradual scale.

The range of different article lengths across the titles was large. However a longer maximum and minimum length is associated with the titular use of ‘encyclopaedia’. Shorter minimum length entries score low on Figure 6.4, and this is marked for those which only had short entries. Overall, a mixture is preferred both for article length and for type of article. However, whereas titles which only contain name entries rank low in Figure 6.4, subject-only volumes appear higher up in the list, and are more likely to be called ‘encyclopaedias’. The highest ranking titles on the whole had a mixture of subject and name entries.

#### **6.4 Conclusions**

The results above show a recurrence of both characteristic and distinct features sufficient to describe the parts of out of which a physical encyclopaedia is made. Certainly they differentiate the encyclopaedia from the lexical dictionary (which, for example, typically has only short entries) or other reference types like the recipe book (which is rarely in alphabetical order), dictionary of quotations or gazetteer (in both of which all the headings tend to be name entries). Unlike the functions identified in Chapter 5, the distinctiveness of the combination of popular features in this chapter shows that the encyclopaedia has a unique physical form. These results could, however, have been more forcefully indicated had a set of books which did not match the definition of encyclopaedia given in Chapter 1 also been examined and the features noted compared.

Having produced a list of physical characteristics common to the encyclopaedia, the next section considers whether the results present a picture consistent with the results found in Chapter 5.

### **6.5 Comparisons with results in Chapter 5**

Picking a sample of titles which was a subset of those used in Chapter 5, made it possible to compare some of the results from the two chapters. This section proposes to do this in two ways. The first method works on the assumption that certain parallels can be drawn between some of the functions evaluated in Chapter 5 and the features identified in this chapter. For example, the quality of authority could be aligned with the featuring of contributor information because the authority could be seen to be provided by the prestige of the contributor or their institution. It would then be possible to compare how the equivalent characteristics compared in their rankings. Although such relationships are notional and do not apply to all characteristics found in both chapters, it is worth examining them to see if a pattern can be discerned:

<b>Quality (Chapter 5)</b> (Number of statements)	<b>Feature (Chapter 6)</b>	<b>Relationship</b>	<b>Chapter 6 Ranking</b> (Number of titles holding this feature)
Comprehensivity (80)	Subject overview	Subject overviews lay out the scope and coverage of the topics covered	6 (7)
Reasons (79)	Preface	Preface outlines the purpose and justification for publication	=1 (17)
Quality (77)	Price above £100	Indicates the target market	5 (8)
Accessibility (54)	Index / Xref	Important means of creating accessibility	=1 (17)
Extras (45)	Bibliography /illustrations	Notable extras	4 (10)
Authority (30)	Contributor statement	Indicates from where the source material is drawn	3 (11)

Figure 6.10: Chapter 5 functions (in ranking order) and their equivalent features from Chapter 6

Interestingly, there is no great relationship between the valued functional attribute and the number of titles which hold the feature which might be considered to illustrate it most obviously. The preface, illustrative of the most valued quality, the reasons for the title's existence, does occur in every single title in Chapter 6. However indexes and cross-references also do. These might be considered to represent the function of accessibility, but this is a far less valued function. The other two most-mentioned characteristics, comprehensivity and quality, are illustrated by physical features in less than half the titles. The relationship between the features and qualities is partial at best, and unlikely to be the only features examined by critics. But it is difficult to discern a relationship between the most commonly observed physical characteristics and the possible functions to which they relate.

The second method of comparison compares the rankings given to the individual titles which appear in both Chapter 4 and Chapter 5. In Chapter 5 the rankings of individual titles was problematic, largely because of the nature of the review literature and the unit identified for counting. That chapter concluded that it is not possible to assume that a title is a better example of an encyclopaedia because more positive value statements were counted in their review, because of the varying review lengths. Nevertheless, having produced the two (differing) rankings on the titles examined in Chapter 5, it is worth comparing them to the ranking results in Chapter 6, where they are the same book:

*Comparative ranking of titles across Chapters 5 and 6*

<b>Title</b>	<b>Ranking by quality, method 1</b>	<b>Ranking by quality, method 2</b>	<b>Ranking in Chapter 6, Figure 6.4</b>
Dobson	10	10	1
Foreman	8	1	2
Jones	1	7	3
Wilson	5	3	4
Watson	3	9	5
Continuum Child	4	6	6
Benson	7	2	7
Duckett	9	5	8
Chambers facts	2	8	9
Chambers Char	6	4	10
Whitakers	12	12	11
Gifford	11	11	12

Figure 6.11: Comparison of the rankings according to Chapter 6, and both methods in Chapter 5

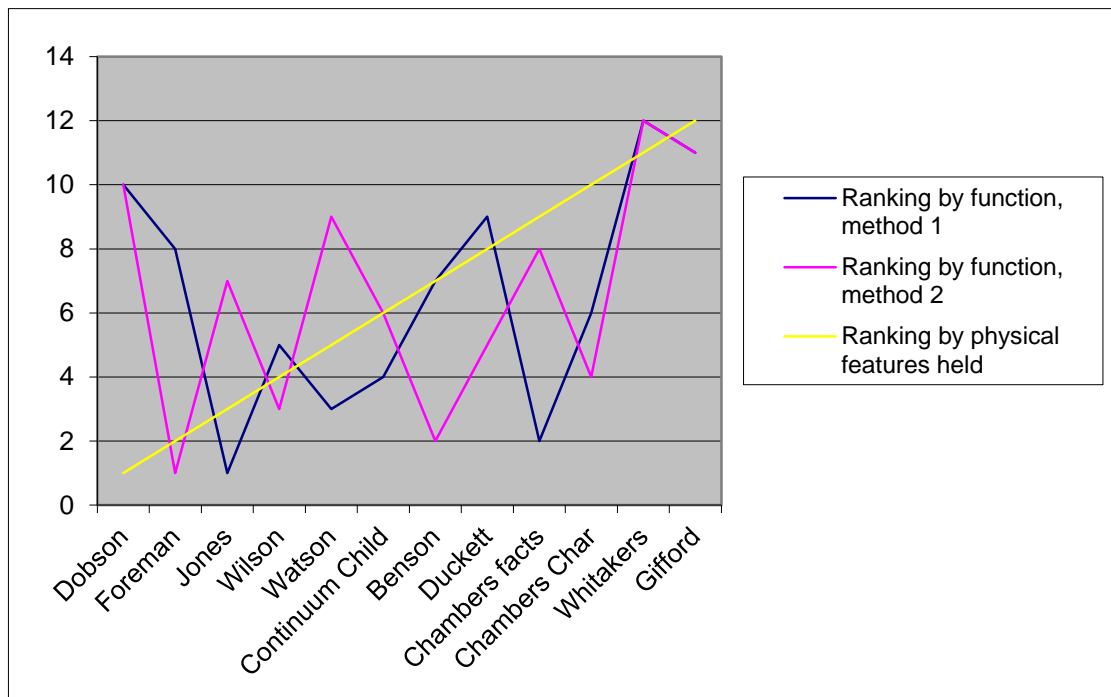


Figure 6.12: Differences in rankings according to Chapter 6 data (the pale / yellow line) and both methods of ranking in Chapter 5

The rankings across Chapters 5 and 6 do not show any consistency as to which titles were ranked most highly. Whether either system of ranking is used, the results only really compare at the lowest end of the ranking, where the *British film catalogue* and *Whitaker's London almanack* ranked poorly in Chapter 5 and also contained few of the encyclopaedia-defining features in Figure 6.4 of this chapter. This indicates that while reviewers have a reasonably clear idea of what makes an encyclopaedia good or bad of its kind, they do not have to contain all the features which might be considered encyclopaedic to succeed. Titles such as *The Chambers book of facts* (ranked 4<sup>th</sup> by method 1 of ranking by function in Chapter 5) have been reviewed as successes, even if they might be considered to be marginal as encyclopaedias in terms of their physical features (ranked 10<sup>th</sup> out of 12 by physical features considered in Chapter 6). Perhaps this indicates a problem with using review literature as a textual source, as what is valued by reviewers does not correlate exactly with what makes the titles encyclopaedias. To that end, Chapter 5's evidence is supplemented with more specific textual analysis in Chapter 7.

## **6.6 Conclusions to comparison between Chapters 5 and 6**

Chapters 5 and 6 have explored both the functions we might expect an encyclopaedia to have and what it looks like physically too. Lists of each have been produced (see 6.2.12, above, and 5.4 in the previous chapter) act as definitions of an encyclopaedia. Because the same titles occur in the samples for both chapters, an attempt was made to map the results against each other, both by drawing a relationship between the qualities and physical features identified in each chapter, and by comparing the rankings of titles. Had certain equivalent characteristics or titles scored highly in both sets of analyses, their qualities would have constituted a powerful subset of encyclopaedia-defining criteria. However, the results do not produce a consistent quantitative conclusion. The rankings across the two chapters produce only a small consensus on the most 'encyclopaedia-defining' characteristics and 'encyclopaedic' titles. However, from a qualitative viewpoint, the results are valuable. By considering all the characteristics (both abstract and physical) discovered across both chapters, a clear picture is built of the encyclopaedia, both as a physical entity and a valued information source. And the distinctiveness of the features identified in this chapter, added to the characteristic functions identified in Chapter 5 do create a unique picture of particular type of book. This will be explored further in this thesis's conclusions.

In attempting to produce a distinctive list of physical features common to the encyclopaedia, this Chapter has employed some experimental methodology. The author is not aware of any previous study attempting to define a literary genre by surveying the physical components of

which its products are made. This has made some of the results questionable, as the methodology no doubt needs some fine tuning. However, as an approach it is one that could prove useful in providing objective criteria as to what characterises certain forms of the book.

Chapter 7 aims to add validity to the picture drawn by Chapters 5 and 6. It does this by interviewing and surveying those who create and use encyclopaedias and by examining written texts produced by them which might indicate their opinions on what an encyclopaedia should be.

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## **Chapter 7: The communication circuit of the encyclopaedia**

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### **7.1 Introduction**

Where Chapters 5 and 6 sought to gather evidence as to what encyclopaedias are by examining them and the words of their critics, this chapter looks at the opinions of those who participate in their communications circuit. As mentioned in Chapter 3, this concept was introduced by Robert Darnton in his article “What is the history of books” (1982). His famous diagram (reproduced below, Figure 1) illustrated how the books of the European enlightenment, came to be written, produced, distributed and consumed (and how those consumers created or influenced the creation of more books). This chapter applies the principle to the encyclopaedia, beginning with a detailed description of the encyclopaedia communications circuit, illustrating how this form of the book is experienced by those who create and read it. This then operates as a basis for gathering survey and interview evidence, ensuring that participants from around an encyclopaedia’s circuit are represented in the

research. This primary evidence, taken from interview and survey data, is subsequently supported by analysis of two key (and highly articulate) sources from either side of the production/consumption circuit: prefaces (what publisher's state as the aim of their encyclopaedia) and selection guides (what librarians believe are the criteria for purchasing them).

## 7.2 Communications circuit approaches

[Picture removed for copyright reasons]

*Figure 7.1: Darnton's model of the communication circuit of the book*

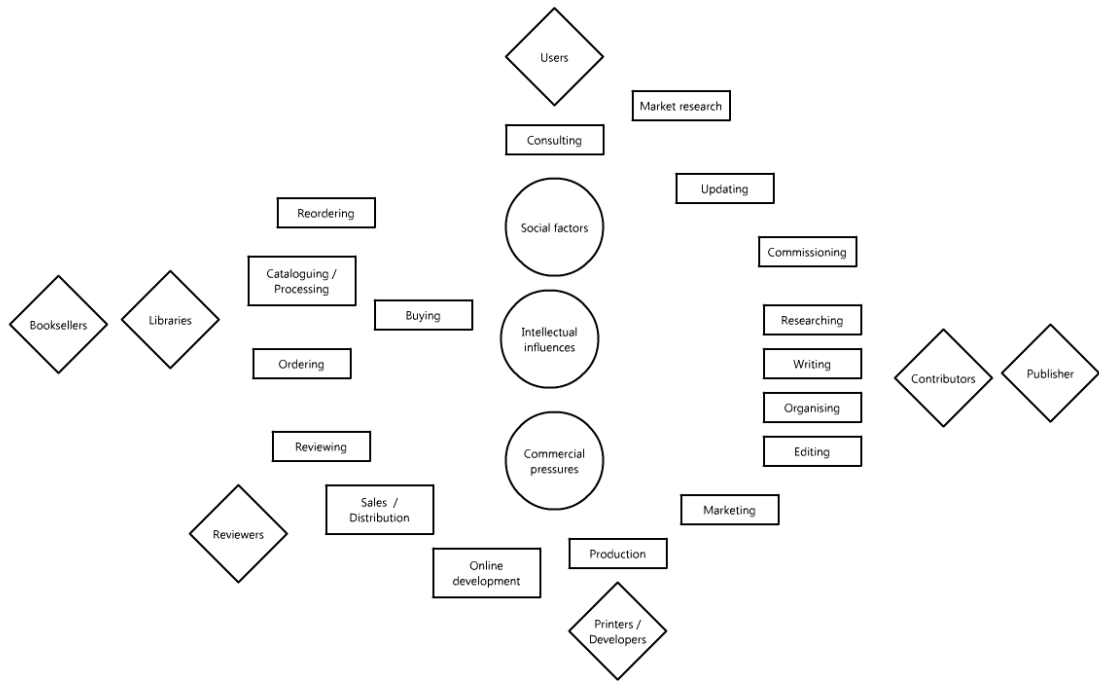
Darnton's communication circuit identifies the people or industry functions which contribute to the book production and consumption process: authors, publishers, printers and so on. He depicts external factors ('intellectual influences' 'economic and social conjuncture' and 'political and legal sanctions') affecting all part of the cycle. Although some areas are kept broad ('Readers' includes 'purchasers', 'borrowers', 'clubs' and 'libraries') the diagram is necessarily based on Darnton's own time and place of interest, that is, the French enlightenment. The role of such agents as 'Binders', 'Peddlers', 'Smugglers' and 'Compositors' is significantly different, or entirely irrelevant, in other historical periods and locations.

[Picture removed for copyright reasons]

*Figure 7.2: Adams and Barker's model of the communication circuit of the book*

Darnton's circuit produced a critical response from Thomas Adams and Nicolas Barker (1993) who followed with their own version of the book's circuit (Figure 7.2). Where Darnton highlights the roles of the actors, Adams and Barker pinpoint processes. As such, their circuit is more universal: publication, manufacture, distribution and survival are applicable across many eras and locations, at least if a reasonably broad definition of each is given. However, Adams and Barker place their external influences around specific parts of the circuit. For example, political, legal and religious influences are only seen to affect publication and manufacture, and not reception or distribution. Such influences also affect the consumption side of the circuit (as seen clearly in Darnton's model, where political and religious influences meant that smuggling was an established part of the distribution process). In their conclusion, the authors acknowledge that external forces were arranged in the diagram for the convenience of depiction and could apply to other parts of it. Adams and Barker's model is additionally very simplified. Its very universality limits its descriptive power. The processes which bring books into the lives of their readers vary across time and place and Darnton's is richer because of its specificity.

### **7.3 The encyclopaedia circuit**



Made with [lovelycharts.com](https://www.lovelycharts.com)

*Figure 7.3: The communications circuit of the encyclopaedia*

For both Darnton and Adams and Barker, the interaction points between the stages in the cycle provide clues to how the book is shaped and received. Applying it to the encyclopaedia offers a means of tracing the influences which bring this type of book into being and characterise how its users understand it. The model proposed for the modern encyclopaedia (figure 7.3), brings in elements from both approaches. As with their circuits, the right-hand side of the circuit represents the production side of an encyclopaedia’s life, and the left-hand side its consumption. The encyclopaedia circuit includes both the actors (as with Darnton) and the processes (as with Adams and Barker) involved in the process of producing an encyclopaedia, with a loose relationship drawn between the two. For example, the processes of commissioning, writing, researching and editing are associated with both publishers and contributors, and the extent to who is responsible for what will vary from circumstance to circumstance. External influences, as with Darnton, but unlike Adams and Barker, are placed in the middle because of their ability to affect all sections of the circuit.

Whereas Adams and Barker have attempted a universal book communications circuit, the encyclopaedia circuit depicted in Figure 7.3 is specific to the English-language and Western-European publishing markets, and to this particular form of the book, which means it resembles Darnton’s circuit more than theirs. However, its looser structure means it is not

as restrictive as Darnton's, which could only refer to book communications at a specific point in history. Although the encyclopaedia circuit is based on research and observations made on the contemporary encyclopaedia, the circuit includes processes which have been part of the encyclopaedia's circuit for its entire existence, such as writing, and those which have emerged more recently, such as online development.

The flow of action from commissioning to distribution is represented by the oblong labels. All of these tasks are carried out in the course of producing an encyclopaedia, but which actor – represented by the diamond-shaped labels – is responsible will vary from book to book and publisher to publisher. Marks and Janke (2008) suggest that "Every publisher has their own unique way of acquiring content, developing it, and producing it". The complexity of the encyclopaedia's commissioning-writing-editing process outlined in Section 7.4 below means this may particularly apply to it. Whereas a monograph involves a transaction between a single author and publisher (although who initiates the transaction is variable), an encyclopaedia requires a number of actors to commission, research and write entries. As Attwooll (1986) observes, reference works tend to require a large investment in time and money and the collaboration of many people (but have a compensatory long backlist life). As such, they are often considered to be 'projects' (Davies, 2004, p18) in a way which novels and trade non-fiction are not. In the diagram, the order of events runs from commissioning to editing to marketing. However, large-scale projects involve marketing from the very beginning. As the sections below describe, information gathered by marketing and commissioning actors has a strong influence in the choices and outcomes in producing encyclopaedias.

No single representation can claim to illustrate comprehensively every instance of encyclopaedia production and consumption, and opinions vary from author to author depending on their own experiences or the time that they are writing. Marks and Janke (2008) produced a diagram (reproduced below, figure 7.4) representing a simplified version of the traditional model of publishing reference resources (across all reference types). Editorial decision-making results in the selection of a topic to publish. A publishing schedule is produced, which may vary considerably depending on the size of the product and number of contributors. The completed manuscript is submitted to "copyeditors, typesetters, proofreaders and indexers" who "work in a synergistic way to provide a printer with a final file ready for press" at which point it is sent to be printed and bound.

[Picture removed for copyright reasons]

*Figure 7.4: Traditional print workflow model for reference publishing (reproduced from Marks and Janke, 2009)*

Other models have also been described. Christensen (2005) sums up her experience of the creation half of the circuit as follows: “Choose a topic; get articles written (by as few as one or as many as hundreds of scholars or freelance writers); edit the manuscript, have it typeset, and printed, then sell it to waiting libraries.” Schuman (1987) gives the publisher a higher-level role: to find the author, evaluate the project and its potential revenues, and plan production, marketing and distribution. The content side of the book is, by this definition, entirely outside the publisher itself. Schuman describes cases where the encyclopaedia is written and planned by a single person, who undertakes research, writing and organising themselves. Even here, however, unless the book is self-published, there is a distinction between the role of the publisher in commissioning and the contributor in providing the copy. Schuman also points out that many authors are at other times editors and publishers, and indeed, authors and editors are also often drawn from the library community and play a role in the consumption half of the diagram.

Further distinctions between the relationship between publishers, authors and writers may be found along industry lines. Although the classic model for encyclopaedia publishing is from the professional-academic sector, as Clarke and Phillips (2008, p55) point out, they are also published by trade publishers who may emphasise different aspects of the relationship with both contributors and users, notably selling their titles through bookshops directly to readers themselves<sup>25</sup>. In this model, the marketing, sales and distribution sides of publishing engage with booksellers more than libraries (although libraries buy these books too). This

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<sup>25</sup> Because encyclopaedias are not a distinct category in publishing, it is difficult to establish the actual distribution. Research by Covey (1972, p31) suggests that 54.8% of US reference works at the time were published by trade publishers as opposed to 34.3% by University and professional firms, but ‘reference’ here includes titles such as language dictionaries and atlases that are more often sold directly to end-users than encyclopaedias.

can make the relationship between production and consumption more direct, and closer to that for monographs.

Experiences also differ on the consumption side of the diagram. The diagram aims to illustrate the experience both of those users who consult reference works in the library and those who purchase them directly. Although the high price of many titles would perhaps indicate the former as the norm, the latter is also part of the encyclopaedia's circuit. Even within the library, there is a further distinction between the works consulted by students themselves and those consulted by the librarians in order to answer student queries, although research by Bradford (2005) suggests that the same sources are popular in both groups.

The three circles in the middle of Figure 7.3 follow Darnton in representing external agents which affect the cycle: commercial processes, intellectual influences and social factors. Each of these is capable of influencing all parts of the cycle. For example, a commercial process like the takeover of a publishing firm might put an extra emphasis on return on investment, which would affect how, when and who would carry out the work of writing and editing and how quickly a title might be expected to show a profit. A change in exchange rates could improve or damage a library's purchasing power if they had to purchase works produced in a different country. If intellectual influences mean that a particular academic discipline rises in popularity, it is likely to increase student numbers enrolled on its courses and hence academic libraries' need to purchase reference works in on related subjects. Other social factors, such as changes in student information-seeking behaviour, will influence whether or not the library purchases reference works online, in hard copy or at all. Certain factors affect some parts of the circuit, notably marketing and purchasing, more than others but others, such as commissioning are affected by all three contributing factors. More detail is outlined on each part of the circuit in section 7.4 below.

#### **7.4 Parts of the encyclopaedia communications circuit**

The sections below outline the activities which make up the circuit in more detail, as well as the effects on them of external agents. The source for this information is largely published accounts by practitioners, together with some interviews undertaken by the author. Because of the sparseness of the literature on reference publishing, sources are drawn from across the last 25 years. However, where a particular practice has changed to the extent that it is no longer the industry norm this has been made clear.



### 7.4.1 Commissioning

Encyclopaedia commissioning is where the production and consumption parts of the cycle meet. Brownstein, Kisch and Sive (1987) suggest that commissioning editors begin the process of seeking new reference titles by studying the success or failure of their previous titles, then “reading in the field”, that is looking more widely at sales records and reviews. Following this market research, staff editors “might suggest an idea for a reference book to a potential author or volume editor” which will be refined further at editorial meetings. Clarke and Phillips (2008, p99) describe qualitative research carried out through trend analysis, competitive intelligence, questionnaires and focus groups. They also mention studying quantitative factors such as the rise or fall of student numbers on particular courses. Another factor of this kind, according to Christensen (2005), is “news and public debate ... important trends and developing areas of interest”. Current events and intellectual influences govern tastes and purchasing decisions in both academic and trade publishing. Grant (2011) similarly describes the purpose of Britannica’s extensive communication with libraries, users and educators as to tease out issues in ‘cultural currency’ as well as check for errors, the appropriateness of the level of writing and suitability for educational curricula.

As the main customer for large-scale and scholarly reference works, libraries are an important source of market research for commissioners. In the diagram the point of connection is only made at the point of sales and distribution. However, they connect at many points of the cycle (in a way that the trade buyer does not). Grayson and Stuckhardt (1987) describe a mutually dependent but sometimes disputatious relationship. Librarians complain about pricing, distribution, availability of reviews and over-abundance of promotional material while publishers endeavour to encourage them to divert their budgets from journals and monographs to reference works. Libraries’ spend on reference works has traditionally been large, making them significant customers, valued as “adept at sizing up information sources, evaluating reliability, content, format etc” (Grayson and Stuckhardt, 1987). As well as participating in market research, librarians often attend encyclopaedia publishers’ editorial boards or participate in surveys or focus groups. Nevertheless, Christensen (2005) emphasises that market research should involve teachers and students as well as librarians. Some commissioning decisions are made on the basis of direct approaches or suggestions from groups or individuals in the scholarly community, particularly where the reference work is written by a single author (Woodbury, 1987; Schuman, 1987). However Brownstein, Kisch and Sive (1987) suggest this scenario is rare for encyclopaedias unless the author has assembled an element of grant-funding as part of their proposal. In their opinion, academic

content-providers' topic suggestions, based on their own specialisms, tend to be too narrow to be commercially viable.

Commissioning is also the initiation point of the creation of the encyclopaedia itself, albeit in response to market research. Potential reference book authors and contributors are actively sought by commissioners who study publications, conference proceedings, journal articles and monographs for likely candidates. Ideally, publishers producing subject encyclopaedias seek the most respected names in the field (Langley, 2007). However Christensen suggests that there is little motivation for the most prominent scholars to contribute, given that the work is neither particularly remunerative nor contributory to their scholarly productivity record: “the truth is that most encyclopedia articles, even in the work of eminent presses, are written by eager-to-be-published junior and independent scholars”. However, large scholarly publishers may approach authors they have already published in monographs or journal articles. Although standalone reference publishers exist, it is more common for scholarly publishers to produce a range of formats and to use their stable of in-house talent and external contacts to cover the same topics. Stevenson (2010, p82) refers to companies such as Butterworths who began reference publishing following the establishment of their successful monograph publishing in law.

The process of commissioning decision-making is particularly affected by external influences. As well as the changes in curriculum and cultural influences noted above, commercial pressures affect the way publishers manage their revenue (Attwooll, 1986; Davies, p114). Concerns about sales affect how many long-term investments like large-scale encyclopaedias a publisher can risk. Some practitioners recommend balancing products with a long shelf-life and high price tag with cheaper products with shorter lives. As Christensen (2005) describes, corporatisation of publishing companies (now often small subsidiaries of global corporations) since the 1980s has encouraged an increasing emphasis on short-term return on investment. This makes the necessary large capital investment in encyclopaedias risky, a significant commercial pressure on the communications cycle.

#### **7.4.2 Editing / organising**

As Greenberg (2010) suggests “editing is done by people with many different job titles” and covers a range of roles. The editor is often portrayed as the representative of the reader or alternatively, one side of a triangle of which the other two are the text and the author. The editing process she describes is highly relevant to the encyclopaedia editing process, whereby the editor is “often involved in selecting or ‘finding’ the unifying idea (rhetoric’s ‘inventio’)

then commissioning someone else to develop it”, “list-building ... the creation of ... series” and “assembling of a recognizable group of contributors”. Encyclopaedias, often produced by many people, are examples of “collaborative cultural artefacts” requiring a “distinctive voice” to create a unified whole. Dahlin (1999) interviews a reference editor who sees this unifying role as relating directly to the expectations of the consumer: “When the purchaser pulls a dictionary off the shelf, he or she thinks it will be 100% error-free, and if you don’t approach a dictionary in that way, knowing that this expectation is there, you’ll surely founder”. The editor can thus be seen as the key mediator between text and reader.

Actual editing activities vary hugely depending on the title. They take place both in-house and externally to publishing companies. Brownstein, Kisch and Sive (1987) suggest the editor’s role is to acquire new projects and authors and deliver the product to the production stage, yet they also speak of a ‘blurring’ between editorial and writing functions. In-house editors “provide direction and inauguration of a project and aid throughout the process, from conceptual and organizational matters, to advice on soliciting, collaborators and contributors, through assistance on details of format and style”. Some publishers consider choosing the right editors and editorial boards an essential part of the quality assurance process (Langley, 2007). Once appointed, the different roles taken on by editor and contributor and, indeed, production will vary widely from project to project depending on its scale and subject matter.

Sundin and Haider (2013) describe a shift in the production environment of a large-scale national encyclopaedia. Staff cuts have vastly reduced the number of internal experts, and replaced them with a smaller number of polymath editors who consult external experts when they need to. Pang (1998) suggests that electronic encyclopaedias encourage more give and take between editors and authors. Not having a print date means that revision of articles can take place at many different stages of the production process. But Sundin and Haider suggest that although production methods have made continual revision easier, financially straightened circumstances mean that updating tends to be targeted on particular projects which will meet the needs of specific markets. They also emphasise that the process of work has changed from producing an alphabetical list of article headings and commissioning them in A-Z order, to focussing effort in response to user needs, online analytics and market research.

A recent trend has encyclopaedia (and other non-fiction) authors, once commissioned, undertaking to provide ‘camera-ready’ copy, by-passing other editorial stages. Greenberg (2010) describes “a shift in responsibility for editing, from in-house editors, to freelance

editors and agents, and, ultimately, further down the chain, to the author”. Even twenty-five years ago, Schuman (1987) described the authors’ main responsibility as to “develop the idea, to write the manuscript, and to deliver it to the publisher in an acceptable and readable form” including subsidiary elements such as illustrations and indexes. Thus the creation of single-authored encyclopaedias has always included elements of both editorial and writing functions. Yet even the most hands-off editor needs to initiate and complete a project and ensure contributors have consistent guidelines and house styles to follow.

Encyclopaedia editing also concerns ‘organising’, that is, deciding how the information in the encyclopaedia will be made accessible and under what headings. This takes place proactively and reactively. The overall editor of a complex encyclopaedia is likely to need to design a subject schema around which articles can be commissioned (Christensen, 2005). Michael Upshall (2011) describes the headword list as the starting point, containing not just the terms to be used in the encyclopaedia, but defining which are major terms, which are minor and which terms appear as cross-references only. The headword list maps out the whole of the structure of the knowledge contained within the topic area of the book. Other encyclopaedias may have a less rigid idea of the whole before they write or commission individual sections or articles. In either case further organisation of the entries is likely to be needed once they are completed or received in full, especially with multiple contributors. No matter how strict the briefing instructions are, it is likely that subject coverage in the final work, once all articles have been received, will be different from originally anticipated. Editors often need to reassess the spread of knowledge across articles which will ultimately affect foliation, cross-references and indexes.

Vocabulary chosen for headings is also likely to change. The choice of vocabulary in the headword list often derives from market research into the language used by the target market. Langley (2007) suggests the headings in the Oxford Handbooks series aim to include the words an undergraduate in the particular subject area is likely to encounter and wish to look up. Britannica keeps three separate databases of entries covering adult, secondary and primary education. The concepts are much the same for each, but the language and selection of material for inclusion in the entry vary so they are accessible for the appropriate age group (Grant, 2011). The headword list is the ultimate organising factor in the encyclopaedia and the means by which its users can access its content. While it is produced from the expertise of the editor and affected by the content of the contributors, it is intimately connected to the needs of the target users, a significant social influence and commercial pressure.

The fact that most users of electronic encyclopaedias arrive at their topic via a search engine has added another aspect to ‘organising’ an encyclopaedia. The semantic relationships between articles still need to be considered before they are commissioned and written, in order to avoid duplication, and using classification to recognise the relationships can improve the relevance of search, as well as encouraging browsing to other relevant articles. Some editors now employ taxonomies or classification schemes to articles after they have been written to facilitate this (Sundin and Haider, 2013).

Once commissioned, Christensen (2005) describes an ongoing process of give and take between editors and contributors. The editor can begin copy-editing entries when a percentage has been received, and then returns them to their authors for review and corrections. External proofreaders are sometimes employed to ensure house styles (for example, standardised spellings across a suite of work) are employed. Oxford University Press is an important example here because of the range of their output. The editors of the *Companion to Shakespeare* use OUP’s own editorial forms throughout as well as quotations and citations from their published Shakespeare editions (Dobson and Wells, 2001, vii). Further tasks such as coding for production purposes can then follow.

### **7.4.3 Writing**

This phase in the cycle describes the provision of content after editorial decisions have been made. The actor in question may be the same as at editorial stages, but there is a distinction between preparatory editorial work and the writing of encyclopaedia entries or articles. The function of writing is straightforward and allied most closely with the classic book model provided by monographs: delivery of a commissioned manuscript, albeit on a smaller scale. Although all writers are affected by social, intellectual and (often) commercial factors, the brief for an encyclopaedia entry is likely to be prescriptive enough to mean that the external influences are less important at this stage than at others. As mentioned above, writing for encyclopaedias rarely carries the prestige of monographic work: it is comparatively collaborative and anonymous, somewhat restrictive and lacks the requirement for individual genius that a monograph might demand. Paradoxically, it is the key moment in the communications circuit, for, without the writing of the text, there is no encyclopaedia.

### **7.4.4 Production**

Brownstein, Kisch and Sive (1987) suggest encyclopaedias are problematic for production. The complex headings, typefaces and cross-references they employ demand copious

production markup. Many works are long and the use of multiple contributors means they are “often not as clean, polished and uniformly edited as monographs” (Christensen, 2005). Illustrations and good design are expensive and complicated and reference publishers for scholarly markets can keep costs down by scrimping on these areas. Christensen (2005) also suggests that highly scholarly works are often “ugly”, as if they could not be taken seriously if they appeared too inviting. While some academic publishers calculate a significant production spend into the project from the beginning, others work on the basis that the content, rather than the appearance is most important, particularly given that institutional purchasers are unlikely to see the title before they purchase it (although reviewers will). Single-authored works may not benefit from professional production values where the author has been asked to provide ‘camera-ready’ copy (Woodbury, 1987). However, certain types of trade publisher do invest heavily in production on the basis that, unlike librarians, their purchasers will see and handle the books before they buy them. Dorling Kindersley’s educational reference works are a good example of this kind of investment for a consumer audience.

The switch to electronic production methods affected the communications circuit profoundly. Beginning in the 1980s, editorial teams have used databases as part of their content publishing systems (Stevenson, 2011, claims the first such title was the *Palgrave Dictionary of Economics* in 1983). Ideally, but not universally, such systems carry information-related metadata, such as whether an entry refers to a person, or is cross-referenced, and underlie the structure of the book as well as production information such as heading size and boldening. Embedding editorial information into a content production system moves production ‘upstream’ into the editorial process, or anti-clockwise in the communications circuit. However, if an encyclopaedia is only published online, production becomes less of a leading process. According to Pang (1998), print encyclopaedias deadlines were planned around when “you knew when the printer was going to start the presses rolling” and printing were costs paramount in planning. With online-only encyclopaedias, deadlines are “set by our markets, not printers”.

Electronic production can also facilitate a title’s reversioning in smaller formats. This means some production decisions can be made at the stage that commissioning editors and marketing departments are planning the entire concept of an encyclopaedia and any future sister titles (Dahlin 1999). However Daniels felt, as late as 2008, that many publishers underused the possibilities presented by digital production, particularly as far as reversioning for different forms of online content was concerned.

#### **7.4.5 Marketing**

Attwooll (1986) and Davies (2004, p86) both observe that marketing planning for large projects like encyclopaedias tends to be built in early. The market research, described in the ‘commissioning’ section above, is often a collaboration between marketing professionals and commissioning editors. ‘Marketing’ appears later in the communications circuit because it is one of the principle means by which the publishers communicate with their audiences, but it is a lynchpin in the relationship between the production and consumption at both ‘connection’ points in the cycle. Encyclopaedia marketing plans consider sales channels, the academic disciplines and types of library and bookshop likely to be interested in the product from the start, and build them into their commissioning decisions (Attwooll, 1986; Clarke and Phillips, 2008, p59).

Reaching the potential encyclopaedia audience and making them aware of publications is a challenge (Woodbury, 1987; Christensen, 2005; Brownstein, Kisch and Sive, 1987). Most marketers use traditional methods including direct mailings of leaflets, brochures and catalogues to librarians, professionals and academics. Only particularly large-scale or prominent titles will merit an individual campaign and many single-volume encyclopaedias are only promoted with an entry in the publisher’s catalogue. This means that other means of targeting the person who holds the acquisitions budget are essential. Promotion methods used by academic publishers include attendance at conference exhibitions (where the books themselves can be handled by prospective buyers and even bought onsite, at a discount) and advertising in appropriate professional and academic journals. According to Clare Bebbler (2012), marketing to libraries, and supporting their use of the product, has become more complex over time, particularly when products are online. The challenge, to encourage optimum purchasing, has not changed with the move to electronic media, but new methods of marketing to end-users have emerged, including trial subscriptions, training programmes and promotion through social media.

As Grayson and Stuckhardt (1987) point out, librarians complain of the quantity of promotional literature they are sent and it is a challenge for marketing departments to have their product noticed above their competitors’ before the acquisitions budget is spent. All the writers quoted referred to the importance of reviews in making a difference to their visibility. Although, as Chapter 5 indicates, most reviews are positive, they add contextual value as to how and why a title might be useful. As Gill Turner (2012) says, librarians rarely

see reference books before ordering them, rendering reviews and promotional material particularly important.

The more straightened circumstances of some encyclopaedia producers has possibly made titles more marketing-led than previously. Sundin and Haider (2013) describe a much-reduced staff focussing on providing and editing content in response to market research and online analytics, rather than updating articles ‘just in case’. However, although the technology allows more to be known about encyclopaedias, this is not so very different from the market research which has always led encyclopaedia commissioning and editorial decisions. Large-scale encyclopaedias always have to select where they focus their efforts.

Trade publishing also invests in marketing, although Woodbury (1987) suggests that they do not promote reference works heavily by comparison with more popular non-fiction. However, large trade publishers tend to have strong relationships with booksellers and, simply by their prominence, achieve more reviews and sales. Booksellers interviewed by Beer (2004) complained that publishers failed to invest in enough imaginative promotional activity, such as instore promotions and events, for non-fiction titles. However, this may have changed, as Bebber (2012) describes supplying bookshops with posters and marketing material as part of the marketing manager’s role, along with maintaining bibliographic data and ensuring sales representatives are well-informed about the products. Trade reference publications are from time to time reviewed in quality newspapers and magazines. Here, external agents such as the public’s taste for a particular topic (genealogy, for example) will influence the newspaper’s willingness to print a review and give the title extra publicity.

#### **7.4.6 Distribution and sales**

Publishers’ distribution is part of the cycle that has changed markedly over time, in the same way that communications across society have developed. Darnton’s diagram refers to “Shippers: agent, smuggler, entrepot keeper, waggoner etc”, clearly not part of the modern distribution cycle of any book. Encyclopaedia distribution has been associated historically with the door-to-door salesman, sometimes depicted as targeting low-income families for hefty subscriptions on the promise that they would thus gain access to an education. Einbinder’s 1964 attack on *Encyclopaedia Britannica* described high-pressure and even dishonest sales pitches used by sales staff (p325-6) which at one point resulted in a US Federal Trade Commission investigation (p335). According to Grant (2011), door-to-door sales were never unsolicited at *Britannica*, but were by appointment and followed telephone calls from leads generated by marketing stands in public places such as shopping centres, trade shows



and airports. This approach is still used for certain titles in certain markets, but in the West, once-in-a-lifetime hard-copy encyclopaedia purchases are rare compared to online subscription. Britannica themselves announced that they were to cease printing new editions of the 32-volume hard copy in March 2012 (Encyclopaedia Britannica, 2012).

Although most subscription models are designed for institutional purchasers, some publishers market online encyclopaedia subscriptions to end-users. Hard copy and online subscriptions for consumers are promoted via appropriate media advertising and through book clubs. Low-cost single-volume works are still sold direct to users in bookshops. According to Richard Milbank (2011), while there remains a healthy recreational and gift market for certain types of reference books, the consumer market for alphabetical reference works, other than dictionaries, is pretty much dead. However, evidence from Beer (2004), Danford (2009) and Lopez-Cordero (2010) suggest trade publishers are exploring new topics and methods of marketing to sell reference to end-users.

Specialist library suppliers carry out most of the sales and distribution of reference works aimed at institutional purchase (Clarke and Phillips, 2008, p247). However some small publishers aim to fulfil orders themselves and librarians are increasingly ordering titles from online suppliers if they feel they can gain a better discount. The complexity of the library supply system has been criticised. Christensen (2005) describes a process involving distributors (who warehouse the stock), library suppliers (who take the order but hold no stock) and sales agents, each of whom take a percentage, whereas, in her opinion, the communication which actually results in an encyclopaedia's purchase is between the librarian and the publisher's marketing executives. Even here there is considerably more mediation delivering the book to the library reader than to the consumer buying an encyclopaedia in a bookshop.

The latter is also part of the encyclopaedia's communications circuit, as trade publishers do produce titles to sell direct to consumers in bookshops. These are naturally cheaper and favour particular markets, for example, back-to-school or Christmas purchases (Beer, 2004; Anonymous, 2008). While works of a scholarly nature can be sold in bookshops, it is more common for direct sales to be of items such as basic language reference and quirky titles (Bond, 2008; Danford, 2009). The sources mentioned above all suggest that the availability of information for free on the web does not stop people from buying reference books in hard copy and Darnford (2009) in particular describes reference books based on popular

websites. It is possible, however, that the picture may have changed since their observations were made.

#### **7.4.7 Aggregation and online delivery**

Although this chapter concentrates largely on the hard copy encyclopaedia, aggregation is in the circuit, partly because it has been an intrinsic part of encyclopaedia editorial and marketing processes since the 1990s (as mentioned above in 'Production'). Most publishers have an online strategy (Lopez-Cordero, 2010). If they do not have the resources to carry out their own online development, they will either partner with one of an increasing number of developers and market their product themselves or join up with an online aggregator such as ProQuest or CredoReference, the key means by which libraries acquire online encyclopaedias. But as Daniels (2008) points out, publishers vary in the amount of effort they put into online development in areas such as user-testing, search technology and use of metadata. Some scholarly publishers lack expertise and others gain such significant revenues from other products such as hard copy journals that they are not motivated to invest in good electronic development.

#### **7.4.8 Library acquisitions**

Librarians acquire reference materials from library suppliers and online database vendors to help users to find information, whether through mediated research or, increasingly, enabling users to do their own. According to O'Gorman and Trott (2009), the range and quality of hard copy reference sources has never been better, spurred on by the improved layout, indexing and ease of production from electronic database publishing. However, equally, the fact that students are now accustomed to acquiring information online, means they are less accustomed to using print reference sources. Research by Heintzelman, Moore and Ward (2008), Bradford, Costello and Lenholt (2005) and Bradford (2005) suggest that the greater part of hard copy reference collections is little used (although Bradford's literature review suggests that this has been the case in libraries since the 1980s). Together with decreasing library budgets, this makes it harder to justify purchases and the bulk of acquisition budgets are now spent on online products. Woodhouse (2011), Kennedy (2011) and the author (2011) describe public and academic libraries aiming for an entirely online reference provision. Nevertheless, not all products are available online and not every user is comfortable with using them. As the author suggests, libraries are continuing to buy in hard copy where they perceive a user-need, where the online site-licensing might be too expensive or where the subject coverage is insufficient online. The relationship between the acquisitions librarian

and the anticipated needs of students has thus altered to some extent, but only in a few cases has it completely transformed.

#### **7.4.9 Library reference**

Library reference is the direct meeting point of the librarian and the end-user. Juntumaa (2011) describes library reference services as “the activity where a librarian sits behind a desk, and is available to help customers with their various questions, search for information in databases and other sources for them and recommend material, literature and sources to them”. O’Gorman (2009) suggests that with the advent of online reference, the role of the reference librarian has moved from one of providing mediated research using reference sources to promoting and facilitating their use. Because, as Juntumaa (2011) describes, many users find the idea of approaching a librarian behind a desk intimidating, many libraries have instituted ‘roving’, whereby librarians stand in busy areas of the library and offer help to students if they perceive a problem. Nevertheless, with some exceptions (Kennedy, 2011, is the most extreme) the model of the ‘desk’, staffed by a qualified librarian, remains common as a key interface between the library and the users. This is supplemented with time-shifted reference work using email and, less commonly, real-time enquiry work using online messenger or ‘chat’ services. Bradford’s two 2005 studies indicate that both librarians and end-users use a limited range of titles for their reference enquiries and that encyclopaedias are not among the most popular.

#### **7.4.10 End-use of encyclopaedias**

O’Gorman and Trott (2009) and Bradford (2005) both describe a low uptake in usage of hard copy library reference sources. Nevertheless, Bradford’s research, and librarians interviewed by the author (2011) indicate that users - members of the public, students and researchers - do like using hard copy reference sources where they are available, language and terminological dictionaries in particular. As described in the ‘Distribution and sales’ section above, certain types of reference book, including single-volume encyclopaedic works as well as language dictionaries do still sell to consumers in bookshops. However, the study of hard copy reference book use in an academic library by Bradford, Costello and Lenholt (2005) stands alone in looking at end-use of reference books.

#### **7.4.11 Conclusions to the encyclopaedia communications circuit**

The previous section has attempted to draw a picture of the encyclopaedia communications circuit based on the models drawn by Darnton and Adams and Barker. The diagram in section 7.3 is a new visualisation of how the various functions which relate to the encyclopaedia interact, and how the different agents contribute to its existence. The descriptive sections have added depth and outlined in detail the role of the various participants. The next section takes three activities included in the circuit and uses survey and interview evidence to answer the research questions ‘what do those who produce and use encyclopaedias consider a good example of an encyclopaedia to be?’.

### **7.5 Survey and interview results**

#### **7.5.1 Introduction**

This section examines survey and interview evidence from the participants in the encyclopaedia communications cycle. As with Chapters 4 and 5, the evidence concentrates on two questions: First: ‘what physical features do participants expect an encyclopaedia to have?’ and secondly: ‘what qualities should a good encyclopaedia display?’ The results consider the two questions in turn. For full details on the research approach, sample and methodology, see Chapter 2, section 2.4.

#### **7.5.2 Survey and interview methodology**

The research in Chapter 7 has the aim, as Marshall and Rossman put it, (2006, p125) of “describing and measuring the beliefs of a community”. In this case, the community is illustrated by the actors in Figure 7.3, the communications circuit of the encyclopaedia and the beliefs explored are those regarding the functions and physical features of the encyclopaedia. The method used to gather the expressions of belief on this topic, the appropriate one by their measure, was the survey and interview. As it was not possible to gain access to all the parts of the circuit, three points, the publisher, the librarian and the end-user were the focus of the research. In the case of the end-user, the sample was drawn from the post-graduate academic community, partly because of the difficulty of gaining a sufficiently random group of ‘general public’ users and partly because those surveyed needed to be able to articulate what they thought about the encyclopaedia, something only possible if they had an intimate relationship with it. In this sense, the interviewees constituted an ‘elite’, chosen specifically because they are part of the communications circuit of the encyclopaedia.

As outlined in Chapter 2, generating a representative sample was a challenge. The small number of publishing professionals and contributors with significant experience in producing encyclopaedia were approached on a word of mouth basis. Out of 20 people

approached, 12 agreed to be interviewed. Interviews took place both in person and over the telephone and subjects were given a copy of the summary of the interview to correct as they saw fit. As the number of people interviewed was a good proportion of those who can claim to be encyclopaedia creators, it can be considered to be representative. Appendix II outlines the questions they were asked in the order they were asked them.

The librarians were approached via email discussion lists and the online social network Twitter. The requests for interviewees and survey respondents therefore reached a far wider group, however, the response was disappointing. Only ten responded to the discussion lists, of which eight completed questionnaires or were interviewed in person (see Appendix III for the questionnaire they were given or which was followed in interviews). The two subjects interviewed in person were given a summary to correct as with the publishers. 14 librarians started the questionnaire linked to on Twitter and 5 completed it (see Appendix IV). Thus a total of 13 librarians are represented in the results. Although this may seem a small number, the librarians in question were representative of the principle different sectors of librarianship (public, academic and corporate libraries) and of the main functions which work with encyclopaedias (that is, acquisition and research). In addition, although the library community is large, it is only a small section of it which works directly with encyclopaedias. Thus, for an elite group, 13 was a reasonably representative sample.

A far larger number of end-users was needed to be representative of the academic post-graduate community. An online survey was initially distributed through the Graduate School of University College London, a large multi-disciplinary university in Central London. It was then further distributed to research postgraduates in two further institutions. 85 people completed the survey (although not all answered every question). Respondents were from the section of the academic postgraduate community who had used encyclopaedias and had opinions about them. This number thus represents a good proportion of the community. Appendix V has a summary of their results.

In all three cases, subjects were asked generally about their experience in connection with reference books, then specifically encyclopaedias, in order to focus their minds on the subject of the survey. They were then asked to describe in their own words what they considered, in turn, the physical features and functional values (or attributes), they would expect from an encyclopaedia. Only then were they asked to rank the list of functions produced in Chapter 5 in order of importance. As a qualitative approach was preferred, it was essential to do this

to provide rich, original content and ensure that the results avoided simply replicating the views of the questioner.

Once the answers were gathered in from all three groups, they were tabulated so that answers that were considered to be like each other were gathered together for each group. This was a challenge, as a large measure of interpretation was needed to group the various respondents' free-text answers, which embraced a range of vocabulary. This was particularly so among the end-users, who, not defined by a professional identity or vocabulary, were the most heterogeneous group of the three. Appendix VI lists the raw answers given by this group and how they were preliminarily sorted so that answers that appeared to be like each other were grouped together. As with the coding in Chapter 5, it is inevitable that the conclusions drawn were to some extent subjective. The more quantitative results, obtained from asking respondents to rank named functions, were far easier to interpret. However, the artificiality of the ranking process means that the free-text answers are a more valuable clue to the opinion of the actors in the encyclopaedia communications circuit on what characterises an encyclopaedia. To ensure that richness is visible, and to mitigate against the subjectivity of the interpretation, Appendices IV, V and VI reproduce, among other things, the original vocabulary used by those who participated in the surveys. The results below also illustrate the findings with quotations from the surveys.

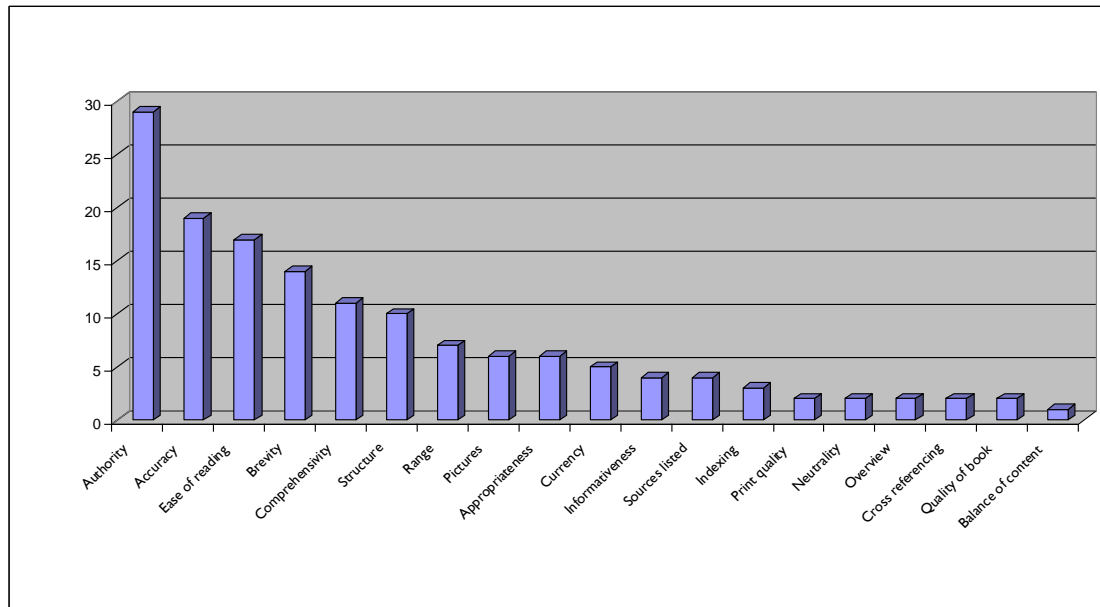
### **7.5.3 Results: functions**

This section covers the answers given by subjects as to what functional attributes they associated with a good example of an encyclopaedia. They were allowed to freely state qualities before being given a restrictive choice. The collation of the answers into different categories was ultimately subjective (see Appendix VI for how the statements were preliminarily sorted), but the greatest effort was made to produce objective analyses of the free-text answers. It must be assumed that subjects will have understood the interview questions and survey choices in different ways. Respondents who were interviewed in person were at an advantage in being able to ask for more explanation (the category 'reasons' demanded particular explanation). With this in mind, the wording in the online surveys, where no possible on the spot explanation was possible, was as descriptive as possible (see Appendix IV).

Figures 7.5, 7.6 and 7.7 illustrate the results. Because there were different numbers of respondents in each group, the values of their answers needed to be presented as percentages

rather than numbers in order for the figures to be compared. Note that ‘electronic issues’ was counted separately as the wording of the surveys privileged the notion of the hard copy encyclopaedia. The number of mentions of each function is included in Figure 7.7 for the sake of record.

*Encyclopaedia functions expected by groups in the communications circuit*



*Figure 7.5: Most popular functions expected in an encyclopaedia across the whole communications circuit*



*Comparison of the most popular functions across the three groups*

	<b>Total</b>							
	<b>Mentions</b>	<b>End-users</b>		<b>Publishers</b>		<b>Librarians</b>		
		Number	%	Number	%	Number	%	
Authority	29	11	13	10	45	8	21	
Accuracy	19	12	14	3	14	4	10.5	
Ease of reading	17	11	13	3	14	3	8	
Brevity	14	14	16	0	0	0	0	
Comprehensivity	11	7	8	1	4.5	3	8	
Structure	10	6	7	2	9	2	5	
Range	7	6	7	0	0	1	2.6	
Appropriateness for reader	6	0	0	1	4.5	5	13	
Pictures	6	5	6	0	0	1	2.6	
Currency	5	0	0	1	4.5	4	10.5	
Informativeness	4	2	2	0	0	2	5	
Sources listed	4	3	3.5	0	0	1	2.6	
Print quality	2	2	2	0	0	0	0	
Neutrality	2	2	2	0	0	0	0	
Overview	2	2	2	0	0	0	0	
Cross referencing	2	2	2	0	0	0	0	
Quality of book	2	0	0	0	0	2	5	
Indexing	3	1	1	0	0	2	5	
Balance of content	1	0	0	1	4.5	0	0	
Electronic issues	4	2		0			2	

*Figure 7.6: Functional attributes expected of an encyclopaedia by three parts of the communications circuit. Note percentages do not add up to 100 because of rounding.*

By comparison with their expectations of physical features (see section 7.5.5 below), the three groups produced a relatively succinct listing of functions they expected in an encyclopaedia (19, rather than 38 categories). This might indicate something of a consensus around our expectations of what makes a given book successful or otherwise. Nevertheless there is a long tail of functions mentioned only once. Most of the latter comes from end-users, not unexpected given that they are a more heterogeneous group than the others. As end-users are likely to have had less experience analysing what they value in encyclopaedias than publishers and librarians, their choices are likely to echo less of an agreed consensus than that shared between the other two groups. Indeed, while reference publishers and librarians are self-consciously identified groups, encyclopaedia end-users are not. The originality of their answers may also be attributed to the fact that as there was no personal contact with

the subjects (unlike with the librarians and publishers) there was no danger of their being prompted into preset categories by the author. The disadvantage, as outlined above and in Chapter 2, is that a greater responsibility falls to the interpretation in representing what they said accurately.

Many of the results echo those found in Chapter 5, albeit sometimes using a different vocabulary. For example, the most mentioned function, ‘authority’ was largely described as such by publishers, but librarians and end-users were as likely to use ‘trustworthy’ and ‘reliable’. It is notable that as a percentage, publishers were by far the most concerned with this function and that more than one interviewee embodied this in the ‘brand’ or ‘publisher’s track record’ rather than the nature of the contributors. All three groups used the word ‘accuracy’ consistently, with some using ‘correctness’ as a synonym. The third most popular category, ‘ease of reading’, was particularly popular with end-users who described it with phrases such as ‘readability’ and ‘clarity of writing’ as well as ‘easy to read’. Although this does not exist as an independent category in the Chapter 5 analysis, it is covered in the review literature but lumped in with the category ‘quality’.

One fairly high-scoring category only identified by end-users and with no exact equivalent in the Chapter 5 data is ‘brevity’ (also described by them as ‘conciseness’). This underlines a concern users have to conserve the time they spend seeking information. This is perhaps less recognised by the publishers who produce their reading material. It is to some extent included in the Chapter 5 function ‘Reasons’ which includes the notion that the encyclopaedia must justify its existence before money is given to purchase it and time to consult it.

Certain differences in the categories can be ascribed to the point of view of the specific part of the cycle. End-users appear more likely than the other two groups to include as functions things otherwise identified as physical features, for example, ‘cross-referencing’ and ‘indexing’. It is notable that another item mentioned only twice by end-users and not at all by other users is ‘neutrality’ or ‘lack of bias’. Given the high position of ‘authority’ and ‘accuracy’, the ability to trust the work is clearly a concern for users, but ‘objectivity’ did not occur to any publishers or librarians as a specific quality they sought.

Overall, the ‘free-text’ results indicate a certain amount of agreement across the three groups, but some differences too, including the mention of some functions which did not appear in the review literature analysed in Chapter 5.

#### **7.5.4 Results: functions ranked**

Figures 7.8 and 7.9 illustrate the results of the pre-set categories, where subjects were asked to rank the list of functions identified in Chapter 5. Figure 7.8 shows the average ranking for functions compared across all three groups, that is, the order in which each group ranked the nine functions. The figure in italics shows the average ranking in each group, where the number to the left of it shows it ordinally in the sequence 1 to 9. Although the chart shows that rankings were not drastically different across all three groups, it is worth noting the difference between the score in italic and the ordinal figure. Although publishers ranked ‘authority’, ‘reasons’ and ‘accuracy’ first, second and third, their ranking score for the first two was much closer than that for the second, indicating that they considered ‘authority’ and ‘reasons’ to be more important functions than ‘accuracy’. By contrast, end-users’ first, second, third and fourth choices are evenly spaced, indicating a clear opinion about the placement of ‘accuracy’, ‘authority’, ‘currency’ and ‘comprehensivity’, while the five least highly-ranked ranked very similarly, suggesting that there was no overall consensus as to their relative importance.

***Comparative ranking of functions across the three groups of the communications circuit and with the results in Chapter 5 and their free-text responses***

	<b>Combined ranking</b>	<b>End-users' ranking</b>	<b>Publishers' ranking</b>	<b>Librarians' ranking</b>	<b>Chapt 5 ranking</b>	<b>Free-text</b>
Authority	1 2.7	2 2.3	3 1.9	3 3.5	6	1
Accuracy	2 3.2	1 1.8	2 4	1 2.3	8	2
Reasons	3 3.5	8 6.8	1 1.5	5 5.5	2	8*
Currency	4 3.9	3 3.5	4 4.6	2 3.1	7	10
Comprehensivity	5 5.1	4 4.7	5 5.6	4 4.5	1	5
Accessibility	6 6.3	5 6	8 6.8	6 5.9	4	6*
Extras	7 6.5	9 6.8	6 6.3	8 6.8	5	9*
Quality	8 6.7	6 6	6 6.3	9 7.1	3	3*
Electronic	9 7.0	7 6.2	9 7.8	7 6.3	9	n/a

*Figure 7.7: Comparative rankings of Encyclopaedia functions named in Chapter 5, in order of rankings across all three groups. Italic figures are the average ranking out of nine achieved for each function in each group, eg accuracy is the most popular function for end-users, averaging a ranking of 1.8 out of 9. \*denotes an inexact match between the actors own words and the pre-set category*

It is to be expected that the functions solicited without prompting would differ from the pre-selected categories the subjects were asked to rank. However, some of the characteristics valued in Figure 7.8 correspond closely to those chosen in the respondents' own words: 'authority' and 'accuracy' occupying the first and second places and 'comprehensivity' the 5th. Other terms are placed differently but all (with the exception of 'electronic issues' which was not counted in the free-text responses) have an equivalent in the top ten. 'Ease of reading' is a sub-function of 'Quality' (and made explicit as such in the wording of the online survey, see Appendices IV and V). Opinions in the free-text answers which have been grouped under the term 'structure' included items like 'Organization', 'orderliness', 'structure' and 'accessibility' which imply a close relation to the ability to find the information easily. While 'pictures' is just one of the types of 'Extra' specified in the survey, it ranks ninth out of the freely chosen characteristics.

What is more surprising is the difference in ranking by all three groups when compared with Chapter 5's ranking of qualities. Where the reviews placed 'comprehensivity', 'reasons' and 'quality' first, second and third, here are they are placed fifth, third and eighth. Only one, 'reasons' is ranked in the top 4 in both datasets. Some of the potential reasons for this were

suggested in Chapter 5 and relate to the concerns and conventions of review literature. Where accuracy is hard to pinpoint in a book that is being reviewed, because of the difficulties of locating inaccurate information, it is clearly highly desirable in an abstract sense in a book providing factual information. By contrast, ‘quality’ may appear less valuable in a book compared to functions such as ‘accuracy’ and ‘authority’ which relate to its informational content. It may also be that ‘quality’s score in Chapter 5 was artificially boosted by the fact that it comprises a number of sub-functions, as does ‘reasons’. Both functions’ high score may also be related to the convention of reviewing, where ‘reasons’ justifies the book’s existence and ‘quality’ states how it relates to others of its kind (well-written, well-presented and so on). It is, however, worth noting that ‘comprehensivity’, ranked first in the review literature, is considered a medium-important function by all participants in the encyclopaedia communications circuit.

Although with the exception of ‘reasons’ the ranking of functions does not compare across the review literature in Chapter 5 and survey information in Chapter 7, all the functions in the former appear in the free-text answers in the latter. The most notable characteristic which was mentioned in free-text answers, but did not appear in the review literature is ‘brevity’ which, entirely from end-user mentions, ranks fourth. Also receiving more than two mentions each were ‘range’ (seventh), ‘informativeness’ (11<sup>th</sup>) and ‘sources listed’ (12<sup>th</sup>). This last has a close relationship to ‘authority’. ‘Informativeness’, may not have been mentioned by reviewers because, like some of the physical characteristics, is a quality likely to be taken for granted. It is expected that a reference book, as a type of information source, will be informative. ‘Range’ is, however, worth considering, as it supports the evidence found in ‘physical characteristics’ that while some participants in the communications cycle consider an encyclopaedia to be about a specific topic, others feel it should be broad-ranging.

The survey and interview evidence in this chapter indicates that the functions identified in Chapter 5 are valid to participants in the communications circuit, if not valued to the same extent. To those results should be added the functions of concision and range, which emerged as distinct functions from the data in this chapter. The next section considers the interview and survey evidence concerning the physical features of the encyclopaedia.

#### **7.5.5 Results: physical features**

Figures 7.10, 7.11 and 7.12 illustrate the features which, when asked, members of the encyclopaedia communications cycle expected to find in an encyclopaedia. As with section 7.5.3 above, because the numbers surveyed or interviewed in each group varied considerably,

the numbers of mentions are represented as percentage of total answers, so that similarities and differences across the three groups can be seen. Figure 7.11 shows the differences in the groups and numbers can be compared in the highlighted column in Figure 7.12. There is analysis of these three figures in the text below.

*Encyclopaedia physical features expected across the communications circuit*

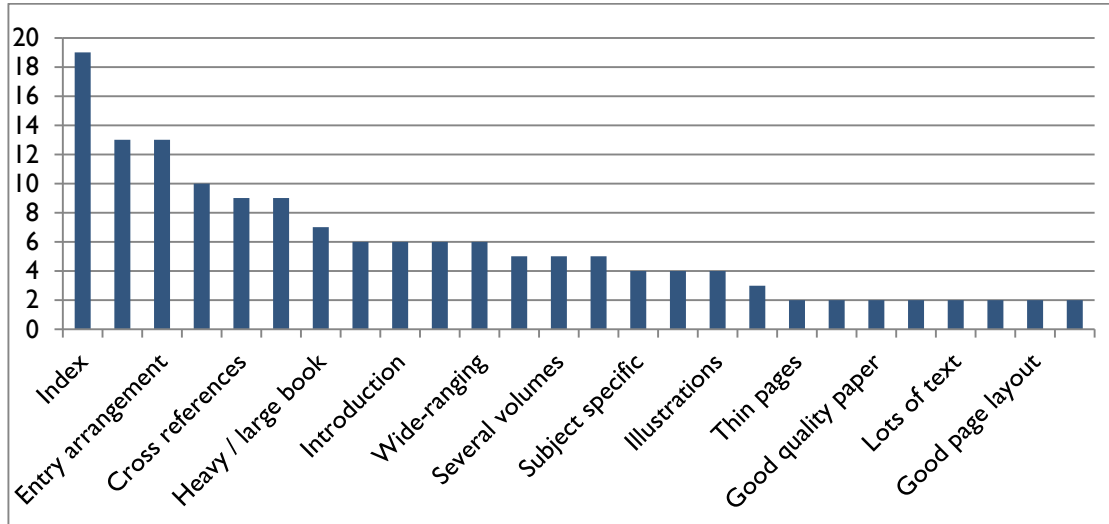


Figure 7.8: Physical features expected in an encyclopaedia from all parts of the communications circuit

*Comparative ranking of physical features across the communications circuit*

Quality	Total		End Users		Publishers		Librarians		Chapter 6 ranking
	No.		No.	%	No.	%	No.	%	
<b>Index</b>	19		10	15	1	3	8	14	9
<b>Hardback</b>	13		10	15	2	6	1	2	1
<b>Entry arrangement</b>	13		2	3	6	18	5	9	5
<b>Citations</b>	10		6	9	1	3	3	5	3
<b>Cross-references</b>	9		3	4	1	3	5	9	10
<b>Structured org</b>	9		0	0	6	18	3	5	n/a
<b>Heavy / large book</b>	7		5	7	2	6	0	0	n/a
<b>Contents page</b>	6		3	4	0	0	3	5	n/a
<b>Introduction</b>	6		3	4	1	3	2	4	7
<b>Alphabetical order</b>	6		2	3	0	0	4	7	4
<b>In-depth entries</b>	6		0	0	3	9	3	5	n/a
<b>Several volumes</b>	5		1	1.5	2	6	2	4	n/a
<b>Subject specific</b>	5		3	4	0	0	2	4	14
<b>Brief entries</b>	5		5	7	0	0	0	0	5
<b>Subject overviews</b>	4		1	1.5	2	6	1	2	14
<b>Illustrations</b>	4		1	1.5	1	3	2	4	14
<b>Wide-ranging</b>	4		0	0	0	0	4	7	14
<b>Handlable</b>	3		2	3	0	0	1	2	n/a
<b>Thin pages</b>	2		2	3	0	0	0	0	n/a
<b>Factual information</b>	2		2	3	0	0	0	0	n/a
<b>Good quality paper</b>	2		2	3	0	0	0	0	n/a
<b>Thumb marks</b>	2		2	3	0	0	0	0	n/a
<b>Lots of text</b>	2		1	1.5	0	0	1	2	n/a
<b>Contributor info</b>	2		0	0	1	3	1	2	2
<b>Good page layout</b>	2		0	0	1	3	1	2	n/a
<b>Headwords</b>	2		0	0	0	0	2	4	11
<b>Balanced structure</b>	1		1	1.5	0	0	0	0	n/a
<b>Clarifying features</b>	1		1	1.5	0	0	0	0	n/a
<b>Cloth placemaker</b>	1		1	1.5	0	0	0	0	n/a
<b>Page numbers</b>	1		1	1.5	0	0	0	0	n/a
<b>Sectional synopses</b>	1		1	1.5	0	0	0	0	n/a
<b>Detailed entries</b>	1		1	1.5	0	0	0	0	n/a
<b>Small print</b>	1		1	1.5	0	0	0	0	n/a
<b>Running heads</b>	1		0	0	1	3	0	0	n/a
<b>Not alphabetical</b>	1		0	0	1	3	0	0	n/a
<b>Summary paragraph</b>	1		0	0	1	3	0	0	13
<b>Acknowledgements</b>	1		0	0	0	0	1	2	n/a
<b>Appendices</b>	1		0	0	0	0	1	2	n/a

Figure 7.9: Physical features expected by end-users, publishers and librarians and compared with results in Chapter 6 (features not in the top 13 are ranked 14). Those marked n/a had no equivalent in the findings of Chapter 6. (Note: percentages will not add up to 100 because of rounding)

Far more categories emerged from the responses concerning characteristics than had done for functional attributes. There were more responses overall (162 as opposed to 146) and, even after grouping, they produced 38 rather than 19 categories, with a long tail of features only mentioned once. Some of the differences between the groups relate to their articulacy on the subject: publishing professionals have a clearer notion of the parts which comprise a book and a more technical vocabulary than end-users. As with the functions, grouping the features together involved interpretation. For example, what end-users described variously as ‘important publications’ or ‘references to more detailed sources’ was identified as being substantially the same feature described by publishers and librarians as ‘citations’. In some cases the connections seemed obvious: ‘pictures’, ‘images’ and ‘illustrations’ are reasonably synonymous in the context of the pages of a book. In others, a decision was taken as to whether to ‘lump’ or to ‘split’ features. What end-users variously described as ‘well-organised’ and ‘organised into a structure’, was grouped with the publishers’ ‘digestible access’, ‘good system of organisation’ and the librarians’ ‘clear structure’ and even ‘self-indexing’. Many of these choices are arguable, but the original respondents words are visible in Appendices IV, V and VI.

In other cases, the choice of feature reflects the level of granularity in observation. When analysing books as physical objects in Chapter 6, it was taken for granted that the books would be arranged into entries, be largely text-based and contain factual information. Indeed, these features were almost essential for the books to enter the selection. Yet members of all three groups considered these features worthy of mention. In other cases, I overlooked features either because they seemed too obvious or not specific enough to reference works. Those surveyed and interviewed mentioned such items as contents pages, the weight and binding of volumes, the presence of a cloth placemaker and the quality of the paper as features they would associate with an encyclopaedia. Although these features are not unique to encyclopaedias, they clearly are associated with them as physical objects. Other features not omitted in Chapter 6 scored highly but can be considered common to many different types of book, such as presence of an introduction or illustrations.

Figure 7.10 illustrates the most popular features identified overall in the communications circuit, by total numbers of mentions. Across the three groups, the items most expected in an encyclopaedia are an index, arrangement into entries, citations, cross-references, contents page and alphabetical order. Also scoring highly is that it should be a hardback book of considerable size and weight. The higher-scoring categories largely fall into two groups: those concerned with finding information, and those concerned with the encyclopaedia as a



physical object. The fact that all three types of participant mentioned features like index, entry arrangement, structured organisation and alphabetical order, indicates the strong identification of an encyclopaedia as a non-sequentially-accessed book. Meanwhile, the high score of hardback binding and large weight and size show that it is expected to be a substantial object. The physicality of the object is emphasised by a long tail of other features mentioned in particular by end-users, such as cloth placemaker, thumbmarks and good quality or thin paper. The fourth-ranked item, citations, indicates that respondents expect an encyclopaedia to add value both by showing the sources of its information and providing links to further information.

All three groups considered it important as to whether an encyclopaedia should be subject specific or cover a range of topics. Both features are associated with an encyclopaedia, but subject specificity was mentioned more often, by both end-users and librarians. Similarly, some of the answers regarding the length of an entry show a divergence of opinion. Five end-users mentioned 'brief' or 'summarised' entries as features they would expect, but a number of librarians and publishers expected 'in depth' (or 'essay style') entries and both librarians and end-users mentioned 'lots of text' in their expectations. It must be allowed then, that those participating in the communications cycle of the encyclopaedia have a range of conceptions of the book: it can be about just one thing or many and it can be made up of long entries or short ones.

As the experience of being asked about expectations of an encyclopaedia is very different from observing it as a physical object, it might be expected that the features identified in Chapter 6 would not correlate with answers given by respondents and interviewees, particularly for end-users who, unlike librarians and publishers, may never have evaluated an encyclopaedia. However, seven of Chapter 6's features are among the ten most-mentioned features across all three groups. Those omitted from Chapter 6 were due more to things such as oversights in the analysis (as with the contents page), an inexact category (although Chapter 6 notes the size of books, it does not apply subjective terms such as 'heavy' or 'large') or a presumption that every item examined would carry the feature (for example, structured organisation), rather than because they were not present in the titles examined. There are two notable differences between the datasets in Chapters 6 and 7. First is the absence of any consideration by any of the three groups of participants as to whether an encyclopaedia should have subject-related entries only, or include entries under proper names. While this was an issue of import as the encyclopaedia acquired its modern form in the 17<sup>th</sup> Century, and was a feature noted in Chapter 6, it is clearly not a concern of modern users or creators.

Secondly, contributor information, which was provided in 11 out of the 17 titles examined in Chapter 6, was mentioned as an expectation by only one each of the publishers and librarians, and by none of the end-users.

Nevertheless, it is consistent with the observations made in Chapter 6 that members of the encyclopaedia communications circuit expect an encyclopaedia to be a hardback, contain references, be in alphabetical order, be arranged into entries, have an introductory chapter, an index and cross-references. They would also expect an encyclopaedia to have a contents page, to be a substantial size or weight and to have well-structured, accessible organisation.

Before considering overall conclusions from the surveys, this chapter will analyse further evidence from the encyclopaedia communications circuit, that is, written evidence on the encyclopaedias functions, taken from encyclopaedia prefaces and library reference guides. This aims to add value to the results in Chapter 5.

## **7.6 Written evidence**

### **7.6.1 Written evidence methodology**

This section analyses historical written evidence concerning the functions valued in encyclopaedias. As mentioned in the methodology for Chapter 5, content analysis has the advantage of being non-intrusive, but the disadvantage of being non-contextual. The original purpose for which content is written affects the choice of terms and nature of the wording used. Analysing the content removes the words from their original context and its interpretation can only be subjective. However, analysing written evidence removes the danger that the person who wrote it has moulded their opinions to fit the artificial construct of the questionnaire or interview. As free expressions of how particular sections of the encyclopaedia communications circuit value the form of the book, written evidence is worth studying.

The two areas chosen for analysis here are prefaces to encyclopaedias and evaluative guides designed for acquisitions librarians (for full background to the methodology, see Chapter 2, section 2.5). They were both selected because of their tendency to include statements of value about encyclopaedias. The sample of prefaces was taken from the titles selected in Chapter 5. This included the four electronic titles in that sample, as although they do not have a physical existence as a book, it is possible to navigate to introductory material which serves the same function, that is, to provide an overview and justification for the work. All statements of value were noted and analysed.

The sample of library guides was selected from the large number of publications aimed at helping librarians make acquisition decisions. These guides are written by librarians for librarians to enable them to spend their budget on the best encyclopaedias available. The 12 selected were chosen as representing a range of views from the previous 25 years. Titles which mentioned encyclopaedias specifically (as opposed to reference works in general) were preferred, which encouraged the inclusion of some iconic earlier works with specific sections on encyclopaedias. However, not all the evaluative material in the guides does this. Where advice on selecting encyclopaedias specifically was available, this was preferred, but as there have been in recent years far fewer titles which concentrate solely on encyclopaedias, rather than works of reference in general, the guides were evaluated for value statements presumed to apply to reference works in general.

Extracting the statements of value from library guides was made simple by the fact that most supplied a numbered list of functional attributes a librarian should look for when making acquisition decisions. However, the terms that different writers used did not necessarily map to each other, even synonymously. Some authors preferred to bring several related functions under a single heading, others preferred a nuanced analysis of the desirable attributes in a reference book. As with all the content analysis in all of this thesis, the author's interpretation of the words and grouping of like concepts is subjective. However, a conscious effort was made not to pre-ordain categories into which the statements could be sorted. In this way, it was possible to identify new functions additional to those found in Chapter 5.

### **7.6.2 Prefaces**

A reference book preface can be viewed as a message from its publishers and authors as to the work's purpose. As Francoeur and Burlingham (2006) suggest, writing about dictionary prefaces, 'Dictionaries are not the neutral objective and anonymous works that we may like to think of them being'. Both dictionaries and encyclopaedias carry agendas and purposes which their writers and editors have sought to explain and justify for centuries. An encyclopaedia preface is thus a showcase for the publisher's concerns as to what it believes a good encyclopaedia should be. While biased by its justificatory purpose, it is a highly revealing source of opinion as to the publisher's view of the ideal encyclopaedia.

<b>Title</b>	<b>Reasons</b>	<b>Authorit</b>	<b>Accuracy</b>	<b>Currency</b>	<b>Comprehens</b>	<b>Quality</b>	<b>Extras</b>	<b>Access</b>	<b>Electronic</b>	<b>Impartial</b>	<b>Task</b>	<b>Total</b>	<b>Words</b>
<b>Grove materials</b>	3	2	0	2	2	0	0	0	n/a	0	0	9	1800
<b>Oxford</b>	3	2	0	0	3	0	1	1	n/a	2	0	10	1350
<b>Post-colonial</b>	3	2	0	0	1	2	0	1	n/a	0	0	9	1976
<b>Whitaker's</b>	5	2	2	1	3	0	0	0	n/a	0	0	13	1670
<b>London: musical</b>	2	1	0	0	2	0	0	0	n/a	1	0	6	876
<b>Lit characters</b>	1	1	0	0	0	0	1	0	n/a	0	0	3	221
<b>Censorship</b>	4	1	0	0	1	0	1	1	n/a	1	0	8	4641
<b>Chambers facts</b>	1	0	0	1	0	0	1	2	n/a	0	0	5	260
<b>Know it all</b>	3	1	0	0	2	1	0	1	n/a	0	0	7	854
<b>Cambridge</b>	4	0	2	0	1	0	1	0	n/a	0	1	9	1316
<b>Concise enc</b>	6	2	0	1	1	3	1	1	n/a	0	0	15	729
<b>Internet</b>	10	6	1	2	3	0	3	1	n/a	0	0	26	3008
<b>Enc sci / tech</b>	1	5	0	2	1	1	1	1	n/a	0	1	13	1606
<b>British film cat</b>	4	0	0	0	2	0	0	1	n/a	0	0	7	1580
<b>Continuum</b>	5	5	0	0	2	0	0	0	n/a	1	2	15	5780
<b>Grove art</b>	4	3	2	0	3	0	1	1	n/a	1	0	15	7050
<b>Enc ancient Greek</b>	3	2	0	1	2	1	1	1	n/a	1	0	12	2327
<b>Enc ancient</b>	2	0	0	0	1	0	2	2	n/a	0	1	7	630
<b>Europa world plus</b>	3	3	0	2	0	0	3	1	4	2	0	20	440
<b>OAAS</b>	2	2	0	1	1	0	2	1	1	0	0	10	491
<b>ODNB</b>	3	1	0	1	0	0	0	0	0	0	0	5	209
<b>ORO</b>	1	1	0	1	0	0	1	0	2	0	0	6	627
<b>Totals</b>	<b>73</b>	<b>42</b>	<b>7</b>	<b>15</b>	<b>31</b>	<b>8</b>	<b>20</b>	<b>16</b>	<b>7</b>	<b>9</b>	<b>5</b>	<b>172</b>	

Figure 7.10: Features referred to in reference book prefaces, showing number of mentions per title. Note that while categories match those identified in Chapter 5, a more nuanced analysis can be read in the text below.

Title	Purpose	Audience	Scope	Need
<b>Grove encyclopedia of materials and techniques in art</b>	2	1	0	0
<b>Oxford companion to Shakespeare</b>	3	0	0	0
<b>Encyclopedia of post-colonial literatures in English</b>	0	1	1	1
<b>Whitaker's London almanack</b>	2	0	1	2
<b>London: a musical gazetteer</b>	1	0	0	1
<b>Dictionary of literary characters</b>	1	0	0	0
<b>Censorship: a world encyclopaedia</b>	1	0	1	3
<b>Chambers book of facts</b>	1	0	0	0
<b>Know it all, find it fast</b>	2	1	0	1
<b>Cambridge guide to childrens books in English</b>	2	0	1	1
<b>Concise encyclopedia of science and technology</b>	1	3	1	1
<b>Internet encyclopaedia</b>	1	3	3	3
<b>Encyclopedia of science and technology</b>	1	0	0	0
<b>British film catalogue</b>	1	1	0	2
<b>Continuum encyclopaedia of Children's literature</b>	1	1	2	1
<b>Grove dictionary of art</b>	1	1	0	1
<b>Encyclopedia of the ancient Greek world</b>	1	2	0	0
<b>Encyclopedia of ancient Greece</b>	1	0	0	1
<b>Europa world plus</b>	1	1	0	1
<b>Oxford African-American studies center</b>	0	1	1	0
<b>Oxford dictionary of national Biography</b>	1	1	1	0
<b>Oxford reference online</b>	1	0	0	0
	<b>26</b>	<b>17</b>	<b>12</b>	<b>19</b>

*Figure 7.11: Subcategories of the 'Reasons' function, showing mentions in prefaces of functions not specified in Chapter 5*

Figure 7.13 illustrates the result of the prefaces analysis. The function categories established in Chapter 5 matched the material easily; almost every value statement could be assigned to an existing category. As one purpose of the data in this chapter was to triangulate against

the results in Chapter 5, this was satisfying and also logical, as it is likely that the reviews themselves drew on prefatory material from the reference books. However, in order to see if additional value could be gained from the analysis, it was important not to presuppose the results. To this end, the prefaces were also examined agnostically of existing categories. While the analysis was inevitably influenced by knowledge of these categories, three new significant areas emerged. The first was an entirely new category, which I have entitled ‘Scale of task’. These statements encompass some measure of how difficult or challenging compiling the reference work was (something Blair, 2010, p206 mentions was a common refrain in the prefaces of Renaissance encyclopaedias). This is qualitatively different from the ‘Reason / Purpose / Scope’ category, although related. For example, the statement that a work “represents the culmination of five years of immense editorial labour” (*Encyclopedia of Science and Technology*) does not really outline the purpose or scope of the work.

The second area which emerged from examining the value statements with a fresh eye was a far more nuanced analysis of the ‘Reasons’ category. As seen in Chapter 5, this has always been a difficult category to pin down. Nevertheless there is a distinct category of statements which seek to summarise the reason why the book was produced. Figure 7.15 illustrates the subcategories which emerged from the statements:

1. Need for the book, its uniqueness in the canon
2. Projected audience
3. Scope of the book, what it covers
4. Purpose of the book, what it should be used for

A typical example covering all four areas might be these four statements from the introduction to the *Continuum encyclopedia of children's literature*:

1. "To our knowledge, no other reference book in any language is equivalent" (Need for the book)
2. "this Encyclopedia is intended for use by scholars, teachers, librarians, parents and children" (Projected audience)
3. "Because of its genesis, there is an emphasis on the English speaking countries and / or works appearing in English translation." (Scope)
4. "The Continuum Encyclopedia of children's literature is intended as a comprehensive single-volume reference source describing the development and current trends in children's literature throughout the world" (Purpose)

The breakdown for ‘Reasons’ in Figure 7.14, does not exactly match scoring in the Figure 7.13, because some phrases (for example "What is needed is a guide that staff can use to know where to find the answers, and quickly! Hence this book. We hope it will help" from *Know it all, Find it Fast*) matched two sub-categories exactly, ‘need’ and ‘purpose’ but was only counted once as the whole phrase matched both sub-categories. Where such statements occur, mentions were only counted twice where different parts of a statement emphasised different sub-categories. For example, in the *Concise encyclopedia of science and technology* the phrase “However, the needs of many other readers are met by a concise encyclopedia still covering the full breadth of science and technology.” belongs in the ‘scope’ category, whereas the expanded statement “However, the needs of many other readers are met by a concise encyclopedia still covering the full breadth of science and technology. With this in mind the editors conceived a shorter version of the multivolume work that would retain the authoritativeness, accuracy, clarity, recency, quality and coverage in a convenient and concise format” belongs in the ‘need’ category.

One more area which appeared more prominent here than in the reviews analysed in Chapter 5 was impartiality (which could be considered a subcategory of the ‘accuracy’ category). This function was mentioned in the survey data by end-users and by some of the encyclopaedists in Chapter 3, section 3.5, and is worth mentioning as a valued attribute in its own right.

The functions found in prefaces ranked as follows (see Figure 7.13):

1. ‘reasons’
2. ‘authority’
3. ‘accuracy’
4. ‘currency’
5. ‘comprehensivity’
6. ‘quality’
7. ‘extras’
8. ‘accessibility’
9. electronic issues.

As with Chapter 5’s results and the survey data, ‘reasons’ achieves a consistently high score, although it must be borne in mind that prefaces are by their nature justificatory. The prefaces, which represent the publisher’s viewpoint, are consistent with the answers given

by those publishers who were interviewed, in that both place ‘authority’ and ‘accuracy’ highly. In fact, the publishers’ top three functions in the survey data are the same as in the prefaces analysis. ‘Quality’ scores highly here, and although it achieved a low ranking overall in the survey data, it was most highly-rated by publishers.

While the results from prefaces are highly consistent with the survey data and also reflect Chapter 5’s results, they expand upon them. Where Chapter 5’s analysis only identified that a good encyclopaedia should demonstrate the reason it was published, this is nuanced here: it should justify the need for its having been produced, show that it has a specific audience in mind, that its scope is sufficient to its subject and that it demonstrates a specific and worthy purpose. The preface analysis also adds more emphasis to the importance of impartiality as an essential characteristic. As such, encyclopaedia prefaces provide more valuable evidence as to what the functional attributes of a healthy example of an encyclopaedia should be.

### **7.6.3 Librarians’ reference guides**

As prefaces demonstrated the concerns of encyclopaedia publishers, so evaluative or purchasing guides aimed at librarians demonstrate the functions they seek in an encyclopaedia. As Figure 7.15 illustrates, such guides have been produced periodically since before the Second World War. They operate as a toolkit for librarians assessing reference books, to help them use their budgets wisely. Twelve titles were chosen. The selection cannot be considered to be comprehensive, but the aim was to draw substantially from the past 25 years with the addition of some earlier writers, notably Louis Shores’ whose *Basic reference books* (1939) was hugely influential in the English-speaking library world and who himself pays tribute to Adeline Pratt’s 1935 guide (it has not been possible to trace the original for this, but Shores quotes her evaluation criteria in detail, 1939, p63). As a representative of librarians’ views on encyclopaedias they have authority: thousands of librarians must have used these guides to assess the value of the reference books they considered purchasing. However, their essentially didactic purpose makes their judgements different from the more instinctive preferences expressed by librarians in the survey data.

The standard layout for guides such as these is to list the qualities the librarian should seek in no particular order. Each of these was counted exactly once per author, even where, as mentioned in Chapter 2, the statement appeared to straddle two categories. However, the



headings in Figure 7.15 are not necessarily the terms used by the authors. For example, Cassell and Hiremath (2009) identify a value they call 'quality', but it is not categorised under this term as it includes only things mentioned elsewhere such as accuracy, currency and appropriateness. While the categorisation of the data aims to represent the intentions of the authors, the need to seek category consensus across the authors will inevitably have led to some inexactness. Moreover, despite efforts to avoid preselecting categories, the author's knowledge of those already identified in Chapter 5 will have influenced the identification of which functions could be considered to be like each other.

Characteristic	Total	Pratt	Shores	Pryce	Schmidt	Kister	Stevens	Lang	Nolan	Smith	Crawford	CILIP Ref	Cassell
Year		1935	1939	1954	1984	1986	1987	1987	1999	2001	2001	2006	2009
<b>Authority</b>	<b>12</b>	x	x	x	x	x	x	x	x	x	x	x	x
<b>Accessibility</b>	<b>11</b>	x	x	x	x	x	x		x	x	x	x	x
<b>Scope / purpose</b>	<b>11</b>	x	x	x	x	x		x	x	x	x	x	x
<b>Physical</b>	<b>11</b>	x	x		x	x	x	x	x	x	x	x	x
<b>Currency</b>	<b>10</b>		x	x	x	x	x	x	x		x	x	x
<b>Style</b>	<b>9</b>	x	x		x	x		x	x		x	x	x
<b>Originality</b>	<b>9</b>		x			x	x	x	x	x	x	x	x
<b>Appropriateness</b>	<b>8</b>				x	x	x	x	x	x	x		x
<b>Accuracy</b>	<b>7</b>				x	x	x	x		x	x		x
<b>Bias</b>	<b>7</b>	x	x		x	x		x		x	x		
<b>Illustrations</b>	<b>6</b>	x			x	x	x		x			x	
<b>Indexing</b>	<b>5</b>		x		x		x		x			x	
<b>Bibliographies</b>	<b>5</b>		x			x	x		x			x	
<b>Content</b>	<b>4</b>						x	x				x	x
<b>Comprehensivity</b>	<b>4</b>				x		x		x	x			
<b>Cost</b>	<b>4</b>				x	x			x	x			
<b>Durability</b>	<b>3</b>						x	x	x				
<b>Effects</b>	<b>1</b>							x					
<b>Availability</b>	<b>1</b>			x									

Figure 7.12: Functions identified in Librarians' reference guides, in order of total numbers of mentions across all the publications examined

Figure 7.15 indicates that the categories used by librarians relate strongly to those identified in the review literature in Chapter 5. With the exception of electronic issues (which did not apply to all the information sources reviewed), all of the functions are identified by at least 4 of the 12 library reference guides and in most cases, by at least 7. Because the categories do not match exactly, it is not possible to compare the rankings: scope and purpose and appropriateness would, depending on the terms used by the authors, probably be combined under ‘reasons’ in Chapter 5, and ‘physical features’ and ‘style’ (not to mention durability) under ‘quality’. However, ‘comprehensivity’ (‘completeness’ was another term used in the literature) is only mentioned in four of the guides, despite being the highest ranking term in the review literature and no other term in the reference guide evaluation encompasses any similar concept. This is particularly remarkable given that it was mentioned spontaneously by 8% of librarians in the survey data and ranked fourth both in their free-text and pre-set category answers.

Certain qualities are new to this dataset or achieve a stronger emphasis than in the review literature. ‘Originality’ (also described as ‘distinctiveness’) in the context of an evaluative guide relates to the ‘reasons’ category in its implication that the librarian’s justification for making the purchase is that there is nothing equivalent in the existing collection, but is a more nuanced value. Similarly, although ‘appropriateness (for audience)’ (also described as ‘treatment’ and ‘suitability’) is also related to this category, it has a distinct meaning in the context of a library’s patron-group and collection development policy. The separation of physical qualities (often described in the literature as ‘format’) from issues of style (which can refer to the overall style, that is, popular or scholarly, as well as aesthetic qualities and presentation) is again worth noting, particularly given the high ranking for ‘ease of reading’ in the survey and interview data.

According to these guides, librarians should look for authority, accessibility, purpose, currency, physical format and writing style in their reference books. They also value distinctiveness in a title, appropriateness for its perceived audience, accuracy and lack of bias. These characteristics can, therefore, be added to those valued by the communications cycle.

## 7.7 Conclusion

This chapter has revealed considerable differences in how three parts of the communications circuit value the features of an encyclopaedia, both within the categories of user, and compared with the results of Chapters 5 and 6. Clearly there are differences across the three different user-groups. Differences are also attributable to the variations in the types of data (surveys, prefaces and evaluation guides), methods of counting and scoring (ranking, percentages and averages) and numbers of subjects (from 86 end-users to 12 library reference guides). However, a number of characteristics appear again and again in all three chapters and offer qualitative evidence as to the nature of the encyclopaedia as a form of the book.

All of the functions mentioned in Chapter 5 were valued by at least some members of the encyclopaedia communications circuit, although to somewhat differing extents. Other functions emerged or achieved a greater specificity in some of the data. However, it can be said that those who create and use encyclopaedias, would expect a healthy example to have the following functions:

- authority
- accuracy
- ease of reading and good style
- currency
- comprehensivity
- brevity and concision
- neutrality
- distinctiveness
- pictures
- range of coverage
- ambition and scale of task
- clarity of purpose
- appropriateness for intended audience
- correct scope for topic
- good physical format

The physical features which members of the encyclopaedia communications circuit expected to see varied somewhat from those observed by looking at the books themselves. This is consistent with the very different method of gathering data. However, an encyclopaedia can certainly be described by them as having the following features:

- hardback
- bibliographies (or citations)
- alphabetical order
- arranged into entries
- introductory chapter
- index and cross-references
- contents page
- substantial size or weight
- structured, accessible organisation.

The next chapter will consider the conclusions from all three of the research chapters, as well as Chapters 3 and 4. It will attempt to posit what extent they answer the research questions set at the start of this thesis.

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### **8.1 Introduction**

The composite picture of the encyclopaedia which has emerged from Chapters 5, 6 and 7 is one with an agreed complement of physical features and abstract characteristics. Yet, as Chapter 4 demonstrates, what has constituted the encyclopaedia has changed over the centuries. As the start of Chapter 7 indicates, the past 15 years have been a time of particular change in the reference publishing industry. No study of the encyclopaedia which included the 21<sup>st</sup> Century could ignore the existence of *Wikipedia*, which since 2001 has offered encyclopaedia-style articles, written by voluntary contributors and editable by almost anyone, for free via the web (Wikipedia, 2012a).

This chapter thus intends to explore whether the picture of the encyclopaedia outlined in this thesis still has resonance in a world where searching for information is something that many people only do online. It proposes to compare the picture of the form of the book outlined in the previous chapters with three examples of large-scale online information sources which claim to be encyclopaedias and consider whether, according the identified criteria, they justify the name. In this way, it may be possible to form a judgement of what elements of the hard copy encyclopaedia will survive into the electronic age.

The picture of the hard copy encyclopaedia being simply replaced by online sources is a simplified one. Publishers and libraries currently take various approaches to providing access to encyclopaedic knowledge to those accustomed to using the web for research. The following section, based largely on writing in the publishing, bookselling and librarianship trade press, aims to sketch a picture of how far and in what way people are using encyclopaedias at the time of writing.

## **8.2 Encyclopaedias in the 21<sup>st</sup> Century**

Encyclopaedia print sales remained high in the early 2000s, but subsequently began to decline (Publishers Weekly, 2009). Nevertheless, the range of print titles continued to grow and “even though conventional encyclopaedias may be waning as an outgrowth of Wikipedia’s popularity and other factors, the one-subject encyclopaedia or in-depth exploration remains strong” (Bond, 2008). It was the library sector, experiencing large budget cuts in both the US and the UK, which offered the biggest decline, including low sales even where a title had significant publicity and a good critical reception (Danford, 2009). As the section on library reference in Chapter 6 indicated, the usage of hard copy encyclopaedias in libraries is not high (although Bradford, 2005 suggests that usage has possibly always been a small percentage of holdings). East (2010) goes further, to suggest that librarians and publishers collude in the sale and purchase of subject encyclopaedias which go unused on library shelves. Certainly, many library budgets are now directed from hard copy towards purchasing online reference subscriptions (Bradford, 2005; Heintzelman, Moore and Ward, 2008; O’Gorman and Trott, 2009; Kennedy 2011). They offer the obvious advantage of being regularly updated, accessible by end-users, offsite when the library is closed and keyword searchable, even though they do not match the hard copy titles in subject coverage and they can prove hugely expensive (O’Gorman and Trott, 2009; Heintzelman, Moore and Ward, 2008; Schopflin, 2011). Some saw technology as a boost to traditional encyclopaedic endeavours, much as Paul Otlet or Vannevar Bush

did, as outlined in Chapter 3. Freed from the bounds of paper, print and bind, encyclopaedias really could bring together knowledge from the world’s “national and independent libraries and archives in order to achieve flexible search and recovery of documents” (Featherstone and Venn, 2006).

An increasing number of titles are now published in online form only (Bond, 2008; Jones, 2008a) and the decline in print sales in the late 2000s was noted by one publisher as ‘dizzying’ (Danford, 2009). Certain print reference formats, for example, the concordance, had simply been overtaken by more easily-searched (and compiled) digital alternatives (Publishers Weekly, 2009). The emphasis for large publishers has become developing online products concurrently with print (Bond 2008; Publishers Weekly 2009; Lopez-Cordero, 2010), digitising aggressively (Lopez-Cordero, 2010) and adding value to their content, for example, with topic pages, country profiles or teaching materials.

The availability of free online reference information also affected trade non-fiction publishing (Beer, 2004) although low-priced reference titles (in the UK, often made appropriate to the education National Curriculum) continued to sell in bookshops in the first decade of the 21<sup>st</sup> century, in particular to the ‘homework’ market at the start of the academic year and as Christmas presents (Beer, 2004; Bookseller, 2008). It would seem logical that consumers who use web search engines would not bother to buy cheap hard copy reference works. Yet certainly categories of consumer reference continue to sell, particularly quotations books, popular language companions and more irreverent titles (D., 2007; Bond, 2008; Danford, 2009; Lopez-Cordero, 2010).

As a means of protecting their products’ selling-point, publishers have tended to criticise web content as unreliable, even when, as with *Wikipedia*, it is arranged into articles with headings and references as would be found in an encyclopaedia (Jones, 2008a). For traditional publishers, “Old trustworthiness – tied up in tradition, expertise and local relevance – gains new currency in networked settings” (Sundin and Haider, 2013). Others point out that *Wikipedia*’s coverage is skewed towards certain types of topic “where there is a wide distributed knowledge base and a large a pool of people with time on their hands to contribute” (Publishers Weekly, 2009). For them, although they publish electronically, the traditional commissioning model adds value to their product. Some feel there is still a role for print products but that growth areas are digital, providing an authoritative filter

for material accessed online (Publishers Weekly, 2009; Lopez-Cordero, 2010). The trend for both trade and educational publishing has become to emphasise trusted brands and to sell titles in new formats, including increasingly mobile-friendly formats (Danford, 2009; Lopez-Cordero, 2010). Ninety percent of Britannica's profits in 2010 came from online and mobile publishing (Bookseller, 2011).

Yet, not all contemporary reference publishing is online. Some publishers lack the finance and access to technical expertise to enter the online market. Others are unsophisticated in approach and have been criticised for not embedding development in at the editorial and production ends of the publication process (Daniels, 2008). It was not unusual in 2009 for one specialist publisher to only be starting to use XML in their 'manuscript preparation process' (Publishers Weekly, 2009). The long-lead-in times associated with reference books are another reason for a comparatively slow implementation of new technological or social developments. The original investment for a long-term project may not have encompassed more recent technological developments. And while many publishers are investing in e-book development, encyclopaedias cause problems for e-book readers. Ironically, while many early successful examples of e-books were reference titles, accessed as databases from desktop computers from the late 1990s, they cause problems for handheld e-book readers. Designed to solve the problem of reading a linear narrative off an LED screen, e-ink and e-paper have been hugely successful for fiction. However, it is expensive and troublesome to use it to recreate unusual characters and complex layouts, such as are found in reference works (Publishers Weekly, 2009).

The web, now an old technology, is not the only challenge to the traditional encyclopaedia. As Sundin and Haider put it, "the use of encyclopaedic knowledge has become different, always available and in constant competition with other sources" (2013). Moreover, Web 2.0, or social media, offers an opportunity to hand knowledge-sharing back to the user. When the answers to questions can be crowdsourced through blogs or social media sites such as Twitter and Facebook, the question arises as to why anyone would need a mediated reference source. Moreover, as Featherstone and Venn (2006) suggest, the traditional idea of the encyclopaedia as "a device which systematically organizes knowledge of a known, or knowable world", which might seem outdated in a complex, global and multicultural world, can be challenged with the multiple viewpoints and democratising effects of social media. *Wikipedia*, where anybody can be an author, might seem like the ideal example of this, a "de-authorization of the cult of experts", but Featherstone and Venn see its structure

as ultimately as conventional as a traditional discipline-based encyclopaedia, failing in the “incorporation of knowledge which doesn’t fit existing classifications”. Haider and Sundin (2010) see *Wikipedia* as a continuation of the Enlightenment “encyclopaedic project” to share accepted public knowledge, albeit in a way that “opens up the production side of the encyclopaedia, taking control away from the experts”, not as a way of finding innovative ways to challenge traditional viewpoints.

Some encyclopaedia publishers have responded to what they see as a genuine desire to open up the knowledge-gathering process, by seeking user contributions to their otherwise expert-led content (Danford, 2009). In reality, since the content remains vetted by editors before it reaches any officially branded web or print page, it is not so very different from the feedback loop certain publications had always had with their titles and readership (Grant, 2011). However, social media informs the content and encourages new, non-traditional users to engage with the product. Moreover, established print brands are a marketing tool for web content, particularly aiming to attract keen web searchers who have not previously been customers for reference works (Danford, 2009; Cordero, 2010). Print titles based on free websites are often hugely successful (Cordero, 2010). Print branding helps to sell mobile phone apps in a crowded market, and users are prepared to pay a higher price for trusted content (Cordero, 2010). And while existing print titles surprise their publishers by continuing to sell, the web provides content for new and more quirky titles, and a better means of distinguishing and marketing web content. Like the role of scheduled television programmes in the age of the iplayer, print acts as marketing tool for online. One publisher said ‘A major reference work boosts our presence and visibility and broadens our reach’ (Cordero, 2010). Meanwhile, Wikipedia now publishes single-volume print encyclopaedias based on the website (Jones, 2008b).

### **8.3 Are online titles encyclopaedias?**

A full-scale comparative study of online encyclopaedias, using the same techniques as Chapters 5, 6 and 7 is out of scope for this chapter. However, it is appropriate to ask of electronic encyclopaedias the two research questions asked in the rest of this thesis, that is ‘What is considered to be a successful example of an encyclopaedia?’ and ‘Of what component parts are these reference sources made?’ Functions and characteristics identified in the previous research chapters can be deployed to answer these questions. Introductory materials from the websites themselves were examined to answer the first question. Promotional and ‘About us’ pages display how far the qualities identified in

Chapters 5 and 7 are considered selling points for the creators of these online sources. For the second question, the online sources were examined for the characteristics identified in Chapter 6. Some of the physical component parts identified in Chapters 6 and 7, for example hardback binding, do not apply in the online world (and this particular characteristic is ignored for these results, as is ‘Substantial size and weight’). But it is possible to examine online reference sources and identify a surprisingly large number of physical features, albeit experienced in a different way by their users than in print encyclopaedias. While this is a small sample of evidence by comparison to that used in establishing the criteria in the first place, it is a starting point for considering how far an online encyclopaedia can rightly be called an encyclopaedia.

The three titles chosen, *Britannica Online*, the *Stanford Encyclopedia of Philosophy* and *Wikipedia*, represent a continuum of editorial mediation. *Britannica* began as the online version of a print title and remains a fully branded and traditionally edited title, albeit one which invites additions and amendments from its readers. *The Stanford Encyclopedia of Philosophy* invites entries, but they are refereed by an editorial board and edited by subject specialists. As mentioned before, almost anyone can contribute to *Wikipedia* and add edits to previous pages. All three identify themselves as encyclopaedias<sup>26</sup>. The following sections judge each in turn against the encyclopaedia-like criteria identified already in this thesis.

## 8.4 Britannica Online

### 8.4.1 Introduction

As mentioned in previous chapters, *Encyclopaedia Britannica* was an early entrant to the online reference market, and was offered as a paid-for subscription product from 2000. In 2012 the main edition ceased being printed in hard copy. Nevertheless, it continues to follow the encyclopaedia communications circuit outlined in Chapter 7: content is commissioned from expert contributors in response to intense user-research and put through a highly-mediated fact-checking and editorial process. It lacks a moment of print publication or any need for physical distribution, but marketing and sales personnel are

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<sup>26</sup>Wikipedia’s title header reads ‘Welcome to Wikipedia, the free encyclopedia that anyone can edit.’ (from [http://en.wikipedia.org/wiki/Main\\_Page](http://en.wikipedia.org/wiki/Main_Page) accessed Wednesday 5th December 2012)



still employed to find potential purchasers. Once money has changed hands, subscribers receive access through a URL, working either through IP recognition on a set of networked PCs or through a password. However, much of the content of *Britannica Online* is available for free, although sales and marketing personnel are still employed to bring in income through advertising and publishing partnerships.

All of the observations below were made on, and quotations taken from, the site <http://www.britannica.com/> on 20<sup>th</sup> October 2012. The screen downloads were taken on the same date, using Mozilla Firefox 5.0.

#### 8.4.2 Physical features

- **Introductory chapter**

Front matter familiar to hard copy encyclopaedias does not have a place on the digital page. Users arriving at *Britannica Online*'s home page ([www.britannica.com](http://www.britannica.com) see Figure 9.1) would not find any clear introduction to what this particular title is intended to offer or how it works. However an equivalent to the introductory chapter exists and is reachable by clicking on the 'About us' button at the very bottom of the page. This leads to a page (Figure 9.2) offering a statement outlining the mission of Encyclopaedia Britannica, Inc., the purpose of their products and range of formats. Further information can be obtained by browsing the 'Products' menu, where information is sub-divided by potential audience (for example, 'At home', 'Libraries', 'Business & Government'). Users from these communities are then directed to the products aimed at their needs, each of which is given an introductory paragraph identifying the content and purpose of the product. These pages are very much the online equivalent of the introductory chapter and, while hard to find, are the type of information which would be browsed by those considering taking up a subscription before they spent money. The end-user experience is possibly more likely to be arrival at a [britannica.com](http://www.britannica.com) article from a general web search. This too gives access to the 'About us' page (here more visible as there is less other information on the page). Those who followed this link are perhaps equivalent to the casual encyclopaedia browser who chose to read the introduction. So, while the information is without doubt less obvious, the introductory chapter has its equivalent online.

- **Bibliographies (or citations)**

A standard side menu accompanies britannica.com articles including ‘Related articles, e-books and more’. Interestingly, the ‘References’ tab in this option does not contain references to works used researching the article, but appears to be a home for references *to* the article (although all examples examined brought up the text ‘No references for this article’). For further reading, the reader is advised to click on the ‘Ebooks, primary sources and magazines’ tab (See Figure 9.4) where references are apparently automatically generated by a keyword related-to the topic being sent to a search engine, rather than selected by hand (as indicated by the text ‘The following search results contain the keyword [article title]’). They are, however, live links rather than simply a list of citations which would be unlikely to be available for free. Again, therefore, while the citations do not perform one of the functions mentioned in Chapter 4, that is, to reassure the reader of how the article was researched, they do perform the other, that is, to provide opportunities for further research, albeit with apparently unmediated suggestions. There is, moreover, other information on how the article was put together in the ‘Article history’ menu option.

- **Arranged into entries**

The articles in britannica.com are arranged into entries by topic. Although much other material is presented to the reader, the text of the primary entry is very much as would be expected in a print encyclopaedia.

- **Alphabetical order**

From the home page, the principle means of accessing britannica.com articles is the search box. For this purpose, the fact that the individual articles can in some way be ordered alphabetically is irrelevant. Yet the option to browse A-Z is also prominent on the home page (on the day of access, the link to the A-Z list of articles is the first item in the panel immediately below the search box). This page also allows the user to jump to a word beginning with certain letters. The advantage of being able to see an article title in the context of its alphabetical neighbours is primarily to help locate articles where the reader is unsure of the title’s spelling. It may also suit some users to be able to browse titles where a free-text search would bring up too many results, as it would search both the text of the article and the title. Regardless of whether the alphabetical listing is of great value to most britannica.com users it is clearly provided as an alternative access point and made obvious on the home page.

- **Index and cross references**

*Britannica Online* has no apparent index. Nevertheless, in the process of becoming free-text searchable, at the very least an inverse file of all the words it contains has been indexed automatically. What is more likely is that search technologists have engineered the search to produce more accurate results than would be obtained from a simple inverse file, quite possibly using the skills of a taxonomist. In this sense, the encyclopaedia does indeed provide an index. Cross references are provided as hyperlinks from the ‘Related Articles’ menu option on the left-hand side (see Figure 8.4).

- **Contents page**

The A-Z page provides browsable access to the contents but is not a ‘Table of Contents’ in the traditional sense. This is because, outside of browsing article headings, the function of the traditional contents page is to give the reader a sense of the geography of the physical item, something not applicable to an online space.

- **Structured, accessible organisation**

As with the comments on alphabetisation above, in some sense the organisation is less relevant where the content is likely to be primarily searched in the free-text. There is no visible structure (such as subject overview or contents page) to the entries in *Britannica Online*. However, the underlying organisation of the encyclopaedia, that is, the division of knowledge into topics, is undoubtedly structured. Whether used by the readers or not, work has been done to make the information accessible under the subjects the editors consider most useful to the reader even if it is not made obvious to them.

[Picture removed for copyright reasons]

*Figure 8.1: Britannica Online home page*

[Picture removed for copyright reasons]

*Figure 8.2: Britannica 'About us' page*

[Picture removed for copyright reasons]

*Figure 8.3: Britannica Products page for libraries*

[Picture removed for copyright reasons]

*Figure 8.4: Britannica articles page with references menu*

### 8.4.3 Functions

The following quotes are taken from the introductory ‘About us’ page and provide evidence of functional attributes identified as essential to a good encyclopaedia in Chapters 5 and 7:

- **Authority**

“In a world where questionable information is rampant, we provide products that inspire confidence, with content people can trust. We do this, as we have for many years, by collaborating with experts, scholars, educators, instructional designers, and user-experience specialists; by subjecting their work to rigorous editorial review; [...] Many people know us as the publisher of those big multivolume encyclopedias that have been a source of joy and learning since 1768”

- **Accuracy**

“and by combining it all into learning products that are useful, reliable, and enjoyable. our products are marked by ... reliable, and trustworthy content.”

- **Ease of reading and good style**

“our products are marked by engaging, reliable, and trustworthy content.”

- **Currency**

“Today that encyclopedia is chiefly to be found in a multitude of digital forms that are updated daily.”

- **Ambition and scale of task**

“Encyclopædia Britannica, Inc., is a global educational publisher”

- **Clarity of purpose**

“We provide timely, relevant, and trustworthy information and instructional products used in schools, universities, homes, libraries, and workplaces throughout the world.... and by combining it all into learning products that are useful, reliable, and enjoyable.”

- **Appropriateness for intended audience**

- **Correct scope for topic**

“We’re deeply involved with schools, parents, and educators, designing products for the 21st-century classroom and today’s home learning environments... Britannica is for the

2nd-grader learning math, the teacher explaining the laws of gravity, and the lifelong learner trying to understand the latest political crisis.”

- **Physical format**

“Britannica is online, in e-books, and on mobile devices.”

- **Distinctiveness**

“In a world where questionable information is rampant, we provide products that inspire confidence, with content people can trust.”

The following items were not specifically mentioned on this page.

- comprehensivity
- brevity and concision
- neutrality
- pictures
- range of coverage

However some of them could be found in descriptions of specific products. For example the *Britannica Academic Edition* is described as “current, accurate, unbiased, comprehensive, relevant, international in scope, and engaging to college-level learners, researchers, and faculty” and *ImageQuest* as “the best and broadest collection of proprietary educational imagery”.

It can therefore be concluded, therefore, that Britannica Online displays both the physical attributes most associated with an encyclopaedia and sells itself on the many of the most valued abstract qualities. As an editorially published work in a family of publications including hard copy items (although since 2012, its main edition is not among them), this is perhaps not surprising, but it indicates the persistence of the encyclopaedia concept into the electronic form.

## **8.5 Stanford Encyclopedia of Philosophy (SEP)**

### **8.5.1 Introduction**

The *Stanford Encyclopedia of Philosophy (SEP)* describes itself as a ‘dynamic reference work’, meeting three criteria not normally met in encyclopaedias: the content is scholarly and refereed, updated regularly to reflect developments in scholarship and freely available on



the web. It has the support of Stanford University and some paid staff (editorial staff have faculty posts at Stanford). It has an editorial board similar to that of many scholarly encyclopaedias, although in this case appointed by the University Department of Philosophy. Other costs are met from grant funding and contributors are unpaid.

The communications circuit resembles that of the traditional encyclopaedia at the point of creation, because the editorial board has designed the overall concept of the encyclopaedia, the rationale for different types of articles and invites contributions. However, unsolicited contributions are permitted for articles for which the titles have been published but which have not yet been assigned. Moreover, would-be contributors can also submit potential encyclopaedia topics. As mentioned in Chapter 7, money is rarely the main motivation for encyclopaedia contributors, so the difference in commissioning, editorial and writing from the conventional model is small. However, as the reader does not need to pay anything to use the encyclopaedia or to travel beyond the open web to access it, there do not appear to be any marketing, sales and distribution staff. No librarian is needed to purchase a subscription to the encyclopaedia, but it does appear in subject guides compiled by librarians (for example, that provided by Birkbeck College, 2012).

Observations and quotations were taken from <http://plato.stanford.edu/> on Friday 9<sup>th</sup> November 2012. The screen downloads were taken on the same date, viewed on Mozilla Firefox 5.0.

### 8.5.1 Physical features

- **Introductory chapter**

The ‘About us’ page on the *SEP* (Figure 8.6) is far more prominent than that of *Britannica*, being visible on the left-hand navigation immediately underneath the ‘Editorial Information’ heading. The page is very like the prefaces examined in Chapter 6, having a lengthy description of the encyclopaedia’s rationale and purpose and copious acknowledgements. The latter are far more detailed about sources of funding than might be expected in a print introduction, perhaps because, as a live project, the editors wished to emphasise the continuing importance of funding. This part of the site does not give any instructions on how to use the *SEP*, and it does not appear to have a section describing the scope of different types of entries. However, the ‘Advanced search’ and ‘Tools’ pages provide detailed information on online searching. In some ways, therefore, the left-hand

navigation is more immediately equivalent to traditional front matter than anything accessible from the *Britannica Online*'s front page.

- **Bibliographies (or citations)**

Each individual article is fully referenced and most also point to useful internet resources, for example, other articles on the web on the subject (see Figure 8.7).

- **Arranged into entries**

As with *Britannica*, articles in the *SEP* are recognisably entries in a reference work, discrete topics of information arranged under headings.

- **Alphabetical order**

While the prominence of the search box (carried in the left-hand navigation on every page) and detailed online search tools would indicate that accessing the articles alphabetically is not a priority, the *SEP* also has a prominent alphabetical 'Table of Contents' section. This allows the user to browse links to alphabetically-filed articles (interfiled with headings for articles which have not yet been added to the encyclopaedia).

- **Index and cross references**

There is no index in the traditional sense in the *SEP* and no information is given about the extent to which indexing has helped to optimise the free-text search. Nevertheless, it is reasonable to assume that some form of tagging or possibly vocabulary control underlies the search. Although articles have not been cross-referenced between each other within the text, dynamically-created 'Related Entries', appear at the bottom of each article page (see Figure 8.7).

- **Contents page**

As with *Britannica*, the *SEP* has an A-Z listing of articles, allowing the reader to gauge the scope of the contents, but no equivalent of the Table of Contents (although this phrase is used to describe the A-Z page) in the sense of mapping out the landscape of a physical space. This would, perhaps, be inappropriate in something which describes itself as a 'dynamic reference work' and thus always open to change.

- **Structured, accessible organisation.**

The 'Table of Contents' contains articles which have not yet been completed, and the 'Projected Table of Contents' those which have not been assigned. This indicates that the *SEP* has a pre-planned structure rather than evolving organically, although it includes among its aims 'evolving and adapting in response to new research' which would imply new potential ways of dividing and categorising knowledge about philosophy as new schools and disciplines emerge. Although no subject table view is made available to the

reader, it is reasonable to assume that one underlies the way that knowledge about philosophy is divided up among the headings. So, although access will for all users be through online search or alphabetical browsing, the encyclopaedia is undoubtedly structured. Moreover, individual articles offer an introductory contents overview (see Figure 8.8), in a manner familiar from large-scale print encyclopaedias like *Britannica* (note that articles in *Britannica Online* do not include these internal contents listings).

[Picture removed for copyright reasons]

*Figure 8.5: Stanford Encyclopedia of Philosophy (SEP) Home Page*

[Picture removed for copyright reasons]

*Figure 8.6: 'About the Stanford Encyclopedia of Philosophy' page*

[Picture removed for copyright reasons]

*Figure 8.7: SEP article page for 'Metaphysics' showing bibliography, 'Other Internet Resources' and 'Related Entries'*

[Picture removed for copyright reasons]

*Figure 8.8: SEP article page for 'Nationalism' showing internal contents structure*

### 8.5.3 Functions

Where quotations appear below, they are taken from the ‘About the Stanford Encyclopaedia of Philosophy’ page unless otherwise indicated.

- **Authority**

“From its inception, the SEP was designed so that each entry is maintained and kept up to date by an expert or group of experts in the field.”

Additionally, the ‘Editorial Policies’ section of ‘About the *Stanford Encyclopedia of Philosophy*’ contains detailed description of the qualifications required for contributors and the detailed information about the editorial board is linked to from the ‘Editorial Information’ section of the site.

- **Accuracy**

Although no mention of accuracy specifically is made, the ‘Editorial Policies’ mention both that readers are encouraged to submit corrections and that authors should be prepared to accept valid editorial criticisms. This indicates that, while accuracy may not be straightforward in a work on this level, it is an aspiration.

- **Currency**

‘Consequently, our dynamic reference work maintains academic standards while evolving and adapting in response to new research.’ ‘Authors are expected revise their entries in a timely way ... in response to important new research on the topic of the entry.’

- **Distinctiveness**

‘Few dynamic reference works have been built to the specifications described in the previous paragraph. Most of the other encyclopedia projects available on the web lack some of the dynamic and scholarly features of the SEP.’

- **Neutrality**

‘The views expressed by the authors in their entries are their own and do not necessarily reflect those of Stanford University, the Stanford University Philosophy Department, the Encyclopedia's Editors or of anyone else associated with the Encyclopedia.’

- **Comprehensivity**

- **Range of coverage**

‘A scholarly dynamic reference work differs from an academic journal, for academic journals ... do not aim to publish articles on a comprehensive set of topics, but rather, for

the most part, publish articles that are randomly submitted by the members of the profession ... typically serve a narrow audience of specialists'

- **Physical format**

'The SEP's publishing model therefore has the ability to deliver, with very low administrative and production costs, quality content meeting the highest of academic standards via a medium that is universally accessible.'

No specific statements were made about the following qualities:

- Ease of reading and good style
- Brevity and concision
- Ambition and scale of task
- Clarity of purpose
- Appropriateness for intended audience
- Correct scope for topic

For this audience, it appears that the authority of the authors and editors, and regularity of updating are more important than how pleasant the experience of using the encyclopaedia is. However, without stating it explicitly, the introductory statements do give a notion of the scale of the task, one involving the input of many scholars and lasting over many years. The appropriateness of the work for any intended purpose, audience or for its own topic also go unmentioned although it can be assumed that the funding and support received by the project were not received without a clear statement of its purpose. Overall, the 'prefatory' statements here are less celebratory of the work than they are in *Britannica.com*. This is perhaps partly because the editors feel that the prestige of the backing University and editorial board speak for themselves, or perhaps because no monetary transaction takes place with the reader, so persuasion to use the work can concentrate on issues of authority.

The physical features of the *Stanford Encyclopedia of Philosophy* are similar, on the whole, to those of *Britannica* and, as such, retain the characteristics of the physical encyclopaedia. Indeed, the born-digital *SEP* has some features, such as article content summaries, which have been abandoned by *Britannica*. Fewer of the abstract qualities are mentioned specifically in the introductory material, yet enough emphasis is given to the rigorous editorial processes, the prestige of the contributors and the neutral, accurate and up-to-



date content, to indicate that it considers its own virtues to be similar to those valued in many physical encyclopaedias.

## 8.6 Wikipedia

### 8.6.1 Introduction

*Wikipedia* describes itself as “a free, collaboratively edited and multilingual Internet encyclopedia supported by the non-profit Wikimedia Foundation” (all observations in this paragraph are from Wikipedia, 2012b). Its editorial rationale is very different to the traditional communications circuit of the encyclopaedia and aims to bypass the lengthy editorial process to share knowledge quickly (the ‘wiki’ part of its name comes from the Hawaiian word for ‘quick’). Volunteers are invited to submit articles and make edits on other articles without proving expertise or even providing their name. Guidelines and policies are published but website states “it is not a formal requirement to be familiar with them before contributing”. The website freely admits that, until articles have received a certain number of collaborative edits, they are likely to contain errors. There is no overall subject structure for the encyclopaedia and contributors can start new pages from any text on any given page. Most pages can be edited by anyone, but registered user account-holders have the possibility to build a reputation on the site and be considered ‘expert’ editors or given peer approval to assume one of the community’s roles: administrator, bureaucrat, steward or membership of the Arbitration Committee. Founder Jimmy Wales has ‘several special roles and privileges’, including some exceptional decision-making responsibilities which, while rarely-exercised, are primarily editorial.

As with the *SEP*, it is free to use, meaning that sales, marketing and distribution are less relevant, although the Foundation does employ a press office. Indeed, like a publishing company, the Foundation employs salaried staff who oversee projects, partnerships, fundraising and editorial concerns, and are paid largely from donations. Incidentally, of the three online sources analysed in this chapter, *Wikipedia* is the only available in hard copy (via print-on-demand Wikipedia ‘Books’, covering certain popular article collections).

Librarians and academics have traditionally expressed mistrust of *Wikipedia*’s accuracy and authority and, in some cases, have banned their students from using it for citations (Head and Eisenberg, 2010). However Head and Eisenberg’s 2010 study of its use among college students indicated a reasonable awareness of its limitations in this area. Its predominant use by students in the study was as a first port-of-call to acquire a subject overview and relevant vocabulary for further searches. This indicates that, at the consumption end of

the communications circuit, users still seek qualities such as accuracy and authority, and use Wikipedia in a slightly different way from other encyclopaedias because they perceive it lacks them.

At the same time, *Wikipedia* has increasingly aimed to increase its credibility as an authoritative source. One ‘Wikipedian in residence’ described projects to work with the experts working in institutions such as the British Museum and British Library to encourage them to write and correct articles for them (Green, 2012). While *Wikipedia* (2012b) is open about being ‘written largely by amateurs’ it claims that the main advantage of this is that they ‘have more free time’ to make frequent updates. The use of amateurs is not accompanied by any claims that not using experts is a more democratic way of producing an encyclopaedia, or that authority is no longer an important. *Wikipedia*’s own main claim to superiority is over the length of time it takes ‘paper encyclopedias’ to update (Wikipedia, 2012b). It makes no claim to superiority over online projects such as *SEP* or *Britannica* which receive regular updates (albeit with an editorial process which slows them down). Like the others, Wikipedia aims to provide accurate factual information. Even the much-quoted *Nature Magazine* comparison between *Wikipedia* and *Encyclopaedia Britannica* (Giles, 2006) was essentially a competition to prove the accuracy of one source over the other. In *Wikipedia*’s introductory materials, the ‘Introduction to referencing page’, states that ‘all article content has to be verifiable’ by the inclusion of ‘an inline citation’. Guidelines for new contributors advise that without citations, the article is likely to be deleted (on the ‘Wikipedia: Your first article’ page). This indicates that at the production end of the circuit, the most valued qualities in *Wikipedia* include accuracy, authority and currency, all qualities valued in the traditional encyclopaedia.

Observations and screen downloads in this section were made from [http://en.wikipedia.org/wiki/Main\\_Page](http://en.wikipedia.org/wiki/Main_Page) on Friday 16th November 2012, viewed on Mozilla Firefox 5.0.

### 8.6.2 Physical features

- **Introductory chapter**

Wikipedia has several pages providing background and help to the reader, under its ‘Interactions’ heading on near to the top of the left hand margin (see Figures 8.9 and 8.10).

The ‘About *Wikipedia*’ page is most similar to a traditional introductory chapter, offering both a rationale for the encyclopaedia and guidance on its use. The ‘Help’ page provides a ‘Frequently asked questions’ and invites feedback. The ‘Wikipedia: Five Pillars’ page, which

is linked to from both the ‘About’ and ‘Help: Getting started’ pages, aimed at contributors, has more details about its editorial outlook.

- **Bibliographies (or citations)**

Typically, *Wikipedia* articles include citations and useful external links (see Figures 8.11 and 8.12). Where citations are missing, this is indicated both in the text and at the bottom of the article, in the form of a prominent text box reading ‘This article needs additional citations for verification. Please help improve this article by adding citations to reliable sources. Unsourced material may be challenged and removed.’ Note that, although described as ‘verifications’, the citations do not themselves have to be from a trustworthy or respected source.

- **Alphabetical order**

Although *Wikipedia*’s size and accessibility lends it to searching rather than browsing, the ‘Contents’ page links to a full alphabetical index of all articles (see Figure 8.13).

- **Arranged into entries**

The information held within *Wikipedia* is held within entries. The ‘Standard layout’ instructions for contributors starting new articles provides a template divided into sections (such as ‘lead section’ and ‘Body section’) and advises users what should go in them, for example ‘introductory text’ into the ‘lead section’, very much like the ‘summary sentence’ quality identified in every encyclopaedia in Chapter 6.

- **Index and cross references**

The ‘Contents’ section offers access to the whole *Wikipedia* database via a number of indexes. However, the main method of surfacing items of information from within entries is likely to be through a free-text search. The size and constantly changing nature of *Wikipedia* would make a traditional index very difficult to produce. Cross references are represented by hyperlinks to related material in each article. Contributors are encouraged to link to other articles within the same-language version of the encyclopaedia (in the ‘Help: Link’ page) and some links are generated through an automated tool which identifies certain vocabulary in existing articles and looks at new articles for instances of it. The ‘Category’ pages (see Figure 8.16) bring together references on a topic (assigned by the original article author) from a single page.

- **Contents page**

The ‘Overview’ page (Figure 8.15) has an outline of the subject areas covered in the encyclopaedia. This is a very broad overview linking to a tiny proportion of the actual

articles but does provide an overall view of the subjects covered in *Wikipedia*. The ‘Categories’ overview page allows every article to be browsed by alphabetical category.

- **Well-structured, accessible organisation**

The ‘Overview’ page mentioned above indicates that the articles are intended to be part of an overall subject structure, and the advice given to contributors (in the ‘Your first article’ page) encourages them to check that an existing article does not already exist, assign it to at least one category and link to other articles.

[Picture removed for copyright reasons]

*Figure 8.9: Wikipedia front page*

[Picture removed for copyright reasons]

*Figure 8.10: Wikipedia help page*

[Picture removed for copyright reasons]

*Figure 8.11: Wikipedia 'Mark Alan Stamaty' article page showing citations*

[Picture removed for copyright reasons]

*Figure 8.12: Wikipedia 'Jazz Hands' article page, indicating need for citations*

[Picture removed for copyright reasons]

*Figure 8.13: Wikipedia A-Z Index page*



[Picture removed for copyright reasons]

*Figure 8.14: Wikipedia contents page indicating various methods of navigation*

[Picture removed for copyright reasons]

*Figure 8.15: Wikipedia contents overview page*

[Picture removed for copyright reasons]

*Figure 8.16: Wikipedia category page for 'Biafra'*

### 8.6.3 Characteristics

Quotations are taken from the 'About' and 'Five Pillars' pages on Friday 16<sup>th</sup> November 2012 viewed on Mozilla Firefox 5.0.

- **Authority**

“People of all ages, cultures and backgrounds can add or edit article prose, references, images and other media here. What is contributed is more important than the expertise or qualifications of the contributor. What will remain depends upon whether it fits within Wikipedia's policies, including being verifiable against a published reliable source, thereby excluding editors' opinions and beliefs and unreviewed research”.

“Contributions cannot damage Wikipedia because the software allows easy reversal of mistakes and many experienced editors are watching to help ensure that edits are cumulative improvements.”

- **Accuracy**

“While Wikipedia articles generally attain a good standard after editing, it is important to note that fledgling articles and those monitored less well may be susceptible to vandalism and insertion of false information. [However] Wikipedia's open approach tremendously increases the chances that any particular factual error or misleading statement will be relatively promptly corrected.”

- **Ease of reading and good style**

“Wikipedia also has a full style and content manual and a variety of positive systems for continual article review and improvement. Examples of the processes include peer review, good article assessment, and the featured article process, a rigorous review of articles that are intended to meet the highest standards and showcase Wikipedia's capability to produce high-quality work.”

- **Currency**

“Unlike printed encyclopedias, Wikipedia is continually created and updated, with articles on historic events appearing within minutes, rather than months or years.”

- **Comprehensivity**

“Wikipedia has grown rapidly into one of the largest reference websites... There are more than 77,000 active contributors working on over 22,000,000 articles in 285 languages. As of today, there are 4,098,661 articles in English.”

- **Neutrality**

“We strive for articles that document and explain the major points of view in a balanced and impartial manner. We avoid advocacy and we characterize information and issues rather than debate them.”

“Wikipedia is open to a large contributor base, drawing a large number of editors from diverse backgrounds. This allows Wikipedia to significantly reduce regional and cultural bias found in many other publications, and makes it very difficult for any group to censor and impose bias.”

- **Distinctiveness**

“Wikipedia has advantages over traditional paper encyclopedias. Wikipedia has a very low "publishing" cost for adding or expanding entries and a low environmental impact in some respects, since it never needs to be printed, although computers have their own

environmental cost. In addition, Wikipedia has wikilinks instead of in-line explanations and it incorporates overview summaries (article introductions) with the extensive detail of full articles. Additionally, the editorial cycle is short. A paper encyclopedia stays the same until the next edition, whereas editors can update Wikipedia at any instant, around the clock, to help ensure that articles stay abreast of the most recent events and scholarship.”

- **Pictures**

“People of all ages, cultures and backgrounds can add or edit article prose, references, images and other media here”

- **Range of coverage**

“A large, diverse editor base also provides access and breadth on subject matter that is otherwise inaccessible or little documented”.<sup>27</sup>

- **Ambition and scale of task**

“Every day, hundreds of thousands of visitors from around the world collectively make tens of thousands of edits and create thousands of new articles to augment the knowledge held by the Wikipedia encyclopedia.”

- **Clarity of purpose**

“The fundamental principles by which Wikipedia operates are the five pillars. The Wikipedia community has developed many policies and guidelines to improve the encyclopedia; however, it is not a formal requirement to be familiar with them before contributing.”

- **Physical format**

“Wikipedia uses a simple yet powerful page layout to allow editors to concentrate on adding material rather than page design.

The following qualities are not referred to in the ‘About’ or ‘Five pillars’ pages but are implied or stated elsewhere, as indicated:

- **Brevity and concision**

This is not mentioned as a key point in either the ‘About’ or ‘Five Pillars’ pages. However, the ‘FAQ/ Editing’ page advises the following on article length: “A good rule of thumb would be fewer than 5000 words, unless the subject really, really needs much exposition. However, for a subject that is that complex, one can link several shorter articles together, using a hub page to tie all articles together.” And the ‘What Wikipedia is not’ page states

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<sup>27</sup>Haider and Sundin (2010) note that “*Wikipedia* blurs all distinctions between what is known as ‘high’ culture and what is called ‘popular’ culture”. However it should be noted that information about popular culture has been accessible in trade encyclopaedias for at least a century.

“Keeping articles to a reasonable size is important for Wikipedia's accessibility, especially for dial-up and mobile browser readers, since it directly affects page download time”

- **Appropriateness for intended audience**

*Wikipedia's* ‘mission statement’ on its home page is ‘The free encyclopedia which anyone can edit’. Although it has many policies and recommendations, it is not defined in terms of any specific audience (other than one that is interested in knowledge and does not have to pay). Much of the background information is aimed at contributors rather than readers. Indeed, the ‘About’ page in particular contains particular caveats for researchers, warning them that newer topics may be less accurate. This implies more of an audience of exclusion: that those expecting the accuracy of a traditionally edited encyclopaedia should know that *Wikipedia* does not meet this criterion.

- **Correct scope for topic**

One of *Wikipedia's* own boasts is that it embraces a wider range of topics than those constrained by editorial or academic needs, and there is no limit to the potential length of the encyclopaedia or the number of topics it can embrace. Indeed, the “What *Wikipedia* is not’ page states ‘there is no practical limit to the number of topics *Wikipedia* can cover”. Thus, the notion of scope, as it might apply to a physical book, is not a significant one here. Indeed, it might be seen as a point of criticism that, while the process of continuous, collaborative revision might, over time, result in accurate and expert articles, the absence of *a priori* editorial oversight in *Wikipedia* means the encyclopaedia as a whole, any topic or single article could grow infinitely over time as more people contribute.

There are clear differences between the *Wikipedia* publishing model and the traditional editorial process. As the Head and Eisenberg 2010 study indicates, users do not necessarily use it as they would a conventional encyclopaedia. However, Wikipedia is, as it describes itself, an encyclopaedia. Like a traditional encyclopaedia, it is divided into entries, offers access to the knowledge it contains through various indexes and cross references and aims at authority, accuracy and currency. Its unique editorial approach does not detract from the fact that its stated aims and physical format (within the bounds of the digital) is that of the encyclopaedia.

The evidence in this chapter cannot be compared exactly with that in Chapters 5, 6 and 7, as the scope of study was far smaller and the content analysed from slightly different sources. However, the application of the criteria uncovered in those chapters to the

electronic format of the encyclopaedia demonstrates that a notion of ‘encyclopaedia’ exists beyond the printed page. Clearly certain features are excluded. Some, such as hardback binding, and physical size and weight, were considered by Chapter 6’s interviewees to be important encyclopaedia-defining features. Yet this chapter indicates that its fundamental elements form a concept of the ‘encyclopaedia’ which can be applied to the electronic world too. Even where the underlying rationale of the encyclopaedia project seeks to challenge traditional editorial constructs, as with *Wikipedia*, the end product has the qualities of the traditional encyclopaedia. The introductory caveats to be found on the *Wikipedia* site about accuracy and authority indicate that *Wikipedia*’s mode of construction is a problem for these functions. The presence of the caveats suggests *Wikipedia*’s editors understand accuracy and authority as part of a notion of what an encyclopaedia should be like.

## 8.7 Conclusion

This chapter has demonstrated that online encyclopaedias, while lacking certain features associated uniquely with the book as a physical object, carry with them a substantial number of characteristics from the physical form which could be considered part of the definition of the encyclopaedia. The figures below show the functional attributes and physical features demonstrated by the three titles examined in this chapter. Note that the source of functional descriptions, the introductory material available on the encyclopaedia website, is far more limited than the sources used in Chapters 5 and 7, which may account for the ‘no’ score for some of them. It is surely likely that the editors of the *Stanford Encyclopedia of Philosophy* consider their work to be ambitious, well-written and comprehensive, but the paucity of introductory materials for this site mean they have not provided evidence for this. Of the three titles, by the far the most copious in introductory materials is *Wikipedia*. Perhaps inevitably, it also therefore displays the most functional attributes. The three titles were far closer in the number of physical features they shared.

Function	Britannica	Stanford	Wikipedia
Authoritative	y	y	y
Up-to-date	y	y	y
Accurate	y	y	y
Distinctive	y	y	y
Clear purpose	y	n	y
Well written	y	n	y
Covers subject	y	n	y
Ambitious	y	n	y
Well-put	y	n	y
Information	y	n	n
Good	y	n	n
Neutral	n	y	y
Wide-ranging	n	y	y
Comprehensive	n	y	y
Concise	n	n	y
Suitable for	n	n	y
Pictures	n	n	y
	<b>10</b>	<b>7</b>	<b>15</b>

Figure 8.17: Functions found in introductory material to the three electronic encyclopaedias

Feature	Britannica	SEP	Wikipedia
Introductory chapter	y	y	y
Bibliographies (or	y	y	y
Arranged into entries	y	y	y
Alphabetical order	y	y	y
Index and cross	y	y	y
Structured, accessible	y	y	y
Bold headings	y	y	y
Subheadings	y	y	y
Summary sentence	y	y	y
Presence of subject	y	y	y
Mix of subject and	y	y	y
Long and short entries	y	n	y
Contents page	n	n	y
	<b>12</b>	<b>11</b>	<b>13</b>

Figure 8.18: Features identified in the three electronic encyclopaedias

These tables show that many of the features which emerged in the evidence on hard copy encyclopaedias remain relevant to the three non-physical entities explored in this chapter. This suggests that, despite the decline in print reference sales noted by the writers at the start of this chapter, the encyclopaedia thrives in the online world. As Haider and Sundin (2010) have said “One could be tempted to think that the encyclopaedic notion would go out of fashion when (Web) search engines create instant access to most digital content.”



Yet the desire to find information on a topic gathered together under a specific article heading has persisted. Many paratextual features, offering mediation between the text and the reader, are employed in online encyclopaedias despite the fact that the knowledge they contain is far more accessible and flexible than in a physical volume. The very success of *Wikipedia* suggests that, where freetext searching seemed the inevitable future for knowledge retrieval in 2000, today readers still want to find information under discrete article headings, to point to further sources of reading and to draw relationships between the topics they cover.

There is immense amount of background material on *Wikipedia* explaining and justifying their publishing model as a good method of producing accurate encyclopaedia entries. This suggests that the online encyclopaedia seeks to acquire the trust that readers traditionally have brought to the hard copy form. Publishers interviewed for Chapter 7 indicated a high awareness of the need to integrate interactivity and use social media in the formation of their reference products, to involve the reader at the expense of the paid expert. Yet expertise, objectivity and accuracy remain selling points, indeed are the forms by which the editorially-mediated works differentiate themselves from the free web. And other features more heavily associated with digital formats, such as currency and ease of searching, are not new, but were emphasised as desirable by the authors of the 18<sup>th</sup> Century Dictionaries of the Arts and Sciences and encyclopaedias. Where these titles used methods such as prefatory diagrams, cross-references and the intermingling of short definitions with longer treatises, today we have free-text search, enhanced indexes employing taxonomies and browsable contents (although not the latter in *Britannica Online*). The accessibility to readers of the knowledge in encyclopaedias has long been of importance.

This chapter therefore demonstrates that the notion of the encyclopaedia, according to the functions and features identified in the previous three chapters, largely persists into electronic form. This suggests that this form of the book has an identity above and beyond its physical form, and is invested with associations which can carry into the electronic world. Note that today, even *Encyclopaedia Britannica* is ‘born digital’ (in that the contents are taken from a continuously-revised database, which existed as a precursor to any hard copy formats). The decision to retain ‘hard copy’ features, and emphasise traditional encyclopaedic functions, is not a necessity born from a digitisation process, but a choice made to identify informational databases as published forms of encyclopaedias.

The electronic encyclopaedia might be considered a transitional form. Like the early printed book, which carried characteristics of the manuscript well into the print era, features such as cross references and summary paragraphs, and notions of authority and accuracy, might be hangovers from a previous era of written communication. That some features persist may be attributable to their utility, to their associations, or to convention. Just as some book historians have examined the typographic hangovers of and changing reader attitudes to books during the era of incunabula, the appearance and self-definition of early online forms of publishing may provide a useful source of insight into our attitudes to books in hard copy and online at a time of transition. This chapter did not have the space to explore the conventions of web page layouts, but the means by which the unique characteristics of the encyclopaedia are translated visually into digital formats may also illuminate this transition.

Chapter 9 will summarise the findings of Chapters 5 to 8, analyse how far they have answered the research questions laid out in Chapter 1 and explore further areas of research which might provide value from the themes of this thesis.

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### **9.1 Introduction**

In this chapter the main findings of the thesis are discussed in relation to its aims and objectives, and final conclusions are presented. The main goal of the study was to produce a definition of the encyclopaedia as a form of the book. Stated objectives were to apply researches approach common in the field of book history to the study of the encyclopaedia and to consider how this form of the book could be defined from its functional attributes, physical features and the opinions of the main participants in its communications circuit. The thesis aimed to apply the findings to a differential form of the encyclopaedia, to see if the definition applies to electronic encyclopaedias too. This chapter considers how far the methodologies used succeeding in producing a definition, what it adds that is new to our understanding of the encyclopaedia and where the study encountered limitations. It also considers the possibilities for further research in this area.

### **9.2 Answers to the research questions**

In Chapter 1, the main research question was posed ‘What are the characteristics which distinguish an encyclopaedia as a book?’ In order to answer it, six subsidiary research questions were suggested. The next section considers how the different chapters of the thesis answered each of them in turn.

#### **9.2.1 How has the existing literature addressed the nature of the encyclopaedia?**

Chapter 3 considered to what extent scholarship within the field of book history, and the related disciplines of publishing history and communications studies, have thus far attempted

to define the encyclopaedia. It concluded that very little attention has been given to the encyclopaedia as a form of the book, although some writers have studied individual titles to highlight their role in the intellectual milieu and communication circuits of the era in which they were produced. However, it did identify key discoveries within book history scholarship which makes studying the encyclopaedia possible. Notably, it suggested that examining the circumstances in which books are produced and read, can tell us why they take the form they do, something that can be applied to a literary genre like the encyclopaedia as much as to an individual book. Moreover, book history's insights into specific developments, such as alphabetic writing, printing, typography and literacy are highly relevant to the formation of the encyclopaedia. This chapter showed that it is possible to address the thesis's first objective, to apply the research approaches used in book history to the study of the encyclopaedia.

The chapter also looked at other places within the literature that the encyclopaedia has been written about. It concluded that while many have attempted to define the encyclopaedia, they have done so according to a common-sense understanding of what an encyclopaedia is, and have produced a varying and often contradictory picture. It observed, nevertheless, that certain recurring characteristics may be expected to be present. It also observed that the literature in a sub-discipline of linguistics, that is metalexigraphy, provides useful tools and approaches in studying the encyclopaedia. Finally, it concluded that the absence of scholarly attention to the encyclopaedia from within book history leaves a place for the common-sense understanding of what an encyclopaedia is to be tested according to the techniques of the discipline. The latter were described in depth in Chapter 2, the methodology for this thesis.

### **9.2.2 How did the form of the encyclopaedia come to exist?**

Chapter 4 traced the history of the encyclopaedia, largely using the accounts of historians writing about physical book developments and the history of information storage and retrieval. It highlighted essential moments in the history of the book which enabled the modern encyclopaedia's emergence, for example, the establishment of the codex, the conventions of the printed page and the spread of literacy. It examined two specific historical forms, the mediaeval *summa* and the alphabetical dictionary, and demonstrated how they combined to develop into the familiar modern form of the alphabetical encyclopaedia during the course of the 17<sup>th</sup> and 18<sup>th</sup> centuries. It concluded that the early 19<sup>th</sup> century is when the encyclopaedia took the form with which we are familiar today and that it fundamentally changed very little throughout the 19<sup>th</sup> and 20<sup>th</sup> centuries. However, the chapter did touch

on the emergence of electronic forms of encyclopaedia in the late 20<sup>th</sup> century, and the development of the world wide web, and suggested the challenge they might propose to the form, to be considered in more depth in Chapter 8.

### **9.2.3 What are the marks by which an encyclopaedia is considered to have succeeded as an example of the form?**

Chapters 5, 6 and 7 addressed the thesis objective ‘To establish a detailed identity for the form “encyclopaedia”’. Chapter 5 did this by looking for evidence of what functional attributes are valued in the form. The research approach was to apply content analysis methodology to a form of evaluative literature, the encyclopaedia review, and produce a taxonomy of criteria by which they are judged to have succeeded or failed. The following notable attributes, considered by the critics as essential to a good encyclopaedia, were identified (with the labels used in Chapter 5 in parenthesis):

1. It should have a clear purpose and audience (Reasons)
2. It should be a well-put together object (Quality)
3. It should cover its subject as fully as is appropriate in accordance with its price, scale and expected market (Comprehensivity)
4. It will make its information easy to find (Accessibility)
5. It will carry good supplementary information (Extras)
6. It should be written by experts in the field (Authority)
7. The scholarship should be up-to-date (Currency)
8. The facts contained within it should be accurate (Accuracy)

Although this is a useful and recognisable list of characteristics, the chapter does not prove that they are unique to encyclopaedias. Many other forms of the book might be said to function in similar ways, when successfully produced. The chapter concluded that in order to gain a richer picture of the encyclopaedia, there was a need to add the results of Chapters 6 and 7, examining other content for evidence of the encyclopaedia’s valued attributes, and examining the encyclopaedias themselves to draw a picture of what a typical example may actually look like. It also suggested that a comparative study into reviews of other forms of literature would make it possible to consider whether these characteristics are more common in encyclopaedias than in other literary forms.

In addition, attempts were made to rank the titles in the sample, as a high-ranked title could be examined further as a particularly representative example of an encyclopaedia.

Unfortunately, no accurate method was found of ranking the titles, meaning no conclusions could be drawn as to which title was considered the most successful as an example of an encyclopaedia by its critics.

#### **9.2.4 What are the paratextual elements which identify an encyclopaedia entry and volume as a whole?**

Chapter 4 aimed to identify the physical features one might expect to find in an encyclopaedia. It did so using an experimental methodology, based partially on the traditional bibliographic survey, but using an approach loosely based on the frameworks established by Gérard Genette (1997) and Henri Béjoint (1994) in identifying the constituent parts from which books are made.

The following features were identified as most commonly present in the sample examined:

1. Hardback edition
2. Information about contributors
3. Bibliographies
4. Alphabetical order
5. Mixture of long and short entries
6. Presence of subject entries
7. Mixture of subject and name entries (except in science titles)
8. Introductory guide to contents
9. Index
10. Cross-references
11. Bold headings
12. Subheadings
13. Summary sentences opening each entry

The chapter concluded that these characteristics were, in aggregate, very distinctive and distinguished the encyclopaedia even from other types of reference book. The chapter noted that certain features were overlooked, particularly if they seemed too obvious to mention. This indicates that subjectivity is unavoidable in any survey method and the chapter called for further evidence to be drawn from other sources to mitigate against it.

The chapter attempted to add value to these results by producing a ranked list of the titles examined, in which those which had the most features (out of those identified) ranked more



highly. The ranking was limited, as it could only be done on the basis of binary criteria (does it have a certain feature or not?) excluding the more descriptive or qualitative features. By comparing specific features with the ranked list, the chapter was able to conclude that certain characteristics were associated with titles which scored more highly in the ranked list. For example, having the title 'encyclopaedia' was not a very common feature, but was associated with titles which ranked highly. A conclusion was suggested that features displayed by high-ranking titles could be weighted more heavily as encyclopaedic. However, because the ranking only embraces binary features in the encyclopaedias, it cannot be considered to be a comprehensive method. The conclusion also suggested that further research, in particular, a comparison with other literary forms, would be needed to establish the encyclopaedia features which were not simply common, but which were very specifically associated with the form. Not being able to definitively identify which of the features were most 'encyclopaedic' suggested once again that the results were best considered in aggregate rather than in order of importance.

An attempt was made to map the results across Chapters 5 and 6 to accrue the benefit from having used the same titles. The chapter concluded that there may be some connection between a low evaluation in Chapter 5 and a small number of features in Chapter 6, but that the results were too inconclusive to allow for any firm parallel to be drawn. Instead, it suggests that a clearer picture can be drawn of the nature of the encyclopaedia by considering all the functions and features found across both chapters and validating the results with further research.

Finally, the chapter concluded that the methodology used, applying bibliographic survey methods to a sample of books perceived to be within a single literary genre, was innovative in approach and provided a possible model for future research into forms of the book.

### **9.2.5 How do the principal creators and consumers of encyclopaedias judge a successful example?**

Chapter 7 explored the opinions of key participants in the encyclopaedia communications circuit as to what characteristics they thought an encyclopaedia should display. The chapter began by defining the encyclopaedia circuit, producing a model based on those produced by Robert Darnton and others. It then used evidence from published accounts by practitioners to identify how the different functions which make up the circuit interact with each other. The diagram was an entirely new visualisation of how the encyclopaedia is produced and

consumed. The practitioner evidence provided depth to the roles and interactions of the various functions and agents depicted in the diagram.

The chapter then presented results from surveys and interviews carried out with three groups of encyclopaedia circuit participants, publishers, librarians and end-users. They were given the option to express themselves in their own words on what they would expect from an encyclopaedia and then subsequently rank the functions found in Chapter 5. The results included new functional attributes and physical features which had not previously been noted, as well as many in common with those found in Chapters 5 and 6. The chapter then went on to look at further written evidence from within the circuit, to add nuance and validation to the results of Chapter 5. The evidence drawn from encyclopaedia prefaces and library reference guides again produced similar a similar set of functions and features, but with some more nuanced differences. The functions preferred by the participants, from all three different sources of evidence in this chapter, were as follows:

1. authority
2. accuracy
3. ease of reading and good style
4. currency
5. comprehensivity
6. brevity and concision
7. neutrality
8. distinctiveness
9. pictures
10. range of coverage
11. ambition and scale of task
12. clarity of purpose
13. appropriateness for intended audience
14. correct scope for topic
15. high quality physical format

The physical features expected by interviewees and survey respondents were as follows:

1. hardback
2. bibliographies (or citations)
3. alphabetical order
4. arranged into entries

5. introductory chapter
6. index and cross-references
7. contents page
8. substantial size or weight
9. structured, accessible organisation

The chapter noted that some of the functional attributes suggested by the participants were more like physical features and that the distinction was not always clear, particularly among the end-users who are less likely to have articulated their thoughts about encyclopaedias than the other two groups. The chapter also noted that rankings of both types of characteristic varied across the three groups and was different again from those found in Chapters 5 and 6. Some of this was attributed to the source of the opinion, showing that what was valued or expected by one group might not be the same as others. But it was suggested that the main reason for the variation in rankings of functions and features was the difference in the research methods. The difference in the types of data, the way that they were counted and the numbers of subjects meant that they are very difficult to compare across each other. Further doubt can also be cast on the results on the basis of the subjectivity of the coding process, whereby the original words used by the participants were put into categories and a judgement made as to which were like each other. The chapter thus concluded that the evidence gathered from all three chapters produced a useful collection of encyclopaedia characteristics, but no clear agreement on which were the most important.

Chapter 8 took the description of the encyclopaedia identified in the three previous chapters one step further, by applying it to three self-identified encyclopaedias which exist in online form. It concluded that a number of important characteristics found in the research in Chapter 6 appear in the online form, and that the digital encyclopaedias' own introductory and background pages indicate their identification with many of the functions drawn out of the review literature in Chapter 5.

### 9.3 Overall conclusions

Chapter 1 defined the encyclopaedia as follows:

“The encyclopaedia is the published reference work intended primarily to provide information in a certain depth, even while its approach is to break topics down into smaller pieces. In a larger sense, encyclopaedias aim for a comprehensive coverage of a topic, or range of topics (although what constitutes comprehensivity is questionable: it would be impossible for any published volume to include all that was available to be written on a topic). There is depth in the contents too, however. Encyclopaedia entries are more likely to be written in sentences than other forms of reference book and to be ‘about’ the headword at the top of the entry. They might be considered the least ‘referency’ of reference books, containing the largest chunks of text and least reliance on page layout.”

The main purpose of this thesis has been to expand on this definition. As mentioned in Section 9.2, above, the results lack quantitative consistency, making it difficult to map the various sources of evidence against each other and draw conclusions as to which characteristics are definitively those of an encyclopaedia. Further caveats come from subjectivity in the coding, the nature of the sources of evidence and tendencies in the methodology. Nevertheless, the table below attempts to show the picture drawn of this form of the book by three different sources of evidence used in Chapters 5, 6 and 7.

***Functions and characteristics displayed across the three sources of evidence***

<b>Reviews</b>	<b>Communications circuit (functions)</b>	<b>Physical examination</b>	<b>Communications Circuit (features)</b>
Clear purpose and audience	Distinctiveness Appropriateness for audience Clarity of purpose	Introductory guide to contents	
Well put-together object	Ease of reading and good style High-quality physical format	Hardback edition Bold headings Sub-headings	Hardback Substantial size or weight
Covers subject appropriately	Brevity and concision Range and coverage Correct scope for topic	Long and short entries Summary sentence Presence of subject entries Mixture of subject and name entries	
Information easily accessible		Alphabetical order Index Cross-references	Alphabetical order Index and cross-references Contents page Structured accessible organisation
Good supplementary information	Pictures	Bibliographies	Bibliographies
Authoritative	Authoritative		
Up-to-date	Up-to-date		
Accurate	Accurate		
	Neutral		
	Ambitious		

*Figure 9.1: Notable characteristics of the encyclopaedia, evidence drawn from Chapters 5, 6 and 7*

The following is a summarised list of the features which appear in the box above:

- A. Well put-together**
- B. Well-written**
- C. Available in hardback**
- D. Size and ambition**

- E. Accurate and unbiased**
- F. Up-to-date**
- G. Authoritative**
- H. Information easily accessible, by organisation, index and cross-references**
- I. In alphabetical order**
- J. Entries of various lengths**
- K. Good supplementary information and pictures**
- L. A specific (or multiple) topic**
- M. Covers subject appropriately for topic and audience**
- N. By subject and name entries**
- O. Concise and well-summarised**
- P. Clear purpose and audience**
- Q. Introductory guide to contents**
- R. Bold headings**
- S. Sub-headings**
- T. Distinctive**
- U. Bibliographies**
- V. Summary sentence**

A new definition of the encyclopaedia, referencing all of the points in the list above would then be:

“An encyclopaedia is **well put-together**(A) and **well-written**(B) book, of **some size and ambition** (C, D), of **accurate** (E), **up-to-date**(F) and **authoritative**(G, U) factual content, **organised**(H, I) into **well-laid out**(R, S) and **summarised entries**(V) of **various sizes**(J), with **numerous access points** and **good quality supplementary information and pictures** (K). It treats **a specific (or multiple) topic**(L) in **appropriate depth**(M), by **subject and name entries**(N) if appropriate, but with **a concision**(O) that makes it easy to understand. It has a clear **statement of its purpose** (P, Q) and of **how it differs from any other publication**(I).”

This definition is an aggregate of all the items an encyclopaedia must have in order to qualify for that title. It distinguishes this form of the book from even its closest relatives. The following table is based on common-sense understandings of what might be expected to characterise the other forms of the book, rather than the in-depth evidential research carried

out on the encyclopaedia. For this reason, it cannot be analysed in any depth, but it does provide an illustration of what makes an encyclopaedia distinct.

<b>Characteristic</b>	<b>Novel</b>	<b>Monograph</b>	<b>Poetry</b>	<b>Recipe book</b>	<b>Quotations book</b>	<b>Lexical dictionary</b>	<b>Biographical dictionary</b>
<b>Well put-together</b>	Y	Y	Y	Y	Y	Y	Y
<b>Well-written</b>	Y	Y	Y	Y	Y	Y	Y
<b>Available in hardback</b>	N	Y	N	Y	N	Y	Y
<b>Size and ambition</b>	Y	Y	N	N	N	Y	Y
<b>Accurate and unbiased</b>	N	Y	N	Y	Y	Y	Y
<b>Up-to-date</b>	N	Y	N	Y	Y	Y	Y
<b>Authoritative</b>	N	Y	N	Y	Y	Y	Y
<b>Accessible information</b>	N	Y	N	Y	Y	Y	Y
<b>Alphabetical order</b>	N	N	N	N	N	Y	Y
<b>Varying length entries</b>	N	N	N	Y	Y	N	Y
<b>Supplemental info/ pictures</b>	N	Y	N	Y	N	N	Y
<b>A specific (or multiple) topic</b>	N	Y	N	Y	Y	N	Y
<b>Covers subject appropriately</b>	N	Y	N	Y	Y	N	Y
<b>By subject and name entries</b>	N	N	N	N	Y	N	N
<b>Concise /well-summarised</b>	N	Y	N	Y	N	Y	Y
<b>Clear purpose and audience</b>	N	Y	N	Y	N	N	Y
<b>Introduction to contents</b>	N	Y	N	Y	Y	Y	Y
<b>Bold headings</b>	N	Y	N	N	Y	Y	Y
<b>Sub-headings</b>	N	N	N	N	N	N	Y
<b>Distinctive</b>	N	Y	Y	Y	Y	Y	Y
<b>Bibliographies</b>	N	Y	N	N	N	N	Y
<b>Summary sentence</b>	N	N	N	N	Y	N	Y

Figure 9.2: Comparison of the encyclopaedia with other forms of the book

Having established a definition of the encyclopaedia, the next section considers how the definition could be applied further.

#### **9.4 Contributions and limitations of this study and options for further research**

The main research question of this thesis is “What is the encyclopaedia as a form of the book”. It aimed to use a book history approach to produce a new definition of the encyclopaedia to test the common-sense definitions displayed in Chapter 3, such as

“The term ‘encyclopaedia’ then is used here to apply to a general work of reference, accessible to the average educated layman, dealing with subject-matter arranged alphabetically, and trying to impart unbiased information”. (Steinberg, 1950)

Or

“a set of answers to questions about matters of historical or scientific fact – names, places, dates, relationships, titles of books, terms of art, definitions of ideas and principles, formulas, distinctions between cognate systems, compendious records of lives, deeds, and their consequences, descriptions of methods of inquiry and delimitations of fields of knowledge” (Barzun, 1962).

Section 9.3 above provides a descriptive definition giving a focussed improvement on the varying and often conflicting intuitive definitions found in Chapter 3. However, it is difficult to describe it as a new definition. There is nothing in it that is not recognisable. The contribution this definition makes is not so much in the nature of the definition, but in the fact that it was discovered systematically. The three sources of evidence did not produce a clear quantitative ranked list of encyclopaedia-defining criteria, but they did combine to share a number of characteristics which together draw picture of a distinctive type of book.

It is therefore the establishment of an experimental suite of methodologies to test books against their literary forms which is the main contribution of this thesis. Three approaches were taken: content analysis of criticism, physical observation (via a bibliographic survey) and analysis of the opinions of encyclopaedia users and creators. In both cases, using these methodologies with the object of identifying a particular form of book is new. Book historians have often examined critics and readers’ attitudes towards and use of the books they have in their lives, but have not previously examined the evidence with literary genres in mind. The traditional bibliographic survey provides a model for examining books as physical objects. The work of paratextual and metalexigraphical writers has brought to the surface the conventions books use to control the reader’s experience. Yet none of these disciplines have sought to uncover how the components which shared by certain books might reveal the physical characteristics of an entire genre. The methodological approaches



used in this thesis uncovered features held across groups of books rather than a single object. The advantage is that the features identified as encyclopaedic (in aggregate even if none are on their own unique to the encyclopaedia) form a definition which, as will be seen in the final chapter of this thesis, can be recognised in unexpected places beyond the traditional print associations of the encyclopaedia.

However, the methodology, which was undoubtedly experimental, also indicates the limitations of this thesis. The primary weakness in the research was the lack of systematic comparison in all three of the methods with other forms of the book. The validity for the results was provided by the fact that similar findings were made across all three sources of evidence. However, a better approach might have been to pick a single methodology and test it against not just a sample of encyclopaedias, but also against other forms of the book. This would have lost some of the richness of having results from three entirely different sources but would have enabled the identification of functions and features which are not simply characteristic of encyclopaedias, but also unique to them.

The randomised technique for the initial sampling of encyclopaedias also provided some limitations. Chapter 6 indicated that, where it was possible to weight some of the results, certain titles scored poorly by the number of features they shared with other encyclopaedias. A different sampling technique might have excluded them altogether which could have strengthened the data. Similarly, the subjects of the surveys and interviews in Chapter 7 were essentially drawn from an elite. A wider group of end-users may not have had the articulacy of those surveyed in this thesis, but they would have formed a more everyday perspective on the encyclopaedia.

There should, therefore be opportunities to refine the methodology and apply it further within the field of book history. For example a comparative study using the approach taken in Figure 9.2 could illuminate the relationships between different types of books. The encyclopaedia, the monograph and the biographical dictionary clearly have much in common and the measurement of similarities and differences, when considered against how the genres came to take the forms they do, could reveal much about how their readers expect to use them. Further research would also be useful on the subject of book titles. Among the results to Chapter 7's research which this thesis did not have space to analyse were the answer to the question 'what is the difference between the dictionary and the encyclopaedia?' The title is a powerful method to enable readers to know what to expect when they order or pick up

a book. A choice of book titles may indicate a preference by publishers or their intended audience and provide an interesting perspective to how we react to published works of different titles.

Finally, as mentioned in Chapter 2, further refinement of the research question could identify not just the encyclopaedia overall, but could develop a typology of encyclopaedias, for example, by topic, by reading level or by market, and analyse the variations in functions and features across the different categories. Such typologies would require the development of more complex means of measurement, but existing research or toolkits might provide a basis for definition. For example a typology of encyclopaedias of different subjects could align itself to existing research on the differences between academic disciplines. Measures of reading level, such as the Flesch-Kincaid readability test, could provide an objective means of identifying an encyclopaedia's readership. And existing research into the differences between the trade and scholarly market could provide a starting point to identifying the encyclopaedia's buying public. How functions and characteristics differ across the categories of encyclopaedia would further develop the themes of this thesis.

The toolkit for identifying the form of the book, by identifying its component parts and examining how it is valued by its critics and users could also be applied to other forms of the book in isolation. Mak's *How the page matters* (2011) showed that a longitudinal study of the changing paratexts of a single text reveals how the book's role changed in its reader's lives over time. This research approach could be extended beyond a single text to a representative sample of a genre or sub-genre to reveal, for example, how the characteristics of science fiction novels have changed over the century of their existence.

Finally, the early twenty-first century has been perceived as a time of great change for the book as new methods of publication and reading have emerged. The final chapter of this thesis tested the utility of the encyclopaedia definition and the methodology used to arrive at it by applying it to electronic forms of encyclopaedia. Having identified a systematic means of defining an encyclopaedia, it was then applied to forms which do not exist as objects and which, in some cases, follow a radically different publication process. As mentioned in Chapter 8, the incunabular nature of emergent online forms of the book could provide interesting opportunities to explore the differences between similar types of information displayed in hard copy and their online equivalents. Does the practice of carrying information under discrete subject headings continue because it is useful, because it is associated with a

physical form of the book that is trusted and relied upon, or simply out of habit? Do online layouts follow the conventions of other types of database, not associated with a hard copy book, or does the visual design reflect associations with the hard copy book? Much is being written on how our communication is changing from the hard copy to the online world. Chapter 9 provides a starting point for exploring the encyclopaedia's role in this.

### **Final conclusions to the thesis**

Examining the features held across a group of books, identifying the components of literary genres and exploring how far they persist and alter in different environments has much to tell us about publishing, communication and reading behaviours. In particular, defining the features of a hard copy format shows the extent to which it can transcend the physical and persist into the digital world. The suggestion that book types can be more than physical entities adds an intriguing frisson to our understanding of book forms' relationships to their users. It suggests that users continue to bring expectations developed in the physical world to the way they interact with their digital proxies.

How this might develop in the future remains to be seen. Although digital natives were among those interviewed for Chapter 7, the overwhelming participation in the encyclopaedia communications circuit was among those whose concepts of creating, organising and finding encyclopaedic knowledge developed with the hard copy book. There is no doubt that the publishing world is in a state of flux and it has yet to be seen how the popularity of e-book readers for linear forms of books will affect users' relationship with reference works. Nevertheless, this does not deny the persistence of the encyclopaedic model into a world where forms of research have changed radically.

As Section 9.4 indicated, the research in this thesis could be developed in a number of different ways to illuminate many different aspects of the way that books are created and consumed, both online and in hard copy. As a starting point, it has demonstrated that a systematic means of identifying forms of the book is possible and, as far as the encyclopaedia is concerned, it can be used to illuminate a book's transition from a hard copy world to an online one.

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**Appendix I: Statements of value in the review literature**

(see Chapter 5)

**All music guide to classical music: the definitive guide to classical music** ed by  
**Chris Woodstra et al**

**“Reference: all music guide to classical music: the definitive guide to classical music”** by Larry Lipkiss in *Library Journal* vol 131 (2) February 1st 2006

“This hefty tome is an ambitious attempt ... to pack as much information as possible about the world of classical music into a single volume”

“The 1500 contributors are not well-known in the world of musicology but do a fine job overall of presenting the material in a well-organized, readable format”.

“There is a surprising amount of detail on the major works of the composers, and recommended recordings are appended to each entry”

“While one page on each of the topics may seem paltry, quite a bit of useful information is in fact packed in thanks to careful editing and a tiny font size”.

“The index is thorough but not annotated; the entry for Ludwig van Beethoven, for example, is followed simply by a list of 250 page references”.

“Readers may quibble over missing composers and performers, but all told, this is an excellent resource for both classical novices and aficionados. There is simply no other single volume on the market as inclusive.”

Results:

**British film catalogue** by Denis Gifford

**“Reference books you may have missed”** by Charles A Toase

*Refer* vol 18 (1) Winter 2002 p9-15

[also considers Alan Goble’s *The complete index to British sound film since 1928*]

“While there are no indexes (except for titles because the films are arranged chronologically) there is a lot of information in each entry”

“The major feature distinguishing this work from Goble and others (apart from the degree of original research) is the full cast lists ...A name index would be invaluable here”

“Is it just because I’m a librarian that I think this volume cries out for a subject index?”

“Gifford has more detail, goes back to 1888 and has 28,158 titles but lacks indexes and costs £185 (£120 if you forgo the non-fiction); Goble’s British extract has the advantage of very useful indexes and costs only £90 but has no cast lists and does not cover the pre-talkie period”

***The Blackwell encyclopedia of management* ed Cary L Cooper et al**

**Business Information Alert; 12 (3) Mar 2000, p.9-10**

**“Reference: the Blackwell encyclopedia of management” by Carol J Elsen in *Library Journal* vol 130 (13) August 2005**

“Blackwell’s second edition of this work is every bit as impressive as the first”.

“Devoting separate volumes to each major field of management... the set covers its turf admirably”

“The set’s 1500 contributors are drawn from major universities and business schools worldwide and include experts from related disciplines”

“Many entries in this work have been updated since the first edition as evidenced by current as well as classic bibliographic references”.

**RR2005/297 by Christine D Reid in *Reference Reviews* 19 (6) 2005 pp.24-25**

“The volumes cover most of the major areas of management”

“The entrepreneurship volume is new to this edition”.

“Each volume is organised alphabetically and concludes with a detailed index. The entries, each of which is attributed range in length...”

“Each [entry] attempts to capture the essence of the topic and does so in a way useful to anyone new to the field by giving clear, concise and infomrative explanations of the concepts and issues”.

“Throughout, jargon is kept to a minimum”

“A total of 1500 academics have contributed entreis to this encyclopedia. These include ...well known names”

“Each volume has its own editorial team and as a result they do vary somewhat in style”

**Cambridge guide to children's books in English (ed Victor Watson)**

**“Reference books you may have missed” by Charles A Toase**

**Refer vol 18 (1) Winter 2002 p9-15**

“While the OUP work is one of their better companions, their rivals have managed to improve on it by adding articles on genres,...political correctness... and media”

“This generally excellent and very readable work is spoilt by poor referencing... and a lack of bibliographies and guides to further reading”

**“IN THE CHAMBER OF SECRETS” by Patricia Craig *The Independent***

**November 17, 2001**

“...a vast and valiant undertaking.”

“Victor Watson has assembled an enormous team of contributors, many of them academics from places as far apart as Cambridge itself and the University of Tasmania...”



“The guide is arranged alphabetically, and covers authors from Aardema to Zwerger”

“Most of the entries are animated and efficient, a few seem unduly perfunctory, and one or two are positively buoyant”

“The Cambridge Guide, on the whole, considers such figments of popular literature [as sex in teenage novels] a bit beneath its dignity. It can't keep them or their creators out, but tends to give them rather short shrift...”

“However, this latest guide to a fascinating branch of literature adds up to a treasure trove of appreciation and information. It contains, among other things, a good section on "Neglected Works"...”

**“Wide View With Child In Focus” by Robert Dunbar *The Times Educational Supplement* January 4, 2002**

“This large, attractive volume...”

“The genuinely wide range of the guide's geographical content is one of its most valuable features.”

“However, access to much of this information is not easy or straightforward... A picture of ‘the exciting and extraordinary renaissance in children's books’ in these countries emerges in a fragmented fashion.”

“The guide seeks also to extend its territory by making clear that its understanding of children's reading is inclusive and democratic...The overall effect of this generosity of interpretation is refreshingly child-centred, even if it is not always clear why, for example, soap operas or Teletubbies have a place in a book concerned with what children read.”

“The four principal varieties of entry in the Guide -author entries, title entries, topic entries and technical terms -generally combine satisfactorily, though sometimes confusingly in their cross references.”

“It would have been useful to include some consideration of the word "classic" (a term applied throughout the guide to numerous books) and of anthologies of poetry or short stories.”

“The compressed style, almost inevitable in such a guide, means that the value of some entries is diminished by over-simplification. Compression results in generalisations which, even though from different contributors, begin to sound similar”

“As Watson acknowledges, it is almost impossible to achieve total accuracy. Equally, it can never be totally up to date. There are some errors”

“In terms of being up to date, the Guide manages, remarkably, to make references to books published in 2000, no small achievement given the preparation time necessary for such a volume.”

“... it is a tribute to Watson and his team of more than 250 contributors that the challenge [to produce such a work] has been addressed so successfully.

“Its cost will be more than justified by the regular use which, in many different ways and settings, will be made of it.”

***Censorship: a world encyclopedia* by Derek Jones**

**“Encyclopedia of censorship” by Pat Scales in School Library Journal; Dec 2005, pp.90**

“...includes hot-topic censorship issues from 1990 to 2000”

“Fifteen frequently censored authors ... have earned a spot in the book, but other equally challenged writers ...are omitted”

“... the volume has little coverage of organizations that have been a threat to free expression.”

“There is an excellent discussion ... under the topic of ‘Internet Legislation (USA)’”

“The articles are brief, clear and useful for introductory information”.

“The bibliography has been updated, and the index provides important links”

**Paul Sturges “Censorship, as practised around the world” in *Library + Information Update* November 2002 Vol 1 (8)**

“A short review cannot even begin to do justice to the wealth that the four volumes of this encyclopedia offer”

“Nearly 600 contributors from all over the world provide different angles on censorship”

“Page after page surprises the browser with the extent to which the editor has identified unexpected censorship-related topics and obtained writers to provide excellent treatments of them”

“...if librarians should doubt that the encyclopedia is relevant to them, there are nine pages specifically devoted to libraries”

“They do leave some sense that deeper analysis of the role of libraries as vehicles for free expression and free access is lacking, but the coverage is sufficiently substantial”

“The book is extremely well printed, bound and illustrated and the standard of writing and editing is high”

“Most [entries] were completed in 1998 [which]... does mean that very current concerns...have not been fully absorbed into other articles”

**“Killed For Calling A Cat A King” by Judith Vidal-Hall *The Times Higher Education Supplement* June 21, 2002**

“the bulky Censorship: A World Encyclopaedia”

“What an approach focused exclusively on specific works or authors fails to do is take account of the might-have-beens: the countless works of art and literature that did not happen or that were prevented from seeing the light of day”

“...his excellent introduction...”

“The encyclopedia supplements entries on specific acts of censorship against a particular work or person with detailed country surveys, written by experts in the field and packing a wealth of information lucidly into a minimum of space...There are equally erudite and fascinating country entries for every member of the United Nations, many of them evidently involving painstaking research in countries seldom exposed to such scrutiny.”

“Further reading suggestions at the end of every entry make this a veritable censorship library.”

“While each volume has excellent head lists of alphabetical entries as well as entries under countries and topics, and volume four includes a useful though not altogether comprehensive index, more cross-referencing within the text would make the task of tracking down a particular subject in detail far less laborious.”

“*Censorship* is as up-to-date as any compendium of the kind can be.”

### **Chambers book of facts**

**“Reference books you may have missed” by Charles A Toase in *Refer* vol 18 (3) pp 17-23**

**[compared with *Guinness book of answers* and *Cambridge factfinder*]**

“It is noticeable that it has no definition of its content – in fact, it has no preface or introduction at all, and it does have dictionary definitions (why? Surely anyone having this book will already have a dictionary)”

“Checking some of the things you might look up [ie the range of items one would expect to find and where you would expect to find them] points out that wedding anniversaries don’t have an entry under this heading

“A common fault of both books [Guinness and Chambers] is a lack of indexing of the country section, so that the details on such things as currency or GDP are not revealed”

“The index in the new chambers is very much fuller than in the first edition”

“Accuracy seems high on the whole”

“To keep at home [I recommend] any of the three. Personally, I use Chambers mostly because of its hold-in-the-hand format”

**“RR 2006/233: Chambers book of facts (new edition)” by Derek Mackenzie  
*Reference Reviews*, vol. 20, no. 5, pp. 6, 2006**

“This Chambers title ... appears established as an affordable and accessible quick reference work”.

“...competitively priced given the breadth of subjects covered”.

“The structure stays faithful to the tried and tested format... in a clear layout”.

“As a source for quick answers to general questions on various subjects it is hard to fault”.

“Breadth, though, comes at the expense of depth and it may be regarded as perhaps a little too formulaic and rigid in structure”.

“...more coverage of commerce and industry would usefully enhance the sections on science and technology and communications.”

“In the global age, the section on social structure perhaps places too great an emphasis on nations rather than detailing conglomerates...”

“...Chambers has certainly kept pace with technology...”

“... the content of [the mini-biographies] is necessarily selective”

“The book is certainly a book for the pub quiz compiler... It is also a very useful reference work for small public library collections...”

**Chambers dictionary of literary characters**

**“Reference: Chambers dictionary of literary characters” by Rebecca Bollen Manalac in *Library Journal* vol 130 (2) February 1, 2005**

“... a highly diverse resource, boasting entries on Shakespearean characters and Bridget Jones, as well as the Famous Five and the Droogs of *A Clockwork Orange*, to name a few”.

“... the new edition has been fully revised and expanded”.

“In addition to featuring hundreds of new entries, it also includes for the first time concise biographies of the authors, an appendix of literary awards and eight short essays on aspects of the character...”

“The main feat of the dictionary, apart from exhibiting the contributors’ impressive breadth of knowledge, is its condensing the essence of each character into entries of a little of 100 words”.

**RR 2005/144 by Keith MC O’Sullivan in *Reference Reviews* 19 (3) 2005, pp 27-28**

“...this substantial and handsome volume lists over 6,500 of the most famous and influential characters”

“...the date range is impressively wide...cross-referencing equally good”.

“Coverage of characters in the Shakespeare and Dickens corpus, particularly, is extremely comprehensive.”

“It is a slight pity that equally minor but arguably more pivotal figures... have been omitted”.

“There are numerous additional features. Particularly impressive is an index by author...lists of Nobel laureates in literature...are also a bonus”.

“The Dictionary is prefaced by a section of very short essays... If there is a weakness it is here... apart from all the pieces being too brief, a certain arbitrariness is bothersome here”.

“The Dictionary is an excellent quick reference guide for browsing”.

***The Continuum Encyclopedia of children's literature***

**Ayub Khan “Children's literature throughout the world” in *Library Association Record* 104 (2) February 2002 Review of *The Continuum Encyclopedia of children's literature***

“This publication is intended as a comprehensive single-volume reference source...However there is an emphasis on English-speaking countries or works appearing in English translation”

“The work contains more than 1200 biographical critical entries and covers nearly 100 topical articles all written by established professionals in the field”

“One hundred and fifty years of Children's literature in many cultures are covered”

“One of the special features is that it contains topical articles on, for example, adventure stories, picture books and pop-ups”

“Five years in the making...offers a wealth of information”

“Can be a useful source in tracing the changing nature of childhood over the centuries”

“For many individuals, this publication will bring back happy memories of books which they read as a child...although it is primarily a comprehensive reference manual”

“A fascinating read, full of anecdotes and reaching to the present day, including the internet revolution”

**“Lacking Local Interest” by Kimberley Reynolds *The Times Educational Supplement* January 4, 2002**

“In the UK, the *Continuum Encyclopedia* is unlikely to be the popular choice. At £95 it is almost three times the price of the Cambridge Guide (reviewed left) and doesn't represent three times the information. And its bias is too American.”

“The encyclopedia includes useful essays... The style is clear and concise without being truncated.”

**“The Continuum Encyclopedia of Children's Literature / The Essential Guide to Children's Books and Their Creators / The Cambridge Guide to Children's Books in English” by Russell, David L in *Lion and the Unicorn: a critical journal of children's literature* (27:2) [Apr 2003] , p.282-285**

“To own all three might be desirable, but *The Continuum Encyclopedia*, priced at a hefty \$150, and *The Cambridge Guide*, at \$75, are clearly not for the faint of heart.”

“To compete with the plethora of Internet information available, a single-volume guide must have, above all else, accurate and lucid entries written by knowledgeable and articulate contributors. In addition, we expect the work to supply us with such basic information as important dates, places, and titles.”

“The Cambridge Guide includes entries on people, titles, characters, and literary terms and trends, making it the most thorough in its coverage and the easiest to use.”

“On the surface it may seem to perpetuate [a] heavy British bias, but this is belied by generous entries on such specific topics ... virtually ignored by both other guides. In fact, The Cambridge Guide is quite pervasive in its coverage-encompassing virtually the entire English-speaking world...”



“The entries are informative and do not shrink away from value judgments, but the emphasis and great strength of this volume is history ... not criticism. The most traditional of the three works, it contains a treasure trove of easy-to-locate information.”

“*The Continuum Encyclopedia* is less comprehensive (it has fewer than half as many entries as *The Cambridge Guide*), containing entries on people and literary terms and trends, but none on titles or characters.”

“*The Continuum Encyclopedia* is an American publication and usually pays greater deference to American writers and illustrators than does *The Cambridge Guide*.”

“Because *The Continuum* contains fewer entries, they tend to be longer and frequently include quotations from writers or from critics as well as brief bibliographic listings of both primary and secondary works.”

“The author/illustrator entries also tend to be more personal”

“The *Continuum* does present some puzzling choices - it omits, for example, historical fiction and biography, but includes an entry on "Death and Dying in Children's Literature”

**Reference Reviews; 19 (4) 2005, pp.25-27**

***A dictionary of Methodism in Britain and Ireland* by John Vickers**

**Lionel Madden ‘Know your methodist denomination’ in *Library Association Record* 103 (6) June 2001**

“Splendid new historical dictionary”

“In content and presentation it is everything a good reference work should be. John Vickers and his publishers...have taken great pains to arrange the material in the most helpful way”

“Entries are concise and the layout is excellent”

“Most articles have references to further reading and there is a bibliography at the end of the volume”

“internal indexing is meticulous”

“Entries cover an impressive range of people and subjects”

**“Achievements of Methodists” *Belfast Telegraph* August 28, 2000**

“There is a refreshing honesty in some entries.”

“Some within the Irish Church will raise an eyebrow at a few of the Irish names which are in and, even more, at some of those which are not.”

“Many of the potted biographies are weak on parentage and vague on education.”

“The Dictionary, though, is a substantial achievement worthy of a place on any reference shelf.”

***Encyclopedia of the ancient greek world* by David Sacks and Lisa Brody**

**“Encyclopedia of the ancient Greek world” by Hillary Jan Donitz-Goldstein in *School Library Journal*, Dec 2005, pp.94**

“This fact-filled, accessible revision of the excellent 1995 edition provides new material for researchers and general readers”

“... a comprehensive investigation of Ancient Greece.”

“The original format of this volume has not changed, but many of the alphabetical articles have been updated and rewritten”

“In addition, there are modern transliterations ... and a bibliography of each entry”.

“Accurate cross-references, an information-packed time line, and a thorough index add to the volume’s usefulness”.

- with *Encyclopedia of ancient Greece* ed by **Nigel Wilson**

**Reference Reviews**, vol. 20, no. 4, pp. 52-53, 2006

**“Reference: Encyclopedia of ancient Greece ed by Nigel Wilson and Encyclopedia of the ancient greek world by David Sacks and Lisa Brody” by Sean Fleming in *Library Journal* vol 131 (2) February 1st 2006**

“...an updated version of Facts On File’s previously published volume by historian Sacks, with added specialized bibliographies”.

“This extremely accessible text, written for a general audience, also has cross references to related entries, 65 black-and-white photographs, ten maps, a chronology of the ancient world, and a detailed index”.

“The more than 500 A-to-Z entries have been updated to reflect advances in scholarship, and some are completely rewritten”

“Routledge’s work, conversley, is targeted at an academic audience, with many more detailed entries and an expectation that the reader will have a basic grounding in ancient Greek history”.

“More than 100 subject specialists have contributed to the book, and their depth and breadth of knowledge helps to make this an impressive tome”.

“Editor Wilson (*Medieval Greek Bookhands*) has also included further reading lists, [etc] and an impressive index.”

*Encyclopedia of ancient Greece* ed by **Nigel Wilson**

**Reference Reviews**, vol. 20, no. 4, pp. 52-53, 2006

**“RR 2006/223: Encyclopedia of Ancient Greece” in *Reference Reviews* Vol 20, No 4 by Stuart James**

“Like all the best reference books this is a very diverting book”

“The book’s one serious lack is a full introduction; a rather brief preface fails to tell us who the publishers see as the target audience”.

“The result [of reprinting or summarising many articles from Graham Speake’s encyclopedia] certainly is an impressive and effective encyclopedia”

“Its coverage is excellent: places, themes, individuals...anyone who was anybody seems to be here”

“Themes too are pretty comprehensive; some of these reflect modern attitudes probably more than ancient; especially social topics such as gender”

“It should go without saying that more traditional cultural topics are thoroughly dealt with”

“If coverage is exemplary, so too are the contents. The articles all strike a happy balance, being long enough to explain the entry adequately and go into discussion where appropriate, but no so long as to daunt or lose the non-expert reader”

“...the articles are all easily comprehensible by a non-specialist audience; being clearly written and their contents explained as necessary”

“Written by academics... the article maintain a high level of consistency of approach...”

“Finally, construction and presentation are equal to the contents and the coverage. A comprehensive index finds information throughout the text; cross references at articles (from general to specific, not in the reverse direction) help readers navigate the text (and encourage almost endless browsing, while thematic lists of entries demonstrate the range and depth of coverage”

“There are no illustrations, which are not missed (and their lack keeps the price down...), while a map or two is the only lack I can point to”.

“Layout and printing are clear...”

“Each entry has a list of references to further reading”

**Encyclopedia of Appalachia by Rudy Abramson and Jean Haskell**

**“Reference: Encyclopedia of Appalachia” by Rosanne M. Cordell in *Library Journal* vol 131 (9) May 15<sup>th</sup> 2006**

“Abramson...and Haskell...have led an impressive team of scholars to produce a unique encyclopedia devoted to a fascinating region on the United States”

“The breadth of coverage is matched by the depth of scholarship. Nonetheless, the typically one- or two-page articles are accessible to a general adult or undergraduate audience”

“A detailed general index and separate index of contributors, along with extensive cross referencing, make navigating this massive volume easy”.

**Encyclopedia of evaluation ed by Sandra Mathison.**

**“Reference: Encyclopedia of evaluation” by Laurie Selwyn in *Library Journal* vol 130 (4) March 1, 2005**

“...Mathison...attempts to capture [evaluation’s] essence by providing an international view of the ”who, what, where, how and why?” for evaluation practitioners, theorists and the public. Unfortunately, in this attempt to meet the needs of three widely divergent populations, she compacts too much into a single volume, making the book ineffectual for any of the three groups”.

“Inconsistencies are evident throughout.” [examples where index points to non-existent entry and “... the entry on ABT Associates reads like a publicity brochure.”

“Furthermore, at least one article includes acronyms but fails to indicate what those acronyms represent”.

“Cross references are also inconsistent: some appear in the index, others in the body of the work, while some articles do not have any at all”.

“...while the font is large and margins wide, the binding will not hold up to heavy use.”

**RR2005/351 by Martin Guha in *Reference Reviews* 19 (7) 2005, pp 30-31**

“I agreed to review this peculiar book [because] I thought it might be an opportunity to educate myself into being able to cope with ...inspections. I am sorry to say, however, that, at the end of a couple of weeks studying this book I am more confused than ever”

“Both [my advisors on reviewing the book] were very critical, in particular that it contains no statistical methods, no experimental designs..these are quite astounding omissions and left us with a very poor impression of the book as being simplistic and padded with irrelevancies”.

“The padding is a source of irritation”

“On the positive side, this book does bring together short discussions of a wide range of terms from the field of education, social sciences, welfare services...”

***Encyclopedia of new religious movements* ed Peter Clark**

**“Reference: encyclopedia of new religious movements” by Traci Avet in *Library Journal* vol 131 (2) February 1st 2006**

“Clark, a UK-based faculty double-appointee who has penned several texts similar to this one...”

“Averaging one to two pages in length, the entries vary in approach, some presenting just a handful of facts and others bursting with information.”

“... contributors remain thoroughly objective and unbiased throughout”.

“...several passages present the information in a style more essayist than encyclopedic.”

“Although marred by flaws and inconsistencies, the index is well crafted, with generous geographical considerations..”

“Topical [ie subject] terms are indexed as well, allowing for adequate searching within broad subject areas”.

“Considering its steep cost, this rather comprehensive resource is recommended for larger academic libraries...”

***Encyclopedia of post-colonial literatures in English* ed Eugene Benson and LW Conolly**

**“Reference: encyclopedia of post-colonial literatures in English” by Denise Johnson in *Library Journal* vol 130 (10) June 1<sup>st</sup> 2005**

“Written and signed by over 700 contributors...”

“Many have been significantly updated, and some new ones have also been added, bringing the total up to more than 1600.”

“Also included are a contents list, a list of contributors, an introductory essay, and an exhaustive index in Volume 3”

**RR 2005/362 by Stuart Hannabuss in *Reference Reviews* 19 (7) 2005, pp 41-42**

“If any work can convince readers that post-colonial literature in English ... is alive and well, it's this one”.

“We cannot fully understand such literature without understanding language and translation: this encyclopedia widely includes extensive entries in this”

“[The expected authors] are all there, along with many others, the critical standard being high throughout”

“The thematic entries are strong and logical, examining censorship and children’s literature”.

“The geographical and regional approach is particularly strong”.

“This encyclopedia is an excellent resource for the academic and research library supporting courses at college”.

“Libraries which already possess the first edition will need to weight up whether to get the second (it is a substantial investment but worth it simply to be current).

“This is an authoritative work from an international and streetwise team”

**“Perspectives on world literature” by Riggan, William in *World Literature Today: a literary quarterly of the University of Oklahoma* (Norman) (70:1) [Winter 1996] , p.245-251**

“At last, a comprehensive, reliable, and up-to-date compendium...”

“Eugene Benson of Guelph University and L. W. Conolly of Trent University (both in Canada) have assembled more than 1,600 entries from 564 contributors around the world.”

“The volume's board of research consultants and its panel of national and regional editors are studded with such outstanding scholar-critics and writers...”

“Their inevitable variances in style and approach have been quietly smoothed over by the editors without leveling the contributions into cookie-cutter conformity, thankfully.”

“More bibliographic detail would have been desirable in the individual-author entries, with the place of publication and the name of the publisher identified along with the year of issuance of books discussed or named...”

***Encyclopedia of religious and spiritual development* ed by **Elizabeth M Dowling and WG Scarlett****



**“Reference: encyclopedia of religious and spiritual development” by Michele McGraw in *Library Journal* vol 131 (9) May 15<sup>th</sup> 2006**

“Written to highlight current research on understanding the similarities and differences among world religions and spirituality...”

“The editors note in the introduction that beyond serving solely as a reference tool, the encyclopedia is meant to foster their broader goals of enabling readers to function more effectively in a pluralistic society”

“The work includes over 250 entries written by 125 international scholars”

“Though the work is not supposed to serve as an exhaustive catalog of its subject, it does provide a broad overview of more traditional topics as well as new trends and themes”

“Although its entries are brief, this work is most suitable for readers with at least a basic understanding of the topics discussed”.

***The encyclopedia of renaissance literature* by James Wyatt Cook**

**“Reference: the encyclopedia of renaissance literature” by Bobbie Wrinkle in *Library Journal* vol 131 (2) February 1st 2006**

[also considers *Handbook to life in renaissance Europe* by Sandra Sider ]

“Written by knowledgeable and reputable authors, both of these Facts On File resources allow students to explore the impact of this cultural revitalization”.

“Sider ...[gives] a compact description and explanation of each topic”

“Organized thematically, the entries vary in length from one or two paragraphs to a full page and cover geography, religion, art, architecture, language and literature [etc]”.

“The useful glossary describes over 185 terms, including numerous non-English words”

“The work also boasts 70 black-and-white illustrations and maps, listings of museums and other collections, a useful bibliography, a chronological chart and an index”

“Since it is difficult to encompass such a large topic in so few entries, readers are bound to find omissions”.

“Both titles make for good introductory sources to the period, but more detailed resources are needed for serious research”.

**Historical dictionary of US-Latin American relations by David W Dent**

**“Reference: historical dictionary of US-Latin American relations” by Bob Childress in *Library Journal* vol 131 (2) February 1st 2006**

“Considering the current state of foreign affairs with Latin America, this reference work by Dent [identifies his status and previous works] ...couldn't be more timely”.

“The 260 A-to-Z entries range between one paragraph to several pages in length and include suggested readings as as *See also* links to other relevant references”.

“The strength of this book is the succinct writing and the inclusion of concepts, strategies, ideologies, doctrines, conflicts and processes”

“The 20-page index is also excellent”.

“Although some may not agree with Dent's arguably liberal bias, this treatment of the topics is for the most part fair and balanced”

**Europa world plus**

**“Reference: Europa world plus” by Jean Evans in *Library Journal* vol 130 (4) March 1, 2005**

“This significant update of *Europa World*... marries that reference classic with Europa's in-depth *Regional surveys*, which are updated annually, to provide an unparalleled combination

of authoritative country information and expert analysis” [this is incorrect – the *Yearbook* is annual, the *Regional Surveys* less often]

“... as soon as one starts browsing the database, it becomes clear that *Europa* should divorce its online products from their print equivalents...its developers need to think more like online users and less like librarians who know the books backwards and forwards.”

“...it should grow in popularity with public and even secondary school libraries as it becomes more at home on the web. This new online version, although flawed is a step in the right direction”.

***Know it all, find it fast: an a-z source guide for the enquiry desk* by Bob Duckett, Peter Walker and Christine Donnelly**

**“Reference books you may have missed” by Charles A Toase in *Refer* vol 18 (3) pp 17-23**

“The book is intended as a ‘first point of reference’ with no prior knowledge expected and is generally well aimed at its intended audience. Occasionally though sources are quoted that seem rather beyond the basic level”

“Family history, a major source of enquiries in public reference libraries is dealt with well, considering the enormous range of material available”

“Some other limitations are a little surprising. Actors and actresses seem to be restricted to film and television... and ‘Conferences and Exhibitions’ doesn’t make it clear that it covers trade exhibitions only”

“A few errors have crept in”

“the user should be aware of deliberate limitations”

“A practical guide that is based on ‘the reality of everyday enquiries”

“Duckett... uses much broader headings than the earlier compilations, where they gave just titles he gives advice as well”

**RR 2005/5 by Christine D Reid in *Reference Reviews* 19 (1) 2005, pp.9-10**

“The first edition won the Best Reference Work prize... This second edition updates the sources to ensure its ongoing usefulness as an immediate source of answers”

“It covers approximately 150 subject areas arranged in alphabetical order”

“The subject areas are broad. However this is to be expected of a general reference tool”.

“New to this edition is a General Sources section...”

“Each subject entry follows a standard pattern”

“The sources listed ... cover both print and electronic materials, plus useful contacts for referral purposes”

“Most, but not all subject entries end with a tips and pitfalls section offering good advice”.

“See references are used where appropriate to bring related subjects together”

“... a highly practical volume drawing on the many years of experience of the compilers”.

“Although aimed at library staff it will also be a handy tool for the library user...”

**Amanda Duffy “Everyone loves a know-all on the enquiry desk” *Library + Information Update* March 2003 Vol 2 (3)**

“There are times when you need somewhere to look quickly for guidance. *Know it all: find it fast* provides most of the answers”

“The book is arranged in an alphabetical list of around 150 subject areas”

“There are plenty of cross-references and the layout is clear”

“There are areas not covered or difficult to track down and the subject index at the front could have been more extensive, but library staff will have to go a long way to find anything better or more straightforward to use”

“The layout allows for local comments and additions to be put in where necessary”

“Excellent value for money”

“This book should be kept to hand at every enquiry desk. However it shouldn’t be used solely there”

**“Book reviews” by Jessica Peel-Yates in *Managing Information*; 10 (3) Apr 2003, p.54**

“The introduction to the book poses some useful questions... One piece of sensible advice is...”

“The Book is laid out as an A-Z source guide that covers the range of subjects likely to be needed on a public enquiry desk”

“The guide is cross-reference and easy to use”

“[The entry-heading structure] is useful because it would help to overcome the ‘I have no idea what this person is talking about’ problem”.

“The tone of the book is chatty and accessible. It doesn’t patronise...”

“A minor criticism of the book is that many of the examples come from the Bradford area, where the authors are based”.

***London: A Musical Gazetteer* by Lewis Foreman and Susan Foreman**

**Diana Dixon ‘Musical Associations of London’ *Library + Information Update* June 2006 Vol 5 (6)**

“The authors are both librarians and distinguished in their own fields”

“With expertise in London buildings and musicology”

“The book is advertised as a gazetteer”

“It’s importance lies in the number of virtually forgotten British composers that are included”

“the work is attractively illustrated”

“The index is commendably helpful”

“This book is a delight and although its main appeal will be to lovers of classical music there is much of interest to Londoners”

***The NPR listener’s encyclopedia of classical music* by Ted Libbey**

**“Reference: the NPR listener’s encyclopedia of classical music” by Bruce R Schueneman in *Library Journal* vol 131 (9) May 15<sup>th</sup> 2006**

“The well-known classical music commentator... Libbey... has written a listener’s encyclopedia containing about 1500 entries and 1000 recommended recordings”.

“Libbey’s writing mirrors the clear, learned, yet always engaging style that he projects on the radio”

“A treasure trove of over 500 music examples will be available on the web”

“This is an excellent source for the biography, lore, and terminology of classical music, nicely enhanced by the many photographs and illustrations”.

**“Classical guide invites readers to learn, listen, enjoy” by Tim Smith *The Baltimore Sun* July 23, 2006**

“Author Ted Libbey has created the reader-friendliest, yet fully substantive, publication of its type I've seen come along yet.”

“In addition to the quality of the text, there's an unusual extra: access to a Web site of 527 musical examples, adding up to a good 75 hours of recordings.”

“I did spot a few slip-ups. Some icons are missing in the book. And some music files on the Web site are faulty...”

“The musical examples are of compositions and terms, not artists. It would be cool to hear, say, soprano Claudia Muzio or pianist Josef Hofmann or cellist Mstislav Rostropovich while you're reading about their lives and careers.”

“Libbey is an engaging, often eloquent and truly informative (rather than merely informational) writer.”

“Except for a couple of luminaries who have died very recently, this is up-to-date...”

“As with any such book, you can question some of the omissions or inclusions... And some production decisions look careless”

“... the overall quality of the book, a combination of insight and entertainment, makes it a stand-out in the laudable effort to improve familiarity with the key components of classical music, and create the foundation for a meaningful appreciation of same.”

“With its 1,500 entries, 2,600 recommended recordings and more than three whole days of online listening possibilities ...”

***Oil paintings in public ownership: West Sussex***

**“The ISG / Bookdata Reference Awards 2005” by Amanda Duffy from *Refer* Vol 22(2) Spring/Summer 2006 pp 3-4**

“part of a new and ambitious series which aims to catalogue all the publicly owned oil paintings in Britain’s galleries...”

“The catalogue’s layout is clear and easy to use.”

“For each painting there is a brief description – title, size and medium plus the artist’s name and dates – and a high quality reproduction which is considerably larger than the usual postage stamp-sized reproductions found in many catalogues”

“This “Pevsner for paintings” will be an invaluable resource for information on artists of all periods, especially less well-known painters...”

“The manageable price of the individual volumes makes them accessible to local people and many libraries”

“The judging panel felt this series will become an indispensable guide to part of the UK’s artistic heritage”

**Oxford African American Studies Center**

**“E-views and reviews: a masterpiece in the making” Cheryl La Guardia *Library Journal* July 2006 vol 131 (12)**

“impressive...contains over 7500 articles culled from five Oxford encyclopedias and 18 other Oxford reference sources.. along with 1000 images (thousands more to be added), over 100 primary sources, time lines, maps, tables and a Learning Center full of ready-reference resources”.

“The file is updated four times annually and also draws on Oxford’s other web resources”

“The home screen is a nicely-blanaced combination of visually stimulating elements, earsy search access and well-organised structures leading into content”



“It’s extremely simple to print and email entries, and every article includes a button with citing information”.

“Subsequent searches...uncovered more delightful features: searching within Eras...; limiting searches with filters that tree out from a Category icon...going directly to a particular type of material”

***The Oxford companion to Shakespeare***

**“Reference books you may have missed” by Charles A Toase in *Refer* vol 18 (1) Winter 2002 p9-15**

“First impressions... suggest that it is well worth adding to the many shelves already taken up with the collected editions and commentaries”

“There are individual entries for each character...for literary terms,...songs, places...theatres, and numerous other topics”

“Articles are signed, even the minor ones, by nearly 100 contributors and some have bibliographies”

“Film gets in twice, rather oddly hidden under ‘Silent films’ and, ‘inconsistently, ‘Shakespeare on sound film””

“This is one of the few Oxford companions to break away from the old dumpy format and change to A4 thus packing more information in to fewer pages and it certainly breaks away from any stuffy image the series may have had”

“it is certainly up to date”

“Although the chronology at the back of the book stops at 1999, several items from 2000 and 2001 get in elsewhere”

**“Shakespeare goes to the dogs” by Eric Griffiths *The Evening Standard* September 17, 2001**

“The general editors... are more interested in the Shakespeare ‘market’ and ‘industry’, in Shakespeare as a ‘cultural phenomenon’, than in how he wrote and imagined.”

“When they do turn to the plays, they give a scene-by-scene synopsis of each, followed by an account of its "artistic features", as if the dramaturgical structure of the plays were something quite distinct from their artistry. They are not strong on describing such features...”

“Their attempts to describe Shakespeare's verse are dismayingly inept; they can't tell the difference between metre and rhythm, they misdefine "end-stopped", "feminine ending" and "feminine rhyme”.

“They perpetrate again the slur that the plays are written in "iambic pentameter", a term Shakespeare never heard applied to English verse... Their keenness on unexamined application to Shakespeare of labels invented by later packagers amounts to a house style.”

**“DRAMAS AND MYSTERIES OF THE BARD OF AVON” by Richard Edmonds**  
*Birmingham Post* September 22, 2001

“The publisher assures us that nothing like this Shakespeare companion has been produced for 40 years and I see no reason to quarrel with that assertion.”

“Stanley Wells, chairman of the Shakespeare Birthplace Trust, has enjoyed a long and distinguished academic career... When you apply that knowledge to the editing of a Shakespeare companion such as this, you can rest assured that very little has been allowed to slip past.”

“... Wells and Michael Dobson ... have brought us bang up to date with the latest incarnations of Shakespeare's plays on film”

“As you criss-cross the alphabetical text headings you won't get far without stopping to digest some fascinating snippet or other. But isn't browsing the essence of decent reading? Here this reference work encourages it marvellously.”

“[Describing the Shakespeare biography] A sensible outline takes you from birth to death. The purpose of a reference work, which this is, after all, is therefore admirably fulfilled.”

“ I never thought I would find myself eulogising over a reference work but this one is a brave addition to Shakespeareana and deserves everyone's praise.”

**“It's just William: Hands up who wants to know the Bard inside out” by John Mullan *The Guardian* November 30, 2001**

“...as the briefest look at two recent companions to the Bard shows us, some can make Christmas presents for the general reader.”

“...it gives us those unconsidered trifles and odd matters of fact that might feed curiosity rather than smooth an essay.”

“The trivia and notes in the margins are what make the Oxford book more interesting.”

“It could have had even more diverting detail... if too much space were not given to scene-by-scene plot summaries of the plays... And it hardly touches Shakespeare's language.”

**“Princes - Of Denmark And Of Wales” by Ralph Berry *The Times Higher Education Supplement* November 1, 2002**

“The new *Oxford Companion* consists of short, informative articles arranged alphabetically.”

“It is profusely and imaginatively illustrated.”

“The editors have at their disposal a mere 500,000 words, a limit that imposes severe choices. An editorial rigour and conciseness is everywhere apparent.”

“Oxford is keen to open up new territories: there are entries for East Africa, Southern Africa and West Africa.”

“I have more doubts about the revision of traditional entries. These are often subject to savage compression.”

“In all cases, up-to-dateness trumps fullness.”

“The signposting is not perfect either. There is no entry for ‘Directors’ (or ‘Producers’), and the reader has to cast around for Dennis Kennedy's authoritative treatment under ‘Twentieth-century Shakespearian production’.”

“There are also omissions. Of the entries that should fall within this book's canon, there is no mention of Helsingor or Kronborg Castle, save in a brief misspelt reference under ‘Elsinore’... Festivals are largely overlooked... The work of Charles H. Shattuck, the leading historian of Shakespeare on the US stage, is ignored.”

“An asterisked allusion to the Shakespeare Association of America leads nowhere... The editorial policy on America needs serious review.”

“The limitations of the Companion are very largely those of its form, a necessary tension between brevity and range of entry. I have noted a handful of minor inaccuracies but the overall standard is high.”

**“The Oxford Companion to Shakespeare” by Pamela Allen Brown. *Shakespeare Quarterly*. Washington: Summer 2003 Vol 54 (2) p188**

“Reading a reference work places special demands on the reviewer. You can't assess continuity and development; you have to read it in the guise of a skeptical yet interested seeker, flying hither and yon to test the book's utility, reliability, design, and (for want of a better word) browsability.”

“On most counts the Oxford Companion performs impressively. Entries are usually well written and suavely concise, projecting an authority enhanced by the presence of the contributor's initials on each article and the inclusion of brief bibliographies in many.”

“Obvious care has been taken with the volume's design. The pages look uncrowded despite the three-column layout, and the numerous photographs are judiciously chosen and high in quality. A bold border based on Renaissance type ornaments mark articles about major works of drama or poetry, serving as a reader's finding aid.”

“(Minor confusions sometimes occur when a long article breaks up a shorter one; the addition of running subheads would have helped.)”

“As a tool for the student, the volume has enticing features, including entries on every stage character and song, and longer articles on each poetic work or play.”

“Students hunting for paper ideas will get good use from the admirably thorough "Thematic Listing of Entries" near the front...”

“The volume is particularly good at giving the uninitiated a glimpse into the worldwide reach of Shakespeare and the institutions ... that have grown up around his works.”

“Perhaps to satisfy [Nonacademic browsers] the editors include a barge-load of short bios of Shakespeareans ... with the result that this Companion sometimes reads like a "who's who." As a resource for my own graduate and undergraduate students, however, the book could have used fuller entries...”

“... the Oxford Companion [veers] close to the antiquarian and bardolatrous”

“Too often, topics that don't appear to concern Shakespeare-the-man take a cozy old-fashioned turn.”

“The preface attempts to deflect such criticism by informing us that the editors chose to produce an encyclopedia rather than a collection of cutting-edge essays, stating that their book "is designed primarily to inform readers about Shakespeare's works, times, lives, and afterlives rather than to interpret them" (vii). Such detachment is a fairly simple matter when defining colophon but not when summing up "critical history" in a few thousand words”

“Vast as the book is, what might be called White Anglobardocentrism limits its range”.

“Certain topics that cry out for a deft touch and a catholic mind receive cursory treatment”

“...the editors and contributors are to be commended for producing a volume that generally manages to be inclusive and scholarly.”

**“Shakespeare guide a browser's delight”** By John Mark Eberhart *The Kansas City Star* January 3, 2002

“The Oxford Companion to Shakespeare may be pricey, heavy and oversized, but it's also packed with more than 3,000 entries on the plays and poetry of William Shakespeare.”

“Editors Michael Dobson and Stanley Wells have assembled a text that is not only the kind of authoritative reference one expects from Oxford University Press but also a tremendous amount of fun.”

“General editor Dobson and associated general editor Wells... also have solicited aid from dozens of other contributors, most of them drawn from the ranks of academia.”

“Laudable, too, is the editors' desire to address traditional subjects while striving to make The Oxford Companion to Shakespeare as modern as possible.”

“... while each play here merits its own longer essay, the organization of the pieces is poor; they are alphabetical but scattered through the book alongside the shorter, alphabetical subject entries. Much more useful to the reader would have been a scheme in which the subject entries were presented in their own section, preceded or followed by a section containing all the longer discussions of the plays.”

“...more cross-referencing among the various entries would have been appreciated. The great Shakespearean actor Ian McKellen merits his own entry, and rightly so, but he is not mentioned in the "Shakespeare on sound film" entry.”

“ ‘The Oxford Companion to Shakespeare’ may not be perfect, but it is nevertheless a gift of scholarship and entertainment.”

***The Oxford dictionary of allusions***

**“Reference books you may have missed” by Charles Toase in *Refer* Vol 17 (3)  
Autumn 2002**

“Checking the same names I used for other books, I found the Wizard of Oz and Bilbo Baggins, Robin Hood but not William Tell. The emphasis is heavily on classics and the Bible, but the twentieth century gets quite a generous allocation”

“...the book covers only a tiny proportion of the material in Brewer or ODPF, so what is it *for*? How will it be used when we already have someone like Brewer to explain these references. Presumably the subject arrangement is the answer – writers and speakers seeking something to quote or an appropriate simile”

**“From Mekon to Morpheus” by Derwent May *The Times* April 26, 2001**

“... the entries are not arranged alphabetically [by character] - you have to look them up in an index. They are grouped under headings such as "Cunning", "Fatness" and "Miserliness", the characteristics that the examples are supposed to represent.”

“It is as though the book were intended for people such as after-dinner speakers and prize-givers at school speech days, who are looking for a smart allusion to make.”

“One of the best things about the new dictionary is its quotations of this kind [ie witty and imaginative], though it must be said that it has some pretty boring quotations too...”

**“The Oxford Dictionary of Allusions” in *Contemporary Review* (London).  
*Incorporating International Review and The Fortnightly* (278:1625) [Jun 2001] ,  
p.383**

“The vast range of information gathered here is arranged by themes...”

“In addition, as is the fashion nowadays, there are twenty-two 'special entries' which are printed within a box.”

“There is also an extensive index of names with the theme under which that name will be found.”

“Each entry gives the necessary background information and at least one example of the word's use.”

***The Oxford Dictionary of National Biography***

**Library + Information Update; 4 (3) Mar 2005, pp.39-41**

**“The Dictionary of National Biography renewed” by David Butcher in *Refer* Vol 21 (1) Winter 2005 pp 7-11**

[Discussing the original DNB]

“Three quarters of the biographies were written by just a hundred people, unlike the new edition”

“Most contributors were male”

“We have relied on the DNB for the lives of eminent or notorious people from all periods of British history for over a century, but there were inevitably errors and omissions”

“The supplements included some people who would not have appeared in the original volumes”

“The editors and his advisers... decided that the original DNB and supplements would form the basis of the new work and that everyone included in the old dictionary would be in the new one, but their entries would be revised and rewritten in the light of modern scholarship”

“One of the most noticeable differences between old and new DNB is the inclusion of likenesses of one in five of the entrants”

**“FRESH AIR IN A HALL OF FAME” by PIERS BRENDON *The Independent* September 24, 2004, Friday**

“Since editorial control was so strict and the prime purpose was to bring modern scholarship to bear on the subjects, it is reasonable to start with the odd slip. [gives examples]”



“A more general complaint is that some of the articles smack of the textbook. Since so many standard authorities are holding forth on their chosen subjects, there is inevitably recapitulation...”

“The writing varies. There is some brilliance, more jargon and much plain, workmanlike prose.”

“The entries, too, are more eclectic... All the original subjects, notably a large clutch of clergymen, are included, their texts revised or rewritten. But 13,500 new entries feature a more representative selection of women, provincials, immigrants (Handel, Marx, etc), business and labour figures.”

“As well as the fresh visual dimension, in the shape of 10,000 portrait illustrations, it has another supreme advantage over the old. Accessible in electronic form, it can be searched and cross-referenced in an exciting variety of ways.”

**“Not quite your average book” by Noel Malcolm *SUNDAY TELEGRAPH* October 17, 2004, Sunday**

“Not only are there some surprising relative lengths of entries here... but also the best-known figures are the ones whose entries are, in a sense, the least needed: any decent library will have biographies of Churchill, Nelson, Tennyson, etc.”

“Where this sort of biographical dictionary is invaluable is in supplying details of the second- and third-ranking people, who may otherwise be so hard to track down.”

“The editors have none the less tried hard to be "inclusive", making a special effort to increase the number of entries for women. This has rectified glaring injustices, but it has also led to some questionable choices.”

“Other innovations include a large number of collective entries... These articles work well, especially with the cross-referencing facilities that are so easy to operate on-line.”

“Less convincing are the entries for fictitious people ... they make fascinating reading as essays in cultural history, but this is not the right place for them.”

“Stabs at cultural history are also attempted in the final sections of some articles, where the individual's later reputation or influence is discussed... while all this is interesting, one has to wonder what it is doing here.”

“... an astonishing piece of work: a colossal, beautiful, fully functional and utterly user-friendly engine of enlightenment.”

**RR 2005/59 by Stuart James in *Reference Reviews* 19 (1) 2005, pp.58-60**

“More than 50,000 biographies give plenty of scope including entries for a few mythical characters...Perhaps it would be better to stick to facts and include only those whose corporeal existence can be in some way attested”

“One of the delights of the new online search capability is to find the unexpected”

“Searching for entries is straightforward”

“That cataloguing rules can occasionally be an obstruction as opposed to literary warrant is shown by finding Geoffrey DeHavilland ...listed as Havilland, Geoffrey de”

“The text search facility also shows the usefulness for people and places”.

“All fields of life (and supposed life) are covered ... The inclusion of criminals is natural and justifiable where they had any historical significance. But hostile press coverage has been raised here in Scotland by the inclusion of Thomas Hamilton, the Dunblane mass-murderer...The entry for Hamilton is factual, cautious and judicious... but the mental wounds across the country are still fresh and perhaps this entry should have waited a few more years for a future update”.

[related to above]

“...inclusion in one of [OUP]’s titles somehow carries the stamp of authority.”

“In the early periods especially some entries probably inevitably more history than biography”.

“The online version automatically allows a major weakness of the DNB to be solved, that of updating: we are promised regular updates.”

“A survey of the methods of using the online ODNB shows its versatility and power, in our context for reference purposes, but more widely for research or simple curiosity”.

“... this edition is much more fully referenced than the first, listing not only major published sources, but illustrations, archives and the like...”

“Good clear screens are easy to enter and to navigate from onscreen buttons and instructions”.

“...this reaffirms the reputation of Oxford University Press... at the apex of heroic and triumphant scholarly publishing ventures”.

**‘Our island story’ by Stefan Collini in *London Review of Books* January 2005**

“A dictionary is, first and foremost, a practical resource, its usability when subjected to a variety of everyday scholarly demands must be the chief test of its worth. But a work on the scale of the *Oxford Dictionary of National Biography* is bound also to be seen as much more than a reference tool”.

“Well-meaning colleagues have rushed to provide me with examples of errors, but since every visit to shelf or screen has left me in a state of head-shaking amazement at the quantity of exact information packed into its pages, I feel no inclination to nag”.

“The ODNB has operated with a far larger and better-qualified team of research editors than [Leslie] Stephen and Lee had at their command”

“In practice, the ODNB has interpreted the [inclusion] criterion in a relaxed and pragmatic way”.

“The ODNB is in several ways more democratic [than *Who's Who*]: mere rank... won't get you in, but committing a murder that makes you household name will...”

“[On the criterion for inclusion being those who ‘in some way having influenced the nation's life’ leading to inconsistencies] This is one of the several ways in which one runs up against the limitations, for the purposes of historical understanding, of taking individual lives and ‘the nation’ as organising units; the forces ‘influencing the national life’ are only intermittently half-visible in narratives of the lives of individuals who mostly happened to live mostly here”.

“Turning from subjects to contributors, the roll-call is impressive”.

“... it is surely the first [reference work] to exploit the potential of electronic publishing on so vast and imaginative a scale... the entire text of the ODNB is searchable in several different ways”.

“It's a stupendous benefaction *pro bono publico* on the part of Oxford University Press above all”

“In deeply unpropitious times, the *Oxford Dictionary of National Biography* has refreshed and fortified our sense of what can still be meant by the collective endeavour of scholarship”.

***Oxford Digital Reference Shelf and Oxford Reference Online***

**“E-views and reviews: Oxford's reference shelf” by Cheryl La Guardia *Library Journal* May 1, 2005 vol 130 (8)**

“The advertising might lead you to believe this is one product, but it's actually 12 separate products. The current titles are all purchased or subscribed to ...separately and searched separately”.

“Searching is easy...”

“...links took me to cogent readily understandable descriptions...”

“Oxford has created 12 thoughtful, content-rich, easy-to-use online products in this Reference Shelf”.

“A one-time purchase, including unlimited user access (onsite and remote), is priced not too much above what you’d pay for a single copy”.

**“Search tool users can trust” by Mark Chillingworth *Information World Review* (219) Dec 2005, pp.62**

**“Oxford Reference Online fills big niche” by M O’Leary in *Information Today*, 19 (6) Jun 2002, p.14, 16, 18**

“The principle point about ORO is that it’s made up of short entries...concise....It’s an enormous ready reference database”.

“...its coverage of technology and business is wide but shallow... there is no current news content”

“Many ORO titles have a British emphasis with British spelling and vocabulary...”

“Overall it has a lot of search power, but the elements could arranged differently to achieve greater simplicity”.

“Three separate interfaces with subtle differences between them are enough to confuse experienced searchers, let alone end-users”

“ORO’s pricing is an additional attraction to its primary market of school, academic and public libraries”.

“It has excellent content, good searching and pricing that even the smallest library can consider”.

***Television characters: 1485 profiles from 1947 to 2004* by Vincent Terrace with Jacques Weissgerber**

**“Reference: Television characters: 1485 profiles from 1947 to 2004” by Anthony J Adam in *Library Journal* vol 131 (9) May 15<sup>th</sup> 2006**

“Prolific author Terrace... has produced another small gem for TV addicts”

“The author makes no claims to comprehensiveness but instead seeks to cover the gamut, from the iconic (Gilligan) to the practically unknown, providing some 200,000 separate facts along the way”.

“The alphabetical arrangement by character’s first name is coupled with ‘last name first’ and ‘characters in series’ appendixes, which greatly help in locating individuals”.

“The only real problem with Terrace’s work is the seemingly haphazard collection of characters” [ie whom and how many they have chosen from each series]

***Tile gazetteer – a guide to British tile and architectural ceramics locations* by Lynn Pearson**

**“The ISG / Bookdata Reference Awards 2005” by Amanda Duffy from *Refer* Vol 22(2) Spring/Summer 2006 pp 3-4**

“...superbly illustrated authoritative guide”

“..fills an important gap and will appeal to anyone interested in Britain’s buildings, historic or modern”

“Individual entries are short and to the point but pack in a lot of information and detail and each has an excellent bibliography”

“There is a very helpful introduction to the history decorative ceramics in architecture, several well-thought out indexes and a comprehensive biographical directory of artists, designers and manufacturers”

“There are plenty of beautiful and informative illustrations throughout showing the wide range of tile decoration in the UK”

“This is a practical book to study or take on your travels and is extremely good value for the quality and quantity of its contents”

**Whitaker's London Almanack**

**“Reference books you may have missed” by Charles Toase in *Refer* Vol 17 (1)  
Winter 2001 p8-12**

“...most of the material has simply been lifted out of the main work and, since each book costs £40, there seems little point in buying both”

“The section on ‘Societies and institutions’ is a list of organisations *based* in London... not just specifically London societies”

“Parks (under ‘Cultural London’) appear to be limited to those run by the City and the Royal Palaces, but no mention of those run by the boroughs. Commons are missing...”

“It would have been useful to have had maps of the boundaries of the various authorities...”

“...the indexing needs improvement – subjects need fuller treatment, and there are some missing entries and the odd wrong page reference”

## **Appendix II: Questionnaire given to publishers** (see Chapter 7)

### **Process**

*Can you outline, briefly, your role in the process of bringing reference works into existence?*

### **Physical characteristics**

*What physical characteristics make up an encyclopaedia to you?*

*Can you think of any physical features which \*must\* be present for it to be an encyclopaedia?*

*Do you make a distinction between a dictionary and an encyclopaedia? If so, what?*

### **Qualities**

*Can you tell me what abstract qualities characterise a successful example of an encyclopaedia? I'd like your own thoughts first, although I have a list of possible examples.*

*Can you tell me a) how important you think the following characteristics are to a successful encyclopaedia and b) what you do as part of your role in its production to ensure it?*

*Please rank the following qualities 1-9. This information will form part of the quantitative analysis for the chapter, with the understanding that it is only an indicator.*

1. Reasons for existence : how the encyclopaedia justifies its reason for being written / published.
2. Authority: what provides reassurance to your readers that the information you provide comes from authoritative sources / knowledgeable experts
3. Accuracy: what provisions you put in place to ensure that information is accurate
4. Currency: how up to date it is
5. Comprehensivity: how complete it needs to be – subject coverage, length and detail of entries, date range etc
6. Quality : physical features such as layout, print quality, physical weight – as well as quality of writing which makes it readable and enjoyable
7. Extras: Illustrations / Bibliographies / Introductions
8. Accessibility: how easy it is to find the information from different access points
9. Electronic issues: what is enhanced by electronic access and how well the interface works as a means of accessing the content.



### **Appendix III: Questionnaire given to librarians**

#### **The encyclopaedia as a form of the book and information source: the Librarian's perspective**

**Return survey to: [encyclopaediaresearch@gmail.com](mailto:encyclopaediaresearch@gmail.com)**

This short survey aims to gather responses from professional librarians of all kinds regarding their use of reference works and, in particular, of encyclopaedias. I am looking for answers to the question: what is an encyclopaedia? what is made of, and what characterises a good example of it? What do you think about when selecting an encyclopaedia to buy or use?

The research primarily concerns print reference works, but I am interested in your thoughts even if you mainly purchase or use online reference tools (eg Britannica Online, CredoReference, ODNB). There are no incorrect answers and any opinions you have on the topic are of interest.

The research is part of the requirements for a PhD in the Department of Information Studies at UCL. All responses are anonymous and will only be seen by me. The information will be kept securely and will only be kept for as long as necessary to examine the research data and report on its findings.

If you have any queries, please contact me at [katharine.schopflin@gmail.com](mailto:katharine.schopflin@gmail.com), or my supervisor, Vanda Broughton, at [v.broughton@ucl.ac.uk](mailto:v.broughton@ucl.ac.uk).

Before taking part in the survey, please make sure that you:

- have read and understood the above information about my research
- understand how you can contact me if you have any questions
- understand that your responses are anonymous and will be treated confidentially

Please return surveys to [encyclopaediaresearch@gmail.com](mailto:encyclopaediaresearch@gmail.com)

Thank you!

Katharine

### **Process**

*Can you outline, briefly, your relationship with encyclopaedias and other reference works?*

### **Physical characteristics**

*What physical characteristics make up an encyclopaedia to you? This applies to online encyclopaedias too – can you think of aspects to the online space in a web encyclopaedia which differ from other kinds of web page?*

*Can you think of any physical features which *\*must\** be present for it to be an encyclopaedia?*

*Do you make a distinction between a dictionary and an encyclopaedia? If so, what?*

### **Qualities**

*Can you tell me what abstract qualities characterise a successful example of an encyclopaedia? I'd like your own thoughts first, although I have a list of examples below.*

*Can you tell me how important you think the following characteristics are to a successful encyclopaedia?*

*Please rank the following qualities (drawn from analysing reviews of reference works) 1-9. This information will form part of the quantitative analysis for the chapter, with the understanding that it is only an indicator.*

1. Reasons for existence : The purpose of the encyclopaedia is clear and/or it is a useful addition to current provision.
2. Authority: the information it contains comes from authoritative sources / knowledgeable experts
3. Accuracy: the information appears to be accurate
4. Currency: it appears to be up to date as appropriate to the topic
5. Comprehensivity: The subject coverage, length and detail of entries and date range seem adequate for the topic
6. Quality : it is well laid out, with good print quality / use of graphic design, physical weight if appropriate and/or the quality of writing makes it readable and enjoyable
7. Extras: It has sufficient and useful illustrations, bibliographies, introductions etc
8. Accessibility: it is easy to find the information from different access points
9. Electronic issues: the searching options enhance access to the information and the interface is clear and usable

**Appendix IV: Librarians' encyclopaedia use:  
survey results (see Chapter 7)**

**Appendix V: End-users' encyclopaedia use:  
survey results (see Chapter 7)**

## **Appendix VI: Initial grouping of survey results for end-users**

**Popular functions (end-users)**

Accuracy	Easy to read	Authoritative	Brevity	Comprehensiveness	Detail	Concise	Unlimited topics
Accuracy	Readable	Reliable	Succinct	Thorough	Detailed information	Concise	All-encompassing knowledge
Accuracy	Readability	Trustworthy source	Succinct	Completeness	Lots and lots of info	Conciseness	Varied information
Correctness	Plain language	Trustworthy	Not too lengthy	Comprehensiveness	Depth of information	Preciseness	Breadth of topics
Accuracy	Simple, to the point explanations	Truthfulness	Succinct	Thoroughness	In-depth	Concise	Vast information of many things
Accuracy	Clarity of style	Truthfulness	Brevity	Maximum amount of information	Depth of coverage	Conciseness	Broad range of coverage
Accuracy	Clarity	Reliable	Short	Thoroughness	Depth of information		
Accuracy	Clear writing	Written by an authority	Brevity				
Accuracy	Clarity	Trustworthiness					
Accuracy	Clear explanations	Reliability					
Accurate information Accuracy	Clarity	Authority					

**Less popular functions (end-users)**

Ease of access	Pictures	Suggestions for further study	Unbiased content	Cross referencing	Knowledge	Overview	Informative	Ability to change entry over time and record the changes	Scientific
Ease of use	Diagrams	Links to non-encyclopedia texts	Neutrality	Links to other entries	True knowledge	Big picture perspective	Informativeness	Being like wiki	Scientific grounding
Open / clear structure	Images	Starting point for further exploration							

**Others**

Organization

Examples

Ability to highlight Contest over meanings

Historical context

Impressive articles and entries

Well-researched

Provides basic knowledge to understand an idea or concept

Comprehensive index

**Popular physical features (end-users)**

Index	Well-bound	Alphabetized	Fat book	Pictures	Important publications	Brief	Vast range of knowledge	Contents page
Index	Classic binding	Alphabetical listing	Large book	Illustrations	References to more detailed sources	Brief	Wide coverage	Contents
Easy-to-use	Properly bound	Alphabetised	Large	Images	References / bibliography	Summary of information	Range of topics	Content page
Index								
Indices	Strong binding	Alphabetical	Large	Images	Where to go for more info	basic info	All types (of knowledge)	Contents page
An index	Hardbound	Alphabetical	Large	Pictures / tables	references	The essentials	Wide range	
Index	Hardback	Alphabetical order	Big	Pictures / diagrams	Footnotes giving Source			
Index	Hardbound	Alphabetical	Large	Illustrations				
Index	Hardback	Alphabetical	Large book	Colour pages of photos / maps				



**Less popular physical features (end-users)**

**Three mentions:**

Relevant information	Ease of access	Well organised	References to related entries	Comprehensive	Several volumes
Information	Easy to access	To be ordered logically	Cross referencing	All aspects	One or many volumes
Information	Ease of use	Systematic structure	Synonyms referring users to entries	About everything	To be composed of several books

**Two mentions:**

First stop shop	Clear	Distinct categories	Thin paper	Descriptive information	Articles or entries	Able to be held in two hands	High quality paper	Coding down the edge of pages (visible when closed)	How to use it	Online
Introductory	Clarity in content	Clear titles	Thin pages	Facts	Short entry format	Handlable	High quality pages	Marked pages between sections	How it was made	Be on the fucken web!

**Others**

- Citations
- Directions to locations
- Wide pages
- Columns of information
- From a particular branch of knowledge
- Balanced
- In-depth
- Overviews
- Anything to make things clear
- Cloth placemaker
- Page numbers
- Synopses for each section
- Detailed entries
- Emphasis on text
- Small print