

Introduction

There is an increasing recognition of the value of knowledge and information to individuals, organizations and communities. Individuals are expected to become ever more adept at identifying, locating, interpreting and using information. This information may come from a wide variety of different sources, in diverse formats, and be used for many different purposes. As availability of, and access to, information increases, the need to be able to locate and retrieve information becomes all the more pressing. Tools that support or assist in the process of information retrieval are becoming increasingly important and also increasingly sophisticated. In keeping with a long tradition, this book uses the phrase ‘the organization of knowledge’ to encompass the tools and the processes associated with providing access to knowledge and information. We are aware that some authors might have a preference for the term ‘information’ instead of ‘knowledge’; this debate is visited in Chapter 1.

One of the other objectives of Chapter 1 is to establish the complexity of the field of the organization of knowledge. Tools such as Google are so superficially effective that it is possible to be lulled into a belief that the one-stop shop for information has arrived. But this is to overlook the wide variety of different contexts in which knowledge is organized. These include libraries, public record offices, archives, corporate databases, museums, government files, content management systems, and knowledge-based systems. Not so long ago all of these applications were relatively separate islands. The advent of Web technologies has provided exciting opportunities for networked access to a wide variety of digital content, and interoperability has become a shared agenda. This makes understanding the organization of knowledge all the more challenging, because it is no longer acceptable to work within one of these arenas and to ignore the developments in others. In addition, although there are some common principles, standards and agendas, each professional community (such as information professionals, archivists or record managers) faces challenges that are unique to its own documents, databases and communities.

This book seeks to identify and explain the principles that underlie the

structuring of knowledge in a wide variety of different contexts. It seeks to strike a balance between the identification of principles, and the description of their application in specific contexts.

This fourth edition continues the tradition of earlier editions in offering a broad-based overview of approaches and tools in the organization of knowledge, written in an accessible style, and well illustrated with figures and examples. There are, however, significant changes between this and the previous edition. These changes reflect the ongoing shift towards a networked and digital information environment which has many consequences for and impacts on documents, information, knowledge, information services and users. The book has been structured into three parts and twelve chapters and has been thoroughly updated throughout. Topics that are either new to this edition or have undergone significant development include:

- ontologies and taxonomies
- information behaviour
- systems contexts, including digital libraries and content management systems
- markup, metadata, interoperability and the Semantic Web
- evaluation of information retrieval systems
- authentication and security
- project management
- managing change.

The text has also been thoroughly revised to take into account the most recent editions of key standards such as MARC, AACR (including RDA), DDC, LCC, LCSH and BS 8724-2: 2005 for thesauri. Also, the balance of treatment of topics has been adapted. Most significantly, there is no longer a separate chapter on the Internet and its applications, since these topics are now integrated throughout the book.

Part I discusses the nature, structuring and description of knowledge. Chapter 1 argues the case for the organization of knowledge, discusses basic definitions and gives an overview of the contexts and processes for the organization of knowledge. Chapter 2 examines the different ways in which knowledge is packaged and structured using databases and documents. It then goes on to discuss the relationships between documents. Finally, it introduces ways in which digital documents can be structured and labelled using markup and metadata. Chapter 3 examines some specific types of metadata that are used to describe the content of documents: citations, abstracts, bibliographic records, bibliographic description and the MARC format.

Part II, with its five chapters, lies at the core of the book, focusing as it does on access to information. Chapter 4 sets the scene by considering users and their behaviour, including different models of information behaviour and the concept of

usability and its application. Chapter 5 is the first of three chapters on subject access. Chapter 5 introduces the basic challenges of the provision of subject access, such as deciding what a document is 'about', and differentiates between the two main approaches: natural and controlled indexing languages. Two major sections follow, one on thesauri and the other on searching facilities. Chapter 6 switches the focus from alphabetical indexing languages to classification and order, and the challenges associated with examining the relationships between subjects. It explores the elements of bibliographic classification schemes: schedules, notation, alphabetical indexing and revision strategies. Chapter 7 starts by exploring in more detail the concept of pre-coordination. This is used as a platform for the analysis of traditional subject access tools, such as subject headings lists, and bibliographic classification schemes. A discussion of special bibliographic classification schemes leads naturally into an exploration of taxonomies and ontologies. The final chapter in Part II shifts the focus towards access through author names and titles. It introduces and illustrates the issues associated with the choice of access points, and the selection of headings for persons, corporate bodies and uniform titles.

Part III explores the different types of knowledge organization systems, and considers some of the management issues associated with such systems. Chapter 10 reviews the range of digital systems, and illustrates how the organization of knowledge is achieved through those systems. Chapter 11 perhaps sits a little less comfortably in the systems section, but it takes an important opportunity to explore a number of issues relating to print documents and indexes, such as book indexing, document arrangement, and filing orders and sequences. Finally, Chapter 12 offers an overview of some key aspects of the management of knowledge systems, including authority control, user support, security, systems development and managing change.

Each chapter commences with an introduction which specifies the learning objectives for the chapter. Chapter coverage is revisited at the end of each chapter, in the chapter summary, and every chapter has a list of references for further reading. Throughout the text, key points are illustrated with the use of a range of different figures. Checklists are offered in places where a summary of features or factors can most effectively be summarized in such a form.

AUDIENCE

In common with the earlier editions of this book, this edition is written for undergraduate and postgraduate students of information management. It is intended to be an introductory textbook. These students need to understand the organization of knowledge for three reasons. First, they may be involved in the

design of information retrieval systems. Secondly, as information intermediaries and designers of information systems they themselves need to be exemplary searchers of information. Success in searching will not be achieved solely through the identification of an appropriate source, but also depends on skills in extracting the information from that source. Finally, they are likely to act as trainers in assisting others in effective information retrieval. Information retrieval, despite the plethora of information available to us, is not simple and requires considerable skill if the best information or document for the purpose is to be extracted.

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