Praise for *From Cataloguing to Metadata Creation*

'*From Cataloguing to Metadata Creation* is an effective introduction to the theoretical and methodological basis for the creation of metadata, an activity fully embedded in the scientific and disciplinary field of cataloguing.

It charts the evolution of cataloguing in the modern world, up to and including the intersection with the methodologies of the Semantic Web and linked open data. In this environment the "relationship" between the described entities is not only pushed to its own maximum potential within a (bibliographic) catalogue, but also multiplies its information potential. Indeed, it projects itself into the web of data, where there are extraordinary opportunities to create and share further cultural production.'

Rosa Maiello, President, Italian Library Association

From Cataloguing to Metadata Creation

Every purchase of a Facet book helps to fund CILIP's advocacy, awareness and accreditation programmes for information professionals.

From Cataloguing to Metadata Creation

A Cultural and Methodological Introduction

Mauro Guerrini

Prefaces by Barbara B. Tillett and Peter Lor
Afterword by Giovanni Bergamin

facet publishing

© Mauro Guerrini 2023

Published by Facet Publishing
Room 150, British Library, 96 Euston Road, London NW1 2DB
www.facetpublishing.co.uk

Facet Publishing is wholly owned by CILIP: the Library and Information Association.

The author has asserted his right under the Copyright, Designs and Patents Act 1988 to be identified as author of this work.

Except as otherwise permitted under the Copyright, Designs and Patents Act 1988 this publication may only be reproduced, stored or transmitted in any form or by any means, with the prior permission of the publisher, or, in the case of reprographic reproduction, in accordance with the terms of a licence issued by The Copyright Licensing Agency. Enquiries concerning reproduction outside those terms should be sent to Facet Publishing, Room 150, British Library, 96 Euston Road, London NW1 2DB.

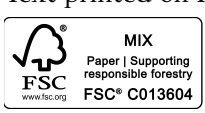
Every effort has been made to contact the holders of copyright material reproduced in this text, and thanks are due to them for permission to reproduce the material indicated. If there are any queries please contact the publisher.

British Library Cataloguing in Publication Data
A catalogue record for this book is available from the British Library.

ISBN 978-1-78330-628-2 (paperback)
ISBN 978-1-78330-629-9 (hardback)
ISBN 978-1-78330-630-5 (PDF)
ISBN 978-1-78330-631-2 (EPUB)

First published 2023
Originally published in Italian as *Dalla catalogazione alla metadatazione: Tracce di un percorso*.

Text printed on FSC accredited material.



Typeset from author's files in 10.5/13 pt Revival 565 and Frutiger by Flagholme Publishing Services.
Printed and made in Great Britain by CPI Group (UK) Ltd, Croydon, CR0 4YY.

To Leonida, *my grandson*

New technologies will always underpin future generations of library catalogues. In order to maintain their role in providing information, serving users, and fulfilling their mission as cultural heritage and memory institutions, libraries must take a technological leap for the next generation; library bibliographic standards, models, and services, must be transformed to those of the Semantic Web.

Gordon Dunsire, Mirna Willer,
Bibliographic Information Organization in the Semantic Web

It is incumbent on us to 'listen to the colour of our dreams'. If we are not clear about our core values, no-one else can be expected to understand the purpose of what we do. There are grounds for optimism.

Alan Danskin,
https://archive.ifla.org/IV/ifla72/papers/102-Danskin-en.pdf

An excellent librarian – this is what catalogers are and will continue to be in the future.

Michael A. Cerbo,
Is there a future for library catalogers?,
Cataloging & Classification Quarterly

Contents

Figures xi

About the Author xiii

Prefaces by Barbara B. Tillett and Peter Lor xv

Acknowledgements xix

List of Acronyms xxi

1 Cataloguing and Metadata Creation. The Centrality of a Cultural and Technical Activity 1

2 Panta Rei 5
- 2.1 Metanoia 5
- 2.2 New concepts and new terminology 9
- 2.3 Metadata: a polysemantic term 14
- 2.4 Libraries, Semantic Web and linked data: the data librarian 16
- 2.5 Metadata and bibliographic control 19
- 2.6 The importance of the catalogue 21
- 2.7 Two pitfalls for cataloguing and the catalogue? 23
- 2.8 How catalogues have to change to be of the web and not just on the web 24
- 2.9 New discovery tools: data.bnf.fr 26

3 Principles and Bibliographic Models 29
- 3.1 Bibliographic models 29
- 3.2 Paris Principles 30
- 3.3 ICP 31
- 3.4 FRBR 37
- 3.5 FRAD 40
- 3.6 FRSAD 41
- 3.7 FRBRoo 41

3.8 IFLA LRM 42
3.9 Family of works 46

4 Description of Resources 49
4.1 Description: a cultural and technical process 49
4.2 A new way to describe 50
4.3 Object of the description 51
4.4 Resource analysis: the bibliographic analysis 52
4.5 Sources of information 55
4.6 Main sources of information to describe a book 56
4.7 Types of description 57
4.8 Levels of description 59

5 Access to Resources 61
5.1 Access: authority data 61
5.2 Relationships 64
5.3 Author and title 67
5.4 Authority control: authorised access point 69
5.5 Entity identifiers 71
5.6 VIAF 73
5.7 ISNI 75

6 Exchange Formats and Descriptive Standards: MARC and ISBD 77
6.1 MARC, UNIMARC, MARC21 77
6.2 BIBFRAME 81
6.3 ISBD 84
6.4 ISBD: Consolidated Edition 87
6.5 ISBD: purposes 88

7 RDA: Some Basics 91

8 Subject Cataloguing (or Subject Indexing): Some Basics 97

Afterword by Giovanni Bergamin 99

Endnotes 101

Bibliography 105

Index 119

Figures

2.1 The activities of a data librarian 17
3.1 Family of works 47
5.1 Overview of relationships 65
5.2 Element reference, title proper, RDA Toolkit 66
6.1 BIBFRAME data model 83

About the Author

Mauro Guerrini is Professor of Library Science, Cataloguing, Metadata Creation and Classification, and Dean of the Masters on Cataloguing and Metadata Creation of Manuscript, Printed and Digital Resources at the University of Florence, Italy. He obtained the Diploma of Librarianship and the Diploma in the Conservation of Manuscripts at the School for Archivists and Librarians at the University of Rome La Sapienza, and later gained the Archivist's Certificate from the State Archive in Florence. Mauro is author of numerous publications on cataloguing, ethics, open access and the history of librarians, in particular Antonio Panizzi. He is a member of the editorial board of *Cataloging & Classification Quarterly*, *AIB Studi*, *Biblioteche Oggi*, and other journals, and Chair of the series *Libraries and Librarians* (Florence University Press); he is also Founder and Editor in Chief of *JLIS.it: Italian Journal of Library and Information Science*.

Mauro has been a Fellow of AIB (Italian Library Association) since 1979, AIB President (2005–11), Fellow of ABEI, SISBB, and member of other organisations. He was Chair of the AIB Section on Cataloguing, member of the IFLA ISBD Review Group, IFLA Cataloguing Section, Subject Analysis and Bibliography Sections. He was President of the Italian National Committee of IFLA Congress 2009, Chair of the 2021 International Conference on Electronic Resources, 2003 International Conference on Authority Control, 2012 Global Interoperability and Linked Data in Libraries and 2022 International Conference Bibliographic Control in the Digital Ecosystem.

Prefaces

by Barbara B. Tillett and Peter Lor

Cataloguing standards, rules and guidelines have changed through the ages from individual instructions for individual libraries to now internationally shared guidance built for the international exchange of bibliographic data. This work by Professor Guerrini provides an overview of the changes that have taken place in cataloguing standards and the great work of shared standards of international organisations, primarily the International Federation of Library Associations and Institutions (IFLA), towards reaching that ideal of 'universal bibliographic control'. Even universal bibliographic control is a concept that continues to evolve as the capabilities for documenting and sharing bibliographic data evolve.

At first, our technologies only allowed individual libraries to build their catalogues. Afterwards, the idea of creating copies of that cataloguing, such as in a book catalogue, emerged as printing developed. Technology advanced to enable printing catalogue cards to purchase from a centralised source when a library added holdings held by another library. We moved through several phases of automation from being able at first to exchange records in a standard format to later re-using data available internationally on the web or simply to link to existing data, wherever it resides.

Cataloguing is a costly operation, so the idea to share as much of that work as we can emerged early on. To share, we all need to use the same standards and compatible systems or at least to identify our data in such a way to enable its intelligent reuse. However, 'catalog it once for all' (Tillett, 1993) is not a new concept. It was a popular refrain at the beginning of the 20th century, as libraries endeavoured to share their cataloguing work. Systems like the Virtual International Authority File (VIAF) were built with the perspective of sharing the authority control activity. Data are being used for creative purposes, far beyond the original intent to identify the standard form of a name to be used in a catalogue, ready to enable any variant form of a name to access that entity.

So, as capabilities evolve, the focus of the cataloguing standards, guidelines and rules have evolved from building a bibliographic record to documenting

bibliographic data, identifying the described entity to enable users to *find*, *identify*, *select* and *obtain* the information they want. These are the objectives of *Functional Requirements for Bibliographic Records* (FRBR) along with the 'navigate' function incorporated into the *International Cataloguing Principles* (ICP) and *Resource Description and Access* (RDA).

This is the fascinating realm that Professor Guerrini explores through the following publication. And who among you will now take up the challenge to move us even further to help users get the information they want?

Barbara B. Tillett, PhD

In a conversation in a faculty meeting in a leading South African LIS school in the early 1980s, I ventured the opinion that cataloguing is a central competency of any librarian. This was greeted with derision. Since then, as a manager and researcher, I have observed the practical consequences of the drift away from all library-related things towards the 'harder' and more academically respectable discipline of information science. As an ineducable dinosaur, I remain convinced of the centrality of cataloguing in the information professions. You may not have to, or want to, catalogue, but some understanding of the principles of cataloguing is essential to almost any facet of information service. Cataloguing is not a refuge for shrinking violets or for pernickety, nit-picking, obsessive-compulsive types who become librarians because they don't like dealing with people. Cataloguing is for connecting people with resources. It is basic to the selection, acquisition/ingestion, storage, retrieval/discovery and availability of bibliographic resources of all kinds, ancient and modern, physical and virtual.

It is for this reason that I admire the work of my friend Mauro Guerrini and his Italian colleagues, who, in their teaching and research, not only give the subject the scholarly attention it deserves, but also publish guidelines and manuals for practising professionals and make the subject accessible to those of us who do not catalogue, but need to know what it involves and especially, why.

I count myself in the latter group. I was taught cataloguing in the mid-1960s, when the rules were set out in the ALA C*ataloging Rules for Author and Title Entries* of 1949, a revision of the 1908 C*ataloguing Rules*, which had been the result of a collaboration between the American Library Association and the (British) Library Association. This was a slim volume with a brick-red softcover. Roughly when I first started teaching in a library school, the 'blue code' was introduced: the *Anglo-American* C*ataloging Rules (AACR)* of 1967, a much thicker volume with a blue softcover. We were a small school and faculty members had to be jacks of all trades and I ended

up teaching a senior cataloguing course for which I had to master this new code. That was the extent of my cataloguing experience. AACR2 and all subsequent developments largely passed me by. Not entirely, though. Some years later as the director of a national library which compiled a national bibliography and a national union catalogue, I found our cataloguers embroiled in passionate debates about MARC formats, USMARC vs. UNIMARC vs. the now forgotten South African variant, SAMARC. I learned that differences between these formats had management and financial implications for our national bibliographic functions and that turf disputes about authority control (which institution had the best cataloguers?) required diplomatic handling.

All of these issues had a significant international dimension. During the 1980s and 1990s I was involved in IFLA's Universal Bibliographic Control (UBC) and Universal Availability of Publications (UAP) programmes. Cataloguing and cataloguing standards featured prominently among the nuts and bolts of these ambitious international schemes for sharing bibliographic records and for document supply. Indeed, from my vantage point as a student and teacher of international and comparative librarianship, I appreciate that in this volume Mauro illustrates how very important both the international exchange of ideas and formal international co-operation have been in the development of contemporary cataloguing theory and principles.

Looking back at my own experience, I think that the negative reputation that cataloguing acquired among many LIS students and professionals in the past may be the result of what was taught and how. We were taught the rules. Notably absent from the syllabus in my time was the conceptual basis of cataloguing – the philosophy and principles underlying the rules. To these this book offers a concise and lucid introduction, well supplied with examples and references. Reading it filled in for me many gaps in my understanding of contemporary cataloguing and how it evolved to where we are today. It is also a very useful contribution to the study of international and comparative librarianship and information work.

Peter Lor, DPhil

Acknowledgements

The volume is a revised and updated text of the second edition of *Dalla Catalogazione alla Metadatazione: tracce di un percorso*, Roma: Associazione Italiana Biblioteche, 2022.

Barbara B. Tillett commented on the text and revised it with her competence; to Barbara my extreme gratitude for her help. Thanks to Akbari Darian for her important suggestions. Thanks to Dorothy McGarry, Peter Lor and Thomas Bourke, who kindly read and commented on the text and suggested improvements. Thanks to Pierluigi Feliciati and Lapo Ghiringhelli for their help. Denise Biagiotti and Laura Manzoni were valuable and competent interlocutors throughout the editorial process of the volume. In particular, Denise Biagiotti is the author of Section 2.3, 'Metadata: a polysemantic term'; Laura Manzoni is the author of Sections 5.2 'Relationships' and 5.5, 'Entity identifiers' and Chapter 7, 'RDA: Some Basics'.

All websites were last consulted on 30 June 2022.

List of Acronyms

AACR	Anglo-American Cataloguing Rules
AACR2	Anglo American Cataloguing Rules 2nd edition
AFSCME	American Federation of State, County and Municipal Employees
AIB	Associazione Italiana Biblioteche
ALA	American Library Association
ANNAMARC	Automazione Nella NAzionale MARC
App	Application
ARK	Archival Resource Key
BFE	BIBFRAME Editor
BIBFRAME	Bibliographic Framework
BnF	Bibliothèque nationale de France
CANMARC	Canadian MARC
CD	Compact Disc
CIDOC CRM	Comité International pour la DOCumentation – Conceptual Reference Model
DCMI	Dublin Core Metadata Initiative
DDC	Dewey Decimal Classification
DOI	Digital Object Identifier
DVD	Digital Versatile Disc
ELAG	European Library Automation Group
E-R	Entity-Relationship
FRAD	Functional Requirements for Authority Data
FRANAR	Functional Requirements and Numbering of Authority Records
FRBR	Functional Requirements for Bibliographic Records
FRBRoo	FRBR-object oriented
FR family	Functional Requirements family
FRSAD	Functional Requirements for Subject Authority Data
GLAM	Galleries, Libraries, Archives and Museums
ICCP	International Conference on Cataloguing Principles

ICCU	Istituto Centrale per il Catalogo Unico delle biblioteche e italiane e per le informazioni bibliografiche
ICP	International Cataloguing Principles
ID	Identifier
IFLA	International Federation of Library Associations and Institutions
IFLA LRM	IFLA Library Reference Model
ILS	Integrated Library System
IME ICC	IFLA Meetings of Experts on an International Cataloguing Code
INTERMARC	MARC France
IRI	Internationalised Resource Identifier
ISADN	International Standard Authority Data Number
ISBD	International Standard Bibliographic Description
ISBD(A)	ISBD for Older Monographic Publications (Antiquarian)
ISBD(An)	ISBD for Analysis
ISBD(CF)	ISBD for Computer Files
ISBD(CM)	ISBD for Cartographic Materials
ISBD(CP)	ISBD for Component Parts
ISBD(CR)	ISBD for Serials and other Continuing Resources
ISBD(ER)	ISBD for Electronic Resources
ISBD(G)	ISBD General
ISBD(M)	ISBD for Monographic Publications
ISBD(NBM)	ISBD for Non-Book Materials
ISBD(PM)	ISBD for Printed Music
ISBD(S)	ISBD for Serials
ISBN	International Standard Book Number
ISMN	International Standard Music Number
ISNI	International Standard Name Identifier
ISO	International Organisation for Standardisation
ISRC	International Standard Recording Code
ISSN	International Standard Serial Number
ISTC	International Standard Text Code
ISWC	International Standard Musical Work Code
LCSH	Library of Congress Subject Headings
LOD	Linked Open Data
MAB	Musei, Archivi e Biblioteche
MARC	MAchine Readable Cataloguing
MARCXML	MARC eXtensible Markup Language
METS	Metadata Encoding and Transmission Standard

NBN	National Bibliography Number
OCLC	Online Computer Library Center
ONIX	ONline Information eXchange
OPAC	Online Public Access Catalogue
ORCID	Open Researcher and Contributor ID
PDF	Portable Document Format
RDA	Resource Description and Access
RDA COP	RDA Committee of Principals
RDF	Resource Description Framework
REICAT	Regole italiane di catalogazione
RICA	Regole italiane di catalogazione per autori
RSC	RDA Steering Committee
SBD	Standard Bibliographic Description
SHLs	Subject Headings Languages
UAP	Universal Availability of Publications
UBC	Universal Bibliographic Control
UBICIM	Universal Bibliographic Control and International MARC Programme
UCLA	University of California, Los Angeles
UDC	Universal Decimal Classification
UKMARC	United Kingdom MARC
UNIMARC	Universal MAchine-Readable Cataloguing
URI	Uniform Resource Identifier
URL	Uniform Resource Locator
USMARC	United States MARC
VIAF	Virtual International Authority File
VIAF ID	VIAF Identifier
W3C	World Wide Web Consortium
WSDS	Web-Scale Discovery Services
WWW	World Wide Web
XML	eXtensible Markup Language