HANDBOOK OF METADATA, SEMANTICS AND ONTOLOGIES

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World Scientific

NEW JERSEY • LONDON • SINGAPORE • BEIJING • SHANGHAI • HONG KONG • TAIPEI • CHENNAI

Published by

World Scientific Publishing Co. Pte. Ltd.

5 Toh Tuck Link, Singapore 596224

USA office: 27 Warren Street, Suite 401-402, Hackensack, NJ 07601

UK office: 57 Shelton Street, Covent Garden, London WC2H 9HE

British Library Cataloguing-in-Publication Data

A catalogue record for this book is available from the British Library.

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ISBN 978-981-283-629-8

Typeset by Stallion Press

Email: enquiries@stallionpress.com

Printed in Singapore

PREFACE

Metadata in its different forms have become increasingly important in the last years. This is partly because metadata schemas are devised to bring structure to information on the Web, in an attempt to describe Web resources in a more homogeneous way. Also, metadata is the principal way of recording provenance information of Web resources in an explicit way. In consequence, metadata is critical both for interoperability and as a mean to improve search and assess intellectual property rights.

The proliferation of metadata schemas and ontologies of diverse kind offer a rich array of languages to describe and annotate Web resources. However, that diversity can turn into a problem as it has given rise to competing schemas, using different levels of formality and tailored for some particular uses. While standardization efforts are slowly making these converge, the task of a metadata expert is nowadays a challenge, as in many cases there are no clear criteria to decide which form and schema is better for a particular situation. The recent emergence of the Web of Linked Data has made this landscape even more complex, as vocabularies intended to be used to expose data in RDF form derive in some cases from previous metadata schemas, but in other cases are devised from scratch. And the use of Linked Data conventions represent a different approach to sharing metadata to previous practices mainly based on harvesting and interchange of XML files.

In consequence, information managers need to have a broad knowledge of what is available and what is more important, which are the key properties of a schema or metadata solution that makes it different from others. There is currently not any available corpus that compiles knowledge about metadata in a comprehensive way. That aim is currently hardly attainable due to the dynamic nature of the field and to the fact that its boundaries are still somewhat fuzzy. It is also challenging as a large part of the work in metadata is done by communities in particular domains, e.g. agriculture, environmental sciences, etc.

This book aims at providing an overview of metadata as practiced in a variety of different domains, and taking a plurality of perspectives. It does not

aim to cover all the domains, schemas and techniques since that task would nowadays require an encyclopaedic approach. We hope that the book is useful as a reflection of the metadata field itself: heterogeneous and rich and at the same time complex. The selection of chapters was done via a process of peer review that took into account technical correctness and representativeness to the domain. The result is a somewhat fragmentary but highly representative overview of domains and topics on metadata. While some of the chapters may be to some extent not completely updated when the book is published, they are still appropriate vehicles to inform information managers so that they can drill down into more details using the book as a roadmap.

I believe the coming years would be exciting times for professionals and researchers involved in metadata, and I hope this book represents a modest contribution towards understanding metadata as a professional and technical discipline that stands in its own and requires specialized training and competence.

Miguel-Angel Sicilia

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