29 NEWSPAPERS

Christopher Merrett

Abstract

This chapter considers the special features associated with the indexing of newspapers and provides guidelines for the indexer. The example of indexing *The Times* of London is used as many common features are applicable. The chapter concludes by examining developments in online indexing for easier information retrieval.

Introduction

Although the accuracy of the information they contain must always be questioned and treated with caution, newspapers are an indispensable source of primary historical evidence. Among other important roles their information gathering provides support for civil society and their very existence is an emblem of the crucial importance of the freedoms of information and expression to a democratic society. It is no accident that they are often referred to as the Fourth Estate. Titles that have a reputation for the quality of their reportage are assigned long-term status as 'newspapers of record'. Others might have a distinctive role to play at specific historical periods because of the nature of their sources. For instance, certain progressive South African newspapers had particularly close links with the Mass Democratic Movement during the terminal years of apartheid. Newspapers can thus be viewed as both an academic tool and a civil society resource. Their indexing might accordingly span particular historical periods or be current, depending upon circumstances.

One of the world's most comprehensive newspaper indexes is that of the London newspaper, *The Times*, whose scope and presentation provide a benchmark for all other endeavours in the field. The 2002 edition runs to over 1 500 closely printed pages and its content reflects the *Sunday Times* as well as the well-known supplements such as the *Times Literary Supplement*. Because of its pre-eminent status, reference will be made to the indexing practice of *The Times* in this contribution.

Indexing Features

Perhaps the most challenging feature of newspapers is that 'there is no standard way to index' them (Beare 1999:24). They are documents that reflect the societies in which they are published and their indexes must 'fit the time, the place and the occasion' (Friedman 1942:23). A true index to newspaper articles is a complex matter of detail and precision

(Semonche 1986:27): *The Times* arranges entries chronologically, giving the page number and column (a-h), plus an indication of short (s) articles with a column length less than 50 centimetres and the presence of photographs, maps and charts. Most non-commercial projects should more accurately be described as selective subject indexes.

The indexing of newspapers, while a relatively common activity, has a number of features that pose a distinctive challenge to the indexer. Before starting a project it is important to establish broad parameters. These will depend on two main considerations: the probable needs of the users for whom the index is being compiled, and the time and resources available to the indexer. For these reasons very few newspapers will be indexed in their entirety, making this an exercise completely distinct from, for example, the indexing of a book where every part of the text (and sometimes even footnotes and endnotes) is taken into consideration. Selectivity and the initial decision about what to omit are crucial (Sandlin, Schlessinger & Schlessinger 1985:186). For instance, a typical policy would be to restrict indexing to the news content only, ignoring everything else. On the other hand, a retrospective project might conceivably involve the indexing of advertisements and the births, marriages and deaths columns for the value of their historical evidence. Such decisions need to be made at the outset: backtracking can be a costly exercise. For this reason a pilot index is probably a sensible option, if feasible.

Another feature of current newspaper indexing that sets it apart from other genres is the fact that the indexer is dealing with an evolving story, sometimes spanning a lengthy period of time. At the outset it is often not possible to isolate the key concepts that will provide the crucial descriptors (Coates 1983:184; Kyte 1967:127). Sometimes a retrospective view will clarify such matters, but in other instances even time will be of no assistance and the story will fade into obscurity. What exactly, to use a South African example, was the McBride affair of 1998 about? Was his arrest and detention in Mozambique a story about a maverick government official; relations between two sovereign states; or dirty tricks by remnants of the old regime? A more recent example, concerning events around the former Director of Public Prosecutions, Bulelani Ngcuka, raises comparable questions about infighting among ANC members, corruption around the arms deal, or the settling of apartheid-era scores. In both cases the indexer may have little option but to use descriptors based on individual and corporate names. South African stories that originally appear to be about corruption often turn out to have other dimensions.

Guidelines

The golden rule of any indexing is to rely on a thorough reading of the text, but with newspapers there is a strong temptation to be influenced by headlines. These are designed to be eye-catching for the reader rather than an accurate reflection of content and are not to be relied upon on their own, although they may be useful as indicators. As Ahmed (1991:257) emphasises, the indexer depends on content plus background knowledge to identify the main significance of a story. The good newspaper indexer needs to be well informed, a quality that is of course reinforced and enhanced by newspaper indexing in a self-reinforcing process.

Newspaper indexers find that in order to avoid over-indexing (Beare 1989:229) it is sensible to apply a rule of thumb regarding the number of descriptors that might be applied to any one article. Some will be adequately covered by one; others may invite many. It is useful practice to regard the first descriptor assigned as covering the main theme of the article, with up to three or four others supplementing it. It is doubtful if a standard length article would require more than five descriptors (*The Times* uses a maximum of four, as specific as possible). Apart from keeping their numbers within realistic limits, it is essential to maintain consistency from issue to issue (Perica 1975:3), remembering that the indexer is involved in an evolving exercise, not a finite text. Although it is possible to use a standard, published general list of descriptors as a basis for indexing, the indexer will in all likelihood develop a thesaurus of her or his own in due course. A long-term project indexing the *Mail & Guardian* (*M&G Index*) of Johannesburg unexpectedly led to compilation of just such a thesaurus that has been used to describe other types of published material about South Africa held in libraries (Merrett 2000:73). But with the passage of time it will inevitably be necessary to engage in a certain amount of retrospection and, if necessary, adjustment (Knee 1982:101). Newspapers tend to have a primary geographical context within which they work and this can become the default for the descriptors: *The Times* presumes that the country is Britain, unless otherwise stated.

Given that a newspaper has the potential to throw up many indexable personal and collective or corporate names, clear guidelines have to be established. Names should generally only be used when they are clearly the primary focus of an article (although letters to *The Times* are indexed under both the writer and their subjects). In general the index user is far better served by an emphasis on concepts. An interesting exception was in fact provided by the *M&G Index* already mentioned: when it was started, under conditions of considerable repression, it was important to use the names of organisations in order to provide access to their otherwise censored opinions and policies. But as democracy asserted itself, so it was possible to change to an indexing practice that emphasises concepts. This helps to maintain long-term indexing consistency (Einhorn 1976:2-3).

Another important consideration lies in the construction of descriptors. Natural language is preferable for the sake of the user: Traditional healers is more straightforward a term than Healers, traditional – which will inevitably require a *see* reference. But there will be cases where the grouping of headings is useful (Christie 1986:92). In the *M&G Index*, whose main focus is the political, social and economic condition of South Africa, the following collective headings are used: Broadcasting; Children; Churches; Courts; Farms; Schools; Taxes; Violence; Women; and Workers. 'Obituaries' is also a collective descriptor, but individual names are indexed as well. *The Times* is extremely sparing with collective entries and limits them, surprisingly perhaps, to leading articles, law reports, obituaries and editorial cartoons. Grouping is not to be confused with subdivision, which is possible with any heading for the sake of clarity and economy of space. For instance:

Freedom
    of association
    of expression
    of the press

Cross-references (*see* and *see also* references) should be used with intelligent and sparing anticipation and chosen for their potential usefulness. The most readily understood alphabetical order is word by word (practice at *The Times*).

Using natural language consistently with a majority of direct descriptors and a modicum that is collective or grouped will create a long-term structure or overview of a newspaper that gives it added identity (Dewe 1972:58). All indexers create a resource that is greater than the sum of its parts. By its very nature a well-structured index will stimulate creative research, using newspapers by highlighting prominent topics or even encouraging serendipity.

Online Developments

Most major newspapers can now be consulted online, some by using sophisticated search programs. The ability to scour enormous volumes of text by keyword suggests that old-fashioned indexing is now redundant. Under certain circumstances this might be true. But while recall potential will inevitably be high, precision is another matter. To take an obvious example, the search term 'Mandela' will score a multitude of hits in any South African newspaper database: by searching the *M&G index* online for the 1999 issues, 222 hits were derived, but in the opinion of the searcher only three of these were of major significance (Merrett 2000:74). The search itself will not reveal which are the particularly significant hits. Human agency in the form of the indexer is alone responsible for this. Such a view is forcefully put by Steemson (1994:21) writing about the *Express Newspapers* archive in London:

> We chose human brainpower for entering index references rather than the cheaper option of full-text automation. No full-text system invented can emulate the trained selectivity of the human mind, or the creative intuition of an experienced librarian.

Conclusion

Of course many people still do not have access to online search facilities, nor are these necessarily quicker to use than a well-constructed manual index. The manual index will undoubtedly be more adept at picking up and highlighting significant articles and key information: indexing cannot be reduced to a mechanical exercise. One of the reasons for this is that descriptors often need to be contextualised.

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30 POLITICS AND INTERNATIONAL RELATIONS

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Abstract

The chapter commences with definitions of the closely related disciplines of politics and international relations, prior to focusing on their unique features and indexing characteristics. Guidelines demonstrate concrete methods of approaching the indexing tasks. These are illustrated by many practical examples. Two case studies of libraries relevant to the topic provide an insight into the practical problems encountered.

Introduction

The dynamics of both politics and international relations are twofold. On the one hand, they are driven by the regularity of G8 summit meetings or elections at five-yearly intervals, to quote some obvious examples. On the other hand they are subject to the contingencies of the spontaneous, the unknown or the unexpected. Although the United States was fully aware of the possibility of terrorist attacks, who could have predicted the 9/11 attack on the Twin Towers and the Pentagon? The implications have changed the face of both politics and international relations forever. It is the role of the indexer to document these occurrences in a way that facilitates the quick and easy retrieval of pertinent information.

The study of politics and the relatively new discipline of international relations falls firmly into the social science discipline. The former has been defined as 'the science or study of government, and the interaction of political forces, with reference to its principles, aims, methods and conduct' (Comfort 1995:464). This rather bald definition could be amplified by an explanation devised by Benyon and Jeffery (2000:1) in a lecture celebrating the first 50 years of the Political Science Association in Great Britain and excerpted below:

> So what is it that links the diverse subject matter of political studies, and why should we explore it? One definition is that it is "an activity which involves conflict and disagreement over ideas and interests and its resolution through co-operation, compromise or coercion, and as such it entails institutions, rules and procedures". More brutally, perhaps, it has been called "a strife of interests masquerading as a contest of principles". There is also an important role for political studies in the current debate about the relationship between citizens and the state. At the same time, the demands for, and impact of, research by politics academics has grown greatly... New ideas and perspectives have been opened up in fields as crucial as the post-Cold War era, local governance, and constitutional reform. Governments

have been engaged both in designing the apparatus for new institutions and electoral systems, and in evaluating their operation.

These sentiments could well be applied to the Southern African region since they indicate the emergence of new concepts as the political landscape changes and evolves. For the purposes of this chapter, only one area of politics has been selected in order to clarify indexing techniques.

Politics

Elections have been chosen as they constitute a specialised branch of politics; and indeed there are libraries both in South Africa and abroad devoted solely to the topic. Elections have been described as the 'actual process of choice, comprising the campaign, the count, and the declaration'. To Stanley Baldwin (Comfort 1995:177) they were a regrettable necessity: 'I hate elections but you have to have them. They are medicine.' Love them or hate them, transparent and credible elections have become the benchmark of democracy and their execution and evaluation have become a highly complex activity in determining whether the government stays in office in the main house of the legislature or is replaced by a new administration led by a different party. The models of electoral systems, electoral administration, legislation, the logistics of the polling day and observation all constitute vital elements in the successful operation of an election and this is reflected in the indexing of the material both surrounding and emanating from them.

International Relations

The Penguin dictionary of international relations defines it as follows: 'The term ... is used to identify all interactions between state-based actors across state boundaries' (Evans & Newnham 1998:274). International economic relations, international politics and international law are related fields but the methodology differs because that of international relations is eclectic, utilising methods of study from various fields. The discipline of international relations is a multidisciplinary and heterogeneous field of study related to those mentioned above. Although previously studied within the parameters of history and politics, it was given formal recognition in 1919 when the first chair was established at the University of Wales, Aberystwyth.

As such, these fields of study should be relatively easy to index because one would apply the well-defined indexing rules; however their unique characteristics make these subjects rather more challenging than one would expect.

Unique Features

- Both politics and international relations are policy oriented.
- Theoretical directions include the concepts of idealism, and have expressed a belief in progress towards a fundamentally peaceful and just world order.

- Subsequent theoretical trends have been, in approximate chronological order, realism, behaviouralism, neorealism, neoliberalism, world systems theory, critical theory and postmodernism. In the years following World War II, political scientists and scholars of international relations increasingly turned to the methods and premises of scientific enquiry. Analysts were more inclined to study recurring patterns in world politics rather than a single event as a focus of enquiry.
- New theoretical models will no doubt be forthcoming in the future.
- It is now widely accepted that, given the range and complexity of the subject matter, a wide variety of theoretical approaches might be regarded as an asset rather than a liability.

Indexing Rules

The above unique features of the disciplines should be taken into consideration when designing the following rules for the indexing of both politics and international relations texts.

Use a Thesaurus

Both subjects rely heavily on a thesaurus for the key elements of using indexing terms. However, flexibility in the form of free language becomes an essential component in the indexing approach, as will be seen later. For example:

> Electoral Legislation could be found under Electoral Acts; Elections Legislation; Legislation
> Legislation and so would have to be standardised by the use of controlled language.

Use a Keyword System

International Relations in particular focuses on relations between states; therefore a largely country-based or region-based keyword system seems the most appropriate approach. A distinction should be made between foreign relations and foreign policy. Whereas foreign relations implies bilateral or multilateral ties, foreign policy should only be indexed under the country which is applying the policy. For example:

> SOUTH AFRICA
> Foreign relations
> (with) Nigeria
> *And:*
> NIGERIA
> Foreign relations
> (with) South Africa
> *But:*
> UNITED STATES
> Foreign policy
> (towards) Israel

However, this rule should not be applied too rigidly, since international issues such as globalisation, nuclear questions and environmental matters increasingly dominate world politics, often requiring main keywords. For example:

GLOBALISATION
Third World stance

Index under Individual Approaches

The variety of theoretical approaches, models and schools of thought should be reflected in indexes focusing on both politics and international relations. Whereas it is possible to combine these texts under one heading, it seems to be more appropriate to index under the individual approaches. For example:

INTERNATIONAL RELATIONS
Theory
And:
POSTMODERNISM

POLITICS
Theory
And:
REALISM

Use New Keywords

Current developments in the political and international arena occur constantly, and unexpected events suddenly dominate national politics and relations between states, and influence their policies. Examples of these would be the events of 11 September 2001 or the assassination of Sheik Ahmed Yassin by Israel. New keywords have to be devised and standardised. For example:

UNITED STATES
World Trade Centre attack
11 September 2001
And:
UNITED STATES
World Trade Centre attack
11 September 2001
impact on Africa

Adopt a Neutral Stance

A neutral stance has to be maintained, differing in this respect from disciplines such as the natural and exact sciences, where objective indexing is easily achieved due to the nature of

the subjects. As social science disciplines, politics and international relations often focus on conflicting ideologies, belligerent actions and violations of the international code of conduct. The indexer should use terminology which is restrained and objective, without compromising accuracy. Two examples follow:

MIDDLE EAST
Conflict
Suicide bombers
Rather than:
MIDDLE EAST
Terrorism
Suicide bombers
or
SOUTH AFRICA
Anti-apartheid organisations
Rather than:
SOUTH AFRICA
Terrorists

Use Cross-references

Cross-references should be liberally applied. Countries, provinces and cities are occasionally renamed, and the titles of regimes, political parties, regional and international organisations are always changing. Acronyms should also be cross-referenced. Multifaceted issues should be approached from various angles, such as the attack on the World Trade Centre. Examples:

BURMA
See also:
MYANMAR

NEW PARTNERSHIP FOR AFRICAN DEVELOPMENT
See:
NEPAD

WORLD TRADE CENTRE
Attack
See:
UNITED STATES
World Trade Centre attack

11 SEPTEMBER 2001
See:
UNITED STATES
World Trade Centre attack

Incorporate Dates

Dates are often the only distinguishing feature between recurring events and should be incorporated. Coup d'états, elections and conferences should be dated. Examples:

MALAWI
Elections 1999
Elections 2002

And:
UNITED NATIONS CONFERENCE ON SUSTAINABLE DEVELOPMENT
Johannesburg, 2002

Indexing Guidelines

- Indexing of theoretical material can be standardised, as these frameworks are developed over time, and even new trends become familiar, for example the trend of postmodernism.
- The same is true of recurring themes – long-term structures result in the developments of a consistent and well-designed indexing terminology, including the appropriate cross-references. The construction of an in-house thesaurus, to ensure consistency, is recommended.
- The indexing of unique and single events appears to pose greater challenges and require care and circumspection. As such developments often result in a string of further events, for example Fall of the Berlin Wall – end of Communism in the Democratic Republic of Germany – a united free Germany. The sequence should be apparent in the construction of an index.
- Both politics and international relations are to a large extent dependent on individual personalities; therefore biographical documentation of participants abound. Information on personalities should be indexed to include distinguishing features which will prevent confusion at a later stage, for example George Bush Snr and George Bush Jnr, both presidents of the United States, should be distinguished by their dates of birth and/or their full second names.

Brief Histories of Two Libraries

Within the Southern African region, two specialised libraries are synonymous with resources on International Relations and Elections. These are the Jan Smuts House Library of the South African Institute of International Affairs (SAIIA) and the EISA Library (EISA was formerly known as the Electoral Institute of Southern Africa), both of which are situated in Johannesburg, South Africa. The former has regional offices in the Democratic Republic of Congo and Mozambique with a third to be opened in Angola.

Jan Smuts House Library

Initially a card catalogue was established (1976), using a country-based keyword system as it was the most practical method to retrieve information. It includes periodical titles, volume and issue numbers, dates and pagination only – neither authors nor titles of the articles were included due to space and time considerations.

Fifteen years later, the Q and A system was introduced as the library's entry into the electronic era. Within a few years, this system had also become obsolete. Since it was necessary to use software with other library functions, such as periodicals cataloguing, archives recording and book ordering, an InMagic package was installed. In 2004, it totalled some 15 000 individual headings and more than 100 000 entries.

The indexing of periodicals in this manner has served the International Relations community and related fields for nearly 30 years. It has ensured effective and specific information retrieval in a world now dominated by the Internet.

The EISA Library

This library was established to develop and sustain an integrated information and research service on election-related issues and democratic transitions in the SADC region. This objective has now been extended to include the entire African continent and beyond, hence the name change.

Indexing was initially nonexistent, as the library consisted mainly of unprocessed material, housed in a series of boxes. An in-house software program was developed, based on experience gained in the Jan Smuts House Library.

Unlike the Jan Smuts House Library, however, it includes a full reference citation, annotation and a multitude of keywords that comply with the specially constructed thesaurus. This ensures precise information retrieval without excessive cross-referencing.

Conclusion

As can be seen from the above, the indexing of material on politics and international relations is an intertwined activity, illustrating both the internal and external elements of the disciplines. In the main, indexing is relatively straightforward; consistency is of paramount importance – as is the ability to adapt to the ever-changing political landscape. Without detailed and meticulous indexing, given the burgeoning literature on the subjects, it would be virtually impossible to present the timeous and precise information needed by scholars, researchers and practitioners.

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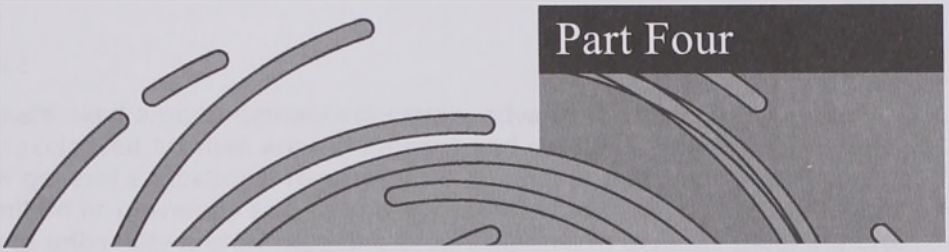

Part Four

TRAINING

31 TRAINING OPPORTUNITIES

Marlene Burger

Abstract

Indexers need a good general education, advanced subject knowledge, and specialised acumen around indexes and indexing. Whenever possible, these general educational requirements should be met while still at college, technikon or university and before employment. Indexing skills are taught both at university and by indexing organisations. In general, indexing often forms part of a degree programme in Information Science. Formal education and training of abstractors is seldom offered. In this chapter, education and training opportunities are assessed for indexers and abstractors in Southern Africa. Suggestions and arguments offered by Fourie (2000; 2002) and Theron (2003) are incorporated in this chapter.

Introduction

A career in indexing and abstracting can be a satisfying one, allowing practitioners to develop unique skills and to work in an intellectually challenging environment. These skills can be acquired by formal education, self-education, and by training in the workplace. Formal education may comprise courses or modules on indexing and abstracting offered at universities, or short courses offered by professional associations or individuals. Self-education is accomplished by studying books and manuals in the field.

Training in the workplace is valuable in the sense that very few librarians or information science graduates enter the profession with the explicit aim of becoming an indexer or abstractor. Courses forming part of a degree programme provide limited hands-on experience for students. A great deal of indexing and abstracting experience is needed for full professional development. Short courses, continuing education courses, and workshops give a quick introduction to the fundamentals of indexing and abstracting, followed by a range of practical exercises. Distance teaching programmes can offer working adults valuable opportunities to further their careers in a dynamic indexing and abstracting environment that includes database indexing, book indexing, periodical indexing, web indexing and thesaurus construction.

People who enter the indexing and abstracting field come from many fields, and may be writers, editors, researchers, lecturers, housewives or librarians. Some make a full-time career of it, while others use indexing and abstracting to supplement their incomes. Cleveland and Cleveland (2001:243) list five areas where indexers and abstractors may find work. In the list below these areas are marked with an asterisk (*); the others were added by the author of this chapter:

- *freelance book indexing
- *indexing for independent information brokers, who often use indexers, either on their staff, or on an assignment basis
- *working as library staff members, either indexing special materials in a research library or in a wide range of special libraries
- *working for primary information publishers of scholarly journals, for example
- *working for secondary information publishers, for example in indexing and abstracting services
- working in archives and museums
- working on bibliographic databases and networks, the Internet and the World Wide Web
- working on private large collections in private homes (e.g. Africana, music, photographic items)

Succeeding as a freelance indexer entails more than just being a good indexer. Freelance indexers have to set up a small business enterprise. The advantage of this is the independence of working for oneself. The disadvantage is that there are no guarantees of a steady income and job security. Disciplined work habits and business skills are prerequisites. The most important feature is to promote oneself. A major key to successful freelancing is to be able to sell one's services and convince authors and publishers of the need for indexers. Marketing could aimed at commercial publishers, professional associations, academics, libraries and the like.

The traditional publishing world will continue to need indexers and will remain a source of work, but there are other options – the electronic world of the Internet offers indexing opportunities in hypermedia indexing, electronic publishing and image databases. There is a demand for indexers in contemporary society. De Robbio and Marini (2003:1) have the following to say: '[I]n the ever more pervasive and connected world of digital information, reliable connections among such knowledge representation and lexical, as well as IR, tools such as classifications, lists of subject headings, thesauri, terminological collections and ontologies, are a necessity for networked knowledge-based activities. Users in different settings and with different demands and expectations want to fulfil their information demands wherever information is available, ... , regardless of the heterogeneity of sources'. The more-than 800 000 000 web pages available on the Internet (IMLS 2003) plus all the other published resources and the contents of archives and museums – all this illustrates the enormity of the task awaiting indexers. There is indeed a need for well-educated and trained indexers, as illustrated by the demand for their services. For Southern Africa to become competitive in the international arena, access to information or information-for-action is very important.

The tasks of conceptual analysis and translation of concepts into the indexing language of the system used are based on a large field of theory, for instance the theory of knowledge creation, its existence, storage, retrieval and use (epistemology, ontology, etc.). To be a competent indexer thus requires a sound theoretical schooling. In the present technologically obsessed society, knowledge of technology, entrepreneurial skills, human resources and office management is vital.

Competencies

Various lists of competencies that successful indexers should possess have been compiled by authors of leading indexing manuals. Such lists are not recipes for the education and training of indexers – they are rather wish lists or ideal visions. It is important to note that these competencies could be taught by various education methods such as formal, informal or in-service education and training. This education can be provided by many different types of educators and trainers such as universities, professional societies, and employers. The following is a list of competencies derived from the subject literature and the author's own experience (Theron and Davies list these competencies in chapter 2, but perhaps it is a good idea to repeat them in this the last chapter):

- A good general education in information science, which can also include librarianship, archival science, museum science, publishing and/or any other academic subject(s).
- A sound understanding of knowledge and related concepts such as data and information, for example how information and knowledge are generated, produced and regulated in society. Other matters may involve the recording, organisation for retrieval of information, the search for and use of information in society.
- A thorough understanding of the theory of indexing, its role in providing access to and communication of information; and a thorough understanding of the links between indexing, classification, the assigning of subject headings and thesaurus descriptors.
- Language skills such as semantics and syntax.
- Ability to differentiate between types of indexes such as catalogues, book indexes, databases, manual and automated indexes, and indexes to the Internet. Knowledge of indexes to electronic records is becoming increasingly important.
- Knowledge of information in all forms and formats such as books, pictures, periodicals, museum objects, CD-ROMs, technical reports, newspapers, and posters (i.e. ability to answer the question 'What can be indexed?').
- A proper understanding of the indexing process, that is conceptual analysis and translation. Indexers should be able to apply their knowledge and successfully complete a number of different indexes, for example to books and electronic records. They should also demonstrate an understanding of and ability to use manual and automated (or electronic) indexing methods and systems of indexing.
- Editing and proofreading skills needed for the technical presentation of an index.
- A qualified indexer should be able to undertake user studies, to evaluate indexes and indexing systems, to be able to select appropriate indexing systems or indexes to modify and improve existing ones in accordance with user needs and requirements.
- An understanding of the role and use of technology in indexing, including computers, telecommunications and the requirements of the digital library represents essential abilities for a successful indexer in the digital age.

- The completion of a practical component (especially where formal education is concerned) in the form of an internship, practical sessions at book publishers or Internet providers, et cetera. Ability to compile different kinds of indexes may also be required and can be a valid learning outcome.
- Entrepreneurship, especially for freelance indexers – quoting prices for indexes, marketing their services, knowledge of accounting, budgeting, time and stress management, human resource management, office technology and administration, all comprise valuable skills that should be included in indexing curricula.
- Indexers (including prospective indexers) should also be taught professional and ethical conduct as well as the distinctive characteristics of a profession. These include issues such as service orientation, punctuality, confidentiality, ability to recognise, and acknowledge to clients, that a certain kind of index may be impossible to compile, and ability to handle a clash of interests. Although these issues may be considered peripheral, they are important to the survival of a professional indexer.
- Prospective indexers should also be made aware of the importance of continuing professional education and lifelong learning.

The obvious question now is 'How can all this be achieved?'. How can ideals be turned into reality within the constraints of Southern Africa's education and financial environments?

Short Courses and Workshops (Informal Education and Training)

At present, the Association of Southern African Indexers and Bibliographers (ASAIB) offers workshops in book indexing, periodical indexing (both manual and embedded indexing), and abstracting and reference techniques (bibliography). ASAIB plans to expand these workshops to include thesaurus construction and web indexing. The necessity for these workshops arose from the need for hands-on training in indexing and abstracting that covers a wider field than formal information science teaching programmes.

The indexing workshops are based on the BS ISO 999 (see the bibliography) and include editing, proofreading and guidelines on how to approach freelance indexing. Many indexing manuals have been studied in order to compile the course content (some of the most prominent ones are listed in the bibliography). The workshops are constantly adapted to keep track of developments in the field. ASAIB also maintains a directory of available indexers with their specific subject areas/specialisations indicated. The directory is available on the ASAIB website: www.asaib.org.za

A typical workshop may cover the following topics:

- definitions of core concepts
- characteristics of an indexer/abstractor
- conceptual analysis
- function of an index/abstract

- types of index/abstract
- indexing/abstracting principles
- decisions to make about the planned index/abstract (including policy)
- terminology
- formulating entries
- arrangement and presentation
- copy preparation
- editing
- proofreading
- index/abstract evaluation
- guidelines for freelance indexing/abstracting
- personal relationships

Throughout the workshops, participants work on a variety of exercises. There are also opportunities to evaluate one another's indexes or abstracts. Workshops in embedded indexing include the basic principles of indexing as set out above. However, a good working knowledge of either MSWord or WordPerfect is a prerequisite for enrolment in these workshops. ASAIB presents workshops in Pretoria, Cape Town and Durban in cooperation with the ASAIB Western Cape Branch and the ASAIB KwaZulu-Natal Branch. The workshops are open to any practising or prospective indexer/abstractor. Certificates are issued to participants. Because of the costs involved, ASAIB cannot as yet offer training via the Internet. However, the current Executive Committee of ASAIB is looking into this matter.

The ideal would be for ASAIB to act as the accrediting agency for indexers in Southern Africa. This would involve keeping a register of accredited indexers. Accreditation would require successful completion of an ASAIB training programme, with assessment of practical tasks and a written test. ASAIB may also set the standards for education and training programmes offered by teaching institutions. But this will take a long time to achieve, for the following reasons:

- Need to meet specific requirements regarding South African teaching programmes, such as those of the National Qualifications Framework (NQF), the South African Qualifications Authority (SAQA), the Skills Development Act, the Sectoral Education and Training Authority (SETA) and recognition of prior learning (RPL) requirements. No teaching programme (with a formal qualification as outcome) can be implemented without the approval of these bodies.
- Some programmes (which include indexing and abstracting modules) may already have been approved by these organisations, but the task of ASAIB is then to determine whether those modules comply with the standards envisioned for accreditation purposes.
- Collaboration with teaching organisations, expert indexers, abstractors and bibliographers, the publishing industry and overseas indexing societies will be of paramount importance. ASAIB has to ensure that the standards of its teaching programme compare with those of overseas indexing societies.

- The last survey of training in indexing in South Africa was Pienaar's in 1998. A new, in-depth survey will have to be undertaken, including the whole of Southern Africa.
- Employers of indexers, abstractors and bibliographers in Southern Africa will need to recognise ASAIB's accreditation. This will call for an extensive marketing campaign.
- An option is to franchise the training programme of the Society of Indexers for example, but there are problems such as its British bias and the time and effort that would be involved in adapting the programme for Southern African purposes, as well as the cost.

ASAIB is considering all the possible options for achieving accreditation.

Distance Education (Formal or Informal)

Indexing and abstracting are both complex processes involving higher order cognitive skills. They require considerable practice, considerable reflection, and for learner indexers/abstractors to be critical of the quality of their own work. Not only are learner indexers/abstractors required to apply the guidelines and rules as explained in standards and textbooks, but they are also required to perform conceptual analysis to identify key concepts. This is a difficult process that can leave the novice indexer/abstractor feeling some uncertainty. It is also important for indexers and abstractors to be aware of diverse information needs and to react accordingly. Indexing and abstracting are furthermore subjective rather than objective processes, which means a single individual may, for example, assign different indexing terms at different times to the same text, or more than one individual may assign different terms to the same text. Although both can be conducted as paper-based exercises, they can also be done electronically.

The teaching of indexing and abstracting therefore poses a number of challenges, especially as they are also marked by new developments such as changes in indexing software, and the demands of a variety of indexing and abstracting types (e.g. web indexing, critical and structured abstracts). Although many standards and textbooks (e.g. Booth 2001; Borko & Bernier 1978; Cleveland & Cleveland 2001; Lancaster 1998; Mulvany 1994) offer advice on the steps and principles to consider for both indexing and abstracting, the main problem lies in the application of these skills, for example having to decide what an entity is about and representing it in vocabulary that will meet users' needs and support IR.

Apart from practical skills there is also a need for more intensive research in indexing and abstracting. Anderson (1994) remarks: '[T]here is so little research and so much ignorance about indexing, especially on how people use indexes, and what constitutes good and useful indexing', while Millstead (1994) declares: 'People have been making indexes for hundreds of years, but there has been relatively little research on indexing as such.' Since 1994 (when these sources were compiled) the scene has changed somewhat, with the focus rather on organisation of multimedia, visual presentations of information organisation, use of thesauri, natural language and information organisation in digital libraries, rather than on cognitive (thinking) skills.

The essence of distance education lies in the geographic separation between trainer and learner, and the fact that they are not in the same place at the same time. Learners are

seldom in the position where they can ask questions and get immediate, direct answers from the trainer, except when video conferencing or web-based bulletin boards are used.

Distance teaching has both advantages and disadvantages for the training of indexers and abstractors. The following are some of the advantages: trainees can carry on with their jobs and family responsibilities; trainers and trainees can stay in remote areas; geographical distance does not keep people from furthering their careers; trainees can study at their own pace; trainees can study at times which they find convenient (the same applies to the trainers developing the course content); fees are normally cheaper and there are no, or few, travelling expenses; one can use expertise from all over the world to help develop course content and to do assessment; a variety of teaching methods can be used, selected and combined according to the needs of the trainees; one can cater for individual differences; training can be offered to people who otherwise could not afford formal training or attend workshops.

Disadvantages include the following: it is not easy to teach basic technical skills (e.g. using a computer); trainees must have good reading and writing skills, and a strong sense of self-discipline and responsibility; sometimes restrictions are imposed, for example dates for tests (however in some distance teaching programmes learners can be tested whenever they are ready and write tests online); one needs to assume all possible scenarios for the learners, their experiences and potential questions (probably without ever meeting them); there is seldom direct synchronous communication between learners and trainers (learners may feel isolated); they must not only have access to the appropriate IT infrastructures, but must also be familiar with the IT that will be used; developing and maintaining distance teaching material is very time-intensive and labour-intensive. There should also be opportunities for learners to assess their own progress, answers for self-assessment exercises and other activities should be provided, with a wide variety of examples from the real (indexing and abstracting) world.

Instructional Design

The planning of a distance teaching programme is influenced by three key needs:

- need to understand the concepts of indexing and abstracting, the practice and theory of these concepts, and developments and research findings
- need to interpret the changing indexing and abstracting environment and to develop lifelong skills
- need to understand and interpret the concept of distance teaching, and the potential value of distance teaching for the training of indexers and abstractors

The way training is planned is also influenced by the view on teaching and training, and of the people trained. This is one reason why there are so many different approaches to training indexers. Philosophy of teaching can also be called the epistemology of teaching. Is training merely the provision of training materials, or does it include offering examples and practical exercises, and does it include feedback and assessment? Furthermore, does it perhaps include extensive support and enrichment?

Instructional design should be the point of departure when considering the possibilities for the distance teaching of indexers and abstractors. The key principles of instructional design also apply to the design of practical workshops for indexing and abstracting. When making the final decisions on how to deliver the programme (e.g. through print-based training material or through the WWW), one should also consider the characteristics of distance teaching and its specific requirements and challenges.

Instructional design can be described as a logical, step-by-step approach to the planning of training programmes. It helps one consider everything that may have a bearing on the training. Seels (1995:xi-xii) says: '[It is] the process of specifying conditions of learning. Its purpose is to create strategies and products on the macro level, such as programs and curricula, and at the micro level, such as lessons and modules.' It is most often guided by a model of instructional design – many models can be found in the subject literature (e.g. Dick & Carey 1996; Kemp, Morrison & Ross 1998). These models can be adapted according to one's personal preferences and circumstances. The model depicted below is an adaptation of a model presented by Ina Fourie in 1995:

An instructional design model will help one to determine *inter alia*

- for whom the training programme will be developed (e.g. Library and Information Science [LIS] students, novices or experienced indexers and abstractors)
- what one wants the learners to learn or demonstrate, that is what they should be able to do after completing the training programme
- the best way to learn the subject content or skill
- the best way to offer the programme (e.g. through print or online)
- the extent to which the learning has been achieved (the assessment procedure)

Steps	Questions to answer
Situation analysis	Why is training necessary? What is the indexing and abstracting environment like? Who will be trained? Who will offer the training? What training materials are available? What technology is available? Which factors may impede the training?
Formulation of the aim of the training and the learning outcomes	What will be the aim of the programme? What should the training cover? What will be the learning outcomes, i.e. what should the learners be able to do after completing the training? What should their entry knowledge be? How will the learners be assessed?
Designing of the training material	Which teaching approach will be best? Which teaching methods will be best? Which teaching strategies will work best? Which media will be used to deliver the programme? How will you communicate with the learners? How will you allow for individual preferences and circumstances? How will you allow for the learner's contribution? How will you develop a supportive and stimulating climate?

Steps	Questions to answer
Development of training material	This includes the preparation, duplication and distribution of the material (e.g. workbooks, videos, websites).
Training	This includes marking assignments or portfolios, offering feedback, presenting classes and workshops, answering questions and developing personal rapport with the learners.
Evaluation	This includes the evaluation or assessment of the learners' progress, as well as the evaluation of the success of the training programme.

Situation Analysis

Within the context of a particular environment, a situation analysis should shed light on the decisions to make in the planning of the programme. The indexing and abstracting environments are characterised by change – indexing methods, for example, have changed. The indexing process and therefore also the training of indexers should always be seen as part of the bigger picture. There have also been calls for closer links between the theory and practice of indexing and abstracting and the overall indexing process. Bates (1995), for example, declares: 'Finally indexing and information system design need to proceed within the context of a deep understanding of the character of the intellectual domain, its culture, and its research questions.' Unfortunately there is not always sufficient time to do a formal situation analysis. Even if one has to rely mostly on one's gut feeling and personal perceptions, it is still worthwhile to at least consider the issues forming part of the situation analysis (see table above). The information collected during a situation analysis forms the basis for subsequent decisions. These decisions will also be influenced by one's views and convictions in this regard.

What to Teach

In addition to the components of the situation analysis, it is also necessary to identify learners' needs. This is called a needs assessment. Needs are the gap between what is expected and the existing conditions. In other words, they reflect the gap between the current situation and where one would like learners to be after completing the training programme. The following are examples of needs: indexers requiring training in the use of indexing or thesaurus software, or on how to start an indexing or abstracting business, how to evaluate the effectiveness of an index or database, how to interpret and apply research results in their indexing and abstracting practices, how to use the Internet to keep track of indexing and abstracting developments, or how to analyse a document. A needs assessment can be done by means of questionnaires, interviews, brainstorming sessions or focus group interviews. Indexing and abstracting standards and textbooks may also offer guidelines. In order to offer dynamic teaching programmes, the processes of indexing and abstracting, specifically the tasks of an indexer/abstractor, should be reassessed.

Task Analysis

The purpose of a task analysis should be to identify one or more of the following indexing and abstracting matters:

- tasks
- methods employed
- cognitive (thinking) skills of experts
- tools used
- order of activities that need to be completed
- relationship between different activities (e.g. conceptual analysis and the selection of terms)
- mental model (framework)

The following are task analysis methods: task descriptions, methods analysis, learning hierarchy (prerequisite analysis), information processing analysis, learning contingency analysis, activity theory and conceptual graph analysis. For more details on these methods, Jonassen, Tessmer and Hannum (1999) can be consulted. Doing a task analysis will help clarify the complexities of indexing and abstracting. The most difficult part of indexing is not applying rules, such as arranging the entries in alphabetical order, constructing cross-references, or using the plural form for countable nouns: 'Deciding what an entity is about, and how to select the most appropriate indexing terms, are the problematic issues that we still do not know how to teach. How do you teach the skills of conceptual analysis? I believe that task analysis can shed light on this, and it will probably point us in new directions when selecting teaching methods and teaching strategies' (Fourie 2000). The information gained from task analysis can also help one take decisions (e.g. on the theory behind indexing) such as deciding between mission-oriented indexing, request-oriented indexing, subject-oriented indexing and entity-oriented indexing. Is it necessary to offer training in such a way that the learners can experiment with different approaches, learn from their mistakes, and gradually improve the quality of their work?

Teaching Aims and Learning Outcomes

Examples of teaching aims could include the following: to train learners to prepare indexes or abstracts that will support effective information retrieval, to contribute to the knowledge of information retrieval, to keep track of future developments, to analyse specific web-based information systems, to determine the need for web-based indexing, or to decide which vocabularies to use. Learning outcomes should be formulated clearly – it is extremely important for distance learners to know *exactly* where they are heading and what is expected of them.

Different taxonomies can be used to formulate learning outcomes, for example Bloom's taxonomy which is well known and always a safe choice. He distinguishes between the cognitive, psychomotor and affective domains. Knowledge of something represents the most basic level, while evaluation represents the most difficult level of the cognitive domain (Kemp, Morrison & Ross 1998). Examples of applying Bloom's taxonomy include the following: after completing the training the learner should be able to explain the difference

between derived indexing and assigned indexing, analyse a selection of entity types (e.g. a periodical article, a report), assign appropriate indexing terms and write an informative abstract, and critically compare the use of natural language versus controlled vocabulary. When considering the changing indexing environment and the demands made on indexers, it appears that we need a new taxonomy to deal with these challenges. Jonassen and Tessmer have suggested a new taxonomy that seems to have potential for the training of indexers. For details of this taxonomy, consult the book by Jonassen, Tessmer and Hannum (1999).

The following are examples of learning outcomes: after completing the programme, learners should be able to explain core indexing terms and their relationship, evaluate the effect of indexing on an information retrieval system, the impact of their mental models of an information retrieval system on their indexing practice, devise an indexing policy for a specific real-life indexing case study or a proposal for their training needs. As the learners may be adults and experienced indexers and abstractors, one could also allow them to add their own learning outcomes.

Training Programme

In the past, mainly behaviouristic approaches have been used to set teaching objectives. Once learners have mastered an objective, they move on to the next objective. In the dynamic indexing environment, constructivism seems to offer a more viable approach. Here learners are given opportunities to build their own knowledge through personal interpretation. The skills of reflectivity and not just memory or memorisation are emphasised. Constructivism also encourages learners to be more critical about their own work. Although this approach can be used for print-based distance teaching, it is much more effective with online methods where the trainer communicates with learners and learners can communicate with each other. Constructivism seems to offer an ideal teaching approach to the training of indexers and abstractors, since indexing and abstracting can never be perfect. There are also the factors of inter-indexer and intra-indexer inconsistency to consider. Users' needs are also constantly changing. Ongoing self-reflection and improvement are crucial to indexing and abstracting. The constructivist approach allows for such improvement without penalising the learner. However, it does not imply that the final product (e.g. an index or abstract) should be of inferior quality. It is only the *process* of getting there that is made more supportive and more tolerant of the learner's efforts to acquire new knowledge.

Distance teaching can be based on one method (e.g. print-based study guides or manuals) or a combination of methods. The material can be delivered in print-based or electronic format (e.g. web-based instruction or CAI). According to Fourie (2000), the following methods and materials are all suitable for distance teaching:

- Study guides/manuals contain the text with explanations, theoretical background, different viewpoints, and so on, as are normally provided in a lecture.
- Workbooks contain examples, practical exercises and solutions.
- Textbooks offer a wider perspective on problems of and different approaches to indexing/abstracting.

- Videos offer detail on information retrieval (i.e. information searching) and how this can be supported by indexing/abstracting.
- Computer-assisted instruction (CAI) can be used to illustrate the effect of indexing/abstracting on information retrieval and on different points of view on, say, conceptual analysis.
- Discussions can be used to compare different views of indexing/abstracting.
- Case studies may involve working with existing databases, evaluating the indexing/abstracting of a website, or evaluating book indexes or abstracts of periodical articles.
- Expert guest trainers can be used to share different viewpoints (e.g. through a website).
- Mentors can be used to offer on-the-job advice and support.
- Exemplars of databases, indexes and websites used in practice can offer a view on real-life problems.
- Reviews of indexes, for example book indexes, can be used to help learners to refine their indexing skills, and to learn from experts.
- Networking (i.e. interaction with other learners through study groups or web discussions) can be used to stimulate thinking and to collaborate with other learners. It can also be used for peer assessment.
- Supportive tools, for example access to demonstration versions of database or indexing software, online reference works and online thesauri can enrich the learning experience.
- Enrichment can also be offered through links to resources such as websites of indexing societies, e-journals, electronic discussion groups, and publishers and database producers who employ indexers or abstractors.

Most of these methods and materials can also be used in print-based approaches to distance teaching. The most exciting possibilities are with web-based instruction where the study material and learning opportunities can all be available interactively. The choice of an appropriate method or combination of methods will depend on the results of the situation analysis and on the task analysis. One should always use a well-balanced mixture of media.

After deciding on the method or combination of methods to use, a decision must be made on appropriate teaching strategies that will help learners achieve the learning outcomes. A teaching strategy prescribes the sequence of events and offers guidelines on when and how the content should be presented to achieve the learning outcomes. Among other things one has to select strategies that allow for the distance between trainer and learners, individual needs and preferences, support, two-way communication, the contribution adults can make to the learning situation, pre-instructional strategies (e.g. initial motivation, explanation of the aim and learning outcomes, overviews, specification of the entry or prior knowledge level), information presentation, learner participation, et cetera. The teaching strategy should also make allowance for assessment, follow-through activities, collaborative learning, working with real-life, poorly structured problems (e.g. case studies), opportunities for learners to construct their own meaning and to experiment with different solutions and points of view (e.g. by using portfolio assessment and journal writing), collecting information on the learners' experiences, and opportunities to practise and get feedback. Although teaching

strategies should be carefully planned, one should also take care not to go into so much detail that there is no time left to write and construct the actual study material.

Different assessment methods can be used in the training of indexers and abstractors. These include a variety of self-assessment questions and exercises, practical indexing/abstracting exercises and formal tests.

The last steps concern formative and summative evaluations. Formative evaluation is extremely important during the planning stage. One can, for example, get feedback from colleagues and expert indexers/abstractors, as well as from potential learners in the programme. Summative evaluation considers the overall effectiveness of the programme in helping learners achieve the learning outcomes. If necessary, the programme should be adapted or revised.

If distance teaching is preferred, indexers in Southern Africa have to enrol for courses offered by overseas indexing societies such as the British Society of Indexers (SI). Their Distance-Learning Course in Indexing is available on CD-ROM and consists of five units. For enquiries, e-mail can be send to admin@indexers.org.uk or you can access their website at www.indexers.org.uk Other indexing societies to contact are

- American Society of Indexers (ASI) at info@asindexing.org or www.asindexing.org
- Australian and New Zealand Society of Indexers (ANZSI) at memsec@aussi.org or www.aussi.org
- Indexing and Abstracting Society of Canada (IASC) at www.indexingsociety.ca

Proposed Models for a Training Programme

Theron (2003) suggests two possible models for the training of indexers and abstractors in Southern Africa. However, some issues must be kept in mind before analysing these models: the demographic profile of potential learners (gender, race, place of residence, financial resources and existing educational levels); the requirements of the NQF, SAQA, SETA and RPL; the assumption that there is a need for professional indexers; and what level of education is required. A workshop or brief hands-on course may be sufficient for an experienced indexer/abstractor, especially when it is used as a form of continuous professional education. For a first-level student who has just matriculated, a completely different education model is needed. Such learners may be disadvantaged as far as language skills, general knowledge, reading and comprehension are concerned. Against this background the design of an education model in order to reach the core competencies (as set out earlier in this chapter) becomes quite complicated.

In this model, library schools and information science departments take responsibility for the education and training of indexers and abstractors. Indexing and abstracting form part of the curricula for the professional education of information professionals such as librarians. Often indexing and abstracting is only one section of a major such as subject organisation (including classification, assigning of subject headings, thesaurus construction, etc.) – it is seldom offered as a major on its own. This immediately implies that only the basics are taught with limited practical experience. Even when a practical internship is required from information science students, they rarely get the opportunity to do actual indexing.

The challenge facing library/information science departments is to incorporate more opportunities for practical work (i.e. compiling and evaluating indexes and abstracts). A solution might be Fourie's (2002) socio-cognitive approach (for details read the article listed in the bibliography). The most viable solution seems to lie in brief hands-on courses and workshops supplementing the formal education programmes of teaching institutions. Specialisations can be offered, such as Internet indexing, use of dedicated indexing software such as Macrex or Cindex, embedded indexing, and so on. Employers (e.g. libraries, publishers) can also consider presenting in-service training for employees as part of a staff development programme. ASAIB offers workshops supplementing formal educational programmes for indexers and abstractors.

The second model, the Information Architecture Model, provides an interesting perspective that needs further investigation. Belton (2003:1) describes it as follows: 'Information architecture is currently emerging as a discipline that concerns itself with the development of systematic approaches to the organisation and presentation of on-line information.' This approach places the education and training of indexers and abstractors among that of the other design professions. Most information scientists tend to think of information as content only, and not as something that has a form or architecture. This form, organisation and structure of information comprise the substance of information architecture.

This model has important pedagogical implications for the education and training of indexers and abstractors – it implies that professional education supports the three dimensions of professional attributes, that is the cognitive, the normative and the evaluative. The cognitive dimension is centred on the body of knowledge and techniques needed by a professional to apply his or her work as well as the study and training necessary to master this knowledge; the normative dimension refers to the service orientation of the professional indexer/abstractor and ethical approaches to his or her work; and in the evaluative dimension the differences between a professional's occupation, other types of work or professions and his or her own are constantly compared to emphasise his or her profession's uniqueness, autonomy and prestige. For more information about this model, read the article by Belton listed in the bibliography.

The following are the implications of this model for the education and training of indexers and abstractors:

- Indexers/abstractors must be taught the body of knowledge unique to their profession (e.g. information infrastructure, production and use of information, indexing and abstracting as part of the process, the information environment, research, theory building).
- More emphasis should be placed on the human aspects of indexing/abstracting. Indexes and abstracts are compiled for humans and for use by them. Service orientation and ethics form part of this knowledge.
- A clear conceptual and theoretical grasp of the essence of the profession of the indexer or abstractor is essential. This ensures that indexers or abstractors do not trespass on other professions' domains, and justifies the existence of the indexing/abstracting profession in society.

For training purposes this means that prospective indexers and abstractors need to be exposed to proper theoretical education. This education should include the theory and philosophy of education, information, correct professional conduct, and the nature of the profession.

Conclusion

In conclusion it can be stated that the education and training of indexers and abstractors is important, mainly because of their central role in providing access to information. Given the dearth of facilities, this is particularly significant to Southern Africa.

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INDEX

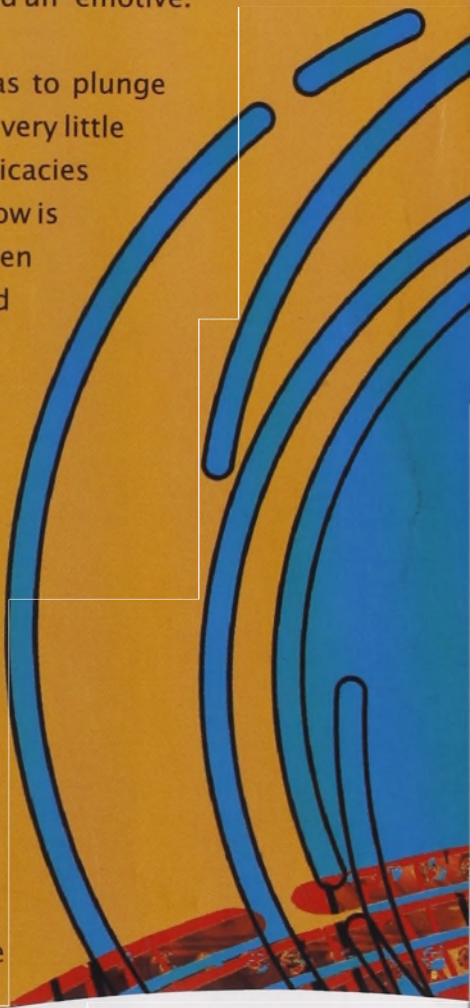
Note: Due to a page restriction, a broad, simple index was compiled, mainly based on the headings in the text. In most instances, only names and titles that appear in headings are included in the index. Some entries are combined, for example *abbreviations/acronyms*. It is arranged in word-by-word order, for example *free text* is filed before *freelance indexers*. Prepositions in subheadings are ignored in the alphabetical arrangement. *See* references are used to guide the reader. Since this manual is in essence about indexing, the subheading *indexing* does not appear under all headings. It was also not possible to use subheadings for all headings with several page references.

This book represents a highlight in ASAIB's ten-year history, and fills a gap in the Southern African literature on the methodology of indexing.

Indexing is a strange occupation and one that requires a special type of personality – one who thrives on creating order but also one who is blessed with an essential mix of an informed background, a sparkling curiosity, the ability to make lateral connections and the patience to untangle the strands of the narrative and then weave them anew into a finding instrument that is logical, succinct and un-emotive.

To create this retrieval tool, the indexer has to plunge into another's way of thinking and often with very little time at hand, familiarise oneself with the intricacies of a subject that is often new and complex. How is this achieved? Practical experience is often cited as an essential component of a good indexer but how does one acquire this experience? This manual has been carefully crafted to assist the user in overcoming the twin vagaries of ignorance and inexperience, as a practical guide produced by well-known experts in the field.

This book will assist both newcomers and those already versed in indexing techniques; it is a book written by Southern Africans for Southern Africans. These two factors alone make it a unique manual in the indexing community and it should have a timeless appeal for future generations of indexers.



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