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ONIX, BISAC, and MSC: How the Library of Congress CIP Program Utilizes Mappings in the Prepublication Metadata Workflow

NKOS 2021 Consolidated Workshop
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Library Services

Agenda

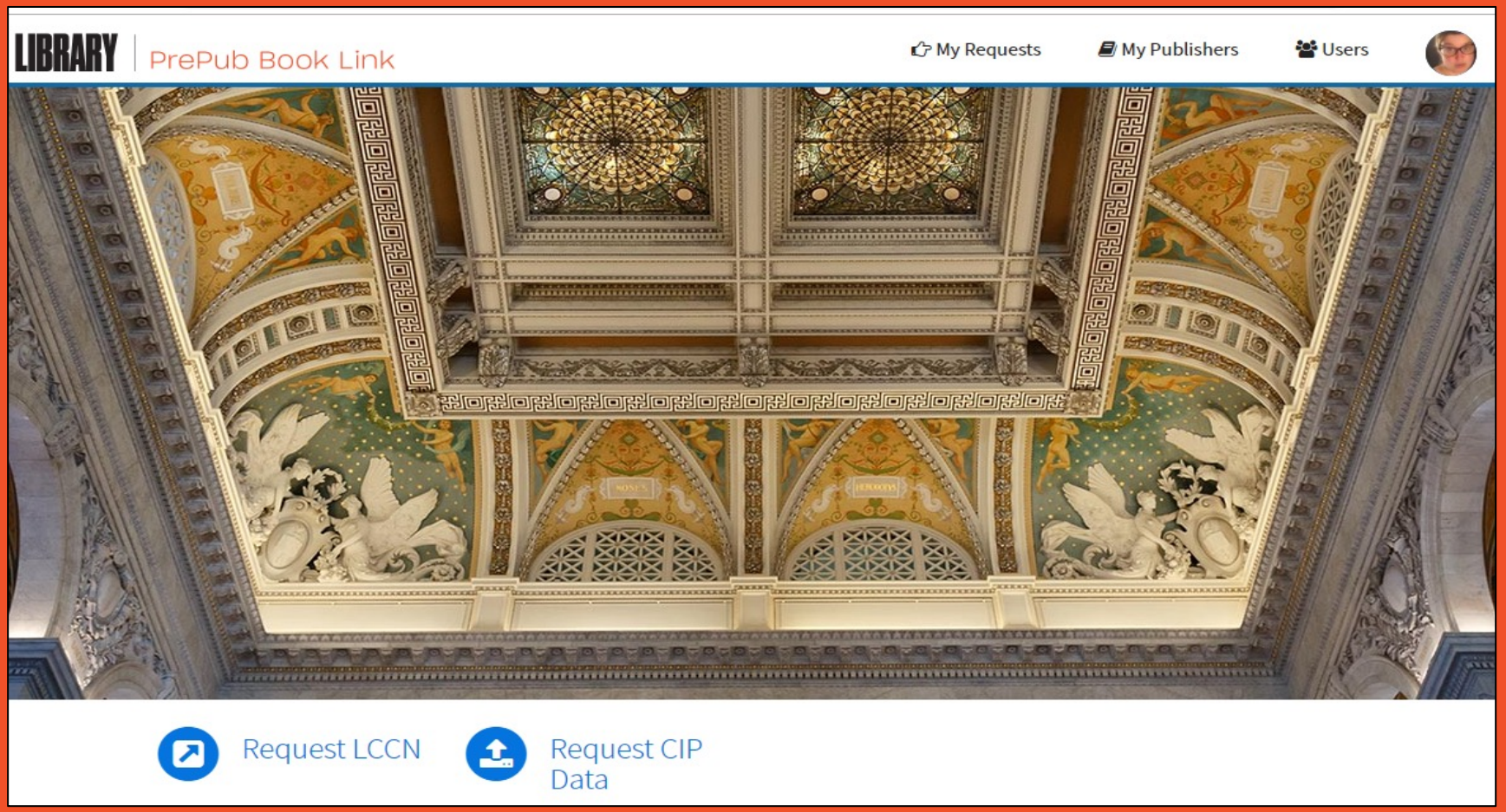
- Context
- Mappings for Routing
- ONIX
- BISAC
- MSC
- Challenges

CONTEXT

Introduction

- The Cataloging in Publication (CIP) Program serves the U.S. libraries by cataloging books in advance of publication.
- Publishers submit applications via the Library of Congress PrePub Book Link.
- The Library creates a bibliographic record for each publication and sends it to the publisher.
- The publisher prints CIP data on the verso of the title page.
- The CIP data is available to each library that acquires a copy of the book.
- LOC distributes these records in machine readable form to libraries, bibliographic services, and book vendors.
- These organizations redistribute these records in products and services.
- Over 50,000 CIP records are created annually.

CIP Publisher Portal



MAPPINGS FOR ROUTING

Subject Selection

SUBJECT AREA

Please select the subject area that best matches the forthcoming book's subject area. Your selection is used for internal routing purposes. These terms may not appear in the MARC record.

Some terms such as "HOBBIES", "SELF-IMPROVEMENT", "REFERENCE" and "HOW-TO" do not appear on our lists of terms. These books are cataloged by the cataloging team with the relevant subject knowledge. If you have a how-to book about repairing electrical appliances, you should select TECHNOLOGY / ENGINEERING General

Broad Subject Area *

Genealogy

GEOGRAPHICAL FOCUS

Please select the geographical focus that best matches the forthcoming book's geographic area, if applicable. Your selection is used for internal routing purposes only. These terms may not appear in the MARC record.

Does your forthcoming book have a specific geographical focus, such as "The Greening of Antarctica" or "Into the Clouds: the race to climb the world's most dangerous mountain" which is about K2, the mountain located in Pakistan. If so, please select YES. *

Yes | No

Region *

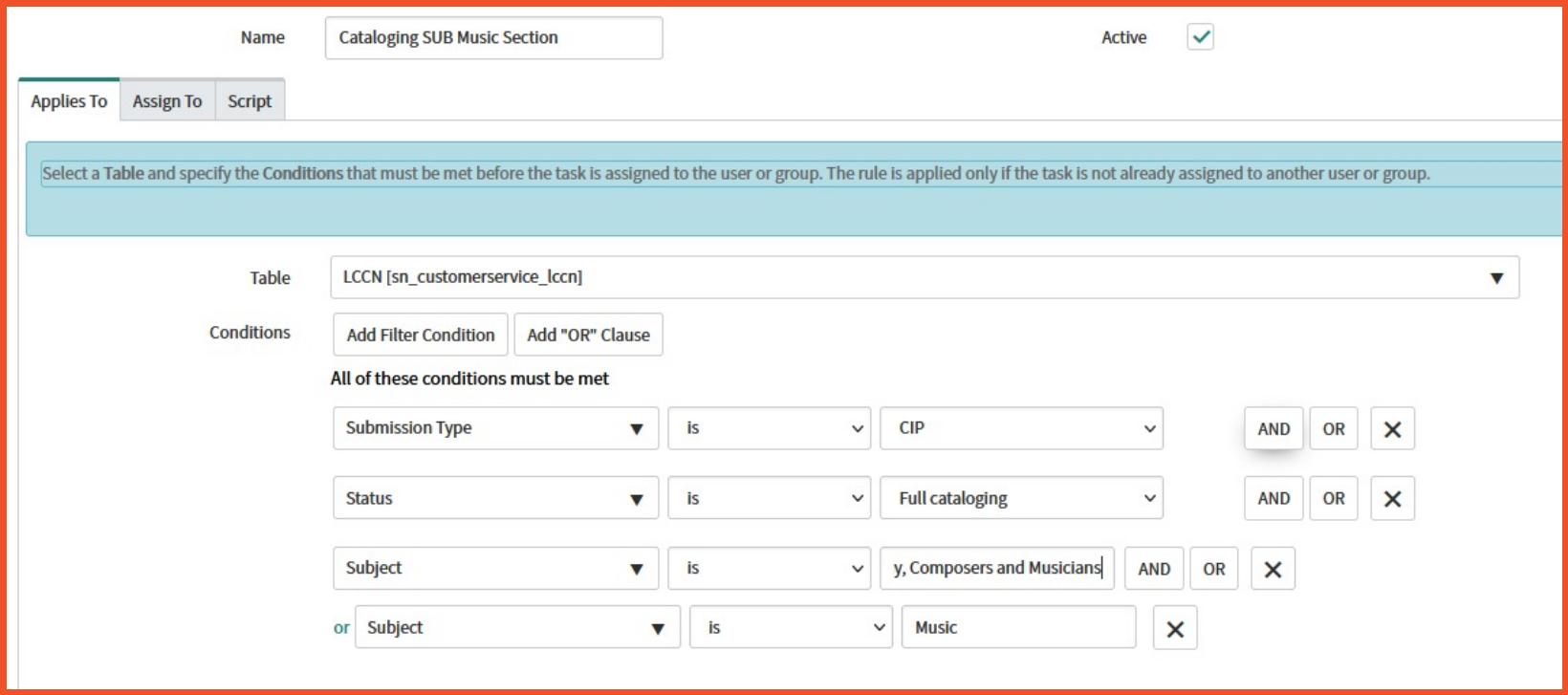
Please select the region that best matches the forthcoming book's geographic focus. If your book's geographic focus is not in the list please select "None of the above." Your selection is used for internal routing purposes and will not affect the cataloging record we create.

Southern States of the U.S.

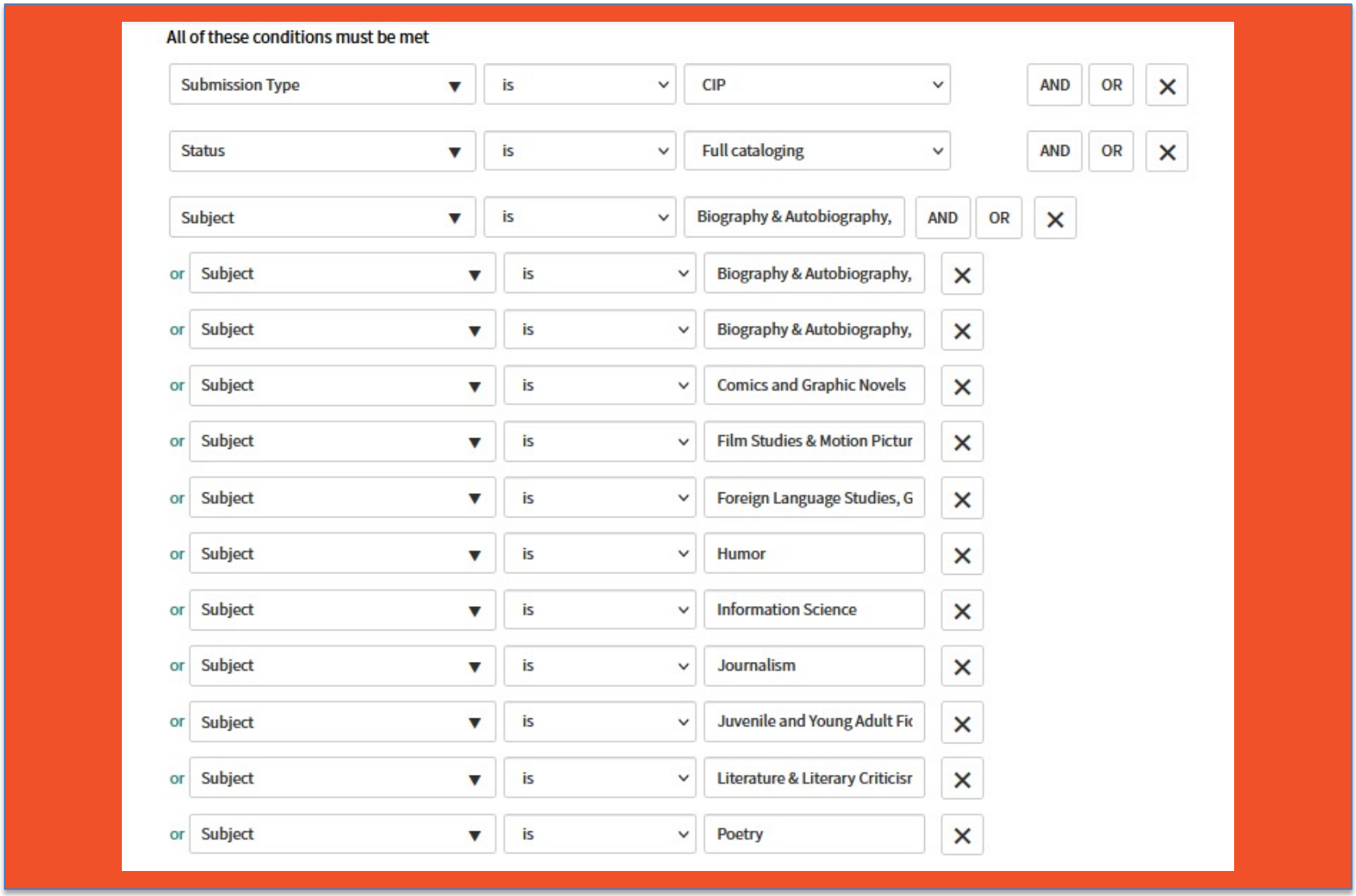
Subject Routing

```
{
   subject: "Comics and Graphic Novels",
   topics: [],
   mapping: "LIT"
},
{
   subject: "Crafts & Hobbies",
   topics: [],
   mapping: "Technology"
},
{
   subject: "Dance",
   topics: [],
   mapping: "GPSE"
},
{
   subject: "Education",
   topics: [],
   mapping: "GPSE"
},
{
   subject: "Egyptology",
   topics: [],
   mapping: "University of Chicago"
},
```

Subject Routing



Subject Routing



ONIX

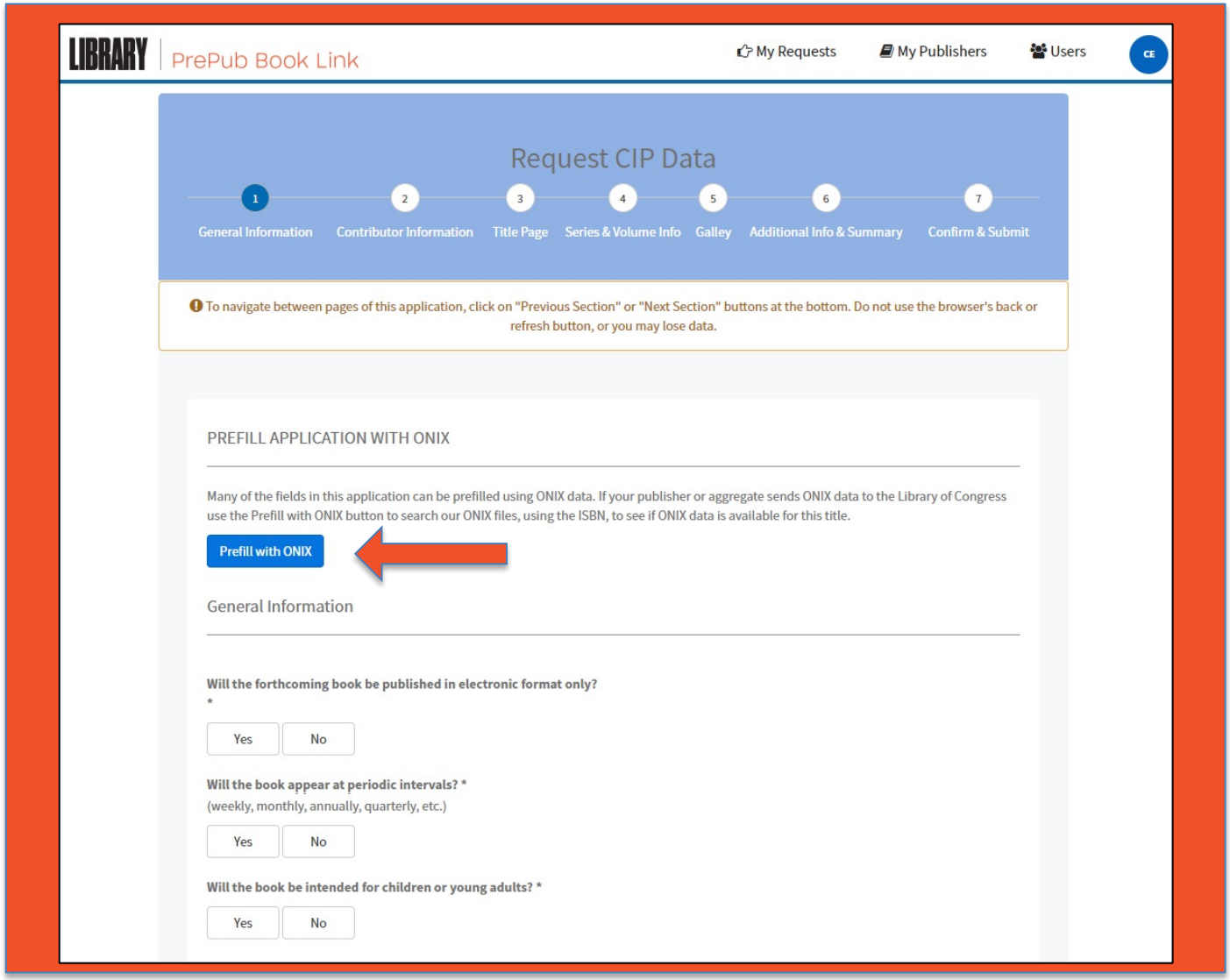
ONIX

- ONIX = Online Information Exchange
- Family of standards for books, serials, and licensing terms and rights information
- XML standard used to transmit metadata about forthcoming publications through the supply chain
- Developed by EDItEUR jointly with Book Industry Communication (UK) and the Book Industry Study Group (US)
- ONIX for Books was the first developed and most widely-adopted
- ONIX 3.0 is the industry standard

ONIX Integration

- LC has been receiving ONIX metadata for decades
  - Used passively in CIP cataloging process in former CIP system
  - Used for updating completed records with TOC and book cover links
- PrePub Book Link Products Table
  - Each ISBN is a separate product
  - Stores and parses ONIX metadata commonly used in CIP request
- Prefill with ONIX in CIP Request
  - Allows publishers to search their own ISBN in ONIX they already sent to us
  - Up to 40% of the CIP request prepopulated
- Encourages more accurate and possibly earlier ONIX
- Partner institutions can finally utilize ONIX
- Catalogers include enhanced TOC and BISAC terms

Prefill with ONIX



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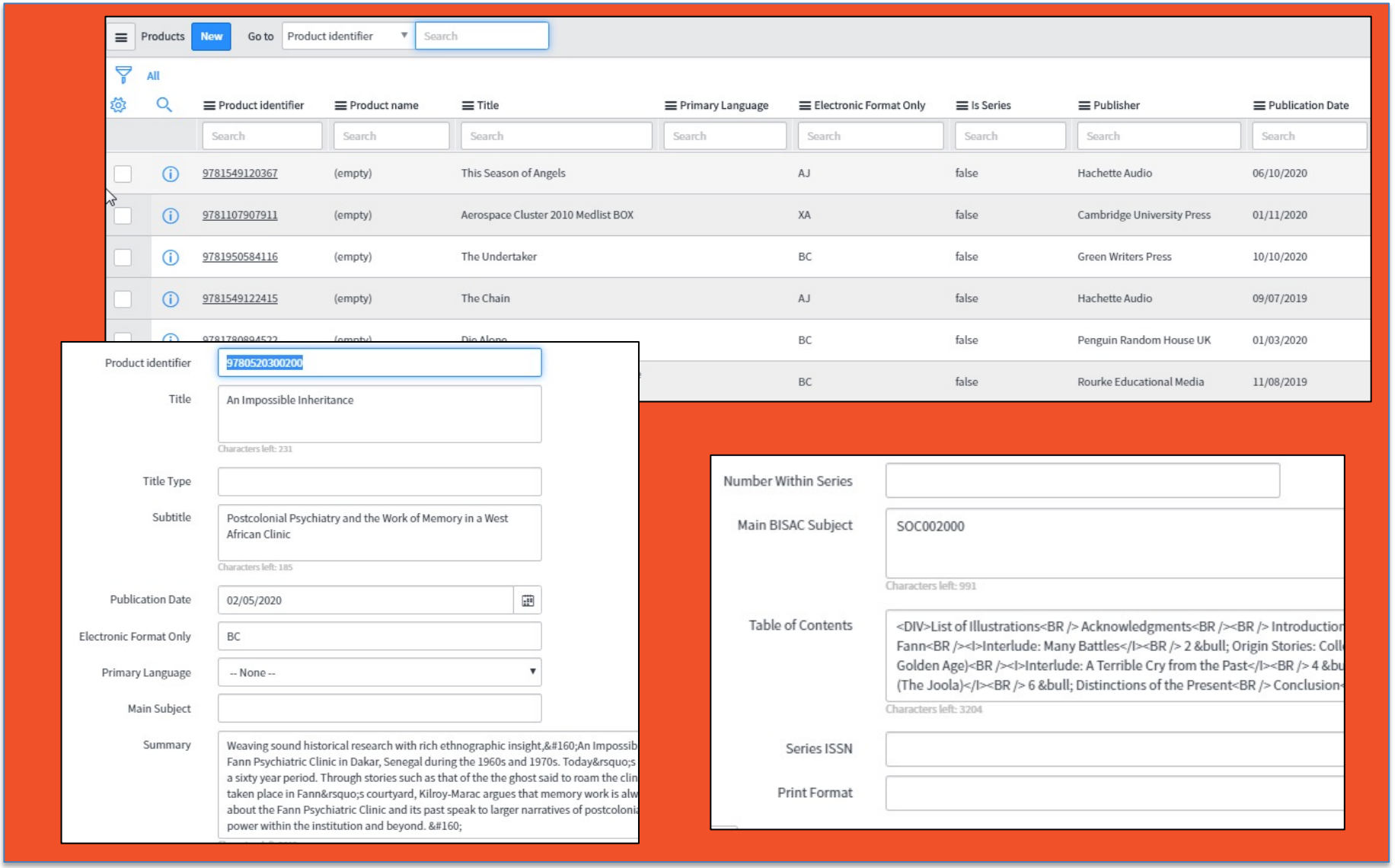
Products Table



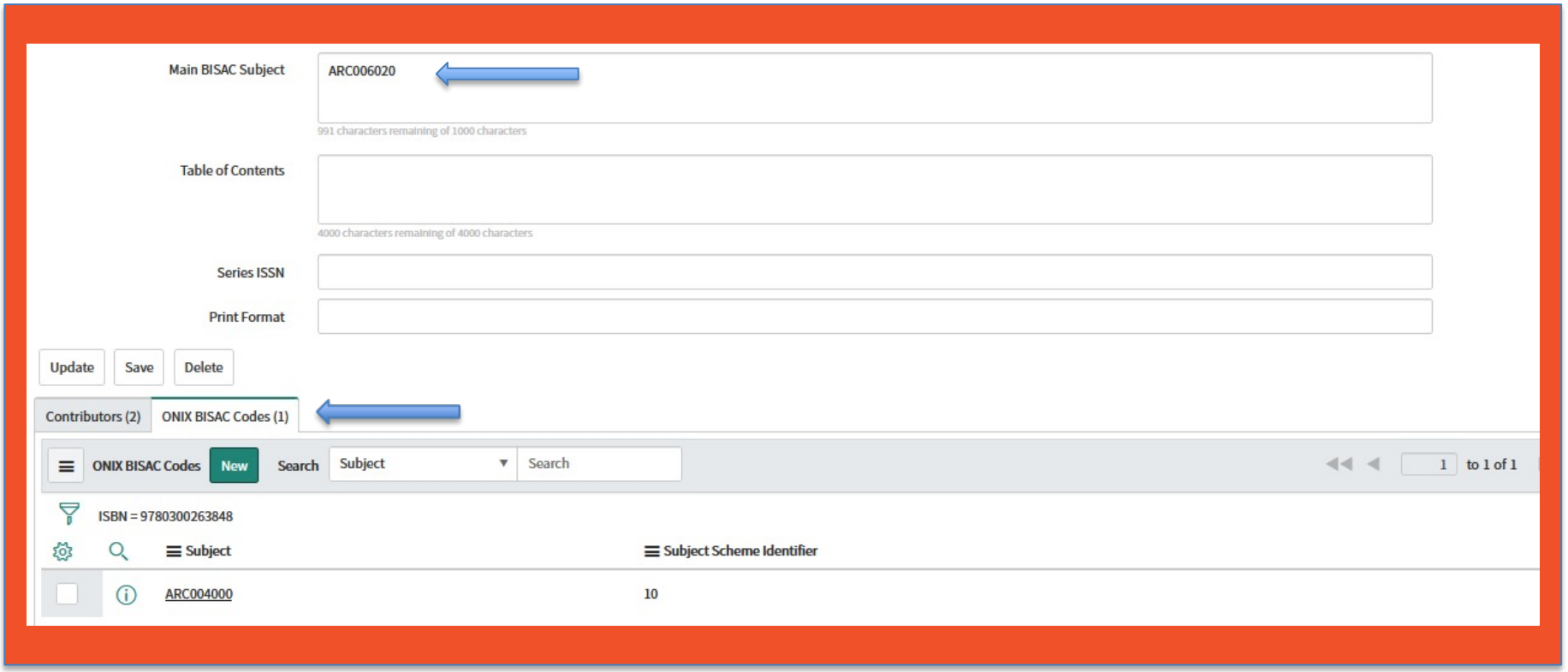
BISAC

BISAC

- BISAC Codes
  - BISAC = Book Industry Standards and Communications
  - Maintained by the BISG
  - nine-character alphanumeric **code** representing a **descriptor**
  - TRV025070
- BISAC Subject Heading
  - 54 major sections
  - 2-4 levels per subject heading
  - TRAVEL / United States / South / General
- Usage
  - To transmit information between trading partners
  - as search terms in bibliographic databases
  - as access points for database searching
  - as shelving guides

BISG
BOOK INDUSTRY STUDY GROUP

BISAC in Products Table



BISAC List Excerpt

Code	Literal
POL000000	POLITICAL SCIENCE / General
POL001000	POLITICAL SCIENCE / International Relati...
POL002000	POLITICAL SCIENCE / Public Policy / City...
POL003000	POLITICAL SCIENCE / Civics & Citizenship
POL004000	POLITICAL SCIENCE / Civil Rights
POL005000	POLITICAL SCIENCE / Political Ideologies...
POL006000	POLITICAL SCIENCE / American Government ...
POL007000	POLITICAL SCIENCE / Political Ideologies...
POL008000	POLITICAL SCIENCE / Political Process / ...
POL009000	POLITICAL SCIENCE / Comparative Politics
POL010000	POLITICAL SCIENCE / History & Theory
POL011000	POLITICAL SCIENCE / International Relati...
POL011010	POLITICAL SCIENCE / International Relati...
POL011020	POLITICAL SCIENCE / International Relati...

CIP Requests with BISASC

Product identifier	Title	Main BISAC Subject
9781284251470	Information Security Management + Cloud ...	COM043050
9780778386360	The Last Grand Duchess	FIC014040
9780778311706	The Last Grand Duchess	FIC014040
9780300264463	A Movement in Every Direction	SOC001000
9781913107260	English Garden Eccentrics	ARC008000
9781588397485	Louise Bourgeois	ART016030
9780300263886	Cezanne	ART016030
9780300264777	The Human Planet	SCI026000
9780300263848	The Notebooks and Drawings of Louis I. Kahn	ARC006020
9780876332412	Storied Stone	ARC020000
9780300264500	533	LCO015000
9780300264623	Beethoven	BIO004000
9780300264012	Signs	PHO011030
9780300264487	The Critics	LIT007000

CIP Bib Record with BISAC

010			‡a 2014024391
020			‡a 9781137274816 (hardback)
040			‡a DLC ‡b eng ‡c DLC ‡e rda ‡d DLC
042			‡a pcc
050	0	0	‡a P165 ‡b .A68 2014
082	0	0	‡a 306.44 ‡2 23
084			‡a LAN009040 ‡a PSY008000 ‡a SOC002010 ‡2 bisacsh
245	0	0	‡a Approaches to language, culture, and cognition : ‡b the intersection of cognitive linguistics and linguistic anthropology / ‡c Edited by Masataka Yamaguchi, University of Queensland, Australia ; Dennis Tay, The Hong Kong Polytechnic University, Hong Kong ; and Benjamin Blount, SocioEcological Informatics, US.
264		1	‡a Houndsmills, Basingstoke, Hampshire ; ‡a New York, NY : ‡b Palgrave Macmillan, ‡c 2014.
300			‡a xii, 315 pages : ‡b illustrations, map ; ‡c 23 cm
336			‡a text ‡2 rdacontent
337			‡a unmediated ‡2 rdamedia
338			‡a volume ‡2 rdacarrier
500			‡a This book developed out of an international symposium titled "Cognitive Linguistics and Second Language Acquisition: Towards an Integration of Language, Culture and Cognition" at the University of Otago, New Zealand, 21-22 January 2011.
520			‡a "The study of language, culture, and cognition has become increasingly fragmented into separate disciplines and paradigms. This volume aims to re-establish dialogue between cognitive linguists and linguistic anthropologists with 11 original papers on language, culture and cognition, and an editorial introduction. It demonstrates that cognitively-informed perspectives can contribute to a better understanding of social, cultural, and historical phenomena, and argues that cognitive theories are relevant to linguistic anthropology. "-- ‡c Provided by publisher.
504			‡a Includes bibliographical references and index.
505	8		‡a Machine generated contents note: -- 1. Introduction: Approaches to Language, Culture and Cognition; Masataka Yamaguchi, Dennis Tay, and Benjamin Blount -- PART I - COGNITIVE LINGUISTIC APPROACHES TO LANGUAGE AND CULTURE -- 2. Culture and Cognition, Lexicon and Grammar; Ronald W. Langacker -- 3. Deliteralization and the Birth of 'Emotion'; Dirk Geeraerts -- 4. 'Overthrowing' Yesterday's ICM: Meaning Reversal in a Hong Kong Chinese (Cantonese) Constructional Idiom; Kam-yiu S. Pang -- PART II: CULTURAL LINGUISTIC APPROACHES TO LANGUAGE AND CULTURE -- 5. Cultural Linguistics; Farzad Sharifian -- 6. Sloppy Selfhood: Metaphor, Embodiment, Animism, and Anthropomorphization in Japanese Language and Culture; Debra J Occhi -- 7. The Ceremonial Origins of Language; Gary B. Palmer, Jennifer Thompson, Jeffrey Parkin, Elizabeth Harmon -- PART III: INTERSECTION OF COGNITIVE LINGUISTICS AND LINGUISTIC ANTHROPOLOGY -- 8. On Intersubjective Co-construction of Virtual Space through Multimodal Means: A Case of Japanese Route-finding Discourse; Kuniyoshi Kataoka -- 9. Discovering Shared Understandings in Discourse: Prototypes and Stereotypes; Masataka Yamaguchi -- 10. Experiences as Resources: Metaphor and Life in Late Modernity; Lionel Wee -- 11. An Analysis of Metaphor Hedging in Psychotherapeutic Talk; Dennis Tay -- PART IV: SUMMARY AND FUTURE DIRECTIONS -- 12. Situating Cultural Models in History and Cognition; Benjamin Blount.
650		0	‡a Cognitive grammar ‡v Congresses.
650		0	‡a Psycholinguistics ‡v Congresses.
650		0	‡a Language and culture ‡v Congresses.
650		0	‡a Anthropological linguistics ‡c Congresses.
650		7	‡a LANGUAGE ARTS & DISCIPLINES / Linguistics / Psycholinguistics. ‡2 bisacsh
650		7	‡a PSYCHOLOGY / Cognitive Psychology. ‡2 bisacsh
650		7	‡a SOCIAL SCIENCE / Anthropology / Cultural. ‡2 bisacsh
700	1		‡a Yamaguchi, Masataka, ‡d 1968- ‡e editor.
700	1		‡a Tay, Dennis, ‡e editor.
700	1		‡a Blount, Ben G., ‡d 1940- ‡e editor.
710	2		‡a University of Otago. ‡b Department of Languages and Cultures.

CIP Data Block with BISAC

Library of Congress Cataloging-in-Publication Data

Names: Edgar, Walter B., 1943- editor.
Title: 101 people & places that shaped the American Revolution in South Carolina / edited by Walter Edgar.
Other titles: One hundred and one people & places that shaped the American Revolution in South Carolina
Description: Columbia, South Carolina : University of South Carolina Press, [2021] | Based on: The South Carolina Encyclopedia Guide to the American Revolution in South Carolina / edited by Walter Edgar. Columbia : University of South Carolina Press, 2012. | Includes bibliographical references.
Identifiers: LCCN 2021029649 (print) | LCCN 2021029649 (ebook) | ISBN 9781643362274 (hardcover) | ISBN 9781643362281 (paperback) | ISBN 9781643362298 (ebook)
Subjects: LCSH: South Carolina--History--Revolution, 1775-1783. | BISAC: HISTORY / United States / Revolutionary Period (1775-1800) | SOCIAL SCIENCE / Regional Studies
Classification: LCC E263.S7 A14 2021 (print) | LCC E263.S7 (ebook) | DDC 975.7/03--dc23
LC record available at https://lccn.loc.gov/2021029649
LC ebook record available at https://lccn.loc.gov/2021029650

MSC

MSC

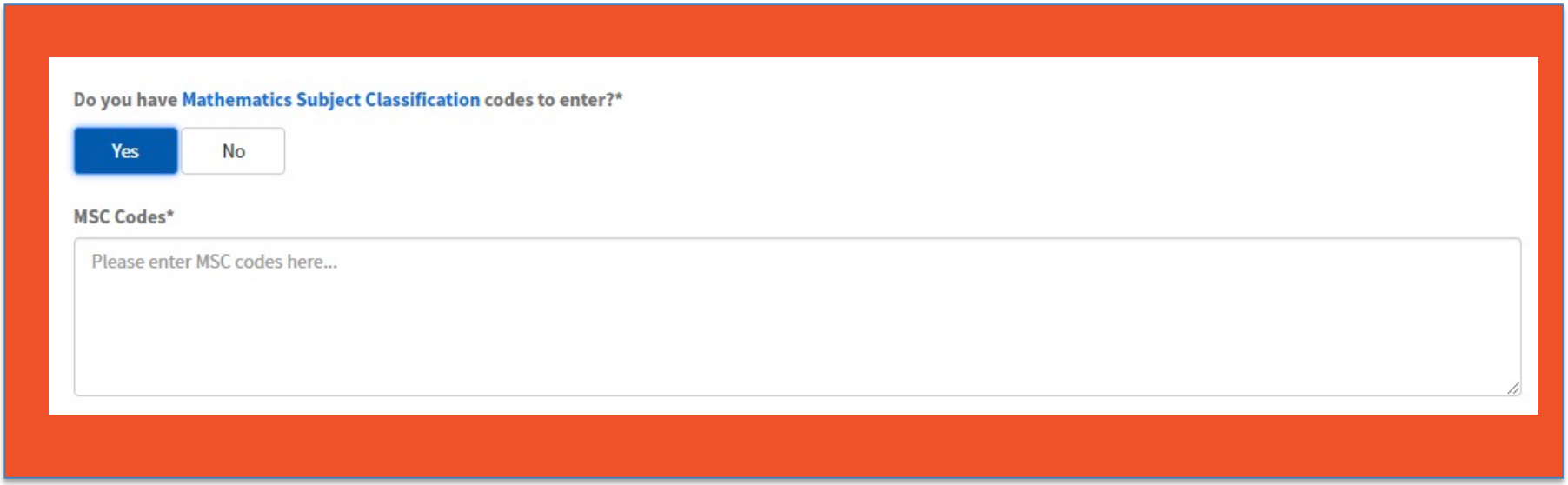
- Mathematics Subject Classification
- Maintained by zbMath Open and Mathematical Reviews (AMS)
- 64 mathematical disciplines
- Alphanumeric structure
- Primary and secondary classifications appear on publications, e.g.

  MSC Primary 03C90; Secondary 03-02

zbMATH Open
THE FIRST RESOURCE FOR MATHEMATICS

AMS American Mathematical Society
Advancing research. Creating connections.

Mathematics Subject Classification (MSC)



Mathematics Subject Classification (MSC)

Code	Level	Subject
11B99	T	None of the above, but in this section
11Bxx	S	Sequences and sets
11C08	T	Polynomials [See also 13F20]
11C20	T	Matrices, determinants [See also 15B36]
11C99	T	None of the above, but in this section
11Cxx	S	Polynomials and matrices
11D04	T	Linear equations
11D07	T	The Frobenius problem
11D09	T	Quadratic and bilinear equations
11D25	T	Cubic and quartic equations
11D41	T	Higher degree equations; Fermat's equation
11D45	T	Counting solutions of Diophantine equations
11D57	T	Multiplicative and norm form equations
11D59	T	Thue-Mahler equations

CIP Requests with MSC

Title	LCCN	MSC Codes	MSC Subjects
Sampling in Combinatorial and Geometric ...	2021040893	68Q87, 52C45, 05D40, 03D32, 11K38	Computer science {For papers involving m...
Partial Differential Equations	2021040894	35Axx, 35Cxx, 35Dxx, 35Exx, 35Fxx, 35Jxx...	Partial differential equations -- Genera...
Basic Lessons on Isometries, Similaritie...	2021039757	51XX, 97-02, 52XX	Mathematics education -- Research exposi...
The Geometry and Topology of Three-Manif...	2021037702	57K32, 57R30, 53C15	Manifolds and cell complexes {For comple...
Collected Works of William P. Thurston w...	2021037684	57K20, 57R30, 57K32, 53C15, 20F65, 20F10...	Manifolds and cell complexes {For comple...
Arithmetical, Geometrical and Combinator...	2021037681	00A08	General -- General and miscellaneous spe...
The Number Line through Guided Inquiry	2021034782	97E50, 97F50, 97I99, 01A65	Mathematics education -- Foundations of ...
Automorphisms of Riemann Surfaces, Subgr...	2021029308	30Fxx, 14Hxx, 20H10, 20B25, 11G32, 57K20	Functions of a complex variable {For ana...

Mathematics Subject Classification (MSC)

084			|a 97E50 |a 97F50 |a 97I99 |a 01A65 |2 msc
100	1		|a Clark, David Michael, |d 1947- |e author.
245	1	4	|a The number line through guided inquiry / |c David M. Clark, Xiao Xiao.
263			|a 2111
264		1	|a Providence : |b American Mathematical Society, |c 2021.
300			|a pages cm
336			|a text |b txt |2 rdacontent
337			|a unmediated |b n |2 rdamedia
338			|a volume |b nc |2 rdacarrier
490	0		|a Ams/maa textbooks, |x 25771205 ; |v 69
504			|a Includes bibliographical references and index.
650		7	|a Mathematics education -- Foundations of mathematics -- Reasoning and proving in the mathematics classroom. |2 msc
650		7	|a Mathematics education -- Arithmetic, number theory -- Real numbers, complex numbers. |2 msc
650		7	|a Mathematics education -- Analysis -- None of the above, but in this section. |2 msc
650		7	|a History and biography [See also the classification number--03 in the other sections] -- History of mathematics and mathematicians -- Contemporary. |2 msc
700	1		|a Xiao, Xiao, |d 1983- |e author.

CIP Bib Record using MSC

010			‡a 2014029814
020			‡a 9780821898598 (pbk. : acid-free paper)
020			‡a 0821898590 (pbk. : acid-free paper)
040			‡a DLC ‡b eng ‡c DLC ‡e rda ‡d DLC
042			‡a pcc
050	0	0	‡a QA176 ‡b .A454 2015
082	0	0	‡a 652/.8015122 ‡2 23
084			‡a 20-XX ‡a 68-XX ‡2 msc
245	0	0	‡a Algorithmic problems of group theory, their complexity, and applications to cryptography / ‡c Delaram Kahrobaei, Vladimir Shpilrain, editors.
264		1	‡a Providence, Rhode Island : ‡b American Mathematical Society, ‡c [2015]
300			‡a vii, 123 pages ; ‡c 26 cm.
336			‡a text ‡2 rdacontent
337			‡a unmediated ‡2 rdamedia
338			‡a volume ‡2 rdacarrier
490	0		‡a Contemporary mathematics ; ‡v 633
500			‡a "AMS Special Session on Algorithmic Problems of Group Theory and Their Complexity, January 9-10, 2013, San Diego, CA."
500			‡a "AMS Special Session on Algorithmic Problems of Group Theory and Applications to Information Security, April 6-7, 2013, Boston College, Chestnut Hill, MA."
504			‡a Includes bibliographical references.
650		0	‡a Group theory ‡v Congresses.
650		0	‡a Noncommutative algebras ‡v Congresses.
650		0	‡a Algorithms ‡v Congresses.
650		0	‡a Cryptography ‡v Congresses.
650		0	‡a Data encryption (Computer science) ‡v Congresses.
650		0	‡a Algebra ‡v Congresses.
650		7	‡a Group theory and generalizations. ‡2 msc
650		7	‡a Computer science. ‡2 msc
700	1		‡a Kahrobaei, Delaram, ‡d 1975- ‡e editor.
700	1		‡a Shpilrain, Vladimir, ‡d 1960- ‡e editor.

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CIP Data Block with MSC

```
Library of Congress Cataloging-in-Publication Data

Names: Kendig, Keith, 1938- author.
Title: A gateway to number theory : applying the power of algebraic curves
   / Keith Kendig.
Description: Providence : American Mathematical Society, [2021] | Series:
   Dolciani mathematical expositions; volume 57 | Includes bibliographical
   references and index.
Identifiers: LCCN 2020052775 | ISBN 9781470456221 (paperback) | ISBN
   9781470465025 (ebook)
Subjects: LCSH: Diophantine equations. | Curves, Algebraic. | Number
   theory. | AMS: Number theory. | Number theory -- Instructional
   exposition (textbooks, tutorial papers, etc.). | Number theory --
   Diophantine equations [See also 11Gxx, 14Gxx] -- Linear equations. |
   Number theory -- Diophantine equations [See also 11Gxx, 14Gxx] --
   Quadratic and bilinear equations. | Number theory -- Diophantine
   equations [See also 11Gxx, 14Gxx] -- Cubic and quartic equations. |
   Number theory -- Arithmetic algebraic geometry (Diophantine geometry)
   [See also 11Dxx, 14Gxx, 14Kxx] -- Elliptic curves over global fields
   [See also 14H52]. | Algebraic geometry -- Curves -- Special curves and
   curves of low genus. | Algebraic geometry -- Curves -- Elliptic curves
   [See also 11G05, 11G07, 14Kxx].
Classification: LCC QA242 .K46 2021 | DDC 512.7/4--dc23
LC record available at https://lccn.loc.gov/2020052775
```

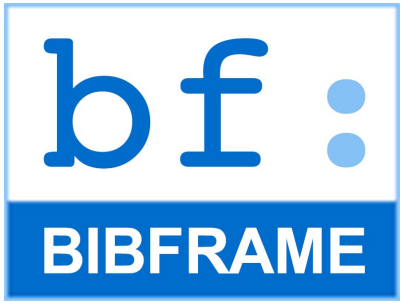
CHALLENGES

Challenges

- 3 different schemas ingested
  - JSON for subject routing
  - XML for ONIX
  - Excel tables for BISAC and MSC
- Keeping the code lists updated
  - BISAC is updated annually
  - MSC is updated every 10 years
  - Decisions: keep the old and just add new or check for outdated and new?
- PPBL is fully Unicode compliant but ILS/Voyager accepts tiny fraction of Unicode
- Mapping to correct MARC fields and subfields
- Mapping to accurate field with display in CIP data block

BIBFRAME

- Not planning to update PPBL to create BF descriptions….yet….
- New/updated bibs migrating from Voyager to BFDB every 5 minutes
  - Cataloger creates stub CIP record in PPBL and waits 5 minutes
  - Cataloger completes cataloging in BFDB using the BF Editor
  - Cataloger completes the cataloging in Voyager
- When the Library changes to a new ILS, then update PPBL



Thank you!

csus@loc.gov