

This item was submitted to [Loughborough's Research Repository](#) by the author.
Items in Figshare are protected by copyright, with all rights reserved, unless otherwise indicated.

The indexing of local newspapers and the development of a computer index on FileMaker Pro

PLEASE CITE THE PUBLISHED VERSION

PUBLISHER

Loughborough University of Technology

LICENCE

CC BY-NC 4.0

REPOSITORY RECORD

Shakespeare, Katharine. 2021. "The Indexing of Local Newspapers and the Development of a Computer Index on Filemaker Pro". Loughborough University. <https://doi.org/10.26174/thesis.lboro.13910177.v1>.

The indexing of local newspapers
and the development of a computer
index on FileMaker Pro.

by .

Katharine Shakespeare

A Master's Dissertation,
submitted in partial fulfilment of the requirements
for the award of the
Master of Arts degree
of the Loughborough University of Technology.

September 1993

Supervisors: D. Dixon, B.A., M.Phil., Dip.Lib., A.L.A.
A. Morris, B.Sc.(Hons.), M.Sc., P.G.C.E.
Department of Library and Information
Studies

© K Shakespeare, 1993

ACKNOWLEDGEMENTS

This project could not have been undertaken without assistance from a number of people, and grateful thanks are due to the following:

- * my supervisors, Diana Dixon and Anne Morris, for their help and encouragement during the project;
- * the former editor of the Leicester Mercury, Alex Leys, for allowing me to consult his staff;
- * the librarian at the Leicester Mercury, Steve England, who was extremely generous with his time, a precious commodity in a newspaper library, and happy to share his years of experience with a relative newcomer to the business;
- * Aubrey Stevenson, the local studies librarian at the Leicestershire Record Office, who proved insightful to the needs of his users;
- * Paul Garratt and Stewart Sands from the I.T. department of the Leicester Mercury, for their help with user evaluation;
- * Goff Sargent at the Department of Library and Information Studies, for his help and advice.

TABLE OF CONTENTS

| <u>CHAPTER</u> | | <u>PAGE</u> |
|--------------------|---|-------------|
| Acknowledgements | | i |
| Table of Contents | | ii |
| List of Appendices | | vii |
| List of Figures | | viii |
| Abstract | | ix |
| 1 | The newspaper as a source of information | 1 |
| 1.1 | Introduction | 1 |
| 1.2 | The value of news as a source of information | 1 |
| 1.2.1 | Problems inherent in news information | 3 |
| 1.3 | Needs of the various users of news information | 4 |
| 1.3.1 | Information requirements of Local Studies | 4 |
| 1.3.2 | Information requirements of news libraries | 5 |
| 1.4 | Information retrieval in news | |

| | | |
|-------|---|----|
| | libraries | 5 |
| 1.5 | News libraries and Local Studies | |
| | libraries | 9 |
| 1.6 | Conclusion | 10 |
| | References | 11 |
| 2 | The <u>Leicester Mercury</u> | 13 |
| 2.1 | Introduction | 13 |
| 2.2 | The Leicestershire Collection | 14 |
| 2.2.1 | Introduction | 14 |
| 2.2.2 | Newspaper holdings | 15 |
| 2.2.3 | Indexing the newspaper | 15 |
| 2.2.4 | Maintaining the index | 17 |
| 2.2.5 | Problems relating to the index | 18 |
| 2.2.6 | Conclusion | 19 |
| 2.3 | The <u>Leicester Mercury</u> library | 20 |
| 2.3.1 | Introduction | 20 |
| 2.3.2 | Newspaper holdings | 20 |
| 2.3.3 | Indexing the newspaper | 21 |
| 2.3.4 | Maintaining the index | 23 |
| 2.3.5 | Problems relating to the index | 24 |
| 2.3.6 | Conclusion | 27 |
| | References | 28 |
| 3 | Indexing newspapers : a review | 29 |
| 3.1 | Introduction | 29 |
| 3.2 | Local news indexing | 30 |

| | | |
|---------|---|----|
| 3.3 | Local indexing projects | 32 |
| 3.4 | Conclusion | 36 |
| | References | 38 |
| 4 | What to index and not to index | 40 |
| 4.1 | Introduction | 40 |
| 4.2 | Decisions to be made before indexing | 41 |
| 4.2.2 | Verify the audience | 41 |
| 4.2.3 | Verify the scope of the index | 42 |
| 4.2.4 | Other decisions to be reached | 43 |
| 4.2.4.1 | The bibliographic unit | 44 |
| 4.2.4.2 | The language of news | 44 |
| 4.2.4.3 | Multiple subject headings | 47 |
| 4.2.4.4 | The printed newspaper | 48 |
| 4.2.4.5 | Errors and corrections | 49 |
| 4.2.5 | Conclusion | 49 |
| | References | 51 |
| 5 | Provision of the index : some alternatives | 52 |
| 5.1 | Introduction | 52 |
| 5.2 | Cost, time, skills and resources | 52 |
| 5.3 | Alternatives | 55 |
| 5.3.1 | Card index | 55 |
| 5.3.2 | WORM optical disk | 56 |
| 5.3.3 | Computer-assisted indexing | 57 |
| 5.4 | Conclusion | 61 |

| | | |
|-------|---|----|
| | References | 63 |
| 6 | Indexing the <u>Leicester Mercury</u> : a pilot study | 65 |
| 6.1 | Introduction | 65 |
| 6.2 | Audience for the index | 65 |
| 6.3 | Scope of the index | 66 |
| 6.4 | Indexing decisions | 69 |
| 6.4.1 | People | 69 |
| 6.4.2 | Subject headings | 69 |
| 6.4.3 | The bibliographic unit | 69 |
| 6.4.4 | Pagination | 70 |
| 6.4.5 | Edition | 71 |
| 6.4.6 | Supplements | 71 |
| 6.4.7 | Photographs | 72 |
| 6.4.8 | Author | 72 |
| 6.4.9 | Inaccuracies | 73 |
| 6.5 | Provision of the index | 73 |
| 6.5.1 | FileMaker Pro | 74 |
| 6.6 | Indexing the <u>Leicester Mercury</u> | 76 |
| 6.7 | Conclusion | 78 |
| | References | 79 |
| 7 | Designing and using the MERCURY INDEX | 80 |
| 7.1 | Introduction | 80 |
| 7.2 | Designing the index | 80 |
| 7.2.1 | Defining fields | 80 |

| | | |
|-------|--|-----|
| 7.2.2 | Layout of the screen | 84 |
| 7.3 | Entering information | 87 |
| 7.4 | Finding information | 87 |
| 7.5 | Printing information | 87 |
| 7.6 | Conclusion | 90 |
| | References | 91 |
| 8 | User evaluation | 92 |
| 8.1 | Introduction | 92 |
| 8.2 | User evaluation at the <u>Mercury</u> library | 92 |
| 8.2.1 | Results | 93 |
| 8.2.2 | Conclusion | 94 |
| 8.3 | Further evaluation | 95 |
| 8.3.1 | Results | 95 |
| 8.3.2 | Conclusion | 98 |
| 9 | Recommendations | 99 |
| 9.1 | Thesaurus availability | 99 |
| 9.2 | To print or not to print | 100 |
| 9.3 | Adoption of the index by the <u>Leicester Mercury</u> library | 101 |
| 9.4 | Use of the MERCURY INDEX in other libraries | 102 |
| | Bibliography | 126 |

LIST OF APPENDICES

| | <u>PAGE</u> |
|--|-------------|
| 1. Data entry conventions for the MERCURY INDEX database | 103 |
| 2. Instructions for the compiler of MERCURY INDEX | 105 |
| 3. Instructions for finding data in MERCURY INDEX | 113 |
| 4. User evaluation questionnaire | 120 |
| 5. Responses to the user evaluation questionnaire | 125 |

LIST OF FIGURES

| | <u>PAGE</u> |
|---|-------------|
| 1. Screen layout of the MERCURY INDEX for entering and finding data | 85 |
| 2. Screen layout of the MERCURY INDEX for subject headings list | 89 |
| 3. Screen layout of the MERCURY INDEX for personal names list | 89 |

ABSTRACT

Having worked in a newspaper library, the author is aware that a good press cuttings library is a very effective means of retrieving information, but creates problems of space and security and takes a good deal of staff time to maintain. In addition, potential users of newspaper information are frequently denied access to this resource.

The aims of this project, therefore, were:

- * to examine the value of newspapers as a source of information, and the problems inherent in both press cuttings and indexes as a method of retrieval;
- * to review the practice of newspaper indexing to date and to review the problems and suggestions that have resulted from previous projects;
- * to examine the Leicester Mercury, its library and the use made by the Leicestershire Record Office of the paper as a source of information;
- * to suggest alternatives to providing that information;
- * to provide an example of the index that could be created by computer, chosen for reasons of speed, space and security.

These aims were met, and an electronic resource created.

CHAPTER ONE

THE NEWSPAPER AS A SOURCE OF INFORMATION

1.1 INTRODUCTION

Newspapers have a venerable history, stretching back to the early years of the 17th century, although news pamphlets and manuscript newsletters existed even earlier (1). By 1776, there were 53 London newspapers (the provincial press imitated the London papers, which were pirated freely) and the press in the provinces only came into its own in the 1850s as a truly provincial press, by which time there were 200 newspapers in the British Isles (2). Almost as long as newspapers have been available, there have been attempts to provide access to the information contained within, both for reference and research purposes, by the newspaper itself and by 'outside' users.

This project entails an examination of the problems and practicalities of providing that information, together with an experiment in creating an index to a local newspaper on computer.

1.2 THE VALUE OF NEWS AS A SOURCE OF INFORMATION

The newspaper is ephemeral, designed to be read and then discarded. It is also a valuable source of information. Zeskey quotes Clarence S. Brigham, in his Bibliography of

American Newspapers, 1690 - 1820

If all the printed sources of history for a certain century or decade had to be destroyed save one, that which could be chosen with the greatest value to posterity would be a file of an important newspaper. (3)

A newspaper provides a key to contemporary opinion and events, allowing us "to study the past, and to develop a stimulating acquaintance with the flesh and blood of history which cannot, because of its sheer volume, be included in the history books" (4). It is particularly important in the case of local news. Information on national events may be available from sources other than national newspapers, but local newspapers are a key to unique facts about an area. They are often inaccessible. Stephen Green, formerly of the British Library Newspaper Library at Colindale, reports that, despite the availability of abstracts, indexes and computer databases to aid the researcher, "users of newspaper collections are plaintive and frustrated by the lack of suitable published indexes to most newspapers" (5) and the task of research, wading through sequential files of hard copy or straining to read microfilm, means that the information held in old newspaper files is rarely used to its fullest extent.

The Newspaper Library keeps a master list of indexes to local newspapers, and it is obvious by the number it has recorded, about 1,000 (6), that many local librarians,

historians and researchers have realised the value of an index to their local newspapers and have attempted to create one. Some are in printed form, but the majority are in card form or held in cuttings files: Westmancoat notes that cuttings files seem to be favoured by many librarians, being "easier to handle" and being indexed fairly quickly, especially as an element of self-indexing is introduced by the storage of cuttings in files (7).

Newspaper indexes "advance the course of local history", although local studies librarians may regard them as a mixed blessing: an index increases use of a file, but accelerates its destruction (8). Microfilming is the answer. Sometimes the situation is so bad that the only copy of a file in existence is held at Colindale. Such was the case at the Leicestershire Record Office, where loss of hard copy files meant buying back-runs of microfilms for the local papers (9).

1.2.1 PROBLEMS INHERENT IN NEWS INFORMATION

Newspapers reflect the world in which they exist and therefore make the fullest possible use of jargon, up-to-date slang and 'journalese'. This may make them comprehensive to the audience to which they are directed, but does not aid the classification of that news. The temptation must be to create a new heading or file for a new subject (for example, 'joy riding'), which is very

useful in the immediate future, but the term's currency soon wanes and the file or reference may become 'lost'. Difficult decisions therefore must be made when 'marking up' or indexing the paper: how to balance current needs with future needs, and how to direct the researcher to the term chosen.

A second problem lies in deciding what ought to be indexed. The indexer must be guided by the needs of the organization for which the indexing is being done. But how can the indexer know what will be required in the future? Or that a particular aspect of a story, not previously indexed, will suddenly become the most important part of the story? The choice is often simply down to 'feel' or the indexer's experience.

1.3 NEEDS OF THE VARIOUS USERS OF NEWS INFORMATION

Local studies librarians and social and political historians have accepted the value of news information. Their needs, however, may be very different from the other users that require access to the news, the newspaper itself.

1.3.1 INFORMATION REQUIREMENTS OF LOCAL STUDIES

Ideally, absolutely everything should be indexed, for how is the indexer to know what will be of interest in 20, or 50, or 100 years time? In practice, local studies

indexers will probably not index national and international news (10,11), as that can be retrieved through sources such as The Times Index or Keesing's. Names and places feature prominently in local newspapers and it may be that the 'births, marriages and deaths' notices are what today's family history societies primarily want (12,13). Information will be indexed selectively, depending on what the indexer or group of indexers perceive as the needs of future historians.

1.3.2 INFORMATION REQUIREMENTS OF NEWS LIBRARIES

The newspaper library has to achieve many things. According to Whatmore, the news library staff must be able to locate a specific fact or statement and must provide background on any topic, and be up-to-date, and react to changing aspects of the news, and be aware of new angles to old stories and, whilst doing all this, not clutter up the files with irrelevant materials (14).

1.4 INFORMATION RETRIEVAL IN NEWS LIBRARIES

Bearing in mind the needs of journalists for quick access to information, newspaper library staff have tended to provide access to information in the form of press cuttings. Although the newspaper may also create an index, this function is carried out separately from the indexing and filing of cuttings (e.g at The Times, or The New York Times (15,16)). Press cuttings are an excellent

way of providing access to information. They are in a form and language immediately usable by the journalist (some might say recyclable!). It is easy to make multiple copies of a story and journalists can take a cutting file to court or to the council chamber.

Nevertheless, there are great problems with press cuttings too. Their very portability is dangerous, for portable means losable. Even if the file comes back to the library, there is no way of telling whether one particular cutting has been abandoned on the journalist's desk or dropped behind the photocopier...until it is too late. All that paper is very bulky: cuttings files devour space, and it is the lucky news library that has space in which to store its archive files. With so much pressure on space, cuttings are weeded fairly often.

This is not to say that indexes are the answer to all the library's problems. One benefit is that there is no need for file after file of paper; as the newspaper (or public library for that matter) keeps back-runs of the paper in hard copy or microfilm anyway, an index to that file will take up less space than the cuttings. The index and the file of the newspaper are non-portable, so there ought to be no mysteriously disappearing cuttings (although certain destructive journalists have been known to tear out the required article from the paper). Photocopiers

should aid those who need to walk away with a copy of the article. Indexes are limited to a certain number of subject headings, but this is a problem that besets cuttings files too. Indexes are excellent for tracking down a specific story, but not so good if the journalist requires a general overview of the subject, which would require frequent consultation of the index. A further problem arises in how to separate one particular planning or council politics story from another within the space allowed the indexer, and thereby aid the researcher find exactly the story s/he requires.

Whatmore believes that, although journalists may prefer cuttings to indexes (because they are portable and can be spread over the desk for quick reference), there will be a trend back towards indexing, which is how many news libraries began, particularly as the general availability of photocopiers and the influence of the computer favours indexing over pre-classification (17). As Steven Torrington of the Wolverhampton Express and Star explains, the 'electronic library' indexes everything, so there are an infinite variety of ways of retrieving a particular story (18). The library system at the Express and Star takes records already keyed in by editorial staff and controlled subject headings or keywords are added, solving the problem of lost cuttings and meeting the need for speed. Problems arise, however, when a very

general enquiry is made.

Most of the newspapers which are automating their cuttings files are doing so through the development of full-text databases, although some methods involve microfilming or microfiche linked to a computer index (19), which involves a certain amount of handling and then indexing. However, the provision of full-text archives is only really feasible with the in-house newspaper and the library that does not wish to cut and file other sources will need to access other files from other newspapers (20). Some media librarians have argued that a paperless newspaper library is not a realistic alternative at the moment. The Today staff point out that computerized databases are frequently 'down' just before crucial deadlines and that many useful sources are not yet online (21). This is particularly true of local newspapers, for which cuttings may be the only source of information on the local area. Ralph Gee, former chief librarian of the Nottingham Evening Post, believes that cuttings "are not dispensable without giant strides in microfilm technology" (22), for what staff require are not sophisticated methods of storage and retrieval but the ability to reproduce a cutting to the quality of the original. Gee offers several reasons why the cutting will keep its place in a local newspaper library: for reasons of comparison between one year and the next; for

reasons of 'egotism', for copies to go to local personalities or journalistic prizes; to compile campaign dossiers; for 'rag-outs' to illustrate follow-up stories; for legal protection, as some material may not be kept on computer files due to the Data Protection Act, or a spent conviction, or libel; for resale to local television companies that want to screen text; and, finally, for expediency and the economic restraints on handling computer text (23).

So it would appear that the traditional methods of indexing the news in newspaper libraries will remain for some time to come, and none more so than in local newspapers. Notwithstanding the examples of the Northern Echo and the Express and Star, 'small' newspaper libraries look likely to remain, in the words of a study into similar 'morgues' in the United States, "the libraries that time (and automation) passed by" (24).

1.5 NEWS LIBRARIES AND LOCAL STUDIES LIBRARIES

The needs of a news library and the needs of a local studies library are, to a large extent, irreconcilable. News libraries contain current and diverse information; their emphasis is on serving the editorial staff, at speed. Although they may be used for archival purposes, news is ephemeral, quickly superseded. The greatest number of subject enquiries relate to events that have

occurred within the last few weeks or possibly months. Whatmore describes how, in one large collection, there was evidence that only 2% of enquiries were for material more than one year old and that, after this time (within a period of time dependent on the subject), news topics were largely ignored (25).

From personal experience of a news library, there are always going to be enquiries from editorial staff and from the public about the history of a village or a building or an event: is the newspaper library the most suitable service to provide that information? Press cuttings libraries have great problems of storage space and the only solution may be the wholesale dumping of files that no longer serve the news function. Valuable though these may be as a historical source, public libraries may not have the staff or the space to take them on and so the information is lost.

1.6 CONCLUSION

Having examined in general terms the differences in the information needs from newspaper sources of the news library and the local library, the next chapter will examine a particular example. The local newspaper studied is the Leicester Mercury.

CHAPTER ONE : REFERENCES

1. Westmancoat, K J. Newspapers, 1985, p. 17.
2. Ibid., pp. 24-25.
3. Zeskey, R H. Newspapers on microfilm: history as it was happening (and indexes to help you find your way). Serials Librarian, 1986, 4(4), 393-394.
4. Westmancoat, ref. 1, p. 6.
5. Green, S. The British Library Newspaper Library in a new era. Journal of Newspaper and Periodical History, 1984, 1(1), 4.
6. Tait, F. News and current events. In: P W. Lea & A. Day, eds. Printed reference material and related sources of information, 3rd ed., 1990, pp. 136-158.
7. British Library Newspaper Library Newsletter, 1981, 3, 3.
8. Westmancoat, K J. Survey of indexes to local newspapers in public libraries and record offices in the United Kingdom and Eire. British Library Newspaper Library Newsletter, 1987, 8, 6-7.
9. Interview with Aubrey Stevenson, Leicestershire Record Office, Wigston Magna, Leicester, 14 May 1993.
10. Watthews, E. The Ipswich Journal index. British Library Newspaper Library Newsletter, 1987, 8, 9-10.
11. Interview with Aubrey Stevenson, ref. 9.
12. Walker, A. Creating a newspaper index: microcomputers to the rescue!. Wilson Library Bulletin, 1986, 61(2), 26.
13. Interview with Aubrey Stevenson, ref.9.
14. Whatmore, G. The modern news library, 1978, pp. 135-136.
15. James, B. Indexing The Times. The Indexer, 1979, 11(4), 209-211.
16. Zeskey, ref. 3, 393-399.
17. Whatmore, ref. 14, pp. 135-136.
18. Torrington, S. Computers and local newspaper

indexing: experience of the publisher/indexer.
British Library Newspaper Library Newsletter,
1987, 8, 12-13.

19. Nicholas, D. & K. Connolly. Information technology developments in the newspaper industry and the future of the librarian. Library Association Record, 1987, 89(10), 530.
20. Ibid.
21. Letters. Library Association Record, 1987, 89(12), 636.
22. Ibid., 640.
23. Ibid.
24. Hegg, J L. Small newspaper libraries: the libraries that time (and automation) passed by. Special Libraries, 1991, Fall, 274.
25. Whatmore, ref. 14, p. 10.

CHAPTER TWO

THE LEICESTER MERCURY

2.1 INTRODUCTION

The Leicester Daily Mercury was the city's first evening newspaper, the first edition appearing on 31 January 1874 (1). It became the Leicester Mercury in January 1919.

Founded by James Thompson, it was bought by Francis Hewitt in 1887 and remained in the Hewitt family for three generations; control of the various Hewitt papers went to Associated Newspapers Ltd in 1954 and the Mercury is now part of the Northcliffe Newspapers Group (2).

This is the provincial newspaper section of the Daily Mail & General Trust plc (owner of the Daily Mail, the Mail on Sunday and the Evening Standard) (3). When founded, the Mercury backed the Liberal cause, retaining this allegiance through the sale to Hewitt until 1924, when it became politically independent (4).

To the chagrin of the future indexer, the Leicester Mercury has 10 editions a day (except Saturday). There are six district editions covering the major county towns (Loughborough, Harborough, Melton, Hinckley, Coalville/North-West Leicestershire and Nuneaton) in addition to the four Leicester editions that appear throughout the day. Over 25 per cent of Leicester's population are Asian - one of the highest percentages in any European

city (5). In November 1989 began the innovative five-day-a-week Asia edition, published in English, which includes news and features of the Indian sub-continent, the United Kingdom and Leicestershire. Only one of these multiple editions has been preserved from 1874 to 1982; since April 1982 all the editions have been microfilmed (as well as all the Mercury's weekly titles) (6).

It was decided to examine two organizations that make use of the newspaper: the library of the Leicester Mercury itself; and the Leicestershire Collection. The librarians were interviewed and most of the information in the following sections comes from those interviews (7). It was decided to examine the current access to newspaper information and who made use of that information, then to examine future needs and expectations, with particular reference to the indexing of the newspaper.

2.2 THE LEICESTERSHIRE COLLECTION

2.2.1 INTRODUCTION

The Leicestershire Collection shares the same building as the County Record Office and local archives. Previously sited at Bishop's Gate, Leicester, in the Reference Library, its move to Wigston Magna in 1993 helped to relieve the pressure on space reported by Ruth Gordon in

her Newsplan survey (8). The old school in which the collection is housed has been expanded to include a large document store.

2.2.2 NEWSPAPER HOLDINGS

This site holds files of local newspapers, either hard copy or on microfilm. The Leicestershire Collection keeps a complete run of the Leicester Mercury from 1874 onwards on microfilm, but the newspaper is also bound. Many other newspapers are held in the collection, details of which may be found in Gordon's report (9). Many of these newspapers are free papers. Even if these are regarded as "all advertising and rubbish" (10), this may not always be the case, and Gordon reiterates that, "even if the slur is accurate...it is a great loss if the formative years of a newspaper have not been kept so its growth to quality can never be studied and proven" (11). These free newspapers must therefore be considered when decisions about preservation and access are made.

In addition to its newspaper files, the Leicestershire Collection also maintains a press cuttings file: included in this are articles from the national press and local papers that are not kept by the library.

2.2.3 INDEXING THE NEWSPAPERS

There is a card index which provides access to some of

the newspapers and press cuttings held in the collection. The index is not solely to the newspapers, but also includes references to articles in periodicals and books relating to Leicestershire.

The index has not been systematically maintained. It was not until the 1960s that a librarian specifically for the local studies collection was employed. Up to and including that time, records were kept 'retrospectively'; i.e. after an item had been recovered from the newspaper (by a member of staff in answer to a query or by a member of the public engaged in research) and if the member of staff deemed it appropriate to make a record of that item. A systematic input is observable from the mid-1970s. Records are current and on-going; retrospective records are still made, by chance, if a member of staff or researcher notes something worth recording.

Retrospective indexing of local newspapers has, however, been provided by several volunteer projects. An Adult Education class has for the last 4/5 years been working on the now discontinued Leicester Chronicle and Leicester Journal; primarily indexing births, marriages and deaths, they have also indexed any "interesting" items they have come across under a subject heading. Other Adult Education projects have led to a selective indexing of

some of the library's holdings, dependent on what the group perceived as the needs of future historians.

2.2.4 MAINTAINING THE INDEX

Two members of staff index the newspapers; there are no guidelines to indexing practice, and the index is its own authority file. This is sufficient on a day-to-day basis, but the librarian admits that there are many inconsistencies that could be undone, particularly with changed ideas and approaches in later additions.

The index consists of one alphabetical sequence of names, places and subjects, with some cross references. When indexing, the subject heading assigned is as specific as possible, which reflects the audience to which the index is aimed.

The card index has more than doubled its size in 20 years, and this despite the lack of extensive cross references (which would lead many, many more cards). The librarian sees this as a reflection of several developments: the decision to do more systematic indexing of newspapers; the growth of references to periodical articles and community newspapers (local publications that have exploded in numbers over recent years); the growth of local information generally; the growth in demand for local studies information. This latter

increase has been reflected by the growth in other activities at the Record Office such as the work of the Family History Society, which indexes family records from parish records.

2.2.5 PROBLEMS RELATING TO THE INDEX

The librarian believes the index is useful, providing an added dimension to the work of the Record Office. The index's audience means that the indexing is selective; being a local studies collection most definitely changes the decisions regarding selection. The indexer's main problem lies in the anticipation of what people will need in the future. For example, the births, marriages and deaths small ads are not indexed, although that is exactly what the Adult Education projects have done in the past, from the Leicester Chronicle and the Leicester Journal. The librarian suspects that, in 50 years time, researchers will be cursing him for his lack of prescience and an Adult Education project will be set up to record the births, marriages and deaths section of the Leicester Mercury!

Lack of staff time has contributed to many of the problems encountered with the index. There is no time to retrospectively index the Mercury, nor to index everything that could possibly be considered useful in the future. Only one edition of the Mercury is indexed daily,

thereby denying access to much of the local news with which the local studies collection concerns itself: village news which may only appear in one of the County editions.

A primary requirement would be a more subject approach; not for immediate use but, in 20 years time, the librarian believes people will be searching for references under subject. This reflects his experience of researchers today, looking back 20 or 30 years. As yet, the index is incapable of meeting that need, concentrating as it does on people and places.

2.2.6 CONCLUSION

The Leicestershire Collection has only selectively indexed the Leicester Mercury and this indexing has proved a welcome addition to the work of the local studies library. Further indexing would be encouraged, although lack of staff time would no doubt prove a brake on the wholesale indexing of not only the Mercury, but also the wealth of information held in the numerous current and discontinued newspapers preserved by the library.

Ideally, further indexing would include:

- * retrospective indexing of the Leicester Mercury
- * more indexing of names

- * a more subject approach to indexing, to meet the needs of future users of the index
- * a system that would not use too much of the staff's valuable time.

2.3 THE LEICESTER MERCURY LIBRARY

2.3.1 INTRODUCTION

The function of the library at the Leicester Mercury is primarily to provide the reporters with background to current news stories, although it can also provide other media and businesses with information, at a price. It must always be borne in mind that the Leicester Mercury is a business, not a public service. For this reason, any casual enquiries from the public are directed towards the public reference library or the Record Office in the first instance.

2.3.2 NEWSPAPER HOLDINGS

The Mercury library holds a complete set of the newspaper, from 1874, on microfilm. From 1953 to March 1982, the main edition of the day only was filmed (the City PM edition, which appears at 2 pm); from April 1982, all editions of the paper were filmed (12), in the form of the City edition and any changed pages from the other editions. It is this microfilm that goes to the public library. Other than that, public access to the file is

not encouraged. According to the Newsplan report, the Mercury also holds copies (some complete, some not so) of other Leicestershire newspapers, including copies of F Hewitt & Son's weekly titles (13). These are not indexed, perhaps due to lack of staff time, perhaps due to the belief that the Mercury library does not serve an archival function, nor has it public access. Space is at a premium, and the library's older files are fairly inaccessible.

2.3.3 INDEXING THE NEWSPAPER

Reference to the back-run of the Mercury is provided by press cutting files. A complete alphabetical sequence would be far too unwieldy and there exist several separate sequences:

- * biographical - living, then dead
- * land and buildings - historical aspects of sites and buildings, some cuttings from c.1945 from the Advertiser
- * industry - files on commercial organizations, public houses, etc.
- * royalty - files on individual members of the Royal family, plus events in Leicestershire.
- * "Asian" edition material is held separately, e.g. Indian film and pop stars.
- * subject files - this is the largest sequence, but is still not entirely encyclopaedic. Specialised

subjects are first:

- COUNTY AUTHORITY (policy, resources etc.)
- LEICESTER CITY COUNCIL
- LOCAL GOVERNMENT (by individual council)
- ACCIDENTS
- FIRE
- POLICE
- "MERCURY" file (including "Opinion" column)
- CRIME
- COMMON MARKET, MEPs and MPs

all of which are subdivided by, for example, type of crime or by council committee. Then comes the A - Z file of subjects, although there is some subject grouping to aid the user e.g. SCHOOLS, AGRICULTURE, MEDICAL, HOSPITALS, which are then subdivided alphabetically. The subject files aim to be as specific as possible, even within the subject grouping.

The Mercury library is also responsible for the filing of photographs for the newspaper, both those used in the paper and those not used but kept for future reference, and the filing cabinets holding these files form several other sequences, matching, to a certain extent, those subdivisions for the cuttings files, plus a large sequence for pop stars, film stars etc.

The library employs two full-time members of staff (including the librarian) and three part-time members of staff. To maintain consistency of assigning subject headings, there is an excellent subject headings list, which is very detailed and contains liberal cross

references in an attempt to lead the non-library staff user to the file they require. There are always going to be times when there are no staff available to consult and the system needs to be easy enough for a journalist to find what s/he is after. There are also frequent "see also" references, should a reporter go to a file and find what s/he thinks s/he is looking for, unaware that there is a richer source of information in another file. The other way to maintain consistency is frequent consultation amongst the library staff as to which subject heading to assign to a particular story.

2.3.4 MAINTAINING THE INDEX

The first edition of the day appears at 11 a.m. and this is the edition initially indexed. Throughout the day, the indexer of this edition must keep close watch of the nine subsequent editions to spot any changes to the text as well as indexing the County pages that appear in every County edition. The indexer does not mark on the cutting from which edition the cutting was taken.

The member of staff goes through the paper, assigning subject headings to each item. There is no limit to the number of subject headings that can be assigned to each news item. Most items cannot be assigned just one subject heading: for example, crimes need to be filed under the crime itself in addition to the defendant and,

in the case of murder or manslaughter, the victim too; road accidents are placed under ACCIDENTS as well as the road on which it occurred (especially if a fatal accident).

Cuttings are added to each file on consecutively numbered pieces of paper, so several two- or three-paragraph items will appear on one sheet even though they did not appear on the same day. Each story is date-stamped. There is a large volume of information to be stored: the librarian believes that 95% of the newspaper's content is indexed, which he estimates at about 2 000 items a week. ✓

2.3.5 PROBLEMS RELATING TO THE INDEX

There is always a problem with space in a press cuttings library: filing cabinets at the Mercury library are full, with some previous files slotted alongside the main alphabetical sequence and secondary files and boxes of photographs stored on top of filing cabinets. A tidy sequence could only really be maintained by removing many of the files to secondary storage, but that would mean reduced access.

Freedom of access has, however, led to an insurmountable problem: that of disappearing items. The librarian tried and abandoned a signing-out book in an attempt to keep tabs on who had what file; this did nothing to stop or

slow down the loss of cuttings and even whole files. All he feels able to do is shrug his shoulders when someone complains and point out that one of the complainant's colleagues was probably responsible: experience suggests that it is rarely due to library staff mis-filing that files disappear. Then the library staff must try to find a copy of the missing item in another file, under another subject heading.

The sheer volume of material that the library has to contain has meant that a single sequence of direct headings cannot be maintained. What has developed is an arrangement of direct main headings, with subdivisions when deemed appropriate. To a certain extent, this follows the principles laid down by Whatmore, that all material should be filed direct unless "a clear gain arises from associating it with something else" (for example, putting all medical or education items in one sequence), and that headings should be subdivided to one stage only (with any subdivision requiring further subdivision being altered to a direct heading) (14). Use of subdivisions, whilst solving the problem of a group of subjects being 'spread' throughout the files, creates problems too. The complexity of news topics means that the librarian cannot afford to be inflexible, and may be forced to subdivide twice, (for example, CHURCH - LEICESTER DIOCESE - DIOCESAN BOARD OF EDUCATION or

MEDICAL - CANCER - CERVICAL CANCER). Not only can this be a little clumsy, it can also hinder the user of the file unless there are plenty of 'see' and 'see also' references in the files, or, at least, in the subject headings list. This takes time to maintain and patience to explain: a librarian's logic may not coincide with that of a journalist!

However, future developments could affect this significantly. Computerization of the library is inevitable, believes the librarian, although not yet planned. This could involve full-text scanning, or the library staff adding indexing terms to text, transferred from the newsdesk to the library. Will the staff maintain the strict headings and subdivisions, or will the move be towards use of natural language? If the latter is the case, this will only serve to further complicate the search process for the user and require two indexing systems existing side-by-side.

A further problem for the future indexer to consider is that of acceptability to the index's users. The librarian was asked whether an index would be used by the journalists, in preference to a press cutting file: on reflection, he felt that the younger journalists would probably cope quite well, although the older ones preferred to be surrounded by cuttings for reference.

This is borne out by other newspaper libraries, which have managed without press cuttings as new technology has 'reared its ugly head'.

2.3.6 CONCLUSION

The Leicester Mercury library primarily serves the needs of the journalists working in the organization. Thus the newspaper itself is heavily indexed; lack of staff time has meant that the sister newspapers of the Mercury, the weekly freesheets, are not. The library suffers many of the problems associated with press cuttings libraries: the shortage of space, the loss of items, the concentration of staff time on indexing and filing hard copy; plus the problem of future developments that may alter fundamentally the way what is a highly successful method of information retrieval works.

A future index to the Mercury should:

- * solve the problem of space and theft
- * use the information already held on computer
- * attempt to solve the problem of current language in a manner that is both logical and user-friendly
- * be easy for the library staff and the journalists to use.

CHAPTER TWO : REFERENCES

1. Griffiths, D. Encyclopedia of the British press 1422 - 1992, 1992, p. 367.
2. Ibid.
3. Willing's press guide, 1993.
4. Griffiths, ref. 1, p. 367.
5. Ibid.
6. Gordon, R. Newsplan: report of the Newsplan project in the East Midlands, April 1987 - July 1988, 1989, p. 175.
7. Interviews with Aubrey Stevenson, Leicestershire Record Office, Wigston Magna, Leicester, 14 May 1993, and with Steve England, Leicester Mercury library, Leicester, 22 April 1993.
8. Gordon, ref. 6, p. 15.
9. Ibid., pp. 161 - 194.
10. Ibid., p. 33.
11. Ibid., pp. 33-34.
12. Gordon, ref. 6, p. 176.
13. Patterson, A Temple. Radical Leicester: a history of Leicester 1780-1850, 1954, p. 230.
14. Whatmore, G. The modern news library, 1978, p. 66.

CHAPTER THREE ✓

INDEXING NEWSPAPERS : A REVIEW

3.1 INTRODUCTION

Indexes have a long history. From 1790-1941, Palmer's index to the Times newspaper was available and this has been retrospectively taken back to 1785, covering the newspaper's predecessor, The Daily Universal Companion, from 1785-1787 (1). In Manchester, The Guardian was indexed into heavy leather-bound volumes from the early 19th century to 1928, when a card index was begun (2). Nevertheless, The Times index has had to be used as a resource in its own right, as a guide to trace items in other national and regional publications (3), in the absence of coverage of these in the past. These days, several other national newspapers are indexed: The Times index now includes The Sunday Times (1973 -), The Times Higher Education Supplement (1973 -), The Times Educational Supplement (1973 -) and The Times Literary Supplement (1902 -); The Independent and The Independent on Sunday are covered in The Independent official index (1992 -) and The Financial Times by The official index to the Financial Times (1981 -) (4). The Guardian index covers 1986 onwards and the Clover newspaper index (Biggleswade, 1986 -) indexes the major national and Sunday newspapers. The British Humanities index (previously the Subject index to periodicals) covers the

broadsheets indicated above in addition to The Observer but these are only indexed selectively from 1962 (5). A different type of news may be traced through Keesing's Record of World Events, formerly Keesing's Contemporary Archives. This was established in July 1931, and is preceded by a synopsis of important events from 1918 to June 1931 (6). However, it is of only limited use to a researcher tracing British news.

3.2 LOCAL NEWS INDEXING

There has been an improvement in the coverage of national news over the last ten years, no doubt a reflection of a perceived need for indexes. Local news, however, is very poorly covered. The Glasgow Herald has been indexed from 1906-1968 (recently updated to 1987) and is one of the rare published indexes for local news (7).

Public libraries may keep The Times and its index, and back issues of their local paper. Using The Times index might be adequate to ascertain local reaction to national events, but a wealth of local information remains untapped to all but the hardy researcher with extreme powers of concentration. As Milstead remarks, there "is no other kind of material for which it has been seriously stated for many years that the index of one publication could serve, even if inadequately, as an index for all other publications of that genre"(8).

No doubt under pressure from frustrated researchers and local historians, many local librarians have begun indexes to their local newspapers. The British Library Newspaper Library have records of about 1000 (9).

However, according to Willings Press Guide 1993, there are 146 national and regional daily newspapers (of which 18 are nationals) and 2023 regional weekly newspapers (10). Although the numbers of local newspapers has decreased, a recent development has been the proliferation of free newspapers. Since 1980, the number of free newspaper titles has grown from 325 to 1156 (11). These are not worthless: "free newspapers often contain information not available in the bought local paper" and so merit consideration when indexing (12), particularly as they may be the only "local" paper in an area. The sheer volume of information to be indexed is daunting, to say the least.

The enormity of the task is complicated by the lack of an acceptable current affairs thesaurus. Dealing with "the nuances of current affairs in the widest sense", Whatmore likens the task of organizing current information to studying geology before the earth has cooled: before "its structure and underlying trends become apparent" (13). The New York Times has an in-depth term list, but the difference of 'common language' makes it difficult to

translate to British use; The Library of Congress List of Subject Headings is similarly unhelpful (14). At least The Times index has a British bias, but can only act as a guide to choosing subject headings, which a local library would then have to 'customize'. It would be impossible to provide a universal thesaurus, so numerous are the entries possible.

3.3 LOCAL INDEXING PROJECTS

It is clear that much of the indexing of local newspapers in this country has been undertaken without an exchange of experience between different projects. Although the British Library Newspaper Library has assumed responsibility for the monitoring and recording of local newspaper indexing activity (which will hopefully avoid duplication of effort), it has not yet prevented the "failure of efficiency", by which new projects throughout the country repeat "the same mistakes in working practices and indexing techniques" (15). Beare, for one, believes that this problem may have been exacerbated by the number of non-library bodies which took responsibility for indexing projects under the auspices of the Manpower Services Commission; these may have been carried out with the co-operation of the local library, but she has reservations about the quality of the indexes produced (16). Of course, this may be an indexer trying to protect her patch, but one enthusiastic advocate of

the MSC Community Programme scheme, John Bennett, has indicated some of the problems he has encountered: staff recruited for the scheme vary a great deal in educational standards and age, in motivation and in how their long-term unemployment has affected their ability to fit into the work routine (17). High staff turnover affects training and makes it difficult to maintain standards.

In the absence of centralized guidelines, individual indexing projects have nevertheless developed in similar ways. For the Glasgow Herald indexing project, each indexer was provided with a copy of the Glasgow Herald list of subject headings, which grew from a combination of the previous list of subject headings, used until the newspaper ceased to be indexed in 1968, and The Times list of subject headings (18). The Scotsman index project followed the model of The Times index, with a list of around 800 prime subject headings to maintain consistency amongst the staff (19). Michael Knee (indexing the Grand Forks Herald in North Dakota, USA) chose Sears list of subject headings 11th edition as the authority file: if this and other subject headings lists proved unhelpful, he would pencil into Sears "a heading which I think is accurate"; these 'added headings' were augmented by the names of local places, people and events (20).

In addition to providing an authority file, consistency has been further encouraged in many previous indexing projects by the creation of a manual to aid the staff. The Napa County local history indexing project indexer's manual includes a complete authority file (a personal name index and a subject index) and is for use by both library staff and volunteers for indexing historical and current newspapers (21). The Scotsman index project manager compiled a guide to the outline of indexing methods to help the rapidly changing staff maintain consistency (22). A guidance manual was produced in the course of the indexing project funded by the Manpower Services Commission of the Aberdeen Free Press, consisting of an outline of what to index, an index of personal names (people, places, institutions and their abbreviations and pseudonyms) and instructions on how to assign subject headings, together with appendices comprising a list of preferred terms and a large authority file of main headings (23). The Glasgow Herald indexing project, too, was MSC funded and few of the staff had indexing experience. Guidance to the rules of indexing was provided in How to index the Glasgow Herald, "deliberately written in the style of, say, a car maintenance manual which has sections on 'How to get started on a cold morning' or 'What to do about a flat tyre'" (24).

The problem of staff turnover has already been cited: those thinking of beginning to index a newspaper must also consider several things, encountered in previous projects. Jean Koch estimates that, at about one hour per issue, it would take a full-time indexer about 14 years to complete the indexing of 85 years of the Champaign-Urbana Courier (25), and Michael Knee estimates that indexing the back-run of the Grand Forks Herald (1879-1980), at a rate of one issue an hour, would take about 18 years (26). The task is not helped if the indexer is untrained: initial indexing of the Leicester Mercury for this project took 2 - 2½ hours per issue, only speeding up to one hour per issue after some practice. This does not even begin to tackle the fact that many of the newspapers to be indexed may still be published, so the indexer will have to decide whether to index the current issues or whether to index retrospectively, and, if the latter is chosen, from when?

Indexing is also an expensive activity. For a major newspaper, an index may cover 75 000 to 100 000 items per year and thus be very expensive in staff time, but the organizations holding a file of the newspaper and therefore providing a market for the index are limited (27). For a local newspaper, the market is even smaller. Determining the cost of producing an index depends upon many variables. If manual labour is used, there is the

cost of paper, storage and personnel for the indexing, filling in of cards (handwritten or typed) and their filing. Computer-assisted indexing may be the answer to speeding up the task but is expensive if the library needs to purchase a new program, and will remain labour-intensive, as computers cannot end the need for some intellectual input from the indexer. Whichever is decided upon, outlays are unlikely to be met through circulation of the resulting index of a local newspaper. Profit cannot be the motive behind the indexing of a local newspaper; as Knee emphasizes, the value of an index grows as the index grows, as it becomes of more and more use to the people who use it (28).

3.4 CONCLUSION

Reviewing a variety of indexing projects, it is striking how, despite the lack of guidelines to encourage it, the practice of newspaper indexing in this country has proved to be fairly similar. However, Beare has reviewed other indexing projects and found some of them lacking (29), so calls for national guidelines to be produced and standard layouts to be implemented. Nevertheless, she does ✓ comment that, although broad guidelines would be useful, "it must be remembered that local newspapers have local interests, and any manual produced must be flexible to meet the different needs of the user" (30).

In the absence of such guidelines (and the sheer size of the task must prevent any but the really determined from undertaking it), what can the future indexer gather from previous projects? First is the need to maintain consistency through the creation of an authority file or preferred subject headings list, and a guide to the indexer(s) of what to and what not to index (even if there is only to be one person involved in the indexing, it would be unwise to keep it all in the indexer's head). Secondly, there needs to be serious consideration of the time and cost that will be necessary to make the effort of indexing worthwhile. This depends to a certain extent on what the indexer chooses to index (dependent upon the needs of those who will be using the index) and on how s/he chooses to index it.

The next two chapters will therefore examine these two needs in turn: firstly, an examination of the decision of what to index; secondly, an examination of the alternative ways of providing an index, both manual and computer-assisted.

CHAPTER THREE : REFERENCES

1. Tait, F. News and current affairs. In P W. Lea and A. Day, eds. Printed reference material and related sources of information, 3rd ed., 1990, pp. 136-158.
2. Whatmore, G. The modern news library, 1978, p. 7.
3. James, B. Indexing The Times. The Indexer, 1979, 11(4), 209.
4. Research Publications International News.[Advertising feature], n.d.[1993].
5. The British Humanities index. London: Bowker Saur, 1962 - .
6. Keesing's Record of World Events. London: Longman, 1931 - .
7. Tait, ref. 1, p. 145.
8. Milstead, J L. Newspaper indexing: the Official Washington Post index. In: H. Feinberg, ed. Indexing specialized formats and subjects, 1983, pp. 189-204.
9. Tait, ref. 1, p. 144.
10. Willings press guide 1993, vol. 1, 1993, p. ii.
11. Franklin, B. & D. Murphy. What news?: the market, politics and the local press, 1991, p. 85.
12. Beare, G. Indexing: the users point of view. British Library Newspaper Library Newsletter, 1987, 8, 8-9.
13. Whatmore, G. Classification for news libraries. Aslib Proceedings, 1973, 25(6), 207.
14. Whatmore, G. News libraries and newspaper collections. In: L J. Taylor, ed. British librarianship and information work, 1976-1980, vol. 2, 1983, p. 40.
15. Baird, P. The Glasgow Herald index project. British Library Newspaper Library Newsletter, 1987, 8, 3 & 15-16.
16. Beare, ref.12, 8.
17. Bennett, J. The Scotsman index project. British Library Newspaper Library Newsletter, 1987, 8,

- 11-12.
18. Baird, ref. 15, 15.
19. Bennett, ref. 17, 12.
20. Knee, M. Producing a local newspaper index. The Indexer, 1982, 13(2), 101.
21. Koch, J E. Newspaper indexing: planning and options. Special Libraries, 1985, 76(4), 274.
22. Bennett, ref. 17, 12.
23. Beare, G. Local newspaper indexing projects and products. The Indexer, 1989, 16(4), 232.
24. McAdams, F., P. Baird & F. Gibb. Indexing the Glasgow Herald. Catalogue and Indexer, 1985, 78/79, 8.
25. Koch, ref. 21, 278.
26. Knee, ref. 20, 103.
27. Milstead, J L. Indexing the news. In: A R. Benefield & E J. Kazlauskas, eds. Communicating information: proceedings of the 43rd ASIS annual meeting 1980, vol 17, 1980, pp. 149-150.
28. Knee, ref. 20, 102.
29. Beare, ref. 23, 227-223.
30. Ibid., 232.

CHAPTER FOUR

WHAT TO INDEX AND NOT TO INDEX

4.1 INTRODUCTION

It will have become obvious, after reviewing various experiments in indexing newspapers, that most of the authors of those reports have taken note of Harry A Friedman's dire warning that "[a]n index made in a haphazard fashion without a plan will be doomed to take its place among other bibliographic wrecks before it is well under way", and that "the rules can not be made while the index is being made" (1). This is not to say that these indexing rules ought to be completely inflexible: the indexer may wish to modify these in time, as experience shows him/her that they are not wholly useful.

Of course, one cannot assume that, armed with a perfect set of rules, a perfect index will inevitably result. Indexing rules will only produce useful results when combined with experience and awareness of the audience at which the index is aimed.

This chapter will consist of an examination of the issues with which to be dealt before undertaking the indexing of a newspaper.

4.2 DECISIONS TO BE MADE BEFORE INDEXING

In their survey of eight different projects indexing small circulation daily newspapers in the United States, Sandlin, Schlessinger and Schlessinger were struck by the "lack of agreement exhibited on what should or should not be indexed. Since indexing is based on the nature of the audience and the questions expected from that audience, one might expect that, for the audience of small daily newspapers, there would be agreement in this area" (2). The authors found little evidence of conformity, and suggested that this might be due to a variable audience from locality to locality, or to the subjectivity of the indexing process.

It would therefore seem to be vital, in each instance, that the person designing a newspaper index consider very carefully the potential audience and scope of the index. Avoiding subjectivity is difficult: however, laying down what will and will not be indexed avoids the more extreme examples of it.

4.2.2 VERIFY THE AUDIENCE

Few subjects are covered in depth by a newspaper, but few subjects are not covered. The diversity of subjects is matched by the diversity of the audience for this material, in both subject demand and level of enquiry (3). The design of the index must take into account the

many needs that the index will serve: focussing on this is inextricably linked with defining the scope of the index.

4.2.3 VERIFY THE SCOPE OF THE INDEX

The index should be tailored to the specific needs of its audience. What is not indexed is almost as important as what is indexed: the indexer is unlikely to have the time to index everything, so some difficult decisions must be made as to what to exclude. The availability of the some information from other reference sources is an important factor to be taken into account (4). Rather than indexing sports reports and scores, for example, it should not be too difficult to trace these using a diary of sporting events first to find the appropriate date. The national and international news coverage in a local daily is invariably taken from a news service: is it worth indexing it, or relying on a national news index to cover the subject? If the indexing of a newspaper is to include only local news, the indexer will have to decide what s/he means by "local" - should it include local slants on national stories or only stories about the area? The subject matter of advice columns may be better covered in reference books, and what about 'human interest' stories, fashion and food features and arts reviews? It is entirely reasonable to limit the index to "news", but what is news?

✓ Howat advises that "[n]ewspaper information has to be treated with caution, but the abstracter and indexer cannot lay down rules for future use and interpretation" (5). Rare is the indexer blessed with second sight: s/he must be content to index to present needs, perhaps hazarding a guess at future needs and trusting that the wrath of future researchers be not directed her/his way!

✓ Whatever the scope decisions reached, Friedman advises that there should be a "well-defined distinction" between what has and has not been indexed provided with the index, so that the user is "on his guard against consulting the index for items which have not been covered" (6). This is not provided by the available published indexes, either printed or available on CD-ROM. The Times index, the Independent official index and the Official index to the Financial Times are not very forthcoming about what they exclude; all that is divulged in the introduction to these is that they are the index of the final edition of the newspaper. Similarly, access to newspapers on CD-ROM is not complete, but it is difficult to ascertain what exactly has been excluded.

4.2.4 OTHER DECISIONS TO BE REACHED

There are several problems which relate to newspapers as sources of information which must be taken into account before the indexer begins.

4.2.4.1 THE BIBLIOGRAPHIC UNIT

How does the indexer decide what particular unit of information is the one to be indexed? Koch points out that even the "usual common denominator", possession of a title", may not be helpful (7). One headline may be given to two minimally related stories; two aspects of the same story may be given separate headlines and placed next to each other or even on different pages. If possession of a headline defines the bibliographic unit, problems will inevitably arise (8).

Whatever is decided, the indexer must also be aware that a single unit may be very short, such as a brief report of a remand, or cover several pages. The entry in an index may be as long as the item itself. Most indexers have made the decision to exclude articles of less than a pre-defined minimum length (9): a practical decision, although, inevitably, it will be the one-paragraph item from the previous month's paper that the inquirer desperately requires!

4.2.4.2 THE LANGUAGE OF NEWS

In Chapter One the problems of the language used by newspapers was discussed. Indexing vocabulary must satisfy current retrieval needs and provide for retrieval in the indefinite future, long after the jargon or catchword of today has been forgotten (10). A balance

must be reached between precise indexing and the need for a manageable vocabulary (11).

Dealing with the nuances of language, assigning subject headings to items is fraught with difficulties, and some structure to that is vital. Whatmore points to two approaches that news libraries have adopted. Following Charles Cutter, the indexer can "[f]ile everything under the narrowest heading that will contain it and then place it straight out" (12). This is fine if the index is small, or if it is to be a thesaurus for computer descriptors. However, this requires lots of 'see' and 'see also' references and the number of subject headings will eventually reach a size when subjects are 'spread' through the files; logic calls for some form of classification, grouping topics together under one heading. The Leicester Mercury library, for example, groups together different illnesses and medical issues, then subdivides into, for example, MEDICAL - AIDS, MEDICAL - CANCER, MEDICAL - DIABETES, etc. (13). This allows the inquirer a greater sense of overview of a topic, perhaps leading to research in a related file too. Whatmore warns, however, of the danger of "allowing complex ranks of subdivision to proliferate", as they are difficult to remember, and new topics are difficult to place: the indexer must decide whether to fit a new subject into an existing class or grouped heading, or, if

this is somewhat tortuous, to create a new direct heading (14). The use of computers in indexing has meant that these decisions are not so stressful: the indexer is less likely to place an item under a general heading, but to separate it into a 'correct' but more ephemeral topic (15). The Nottingham Evening Post, on the other hand, has abandoned alphanumeric indexing for a wholly numeric filing structure, from 00001 - 99999 (for example, 35000 - 35999 National and local government. Elections. Rates.) (16), which requires a detailed schedule and index to be accessed, which slows indexing.

Most libraries would settle for a compromise of both direct and grouped headings, depending on the importance of the subjects to the library in question: what must be remembered is that grouping subjects together separates them from other related subjects (17). Should the indexer choose, for example, SMUGGLING - DRUGS or DRUGS - SMUGGLING?

In Chapter Three, an examination of previous indexing projects showed that practitioners regarded a list of subject headings to be essential. Decisions need to be made as to how specific the terms are to be and, ideally, interpretation of a subject heading provided. Scope notes are needed for those terms that are ambiguous: for example, does the heading DRUGS refer to medicinal drugs

or to illegal drugs; does CHILD ABUSE refer to the sexual abuse of children, cruelty to children or both? And so on.

4.2.4.3 MULTIPLE SUBJECT HEADINGS ✓

When a book is classified, it has to go on one place on the shelves and the person assigning a subject to a book is forced to decide on that one place. This is not really satisfactory for books nor is it sustainable for news, when one news story can cover several subjects. Practically, the indexer must decide how many subject headings s/he is to assign to each item. Whatmore offers ✓ some guidance: he advises that the indexer "[c]hoose one ✓ specific heading as the main place and stick to it" (the decision dependent on whether and how it will be required in the future and on what has gone before it) and that the indexer must have a very good reason for any subsidiary place that s/he chooses (18).

Names create difficulties: people are vital to newspaper material and specificity calls for locating a person in the news under his/her name. This person may make the news once, then disappear without trace: in six months' time, will anyone remember the name when a similar event crops up? Future access demands that the indexer also makes an entry under the subject which led to the person making the news (19), doubling the size of the index in

the process.

4.2.4.4 THE PRINTED NEWSPAPER

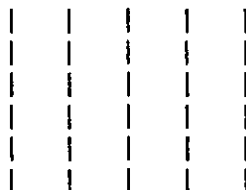
There are several things to be borne in mind. Firstly, different editions. This may not be a problem if retrospective indexing is being undertaken, as there may only be one edition available on microfilm or hard copy. In the case of current newspapers, there may be considerable or minor changes between editions, often ignored (The Times Index and The Official index to the Independent, for example, cover only the final edition of each day's newspaper). Given a multiplicity of editions, the indexer has to choose whether to index just one (the edition which will be generally available, usually the microfilmed edition), or all editions, or the final edition with changes, and, if the latter two are decided upon, how to distinguish the editions.

Secondly, there is the question of pagination. The indexer has to decide how to indicate page and position on the page of each item. How should each page be divided up?

Like this



or this



The second is the method usually adopted, but, if a tabloid, would the former be more suitable? How will the

columns or blocks be indicated: a, b, c (like The Times index); 1, 2, 3; i, ii, iii? In addition, there are often pullout supplements or sections that may have separate pagination to the main body of the paper: these must be dealt with. And what about the one-off supplement?

4.2.4.5 ERRORS AND CORRECTIONS

Koch has indicated a hurdle at which newspapers routinely stumble: that of the accuracy of the information they contain. She cites research that confirms that "about half of all straight news stories contain some type of error" (20), and this has a knock-on effect on indexing. She advises indexers to index the information as it appears and to include references to any corrections that are published, rather than the indexer try to rectify the mistake, even if obvious.

4.2.5 CONCLUSION

A variety of inter-related factors need to be considered before setting out to index a newspaper:

- * the audience for the index
- * the scope of the index

and how to deal with the various problems that crop up with news information:

- * to decide what constitutes the bibliographic unit
- * to deal with the vagaries of news language

- * to decide to what depth to index
- * to consider the differences in editions and pagination
- * to be aware of inaccuracies.

Once these decisions have been reached, the indexer can then decide what information to take from each item, and how that information will be provided.

CHAPTER FOUR : REFERENCES

1. Friedman, H A. Newspaper indexing, 1942, p. 1.
2. Sandlin, L M, J H. Schlessinger & B S. Schlessinger. Indexing of smaller-circulation daily newspapers. The Indexer, 1985, 14(3), 186.
3. Milstead, J L. Newspaper indexing: the Official Washington Post index. In: H. Feinberg, ed. Indexing specialized formats and subjects, 1983, pp. 189-204.
4. Ibid., p. 191.
5. Howat, M M. 19th century Perth newspapers indexed and abstracted. The Indexer, 1992, 18(1), 18.
6. Friedman, ref. 1, p. 24.
7. Koch, J E. Newspaper indexing: planning and options. Special Libraries, 1985, Fall, 272.
8. Milstead, J L. Indexing the news. In: A R. Benefield & E J. Kazlauskas, eds. Communicating information: proceedings of the 43rd ASIS annual meeting, 1980, vol. 17, 1980, pp. 149-151.
9. Milstead, ref. 3, p. 191.
10. Koch, ref. 5, 273.
11. Ibid.
12. Whatmore, G. Classification for news libraries. Aslib Proceedings, 1973, 25(6), 208.
13. Interview with Steve England, Leicester Mercury library, Leicester, 22 April, 1993.
14. Whatmore, ref. 12, 210.
15. Milstead, ref. 3, p. 192.
16. Copy of abridged filing structure, Nottingham Evening Post.
17. Whatmore, ref. 12, 211.
18. Ibid., 213-214.
19. Milstead, ref. 6, p. 150.
20. Koch, ref. 5, 272.

CHAPTER FIVE

PROVISION OF THE INDEX : SOME ALTERNATIVES

5.1 INTRODUCTION

Once a decision has been reached as to the type of information to be provided by the index (scope, what to index and what not to index, etc.), the indexer has to decide the best way to provide the index, given the time, money, skills and facilities available. This chapter, therefore, will be an examination of the alternative ways of providing an index, manual and computer-assisted, drawing upon the experiences of past indexing projects.

5.2 COST, TIME, SKILLS AND RESOURCES

The indexer may have an ideal project in mind, an ideal way of supplying indexed information to the user, without financial constraints, without time constraints.

Unfortunately, few of us are in that position, and decisions reached are very largely dependent on the cost, time, skills and facilities already available within the organization for which the indexer is working. Given that the indexer may be the only person involved in indexing and that there may be limited funds available to the indexer, the only possibility may be to provide the index as a card file. On the other hand, if the person indexing already has access to a computer, be it a personal computer or a mainframe, there may be the

possibility of using that resource. If there are many people involved, do they have the skills to use a computer? Elizabeth Watthews, in charge of the indexing of the Ipswich Journal, remarked that "[i]n the last quarter of the 20th century, laborious writing out of details on catalogue cards seems ludicrous. However, the volunteers who come forward, a noble army of women, are all of retirement age, with no experience of computers" (1). She suggested that, possibly, she could devise computer input cards and have someone inputting the data that her army of volunteers had extracted, but it would be a dull job and there was certainly not the funds to pay someone to do it (who wouldn't therefore have minded the lack of excitement!). For that project, filling in catalogue cards seemed the most sensible and time-saving way of proceeding.

Jean Koch has estimated that the indexing of the Champaign-Urbana Courier from 1894 to 1979 would generate 1 393 600 entries, which would take about 14 years to complete if the indexing were reduced to one issue per hour (2). Each issue of the Leicester Mercury took initially two and a half hours to index, speeding up to one to one and a half hours with practice. This exercise generated some one hundred entries on average, many with multiple subject headings. Deciding to index can be somewhat daunting: the generation of so many entries

should not put the indexer off, but s/he must be aware of the time that the project could take and decide whether a half-hearted project is worth undertaking. As Wall describes, many libraries consider the idea of indexing local or regional newspapers, but many decide against it, as "they determine it will be more of an investment in time and personnel than they are willing or able to commit" (3). There are 128 regional daily newspapers and 2023 regional weekly newspapers currently being published (4), and an incredible amount of newspapers that have ceased publication, and the British Library has records of only 1000 indexes (5): obviously, many libraries in this country are not able to commit the staff or the time to undertake this kind of work.

As far as costs are concerned, even card indexes are not cheap, and the costs of computer-assisted indexing can be very high. The Glasgow Herald indexing project secured funds of about £500,000 from three different funding sources, to pay salaries and employer's National Insurance contributions and to purchase capital equipment and the printing, publishing and binding of the finished product (6). Obviously, this was and still is a large-scale project, initially employing 40 people, and the Manpower Services Commission provided the major part of the funds, as it did to the Scotsman index project (7). For smaller-scale projects, funds might be more difficult

to attract and the project cannot rely upon selling the printed product of the project to cover costs. The market for a local newspaper index is very limited and it would be very difficult, once a copy has gone to one or two of the local libraries, to increase the circulation of the index.

5.3 ALTERNATIVES

5.3.1 CARD INDEX ✓

This is still a possibility for a small-scale project, particularly if reliant upon volunteers with few computer skills or if carried out by an under-funded library. Capital costs include buying the cards themselves and their filing system, and necessitates having the space in which to store them. Friedman quotes studies of a large cumulative newspaper index which shows that:

over a period of twenty-five years, slightly less than 20 per cent of the entries necessitated new cards, since names and subjects have a habit of repeating themselves during any given period. Therefore, if an average of 200 entries is taken from the paper each day, about 400 new cards will be needed. This will make a total of 14,600 cards for the year. (8)

A smaller circulation newspaper is unlikely to generate the need for so many cards, but it is worth deciding how many cards will be necessary (based upon Friedman's estimates) and whether the space is available to house them.

5.3.2 WORM OPTICAL DISK

WORM (Write Once, Read Many times) optical disks have a very large storage capacity and are an example of document image processing systems. Their use requires the user organization to create an image database, scanning in an image and attaching indexing terms to it. Capital costs include an optical scanner, an optical drive reader, a computer, a monitor and a WORM laser disk. If much of the information scanned in is wholly or partially text, the scanned-in text must be processed by OCR software (optical character recognition) to render it legible and consequently allowing full-text retrieval (9). The Daily Mirror, for example, has used an optical disk system called OPAL (Optical Automated Library) since August 1988, after a rather unfortunate experiment with a computer controlled microfiche retrieval system was abandoned (10).

A good example of use for a local newspaper is the Local History Department at the Central Library at Aberdeen, which, in addition to microfilming local papers, has a press cuttings file covering nearly thirty years and containing over 100,000 sheets of cuttings (11). Fulton believed that optical disk storage was the cheapest solution to the library's lack of space and the easiest system to set up and maintain ('cheap' being up to £25,000, which was the capital budget for microfilming

equipment (12)). Newspaper articles are scanned and the image indexed with free index terms. Fulton recommends the system as clean, as there is no paper and glue, but it does take 2-4 minutes to input one cutting. It is space-saving, and retrieval through a free text retrieval software package, is quick to use, plus the cuttings are now theftproof. He estimates that the library needs four double-sided disks a year, costing £600, but expected to fall (13).

More expensive than a cuttings system, the WORM optical disk has the advantages of being unlikely to get stolen, of maintaining the look and 'feel' of the news being indexed (like a cuttings file), whilst including the benefits of full text retrieval and picture scanning with user indexing.

5.3.3 COMPUTER-ASSISTED INDEXING

Newspaper indexing is an obvious candidate for automation: card files can rapidly become unwieldy, take up large amounts of space and much staff time is taken up in filing, a job that can be achieved in a fraction of the time by a computer. Only the intellectual input, the assigning of indexing terms, cannot be adequately completed by a computer.

Dependent upon the skills and resources available, the

indexer has to decide how to enter and store data: a hard disk would need to be backed up, but using floppy disks will lead to many small indexes, each containing perhaps only a few years' worth of data. The researcher would need to check various disks if unsure of the date of an event: exactly what has to happen with printed cumulative indexes. Wall recommends the use of a cartridge disk to overcome these problems, as it has a much larger memory but can be easily backed up (14). Another consideration is whether there should be a printed index. This depends upon the perceived market for the index: for example, could the printed index be sold to other libraries, or offered to the newspaper publisher in exchange for free copies of the newspaper? If it is not to be printed, will the existence of the index only on computer prove troublesome: will access be granted to all users, to some users or just to the staff, who may already be overworked?

Using computers does not mean that the library requires staff with technical knowledge of computers and programming. Wall describes an alternative that she believes is relatively inexpensive and requires only a very basic knowledge of computers. The librarians at Murray State University refused to consider a card index, the Computer Centre staff were unable to create a program to fit, so the only alternative was to use the

text-processing capabilities of the university's mainframe computer (15). Indexed information was transferred from cards to computer; the index was a large file with citations listed in alphabetical order by subject, then in chronological order. This was later split into five small files, to make updating files less cumbersome. Even so, the process appears to be fairly unwieldy; cards have to be put into alphabetical order, then the person inputting must search through the appropriate file to find the location of each new citation (16). Not very sophisticated, but this procedure could easily be adapted for use for any word processing software and any microcomputer: a library with a computer has the basics for setting up a computer-assisted index.

Obviously, this is not an ideal solution and it would be more suitable to use software that does all the hard work of sorting entries into alphabetical and chronological order, and then merging these with existing files. Previous indexing projects have used a variety of software with micro- and mini-computers. AUTHEX has been used to create a printed product, including periodical and newspaper indexes: it is not designed to be searched online, however (17). Pro-Cite has been designed to handle large amounts of bibliographic information and the package includes a 'work form' specifically for

newspapers (18). TINman, a relational database system which uses a browse/navigational method of retrieval (that is, it uses no commands or menus but the cursor to move through ordered lists and then select appropriate terms), has been used to create an index to the Victorian periodical The Athenaeum (19). Today was indexed, initially, on Micro CAIRS, using keyword and free text searching, later transferring to the larger version CAIRS (20). The Wolverhampton Express and Star uses the BASIS retrieval system, also used by several newspapers in the United States (21), staff adding keywords to text transferred from the editorial computer to the library computer. Koch also offers several alternative software packages (22), although the article is a little out-of-date. These include two systems that use microfilm, with access through an online index. Newspaper clippings are processed onto microfiche, then loaded into a microfiche reader/printer controlled by computer keyboard.

It may be that the indexer decides that a commercial database management system package fails to meet the perceived needs of the index. If the skills and resources are available within the organization, a program may be specifically designed for this purpose. The program for the Glasgow Herald index was written by the Project Manager (although Baird believes that such

programs could be easily adapted to meet the needs of other indexing projects (23)). The Scotsman index fell somewhere between the two options, using existing commercially available software tailored to meet specifications set by the senior systems analyst of The Scotsman (24).

5.4 CONCLUSION

Given unlimited funds, the possibilities for provision of an index are great, as can be seen by the availability of software capable of the job. However, few public libraries will be in that situation, and be forced to muddle along with what is available in-house or to what the capital budget can stretch. This need not be such a disaster: it will just be rather labour-intensive when the whole point of automation is to speed things up.

Having examined the options available to him/her, the indexer has then to design the method by which the information required by the pre-defined scope of the index will be presented through the medium chosen. How will the card or screen look? What will be capitalized? What abbreviations will be used to indicate edition and pagination? Rather than examine the alternatives offered by previous indexing projects, the following chapters will concentrate specifically on a study undertaken to index the Leicester Mercury, upon the decisions taken to

define the scope of the index, the decisions as to what to exclude from the index, an examination of the alternatives open to the indexer, and the design of the index.

CHAPTER FIVE : REFERENCES

1. Watthews, E. The Ipswich Journal index. British Library Newspaper Library Newsletter, 1987, 8, 9-10.
2. Koch, J E. Newspaper indexing: planning and options. Special Libraries, 1985, Fall, 277-278.
3. Wall, C. Newspaper indexing: using an IBM mainframe computer and a text-formatting program. Information Technology and Libraries, 1987, 6(1), 34.
4. Willings press guide 1993, vol. 1, 1993, p. ii.
5. Tait, F. News and current affairs. In: P W. Lea & A. Day, eds. Printed reference material and related information, 3rd. ed., 1990, pp. 136-158.
6. Baird, P. The Glasgow Herald index project. British Library Newspaper Library Newsletter, 1987, 8, 3.
7. Bennett, J. The Scotsman index project. British Library Newspaper Library Newsletter, 1987, 8, 11.
8. Friedman, H A. Newspaper indexing, 1942, p. 114.
9. Pritchard, J. Document image processing: indexing and retrieval issues. Advanced Information Report, 1990, 8, 5.
10. Williams, B J S. Press cuttings automation: the Daily Mirror tries again. Information Media and Technology, 1989, 22(3), 112-113.
11. Fulton, A R. The use of WORM optical disc storage for newspaper cuttings in a public library. The Electronic Library, 1990, 8(3), 167-168.
12. Ibid., 168.
13. Ibid., 169-171.
14. Walker, A. Creating a newspaper index: microcomputers to the rescue! Wilson Library Bulletin, 1986, 16(2), 29.
15. Wall, ref. 3, 35.
16. Ibid., 36.
17. Noordhof, M. Indexing with AUTHEX. Computers in Libraries, 1991, 11(1), 25-26.
18. Cramer, M D. & M J. Markland. Newspaper indexing with

Pro-Cite. College and Research Libraries News, 1989, 50(9), 807-808.

19. Hancock-Beaulieu, M. The Athenaeum: the creation of a computerized index and database to a Victorian literary periodical for researchers in the humanities. In: M. Feeney & K. Merry, eds., Information technology and the research process: proceedings of a conference held at Cranfield Institute of Technology, UK, 18-21 July, 1989, 1990, pp. 278-287.
20. Arundale, J. The library, Today. Library Association Record, 1986, 88(3), 130-132.
21. Torrington, S. Computers and local newspaper indexing: experience of the publisher/indexer. British Library Newspaper Library Newsletter, 1987, 8, 12-13.
22. Koch, ref. 2, 275-276.
23. Baird, ref. 6, 15.
24. Bennett, ref. 7, 12.

CHAPTER SIX

INDEXING THE LEICESTER MERCURY : A PILOT STUDY

6.1 INTRODUCTION

It will have become clear that a database is more likely to be a success if "it meets the needs of the users, is carefully planned, and is well designed" (1). An initial step towards that success is carrying out a feasibility study to identify the needs of users and those who will be maintaining the database, and determining the constraints upon a potential project. In the case of the Leicester Mercury, a decision was reached after such considerations to create a computer-assisted index, although the above would have been equally applicable should a card index have been chosen.

6.2 AUDIENCE FOR THE INDEX

It was decided to design an index based upon the needs of the Leicester Mercury library. Such an index would meet the needs of the users of the newspapers at the Leicestershire Record Office. The complaints of the librarian at the LRO about the lack of subject access and the needs for more 'names' access would be solved. The Mercury library staff already index in depth any Leicestershire stories and tend to disregard national and international news stories, in common with the Leicestershire Collection index (2,3).

The librarian of the Leicester Mercury kindly agreed to allow access to the Mercury list of subject headings. This was essential to maintain consistency with the Mercury press cuttings file and ensure the computer index's future usefulness.

6.3 SCOPE OF THE INDEX

Interviews with the librarians of the Mercury library and the Leicestershire Collection verified the decisions that they had reached in the past: these were borne in mind when selection decisions were taken. It was decided not to index everything that appeared in the newspaper, but to formulate a series of scope decisions that would act as a guide to both the author and the future indexer. Often, however, indexing decisions are based on 'feel', on whether the indexer thinks the news item will be of future use, and this cannot be written down.

Selection of items to be included was based on several criteria:

- * Local news is of primary importance. Every story relating to Leicestershire ought to be indexed unless it is really very trivial or very short (1 paragraph long), although this is not absolute.
- * National news is only to be included if it is a big national story or if there is a local connection.

- * International news is generally ignored unless there is a definite local connection. For example, an item on a speech criticizing the Maastricht treaty becomes important because the speech is delivered by Lord Lawson, the former MP for Blaby.
- * Much of the local news is crime. Remands and court cases are indexed under the name of the defendant and the crime (plus the name of the victim if a murder or manslaughter). A report of a crime are only included if they are more than two paragraphs in length or an 'unusual' crime.
- * Accidents are included if they involve two people or are fatal or serious or are unusual in some way. Because of the interest in road safety, road accidents are indexed under the road where the accident occurred, as ROADS - _____.
- * Inquests are included, as are obituaries if they include editorial material. The index does not include the classified births, marriages and deaths.
- * Sports. The index does not include previews of matches or match reports. It does include biographical articles on players and items that are about the institution of sport or a team. For example, the index includes items on football hooliganism at Leicester City F C games, but not about the games themselves.

- * Election campaigns are easily traced; items appear every day for weeks up to the election (whether a general election or county council election). General reports of the various constituencies are not included, therefore. More newsworthy items, such as a criticism of the county council for not providing wheelchair access to polling stations, are included.
- * Features are included if there is a local connection, like a local author or artist. Historical features are included on a similar basis. Excluded are recipes, fashion and advice columns unless relating to local issues or a local group or charity, as are 'vox pops'.
- * Letters are generally not indexed, unless very newsworthy, or from a local personality, etc. The fact that the item is a letter was noted in the subject headings.

These scope decisions need to be available to the users of the index, so they are aware of the exclusions, that the index is not all-embracing. The scope of the index decided, some decisions also had to be reached as to what information to take from each item as the newspaper was indexed, and how it was to be presented.

6.4 INDEXING DECISIONS

6.4.1 PEOPLE

Stories about people are an essential part of a local newspaper and their importance has been recognized. A decision was reached to separate the biographical headings for each item from the subject headings, and allow five separate headings with a qualifier (to separate the burglar John Smith from the other burglar John Smith from the stamp collector John Smith, for example).

6.4.2 SUBJECT HEADINGS

It was decided to allow for three subject headings for each news item. Ideally, the specificity of the subject heading list will allow each item to be placed under one subject heading only, but frequently the news disallows such definite classification. Three subject headings were considered sufficient in the course of the pilot study.

6.4.3 THE BIBLIOGRAPHIC UNIT

It was concluded that possession of a headline does not designate one unit for indexing: a news item in a column may be worthy of indexing and should not therefore be ignored. Similarly, two apparently separate items may, in fact, be part of the same story and be indexed as

such. Because of this problem, a second resolution followed: description of each item was by headline only if it proved useful. If not, a note or short abstract was used to distinguish each item from others on the same subject.

6.4.4 PAGINATION

In addition to noting the page on which the article appeared, it was decided to make a note of the column in which the article was placed. Obviously, one news article may cover several columns, so the column chosen would be that in which the story or headline began.

Each page of the Leicester Mercury can be divided by columns. Unfortunately for the indexer, column size in the Mercury is not static: sometimes there are five columns per page, sometimes six, sometimes seven. It was decided to take the highest number and assign to these columns 'a b c d e f g', reading across each tabloid page from left to right. With the different numbers of columns, the indexer is forced sometimes to estimate the position of each item in relation to these seven columns. This is not ideal: however, to maintain consistency and aid the researcher place an item on a page, this appeared to be the most functional solution.

6.4.5 EDITIONS

The Leicester Mercury library does not indicate in its current system from which edition a news story was taken. It was decided to not follow current practice, and to indicate edition on every record.

The main edition indexed, the edition that is microfilmed, is the City edition, which comes off the presses at 2 pm. The microfilm of the Mercury, which is widely available, also includes the changed pages from the other nine editions. An abbreviation was assigned to each of the different editions, listed below in chronological order (that is, in order of their appearance on the news stands during the day).

| | |
|-------|---|
| TOWN | First edition of the day, at 11 am. |
| HARB | |
| HINCK | County editions, at 1 pm, for Harborough, |
| LBORO | Hinckley, Loughborough, Melton Mowbray, |
| MELT | North-west Leicestershire/Coalville and |
| NUN | Nuneaton. |
| N-W | |
| ASIAN | Asian edition, specific to Leicester. |
| CITY | First City edition, at 2 pm. Microfilmed. |
| FINAL | Final edition of the day, at 4 pm. |

These different editions appear five days a week, but not on Saturday. Changes may be slight, especially in the City and Final editions, but the County editions have five pages devoted to news from each area, and may provide a wealth of different material.

6.4.6 SUPPLEMENTS

A supplement appears in the Mercury every day. However,

not all contain information of news value and therefore worth indexing. The 'Jobs' section on Thursday, 'Mercury Motoring' on Friday and 'Property' on Saturday are largely advertising. However, 'Mercury Monday', 'Business Tuesday' and Wednesday's 'Country Life' often include newsworthy items. In addition, there are often one-off supplements, such as 'Railway Classics' and 'Care in the Community', which are noteworthy. Therefore the decision was reached to include 'supplement' as one of the fields to be included in each item record.

6.4.7 PHOTOGRAPHS

The Mercury library maintains both press cuttings and pictures, in separate sequences. For the purposes of the pilot study, it was decided to index only the news items, although the index would be applicable to pictures that had not been published too. However, it was determined that an accompanying photograph would be noted in each record.

6.4.8 AUTHOR

It was decided, after consultation with the Mercury librarian, not to include 'byline' (that is, 'author') in the record. The librarian felt that the work required would not be worth the frequency of use; in addition, many of the articles do not possess a byline or are assigned something unhelpful (from an indexing point of

view) like 'Staff Reporter'.

6.4.9 INACCURACIES

News information is not infallible: mistakes crop up and corrections appear. For example, during the sample study, the report of an inquest into a rail death gave a verdict of 'accidental death' in the copy but the headline declared it to be 'suicide'. Obviously this would cause distress to the family concerned and a correction appeared the following day. The indexer is not able to correct as s/he goes along, but it is essential to link the original story with the correction and so avoid future mistakes. It was decided to make sure of this by adding to the original record when the correction appeared the legend [SEE CORRECTION DD MM YY page:column].

6.5 PROVISION OF THE INDEX

An examination of the alternatives for providing the index was made. A card index was considered to be little improvement to the system already provided by the Leicester Mercury. A card index would be greedy of space and equally greedy of staff time, requiring daily filing of cards. A computer-assisted index was therefore considered to be the only alternative available. There has been an examination of the various possibilities for providing computer-based indexes in Chapter Five, and the

point emphasized that the provision of an index is frequently constrained by the skills, facilities and finances of the organization in which the indexer works. Thus it proved with the Mercury index. The library has no computer at all: however, copy is directly input by the journalists and full page makeup is undertaken on AppleMac (4), so computers are not anathema to the organization, even if not in evidence in the library!

Chapter Five examined several of the computer programs that previous indexing projects had used. It was shown that, with something as unsophisticated as a personal computer and a word processing program, a printed index may be produced (5). Fortunately, the Department of Library and Information Science is in possession of a program more sophisticated, FileMaker Pro.

6.5.1 FILEMAKER PRO

This allows the user to create a collection of related information, a database. It is a very successful database product, claiming about 75 per cent of the market (6). It is fairly easy for the technically amateur to use, useful for the purposes of this study; however, it helps to be familiar with operating a mouse, as there are some important functions that cannot be carried out solely using a keyboard, such as finding records.

A database is made up of a series of records. Each record is made up of a series of fields. For example, this is a record:

| | |
|---------|--|
| Name | K Shakespeare |
| Address | John Phillips Court Garendon Road Loughborough |
| Phone | (0509) 219520 |

and each category of information (name, address and phone number) is a field. Each FileMaker Pro 'document' (such as MERCURY INDEX) consists of one file of information which contains all data. This information may be manipulated as the user requires: the user has to design a series of layouts that select the information required and present it in the way desired. One layout might include the whole of the above record, a second might select only name and phone number, a third only the name and address.

FileMaker Pro is what is called a 'flat-field' database. This is a file "that is reached on a sequential basis, starting with the first field of the first record and ending with the last field of the final record" (7), rather like flicking, albeit very quickly, through a series of record cards. Each field can be very large, up to 64k of text in one field, and graphics may be imported into FileMaker Pro via a scanner. This offers the indexer of the Mercury several options. The indexer could scan in the whole text of each article (treating

the cutting as a picture) and add indexing terms to the text. This uses a large amount of memory and it is difficult to reproduce newspaper text so it is easily read. With the large field size, the indexer could type in the whole text of the article. This would require a good deal of staff time to type in the details, or the possession of the means of converting the text input by the editorial department into a format usable by FileMaker Pro, which the indexer does not have.

Searching time would also be longer, as the program would search through every field, and a good deal of memory taken up. The third option is that the indexer could use FileMaker Pro to provide the electronic equivalent of a card index. Given the potential size to the document MERCURY INDEX, the latter was considered to be the best alternative, and the cheapest, available to the author.

The decision was reached, therefore, to design a screen layout that reproduced a card index and which would allow the inputting of the subject headings of the Mercury library.

6.6 INDEXING THE LEICESTER MERCURY

For the purposes of this study, three weeks of the Mercury were indexed, from 22 April to 13 May 1993. The librarian at the Mercury library kept back one copy of the City edition every day for that period and kept a

desk free for the purposes of indexing. The indexer visited the Mercury offices every three or four days during that period, indexing the newspapers with reference to the Mercury subject headings list. Obviously, each newspaper would be indexed on a daily basis should the system be adopted. Having already experience of marking up newspapers, the time spent indexing each edition by the author was initially two and a half hours, later one to one and a half hours, following the criteria laid out in section 6.3.

For the pilot study, it was decided not to index every single different edition. Instead, a sample was indexed: the City edition (the main microfilmed edition), the Loughborough County edition for the whole period, and a Final edition of 4 May, as the City edition set aside had gone missing. Because there was no computer available at the Mercury library, but the subject headings list on cards was too large to transport to the available computer, indexing initially had to noted on 5" x 3" cards. It is envisaged, however, that the indexer would work in future from the hard copy directly onto the computer.

In line with those decisions laid out in section 6.4, information gathered from each news item was:

Headline or note/short abstract

| | |
|-------------------|---|
| Name/bio. heading | Up to five entries, with qualifier if appropriate. |
|-------------------|---|

A sample record, therefore, would look something like this:

Re-elected chair committed to good community relations

27 04 93 5:f City

Federation of Muslim Organizations
Ethnic minorities

KHAN Yaqub Leicester

Once the sample newspapers were indexed, the cards were transferred to a FileMaker Pro document, MERCURY INDEX.

6.7 CONCLUSION

This chapter has outlined the practice undertaken before and during the indexing of a sample of the Leicester Mercury. The next chapter will be an examination of the design and use of a database using these records.

CHAPTER SIX : REFERENCES

1. Tenopir, C. & G. Lundeen. Managing your information: how to design and create a textual database on your microcomputer, 1988, p. 9.
2. Interview with Aubrey Stevenson, Leicestershire Record Office, Wigston Magna, Leicester, 14 May 1993.
3. Interview with Steve England, Leicester Mercury library, Leicester, 22 April 1993.
4. Griffiths, D. The encyclopedia of the British press 1422-1992, 1992, 367-368.
5. Wall, C. Newspaper indexing: using an IBM mainframe computer and a text-formatting program. Information Technology and Libraries, 1987, 6(1), 34-39.
6. Cohen, D. FileMaker Pro, Personal Computer World, 1992, October, 272.
7. Hipgrave, R. Computing terms and acronyms: a dictionary, 1985, p. 49.

CHAPTER SEVEN

DESIGNING AND USING THE MERCURY INDEX

7.1 INTRODUCTION

For the purposes of the pilot study, three weeks' worth of data was collected from the City edition and the Loughborough County edition of the Leicester Mercury following pre-determined scope rules. Initially this information was kept on a series of cards, but needed to be transferred to FileMaker Pro, with reference to Langer's FileMaker Pro 2.0 for the Mac in a Nutshell (1).

7.2 DESIGNING THE INDEX

7.2.1 DEFINING FIELDS

Each news item created an individual record; for example:

Man in legal battle to clear his name

10 05 93 13:d City

Crime - driving offences

ROBERTS Colin Swebstone

Converting this card record to a FileMaker Pro record proved relatively easy. When creating a new database, such as MERCURY INDEX, it is first necessary to define fields to hold the information. Each card record has a number of fields:

Headline or note
Date
Page number
Column
Edition

Supplement
Accompanying photo
Subject heading (x 3)
Biographical heading (x 5)

and each of these fields must be defined and its 'type' specified. All but the 'date' field are of one type, 'text'. In addition, some of the fields contain vital information and therefore must not be left blank.

Consequently the decision was taken to ensure that they could not be left empty when entering data. It is possible, when defining fields, to make 'entry options' conform to this: the field is defined as 'not empty'.

This procedure was applied to several fields:

Headline or note
Date
Page number
Column
Edition

Invariably, the 'subject heading' field contains data, but there are occasions when it will be empty and there will only be data in the 'biographical heading' field; similarly, the 'supplement' field and the 'photo' field do not always contain data. It was decided, therefore, to allow these to be left blank. After defining a field value as 'not empty', it is impossible to leave a record without completing the data entry: if this is attempted, a warning box appears to tell the indexer that s/he must enter information into the specified fields.

Two of the fields were created as 'repeating' fields; that is, fields that can contain multiple values. The

decision had already been reached to allow a maximum of three subject headings and a maximum of five biographical headings: these cover all the news items encountered in the pilot study, although, of course, they could be longer if so required by the users. It is newspaper practice to add a qualifier to many if not all of the name entries: consequently, a field was also created called 'biographical qualifier', also having a possible five values.

For several fields, there are only a limited number of values that can possibly be entered. For the 'edition' field, there are only ten possible entries; for the 'column' field a possible seven entries; for the 'supplement' field it was decided to include only three of the supplements, those that regularly included newsworthy material. To speed data entry and maintain consistency, it was decided to provide these fields with 'pre-defined value lists' and have these appear, when the user is adding data to the particular field, as a pop-up list. A list of pre-defined values appears and the user must double-click with the mouse on an option to select it and have it entered in the field, or use the arrow keys to move through the list to select the term and then press 'return'.

Decisions reached for each field with a pre-defined value

were:

- * Column. The pop-up list features the letters 'a' to 'g'.
- * Edition. There are ten different values for this field, listed chronologically in 6.4.5. However, it was decided that it made more sense to have these in alphabetical order in the pop-up list. Schneiderman quotes research suggesting that a vertical menu of text editing commands in an alphabetical sequence enables users to find their subject quicker than commands arranged by function or randomly (2). This decision resulted in the list:

ASIAN
CITY
FINAL
HARB
HINCK
LBORO
MELT
NUN
N-W
TOWN

Because this is such a long list, only the first five values are shown. It is necessary to use the mouse or the arrow keys to move through the list.

- * Photo. It is possible to double-click on 'yes' if there is an accompanying photo; if not, the field is to be left blank.
- * Supplement. The pop-up list advises the user to leave the field blank if the news item is from the

main body of the paper; if not, the user is given a choice of 'Mercury Monday', 'Business Tuesday' or 'Country Life'. The one-off supplement did not merit a mention on the pre-defined list: it was envisaged that it would be left to the indexer's discretion to indicate that the information was taken from a special supplement.

7.2.2 LAYOUT OF THE SCREEN

Just as it is sensible to have pre-prepared the information to be entered as fields, it is advisable to have at least a rough idea of how the screen ought to look before embarking upon that task. FileMaker Pro automatically creates a layout with all the fields defined, but this might not be the layout desired. In the case of MERCURY INDEX, several of the fields are very large ('headline/note', 'subject heading' and 'biographical heading'), whereas others, like 'page' and 'column', are very short. The default layout gave each field equal size, and placed them in a list down the centre of the screen. In effect, the required layout was a virtual copy of the card on screen, which demanded that a new layout be designed (Fig. 1).

- * 'Headline or note' field: this had to be long; although the idea was to create a mini-abstract for each item or repeat the headline, this could still

An index to the Leicester Mercury

| | | | | | |
|----------------------|--|-------|--|------------|--|
| Headline or note | | | | | |
| Date | | Page | | Column | |
| Edition | | Photo | | Supplement | |
| Subject heading | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| Biographical heading | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Fig.1. Screen layout of the MERCURY INDEX for entering
and finding data.

require more than one line of text (but never more than two in the pilot study).

- * 'Date', 'page', 'column' 'edition' and 'photo' fields are all short: each 'edition' code is a maximum of five letters long, 'page' two, 'column' one, 'photo' three and 'date' eight characters.
- * 'Supplement' is generally left blank; however, the field length had to allow for a maximum of 16 characters.
- * 'Subject heading' field: some entries are very small, but the Leicester Mercury subject heading list has developed so that there are often long indexing strings of heading and subdivision. Thus the field length had to contend with SCHOOLS - LEICESTER - DOVELANDS JUNIOR AND INFANTS SCHOOL, which is the longest term encountered during the pilot study.
- * 'Biographical heading' field: reports of court cases include the full names of defendants. The longest encountered in the pilot study proved to be 'RANDERWALLA Manesh Jitendra': space had to be allowed for such occurrences. In addition, this field has a maximum of five repeating fields; however, to avoid cluttering up the screen, it was decided to only show four of the headings, especially as the full five are rarely to be used.

7.3 ENTERING INFORMATION

Conventions for data entry are contained in Appendix 1; instructions for data entry are to be found in Appendix 2. It was decided to control access to the files, by imposing password protection of the files. A master password was created which allows all access privileges to the indexer. S/he would therefore be the only person able to alter records and to make new records. Other users are allowed read-only access to MERCURY INDEX. This means that any researcher or journalist can search and print from the index, but is unable to change any of the data. No password is required for this limited access, and any attempt to try and alter records leads to a warning "Your password does not enable you to do this".

7.4 FINDING INFORMATION

Instructions for searching MERCURY INDEX are reproduced in Appendix 3.

7.5 PRINTING INFORMATION

MERCURY INDEX was initially intended to be provided as a database only. However, the interview with the librarian of the Leicestershire Collection showed that there would be a market for a printed index in preference to an electronic one, as the users of this library are not familiar with computers (3). Therefore an attempt was

made to provide a printed index.

Two layouts were designed, one that would lead to the creation of a list based on the personal name from each record, the other on the subject heading (Fig. 2, Fig. 3). It was decided not to include all the information available on these records: only the 'headline or note' to differentiate different stories on the same subject or person, plus the 'date', 'page' and 'column', and 'edition'.

The records in MERCURY INDEX are unsorted; that is, they are sorted in the order in which they are entered. To provide meaningful subject/biographical headings list, it is necessary to sort these records. Instructions for sorting records are included in Appendix 2, 'Instructions for the compiler of MERCURY INDEX' , section 5.

This produces a simple list of names or subjects.

However, any record with multiple entries is wasted. The program only prints the first reference entered in each field. Whilst an attempt was made to limit indexing to the most specific term in the 'subject heading' field, many news items do not fall nicely under one subject, nor does restricting indexing to one term only help future reference and research. This proved to be an insoluble problem. Records with multiple subject or biographical

Fig. 2 Screen layout
of the MERCURY INDEX
for names list.

INDEX TO THE LEICESTER MERCURY - NAMES LIST

| | <u>Date</u> | <u>Page</u> | <u>Edition</u> |
|--|-------------|-------------|----------------|
| | | | |
| | | | |

Fig. 2

Fig. 3 Screen layout
of the MERCURY INDEX
for subject headings
list.

| INDEX TO THE LEICESTER MERCURY - SUBJECT LIST | | | |
|---|------|------|---------|
| | Date | Page | Edition |
| | | | |
| | | | |
| | | | |

headings are not created as multiple entries in the subject headings list or names list.

7.6 CONCLUSION

This chapter has examined the decisions made in the design and use of the MERCURY INDEX, a database of information held on FileMaker Pro. The 'document' proved relatively simple to design and use, although it was not without problems, particularly with the printing of the index.

CHAPTER SEVEN : REFERENCES

1. Langer, M. FileMaker Pro 2.0 for the Mac in a Nutshell, 1993.
2. Schneiderman, B. Designing the user interface: strategies for effective human-computer interaction, 1986, pp. 105-106.
3. Interview with Aubrey Stevenson, Leicester Record Office, Wigston Magna, Leicester, 14 May 1993.

CHAPTER EIGHT

USER EVALUATION

8.1 INTRODUCTION

It was thought necessary to have some form of user assessment of the index. Although MERCURY INDEX was not designed to meet specifications set down by the Leicester Mercury, it was designed with these users in mind, following the scope and practice of indexing the Mercury already employed by the library.

Evaluation is important for any project to continue. The designer of a product is often unaware of basic errors in, for example, the User Guide. A user evaluation helps to highlight and suggest ways to solve those problems.

8.2 USER EVALUATION AT THE MERCURY LIBRARY

It was intended that the database MERCURY INDEX would be evaluated by the users for which it was designed, the staff at the Leicester Mercury library.

The library does not have access to an AppleMac, but these are used by the sub-editors to make up the newspaper pages from the text input by the journalists. A request was made to borrow a copy of the program FileMaker Pro, which would be temporarily put onto the hard disk of one of the AppleMacs. In this way, a copy of MERCURY INDEX could be accessed for demonstration

purposes. Permission was granted by Claris, the company that manufactures FileMaker Pro, for the author to do this.

It proved impossible to undergo a complete evaluation of MERCURY INDEX. The library staff did not have the time to complete a full evaluation of both the database and the Instructions. This would be very time-consuming, as none of the staff have used computers at work, and it would require familiarizing the subject with using a computer and a mouse, in addition to assessing the database.

The librarian agreed to examine and evaluate the database. He had some experience with computers, although had not used a mouse before. The author provided a brief demonstration of MERCURY INDEX, and then encouraged the user to experiment with searching for records and compiling a record.

8.2.1 RESULTS

The user initially had great difficulty using the mouse, but became more proficient as the session continued. The user found the database simple and easy to use, and very much liked the layout of the screen, as he was able to move logically through the compilation of a record and it was uncluttered.

The user had no difficulty understanding the terms used in the database and the subject headings used in the 'Subject heading' field, as they were consistent with those used in the Mercury library. Searching for records posed no problems. Compiling a record proved more difficult, but the user believed that this resulted from inexperience rather than problems inherent in the database. The user was appreciative of the pop-up menus, to maintain consistency and to speed up data entry.

The user believed that the database would be useful if, in the future, the Mercury library adopts WORM optical disk as a means of storing press cuttings. If the newspaper was to be held wholly on computer, the user expressed a number of requests. He expressed a wish to see the article to which the record referred, and believed that the journalists would prefer this too. In addition, the user would like to see the photograph to the article on screen.

8.2.2 CONCLUSION

Although the author was unable to have a full evaluation of the database MERCURY INDEX, the session with the user proved fruitful. The librarian felt that, after an initial training session, users at the Mercury would find the database relatively simple to use. Evaluation of the 'Instructions for the compiler of MERCURY INDEX' would be

necessary in future, were the project to continue.

8.3 FURTHER EVALUATION

Given that it proved impossible to fully evaluate MERCURY INDEX at the newspaper offices, it was decided that some evaluation of the product would still be worthwhile. A user evaluation questionnaire was designed to test the ease of searching for records. This would help verify the comprehensiveness of the 'Instructions for searching MERCURY INDEX' and the ease of using the product for the novice. A copy is included in Appendix 4.

8.3.1 RESULTS

Of the six subjects who undertook the evaluation, four were familiar with searching databases of some sort, although only two of these had used the program FileMaker Pro before. The other two did not undertake database searching with any regularity. All were familiar with using a computer and operating a mouse. None had worked in a newspaper library before, and were therefore unfamiliar with some of the terms used on the database. Each subject was given five minutes or so to look through the 'Instructions for searching the database' (Appendix 3). Each was asked to comment if these seemed unclear. Then each subject was asked to complete a series of search enquiries, and was asked to make a note of both the fields in which s/he had searched and the answer that

had been reached. Finally, each subject was asked to assess and comment upon the ease of using MERCURY INDEX.

The users' success in answering these questions is tabulated in Appendix 5. Incorrect answers primarily resulted from misreading the screen or the question rather than from an incorrect method used for searching. Unfortunately it is impossible to change the pre-defined layout, so, instead, greater clarification must be made in the Instructions for those unfamiliar with FileMaker Pro and the 'status area', with which the confusion arose.

One question was chosen to illustrate the need for access to the Leicester Mercury subject headings list. Question 8 asked for the number of stories indexed on the twinning of Leicester with a town in India. "Twinning" is one term; others that could be used to describe this are "town twinning" or "twin towns". In fact, the latter term is the one used by the Mercury library. Subjects had great difficulty in tracing the correct number of articles on this subject: only one got the correct answer. This is always a problem with news language, that there are frequently several ways of expressing the same concept, and it would be impossible for the indexer to include every alternative on each record. Therefore it is imperative that the user of an index has access to

a list of the terms used by the compiler. It was noted that those subjects who were unused to searching databases found this the most difficult question. Those that had used databases, particularly online database, automatically entered a few options to try and work round the problem of no initial hits. Those that had not gave up much more quickly, and commented on the need for some form of 'Help' screen or a list of suggested terms to direct the user to making the best choice of indexing term to enter.

As might be expected, those subjects that had used FileMaker Pro were very comfortable using the database and commended the product for its simplicity and ease of use. The ease with which the database could be searched achieved an overall rating of 4.16, and the clarity of instructions a rating of 4. There seemed to be little difficulty in choosing the correct field in which to enter the search criteria, especially as the choice is generally one of two fields only (Subject heading or Biographical heading). However, two subjects expressed confusion as to what counted as a 'Biographical heading'. Several subjects expressed confusion about the method of entering data in the 'Biographical heading' field. These were the subjects who were not familiar with the program FileMaker Pro and were not aware that search criteria may be entered in any order or in any case and still find the

required records.

All six found the layout of the screen logical, simple and uncluttered, and the ease of moving about the screen was given an overall rating of 4.83.

8.3.2 CONCLUSION

This user trial provided much useful information about the ease of use of MERCURY INDEX, and provided various pointers to sections of the Instructions that were not wholly comprehensible. Amendments to the database and the Instructions were made accordingly:

- * The differences between Biographical and Subject heading was clarified in the Data Entry Conventions.
- * The different parts of the 'status area' were explained in greater detail in the Instructions to avoid further confusion.
- * Clarification was provided of the instructions for searching in the biographical heading field.
- * It was decided to amend the entry in the pop-up list for the Supplement field to include the instruction "Double-click to select".

CHAPTER NINE

RECOMMENDATIONS

For the project to continue, several issues need to be tackled:

9.1 THESAURUS AVAILABILITY

It has already been noted that the Leicester Mercury's internal subject headings list is an excellent guide to the contents of the Mercury library and an indispensable aid to the indexer. However, its internal existence will prove problematic if the index is to be widely circulated. An ideal solution would be to provide the subject heading list as a pre-defined value list on FileMaker Pro, but the sheer size of the potential list acts as a formidable deterrent. The best alternative, therefore, is to transfer the card index of subject headings to a printed list, to which external researchers can refer.

However, the pilot study provided evidence of a few anomalies that should be rectified. Indeed, the very exercise of checking through the subject headings prior to printing should be regarded as an ideal opportunity to amend the list, provide cross references where necessary or where practice is ahead of the list as it currently stands (that is, if new files have already been created

but not noted in the list). It is recommended, therefore, that a thorough examination of the existing subject heading list be undertaken and amendments be made where appropriate.

9.2 TO PRINT OR NOT TO PRINT

It was not initially envisaged that this project would have a printed product, the purpose being to create an electronic resource for reasons of speed, space and security. However, during the interview with the librarian, it became apparent that many of the users of the Leicestershire Collection newspaper index would prefer a printed to a computer index. An attempt was made to meet this need, but FileMaker Pro proved unable to provide a wholly successful printed index.

It may be worth persevering in the creation of a printed index, to offset some of the costs of setting up, although a printed index is unlikely to make up the entire costs, as the market for the index would be very small. Leicestershire libraries keep the Mercury, but the index would have to be cheap if there were to be multiple purchases. If not, the present practice of referring enquiries to the central collection at the Leicestershire Record Office would continue.

However, as FileMaker Pro is unable to deliver such a

product, this would mean reassessing the means of providing a computer index, requiring the indexer to consider an alternative program that could do the job.

9.3 ADOPTION OF THE INDEX BY THE LEICESTER MERCURY LIBRARY

The librarian at the Leicester Mercury expressed an interest in computerizing the cuttings library. Should the library adopt WORM optical disk as a means to do this, the index could be adopted as it stands. If not, the librarian expressed an interest in an index that included the text on screen. FileMaker Pro could provide this, but it would necessitate a good deal of computer memory available to the library, in addition to several personal computers and a copy of the program FileMaker Pro.

The introduction of any computer system requires expert help. The library at the Mercury would require someone, either from inside or outside the organization, to oversee the setting up of the system, if a computer system is adopted. The Mercury library may, for example, have a capital sum to purchase a much more sophisticated program than FileMaker Pro and the introduction of that would certainly require expert help. FileMaker Pro, on the other hand, is relatively easy to use and a well-written guide to its use would probably suffice

after an initial training session.

9.4 USE OF THE MERCURY INDEX IN OTHER LIBRARIES

One of the greatest complaints of the staff at the Leicestershire Record Office was the lack of time to retrospectively index the Leicester Mercury. Purchase of the current index from the Mercury library would free staff time to index retrospectively. It would be up to the staff and the perceived needs of the library's users when the retrospective indexing was to begin. If purchase of a personal computer is beyond the funds of the library, it is recommended that the Leicestershire Record Office purchase a copy of a printed index (reliant upon the problems with printing being solved) and, adopting the Mercury subject heading list, begin to index the Mercury retrospectively.

APPENDIX 1

Data entry conventions for the MERCURY INDEX database

| Field name | Optional | Description, instructions etc. | Case | Example |
|---------------------|----------|---|-----------------|--|
| Headline or note | No | Use headline if it is useful; if not, enter a short phrase that explains the item | Normal usage | Man in legal battle to clear his name |
| Date | No | The date of the item, entered as DD MM YY | Normal usage | 05 05 93 |
| Page | No | The page on which item is found, or begins if on a double page | Normal usage | 5 78 |
| Column | No | Column in which item is found, or begins. Each page is divided into seven columns across the page from left to right: a b c d e f g | Lower case | a |
| Edition | No | Edition in which item appears. There are 10 options, each relating to one edition | Upper case | CITY ASIAN |
| Photo | Yes | Leave blank if no photo. Enter 'yes' otherwise. | Lower case | yes |
| Supplement | Yes | Leave blank if from main body of paper. Enter appropriate name from list unless a one-off: enter name if this is the case | Normal usage | Business Tuesday, Railway Classics |

| Field name | Optional | Description, instructions etc. | Case | Example |
|------------------------|----------|---|--------------|---|
| Subject heading | Yes | Enter up to 3 values. Main headings begin with a capital letter, subdivisions in lower case. Subdivisions are separated from main heading by a space, a hyphen and a space. | As shown | Crime - theft |
| Name/Bio. heading | Yes | Enter up to 5 <u>personal</u> names. Enter as SURNAME Forenames Enter <u>only</u> a person's name, not the name of shop etc. that has a person's name. | As shown | SMITH John |
| Biographical qualifier | Yes | Add a qualifier to each person named if appropriate | Normal usage | Decd. MP Swepstone Heart specialist |

APPENDIX 2

Instructions for the compiler of MERCURY INDEX

1. Switching on and opening MERCURY INDEX.
2. Creation of a new record and data entry.
3. Deleting a record.
4. Finding records.
5. Sorting and printing records.
6. Closing MERCURY INDEX and switching off.

1. Switching on and opening MERCURY INDEX.

- a. Switch on the computer; then insert the disk MERCURY INDEX.
- b. Click on the disk icon twice with the mouse to open it.
- c. Click on the 'mercury' icon twice to open it.
- d. You will be asked for a password before proceeding.

For creating and altering records, the password to be entered is 'mercindex': type this into the box on screen; it will appear as bullets (*****). Then click on the 'OK' button. If you enter the wrong password, you will be given the opportunity to re-type it. This allows you complete access to MERCURY INDEX.

2. Creation of a new record and data entry.

- a. To create or alter records, you must be in 'Browse' mode. Click and hold on 'Select' on the menu bar and,

holding down the mouse button, 'drag' the mouse down until 'Browse' is highlighted.

- b. To create a new record, click and hold on 'Edit' on the menu bar. Drag the mouse down until 'New Record' is highlighted. Alternatively, press the special AppleMac key (next to the space bar) and 'n' to create a new record.
- c. A blank record appears, with a block to the left hand side called the 'status area'. In this status area are:
 - * a 'book' which will tell you how many records there are, and, below that, how many have been 'found' and whether they have been 'sorted' (that is, put into alphabetical or chronological order).
 - * a small box that tells you which layout you are in. For entering and altering records, 'Layout #2' should be selected. Click on the box and highlight 'Layout #2' to select this layout.
- d. The first field to be completed has a darker border than the others, and contains a flashing cursor. If you are unfamiliar with data entry conventions, consult Appendix 1. When you have completed the first field box, 'headline/note', press 'Tab' to move onto the next field. Alternatively, use the mouse and click on the next box you wish to fill in.
- e. Certain of the fields have to have data typed in them; if you leave them blank, you will not be allowed to

move on to another record. These fields are:

- Headline/note
- Date
- Page number
- Column
- Edition

- f. To ensure consistency, certain of the fields have a pop-up list which contains a list of terms that may be entered in the field. Fields that have a list of acceptable terms are:

- Column
- Edition
- Photo
- Supplement

To select the appropriate term for the item you are indexing, double click on the name to make it appear in the field box. The pop-up list for the 'Edition' field is very long: only five of the ten possible values are initially displayed. Use the mouse to move through the list until the term you require is highlighted. If you are instructed to leave the field box blank, just press 'return' and you will move onto the next field.

- g. In the field 'date', it is possible to enter today's date by pressing the special AppleMac key and '-' (the hyphen) rather than typing DD MM YY.
- h. In the field 'biographical heading', enter only personal names. Businesses that have a person's name should be entered in the 'subject heading' field; for example, "Albert Thurston", the clothing company that produces braces for the stars, should be entered as a

subject heading.

- i. Once you have completed the record, you can move on to the next. You can correct the information you have typed in at any time, by clicking on the appropriate field or using the 'Tab' key to move through the record.
- j. You can correct any record if you need to (for example, should the name of a country change). Just click on the field box and type over the existing data.

3. Deleting records.

- a. It may be that you wish to delete a complete record. Click on 'Edit' on the menu bar, then drag the mouse down until 'Delete Record' is highlighted.
- b. You will then be asked whether you want to permanently delete this record. If you want to go ahead, click on the 'Delete' button; if not, click on the button 'Cancel'.

4. Finding records.

- a. To search for records, click on 'Select' on the menu bar and drag the mouse down until 'Find' is highlighted. Alternatively, press the special AppleMac key and 'f' to enter 'Find' mode.
- b. Consult Appendix 3 for instructions for searching MERCURY INDEX. These instructions are for users that

have only limited access to the files of MERCURY INDEX; however, in addition, the master password allows you to alter any of the records that you select.

5. Sorting and printing records.

- a. You can sort and print all records on MERCURY INDEX or sort and print only certain records.
- b. Records are 'unsorted'; that is, they are presented in the order in which they have been entered. This is not much use if you want to print them: the records are best presented in some meaningful order. There are another two layouts available for use: to create a list of records based on their subject heading, and to create a list of records based on their biographical heading. To select the required layout, click on the small box in the status area and highlight the layout you require, either 'Bio. list' or 'Subject list'.
- c. The most meaningful way of displaying records is in alphabetical order. Click and hold on 'Select' on the menu bar then drag the mouse down until 'Sort' is highlighted. Alternatively, press the special AppleMac key and 's'. The 'Sort' dialog box then appears.
- d. You have to define the order in which you want to sort the records. In the 'Field List' box is a list of all the fields in 'Layout #2': click on the field you want

to sort by and click on the button 'Ascending Order' (this will sort the records A to Z). The click on the 'Move' button; this will move this field to the 'Sort Order' box. If, for example, you selected 'subject heading', you might also like to sort by chronological order: if you do so, records will be sorted by the first field and, if there are more than one record with the same data in that field, these will then be sorted by the date on which they appeared. Highlight 'date', then click on 'Ascending Order' before clicking on the 'Move' button.

- e. If you sort by 'biographical heading' field, you must first exclude all those records that do not have any data in this field. Go to 'Find' mode, by clicking on 'Select' on the menu bar and then by dragging the mouse down until 'Find' is highlighted, or by pressing the special AppleMac key and 'f'. In the 'biographical heading' field, type '>a' and then click on the 'Find' button. This will exclude all records that do not possess a biographical heading. Then select 'Sort' mode as instructed above (5.c.) and have the records sorted by 'Ascending Order' for the 'biographical heading' and by date.
- f. To sort the records, click on the 'Sort' button in the 'Sort' dialog box.
- g. Prior to printing these records, you might like to see what the document will look like. For this, you

need to be in 'Preview' mode. Click on 'Select' on the menu bar and drag the mouse down until 'Preview' is highlighted. Records will be displayed in the current layout. You can scroll through pages by clicking on the square button to the right hand side of the screen and dragging it down, or by clicking on the small boxes containing arrows along the right hand side of the screen. To see the complete page, click on the square button to the bottom of the screen, or by clicking on the small boxes containing arrows along the bottom of the screen.

- h. To print a hard copy, click and hold on the 'File' command on the menu bar, then drag the mouse down until 'Print' is highlighted. Alternatively, press the special AppleMac key and 'p'. The 'Print' dialog box appears, and you can select what to print (for example, all the records being browsed, the current record only or a blank record) and how to print it (best or draft quality, all the pages etc.). Then click on the 'Print' button.
- i. To return records to their unsorted order, click on 'Select' on the menu bar, then drag the mouse down until 'Sort' is highlighted. In the 'Sort' dialog box, click on the button 'Unsort'. The records will be returned to their original order.

6. Closing MERCURY INDEX and switching off.

- a. Click on the small square on the left hand side of the menu bar (the 'close box'). This will close MERCURY INDEX and return you to the FileMaker Pro screen.
- b. Click on the menu bar of the FileMaker Pro screen to return all commands. Then click on the 'close box' to the left hand side of the menu bar. This will close FileMaker Pro.
- c. To retrieve the floppy disk, click on the disk icon. Holding down the mouse button, drag the icon down the screen until the icon almost covers and darkens the 'Trash can'. The disk will then be ejected.
- d. To switch off the computer, click on 'Special' on the AppleMac menu and select 'Shut down'. Switch off the computer when instructed.

APPENDIX 3

Instructions for finding data in MERCURY INDEX

1. Switching on and opening MERCURY INDEX.
2. Searching the database.
3. Problems with vocabulary.
4. More sophisticated searching techniques.
5. Closing MERCURY INDEX and switching off.

1. Switching on and opening MERCURY INDEX.

- a. Switch on the computer; then insert the disk MERCURY INDEX.
- b. Click on the disk icon twice with the mouse to open it.

c. Click on the 'mercury' icon twice to open it.

- d. You will be asked for a password before proceeding.

For searching records only, leave this box blank then click on the button that says 'OK' to continue. This allows you only limited access to MERCURY INDEX: you cannot alter the records in any way.

2. Searching the database.

- a. Click and hold down the mouse on 'Select' on the menu bar and drag the mouse down until 'Find' is highlighted. Alternatively, press the special AppleMac key (next to the space bar) and 'f' to enter 'Find' mode.

- b. This will bring up an empty screen with a block to the

left hand side called the 'status area'. In this status area are:

- * a 'book' which will tell you which record you are currently looking at. Below this you are told how many records have been found that match your search enquiry;
- * a 'Find' button;
- * an 'Omit' button;
- * a series of 'operators' that will help you modify your search (see section 4 for more sophisticated search techniques that make use of these operators).

c. To enter a search request, you must click on the field in which you wish to enter the enquiry. Alternatively, you can use the 'Tab' key on the keyboard to move through the fields until you reach the required field. In most cases, the required field will be either the 'subject heading' field or the 'biographical heading' field. Both of these fields have repeating values; that is, there can be more than one subject heading or biographical heading per record. You can type in up to three subject headings or five biographical headings. These can be typed in any order within the field: all of the repeating fields will be checked in the search.

d. Remember that all terms should be entered in the 'subject heading' field, except if you are searching for records by a person's name. Such terms should

be entered in the 'Biographical heading' field.

Names of businesses and schools are not personal names and should be entered as 'subject headings'.

- e. You do not have to restrict yourself to the 'subject heading' field or the 'biographical heading' field. Every field on screen can be searched if you wish to find, for example, all the stories that appeared on a certain date or in a supplement, or if you remember a few words that appeared in the 'headline/note' field.
- f. Type in the word(s) you want to search, then click on the 'Find' button in the status area.
- g. The first of the records that matches your enquiry will be displayed on the screen, and below the 'book' in the status area will be shown the total number of matches. To view these records, click with the mouse on the bottom 'page' of the 'book' to move onto the next record, click on the top 'page' of the 'book' to move back to the previous record.
- h. Records are displayed as they have been entered; that is, chronologically. If the news item you require is recent, you may want to go to the last record and work backwards. If so, use the 'bookmark' that sticks out to the right of the 'book' in the status area. Click and hold on the 'bookmark' and use the mouse to drag it down to the foot of the bottom 'page'. The last found record will be displayed. Then work backwards through the records until you find the required one.

3. Problems with vocabulary.

- a. It may be that no records match your enquiry: if so, a box will appear that tells you so. Click on the 'Try again' button and change the word(s) you have entered. It is advisable to consult the Leicester Mercury subject heading list to find the term that is used to index items on a particular subject if you are in any doubt. Then click on the 'Find' button again.
- b. It may be that your search enquiry brings up too many records. If this is the case, it is necessary to enter a more specific term to narrow your search. The MERCURY INDEX subject headings list, in line with that used at the Leicester Mercury, tries to be very specific. For example, entering the term "Leicester City Council" will retrieve all records about the council; if you particularly want items on the Environment Committee, be specific: "Leicester City Council - environment".
- c. You will notice that the MERCURY INDEX subject headings make use of subdivisions. It is not necessary for you to know the main heading of each indexing term; just enter the most specific term in each case.

For example, "traffic wardens" will find the records you require; you do not have to type "Police - traffic wardens".

However, you will need to use subdivisions to find items on Leicestershire County Council and Leicester City Council, rather than typing in "Environment Committee".

4. More sophisticated searching techniques.

- a. It is possible to find all records except those that match the criteria you enter. To do this, type the criteria you wish to omit in the relevant field and then click on the 'Omit' button in the status area. Then click on the 'Find' button. The records found will be all those that do not match these criteria.

- b. To narrow your search, you should search for records that meet two or more search criteria. Type the search requests in the appropriate field boxes and click on 'Find'. The records found will only be those that match all.

For example, to find all the inquests of suicides, enter "inquests" and "suicide" in two of the 'subject heading' fields.

There is no limit to the number of search criteria that you can enter, except the number of fields (that is, you cannot enter more than three 'subject heading' enquiries and five 'biographical heading' enquiries).

- c. To broaden your search, use multiple find requests.

For example, to find stories on football hooliganism

or on football violence, it is necessary to enter "football hooliganism" as the first search enquiry in the 'subject heading' field. Then click on 'Edit' on the menu bar and drag the mouse down to 'New Request'. Alternatively, press the special AppleMac key and 'n' to create a new request. Then enter "football violence" as a second search enquiry. The 'book' in the status area shows that there are two requests. Then click on 'Find'. The records found will match either of the requests.

There is no limit to the number of requests that you can enter.

- d. The symbols or operators in the status area can be used to help your search.

- * The operators '>', '>', '<' and '<' are most useful in numeric fields, but can be used to select text; for example, the request ">S" would find all records with words that start with 'S' and above.

- * '=' will find requests that have an exact match to the criteria entered. For example, entering "=Chris" will find records that include the word 'Chris' but not those that include the word 'Christopher'.

- * The symbol '...' is the range symbol: this is to find criteria between two values, which can be text or dates.

- * '//' is the 'today's date' symbol. If entered in the date field, it will find all records with the

current date in the field.

* '!' is the duplicates symbol (and not very useful for this database).

4. Closing MERCURY INDEX and switching off.

- a. Click on the small square on the left hand side of the menu bar (the 'close box'). This will close MERCURY INDEX and return you to the FileMaker Pro screen.
- b. Click on the menu bar of the FileMaker Pro screen to return all commands. Then click on the 'close box' to the left hand side of the menu bar. This will close FileMaker Pro.
- c. To retrieve the floppy disk, click on the disk icon. Holding down the mouse button, drag the icon down the screen until the icon almost covers and darkens the 'Trash can'. The disk will then be ejected.
- d. To switch off the computer, click on 'Special' on the AppleMac menu and select 'Shut down'. Switch off the computer when instructed.

APPENDIX 4

USER NUMBER:

SECTION ONE

Please place a circle around the appropriate response.

- | | |
|---|----------|
| 1. Have you ever used a computer before? | Yes / No |
| 2. Have you ever used a 'mouse' before? | Yes / No |
| 3. Are you familiar with the program FileMaker Pro? | Yes / No |
| 4. Have you worked in a newspaper library before? | Yes / No |

SECTION TWO

You will be given a series of search enquiries that you should try to answer. Please indicate the field in which you searched (for example, subject heading field) and the answer you reached.

1. How many stories were indexed from the *Mercury* of 13 May 1993?

Field(s) searched:

Answer:

2. How many stories were indexed from the "Business Tuesday" supplement of 11 May 1993?

Field(s) searched:

Answer:

3. On what date did an article appear about Anne Underwood, the mother of the Leicester Tiger's stars?

Field(s) searched:

Answer:

4. What did Arthur Allison die of?

Field(s) searched:

Answer:

5. Of what organization is Yaqub Khan chairman?

Field(s) searched:

Answer:

6. Has Manor High School got grant maintained status yet?

Field(s) searched:

Answer:

7. What service does "Twilight Dreams" offer?

Field(s) searched:

Answer:

8. How many stories have there been on the twinning of Leicester with a town in India?

Field(s) searched:

Answer:

9. How many of the inquests reported were suicides?

Field(s) searched:

Answer:

SECTION THREE

This section is for you to assess and comment upon the ease of using MERCURY INDEX.

1. How easy did you find it to search for records?

very difficult 1 2 3 4 5 very easy

2. How clear are the instructions for searching for records?

confusing 1 2 3 4 5 clear

3. Please comment on any difficulties you had understanding the instructions for searching for records.

4. How easy did you find it to move around the screen?

very difficult 1 2 3 4 5 very easy

5. Do you like the layout of the screen? Yes / No

Why?

6. Do you have any additional comments to make about the searching of records?

Thank you for taking the time to complete this questionnaire.

APPENDIX 5

Responses to the User Evaluation Questionnaire.

- 2.1 Date field; 32.
- 2.2 Date field and Supplement field; 3.
- 2.3 Biographical heading field; 28 04 93.
- 2.4 Biographical heading field; cocaine poisoning.
- 2.5 Biographical heading field; Federation of Muslim Organizations.
- 2.6 Subject heading field; no, to vote a second time.
- 2.7 Subject heading field; helps elderly persons' dreams come true.
- 2.8 Subject heading field (TWIN TOWNS); 2.
- 2.9 Subject heading field; 3.

| Question Number | Correct | Partially Correct | Wrong | Total |
|-----------------|---------|-------------------|-------|-------|
| 1 | 4 | 2 | 0 | 6 |
| 2 | 4 | 2 | 0 | 6 |
| 3 | 5 | 1 | 0 | 6 |
| 4 | 6 | 0 | 0 | 6 |
| 5 | 6 | 0 | 0 | 6 |
| 6 | 6 | 0 | 0 | 6 |
| 7 | 6 | 0 | 0 | 6 |
| 8 | 1 | 3 | 2 | 6 |
| 9 | 6 | 0 | 0 | 6 |

BIBLIOGRAPHY

- Arundale, J. The library, Today. Library Association Record, 1986, 88(3), 130-132.
- Baird, P. The Glasgow Herald index project. British Library Newspaper Library Newsletter, 1987, 8, 3 & 15-16.
- Beare, G. Indexing: the users' point of view. British Library Newspaper Library Newsletter, 1987, 8, 8-9.
- Beare, G. Local newspaper indexing projects and products. The Indexer, 1989, 16(4), 227-233.
- Benefeld, A R. & E J. Kazlauskas, eds. Communicating information: proceedings of the 43rd ASIS annual meeting 1980, vol. 17. New York: Knowledge Industry Publications, 1980.
- Bennett, J. The Scotsman index project. British Library Newspaper Library Newsletter, 1987, 8, 11-12.
- The British Humanities Index. London: Bowker Saur, 1962-.
- British Library Newspaper Library Newsletter, 1981, 3.
- Cohen, D. FileMaker Pro. Personal Computer World, 1992, October, 272-275.
- Cramer, M D. & M J. Markland. Newspaper indexing with Pro-Cite. College and Research Libraries News, 1989, 50(9), 807-808.
- Feeney, M. & K. Merry, eds. Information technology and the research process: proceedings of a conference held at Cranfield Institute of Technology, UK, 18-21 July, 1989. London: Bowker-Saur, 1990.
- Feinberg, H., ed. Indexing specialized formats and subjects. Metuchen, N.J.; London: The Scarecrow Press, 1983.
- Franklin, B. & D. Murphy. What news?: the market, politics and the local press. London: Routledge, 1991.
- Friedman, H A. Newspaper indexing. Milwaukee: Marquette University Press, 1942.
- Fulton, A R. The use of WORM optical disc storage for newspaper cuttings in a public library. The Electronic Library, 1990, 8(3), 167-171.

- Gordon, R. Newsplan: report of the Newsplan project in the East Midlands, April 1987 - July 1988. London: British Library, 1989.
- Green, S. The British Library Newspaper Library in a new era. Journal of Newspaper and Periodical History, 1984, 1(1), 4-11.
- Griffiths, D., ed. Encyclopedia of the British press 1422-1992. London: Macmillan, 1992.
- Hegg, J L. Small newspaper libraries: the libraries that time (and automation) passed by. Special Libraries, 1991, Fall, 272-281.
- Hipgrave, R. Computing terms and acronyms: a dictionary. London: Library Association, 1985.
- Howat, M M. 19th century Perth newspapers indexed and abstracted. The Indexer, 1992, 18(1), 16-18.
- James, B. Indexing The Times. The Indexer, 1979, 11(4), 209-211.
- Keesing's Record of World Events. London: Longman, 1931-.
- Knee, M. Producing a local newspaper index. The Indexer, 1982, 13(2), 101-103.
- Koch, J E. Newspaper indexing: planning and options. Special Libraries, 1985, 76(4), 271-281.
- Langer, M L. FileMaker Pro 2.0 for the Mac in a nutshell. San Francisco: Sybex, 1993.
- Lea, P W. & A. Day, eds. Printed reference material and related sources of information. 3rd ed. London: Library Association, 1990.
- Library Association Record, 1987, 89(12), 636.
- McAdams, F., P. Baird & F. Gibb. Indexing the Glasgow Herald. Catalogue and Indexer, 1985, 78/79, 8-9.
- Nicholas, D. & K. Connolly. Information technology developments in the newspaper library and the future of the librarian. Library Association Record, 1987, 89(10), 530 & 533.
- Noordhof, M. Indexing with AUTHEX. Computers in Libraries, 1991, 11(1), 25-26.
- Patterson, A. Temple. Radical Leicester: a history of Leicester, 1780-1850. Leicester: University College,

1954.

Pritchard, J. Document image processing: indexing and retrieval issues. Advanced Information Report, 1990, 8, 3-6.

Research Publications International news. [1993?].
[Advertising feature].

Sandlin, L M., J H. Schlessinger & B S. Schlessinger. Indexing of smaller-circulation daily newspapers. The Indexer, 1985, 14(3), 184-188.

Schneiderman, B. Designing the user interface: strategies for effective human-computer interaction. Reading, MA; Wokingham: Addison-Wesley, 1986.

Taylor, L J., ed. British librarianship and information work, 1976-1980. 2 vols. London: Library Association, 1983.

Tenopir, C. & G. Lundeen. Managing your information: how to design and create a textual database on your microcomputer. New York; London: Neal-Schuman, 1988.

Torrington, S. Computers and local newspaper indexing: experience of the publisher/indexer. British Library Newspaper Library Newsletter, 1987, 8, 12-13.

Walker, A. Creating a newspaper index: computers to the rescue! Wilson Library Bulletin, 1986, 61(2), 26-29.

Wall, C. Newspaper indexing: using an IBM mainframe computer and a text-formatting program. Information Technology and Libraries, 1987, 6(1), 34-39.

Watthews, E. The Ipswich Journal index. British Library Newspaper Library Newsletter, 1987, 8, 9-10.

Westmancoat, K J. Newspapers. London: British Library, 1985.

Westmancoat, K J. Survey of indexes to local newspapers in public libraries and record offices in the United Kingdom and Eire. British Library Newspaper Library Newsletter, 1987, 8, 6-7.

Whatmore, G. Classification for news libraries. Aslib Proceedings, 1973, 25(6), 207-215.

Whatmore, G. The modern news library. London: Library Association, 1978.

Williams, B J S. Press cuttings automation: the Daily Mirror tries again. Information Media and Technology,

1989, 22(3), 112-114.

Willings press guide, 1993. 2 vols. East Grinstead: Reed International, 1993.

Zeskey, R H. Newspapers on microfilm: history as it was happening (and indexes to help you find your way).
Serial Librarian, 1986, 4(4), 393-399.

