



# Will RDA Kill MARC?

Karen Coyle  
June 2011



# It's almost too late

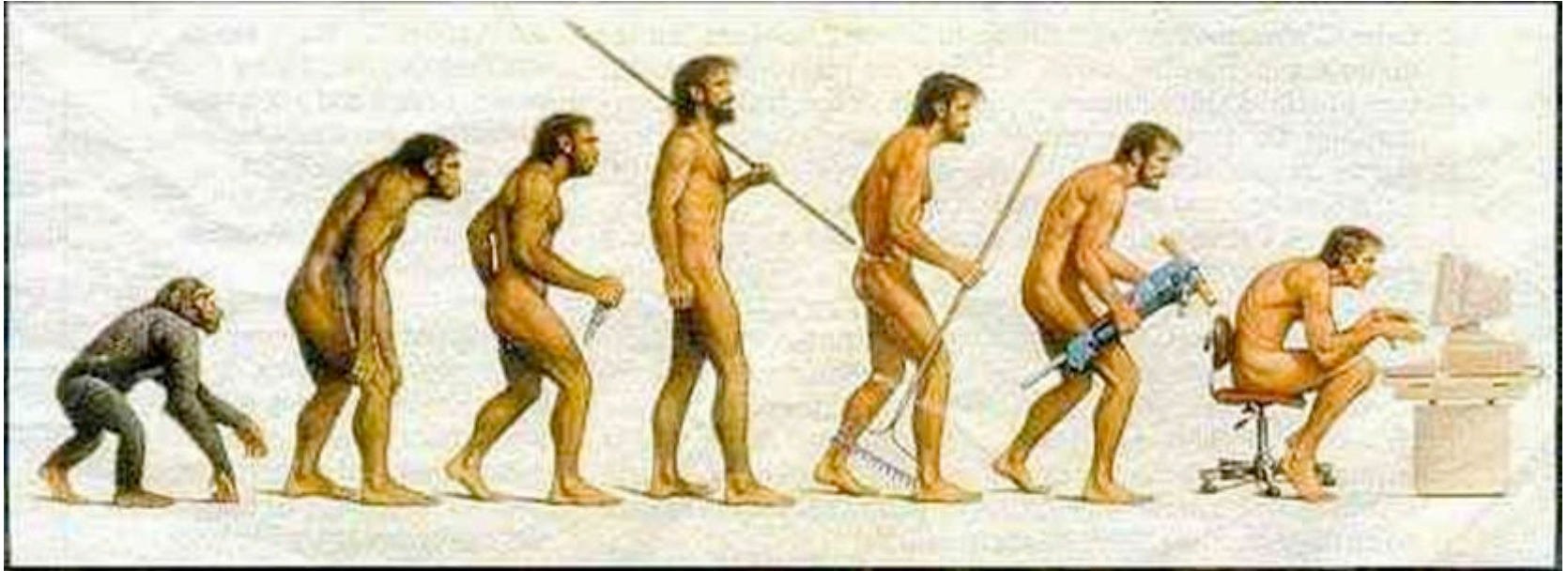
RDA is an opportunity to save library data.

---

We cannot redeem *MARC*, but  
we can rescue its contents.

---

---



# MARC must ... evolve

Karen Coyle  
June, 2011

---

# MARC is ...

1. Record structure (leader, directory, string)
  2. Data elements (tags, indicators, subfields)
  3. Rules for metadata input
-

---

00911cam 22002291 4500

001000700000005001700007008004100024035002100065906  
004500086010001700131040001800148050003300166100003  
300199245019200232260004200424300003200466651002200  
498655003100520655002700551991004600578991005700624

74764020041206175439.0731023s1948 maub 000 1  
eng 9(DLC) 48000245 a7bcbccorignewdueocipf19gy-  
gencatlg a 48000245

aDLCcDLCdDL 3.O2461  
aLockridge, Ro Countyb... which  
had no bound were lurked

musical and strange names and mythical and lost  
peoples, and which was itself only a name musical and  
strange. aBoston,bHoughton Mifflin Co.,c1948. axiv, 1066  
p.bmaps.c22 cm. 0aIndianaxFiction. 7aHistorical fiction.

2gsafd 7aBildungsromane.2gsafd bc-

GenCollhPZ3.L81146iRaitCopy 1wBOOKS bc-

GenCollhPZ3.L81146iRaip00021822036tCopy 3wCCF

---

---

000 01563cam a22003377a 450  
001 6563162  
005 20080703101713.0  
008 711222s1961 dcu b 000 0 eng  
010 \_\_ |a 61064605  
035 \_\_ |a (OCoLC)ocm00185973  
040 \_\_ |a DLC |c CWR |d DLC |d OCLCQ |d BTCTA |d OCLCG |d DLC  
042 \_\_ |a lccopycat  
043 \_\_ |a n-us---  
050 00 |a UA927 |b .M23 1961  
100 1\_ |a Mack, Raymond W.  
245 14 |a The occasion instigated by the Federal Emergency Management Agency to unanticipated air raid warnings / |c by Raymond W. Mack, George W. Baker ; Foreword by Robin M. Williams, Jr.  
260 \_\_ |a Washington, |b National Academy of Sciences-National Research Council, |c 1961.  
300 \_\_ |a xv, 69 p. ; |c 25 cm.  
490 1\_ |a National Research Council (U.S.). Disaster Research Group. Disaster study, |v no. 15  
500 \_\_ |a National Research Council. Publication 945.  
504 \_\_ |a Includes bibliographical references (p. 65-69).  
650 \_0 |a Civil defense |z United States.  
650 \_0 |a Air warfare |x Psychological aspects.  
700 1\_ |a Baker, George W. |q (George Walter), |d 1915- |e joint author.  
810 2\_ |a National Research Council (U.S.). |b Disaster Research Group. |† Disaster study ; |v no. 15.  
830 \_0 |a Publication (National Research Council (U.S.)) ; |v 945.  
856 41 |3 Table of contents |u <http://www.loc.gov/catdir/toc/fy0804/61064605.html>

---

000 01563cam a22003377a 450  
001 6563162  
005 20080703101713.0  
008 711222s1961 dcu b 000 0 eng  
010 \_\_ |a 61064605  
035 \_\_ |a (OCoLC)ocm00185973  
040 \_\_ |a DLC |c CWR |d DLC |d OCLCQ |d BTCTA |d OCLCG |d DLC  
042 \_\_ |a lccopycat  
043 \_\_ |a n-us---  
050 00 |a UA927 |b .M23 1961  
100 1\_ |a Mack, Raymond W.  
245 14 |a The occasion instant : |b the structure of social responses to unanticipated air raid  
warnings / |c by Raymond W. Mack, George W. Baker ; Foreword by Robin M. Williams, Jr.  
260 \_\_ |a Washington, |b National Academy of Sciences-National Research Council, |c 1961.  
300 \_\_ |a xv, 69 p. ; |c 25 cm.  
490 1\_ |a National Research Council (U.S.). Disaster Research Group. Disaster study, |v no. 15  
500 \_\_ |a National Research Council. Publication 945.  
504 \_\_ |a Includes bibliographical references (p. 65-69).  
650 \_0 |a Civil defense |z United States.  
650 \_0 |a Air warfare |x Psychological aspects.  
700 1\_ |a Baker, George W. |q (George Walter), |d 1915- |e joint author.  
810 2\_ |a National Research Council (U.S.). |b Disaster Research Group. |† Disaster study ; |v no.  
15.  
830 \_0 |a Publication (National Research Council (U.S.)) ; |v 945.  
856 41 |3 Table of contents |u <http://www.loc.gov/catdir/toc/fy0804/61064605.html>

Administrative data

000 01563cam a22003377a 450  
001 6563162  
005 20080703101713.0  
008 711222s1961 dcu b 000 0 eng  
010 \_\_ |a 61064605  
035 \_\_ |a (OCoLC)ocm00185973  
040 \_\_ |a DLC |c CWR |d DLC |d OCLCQ |d BTCTA |d OCLCG |d DLC  
042 \_\_ |a lccopycat  
043 \_\_ |a n-us---  
050 00 |a UA927 |b .M23 1961  
100 1\_ |a Mack, Raymond W.  
245 14 |a The occasion instant : |b the structure of social responses to unanticipated air raid warnings / |c by Raymond W. Mack, George W. Baker ; Foreword by Robin M. Williams, Jr.  
260 \_\_ |a Washington, |b National Academy of Sciences-National Research Council, |c 1961.  
300 \_\_ |a xv, 69 p. ; |c 25 cm.  
490 1\_ |a National Research Council (U.S.). Disaster Research Group. Disaster study, |v no. 15  
500 \_\_ |a National Research Council. Publication 945.  
504 \_\_ |a Includes bibliographical references (p. 65-69).  
650 \_0 |a Civil defense |z United States.  
650 \_0 |a Air warfare |x Psychological aspects.  
700 1\_ |a Baker, George W. |q (George Walter), |d 1915- |e joint author.  
810 2\_ |a National Research Council (U.S.). |b Disaster Research Group. |† Disaster study ; |v no. 15.  
830 \_0 |a Publication (National Research Council (U.S.)) ; |v 945.  
856 41 |3 Table of contents |u <http://www.loc.gov/catdir/toc/fy0804/61064605.html>

Fixed fields

000 01563cam a22003377a 450  
001 6563162  
005 20080703101713.0  
008 711222s1961 dcu b 000 0 eng  
010 \_\_ |a 61064605  
035 \_\_ |a (OCoLC)ocm00185973  
040 \_\_ |a DLC |c CWR |d DLC |d OCLCQ |d BTCTA |d OCLCG |d DLC  
042 \_\_ |a lccopycat  
043 \_\_ |a n-us---  
050 00 |a UA927 |b .M23 1961  
100 1\_ |a Mack, Raymond W.  
245 14 |a The occasion instant : |b the structure of social responses to unanticipated air raid warnings / |c by Raymond W. Mack, George W. Baker ; Foreword by Robin M. Williams, Jr.  
260 \_\_ |a Washington, |b National Academy of Sciences-National Research Council, |c 1961.  
300 \_\_ |a xv, 69 p. ; |c 25 cm.  
490 1\_ |a National Research Council (U.S.). Disaster Research Group. Disaster study, |v no. 15  
500 \_\_ |a National Research Council. Publication 945.  
504 \_\_ |a Includes bibliographical references (p. 65-69).  
650 \_0 |a Civil defense |z United States.  
650 \_0 |a Air warfare |x Psychological aspects.  
700 1\_ |a Baker, George W. |q (George Walter), |d 1915- |e joint author.  
810 2\_ |a National Research Council (U.S.). |b Disaster Research Group. |t Disaster study ; |v no. 15.  
830 \_0 |a Publication (National Research Council (U.S.)) ; |v 945.  
856 41 |3 Table of contents |u <http://www.loc.gov/catdir/toc/fy0804/61064605.html>

Code and number fields

000 01563cam a22003377a 450  
001 6563162  
005 20080703101713.0  
008 711222s1961 dcu b 000 0 eng  
010 \_\_ |a 61064605  
035 \_\_ |a (OCoLC)ocm00185973  
040 \_\_ |a DLC |c CWR |d DLC |d OCLCQ |d BTCTA |d OCLCG |d DLC  
042 \_\_ |a lccopycat  
043 \_\_ |a n-us---  
050 00 |a UA927 |b .M23 1961  
100 1\_ |a Mack, Raymond W.  
245 14 |a The occasion instant : |b the structure of social responses to unanticipated air raid warnings / |c by Raymond W. Mack, George W. Baker ; Foreword by Robin M. Williams, Jr.  
260 \_\_ |a Washington, |b National Academy of Sciences-National Research Council, |c 1961.  
300 \_\_ |a xv, 69 p. ; |c 25 cm.  
490 1\_ |a National Research Council (U.S.). Disaster Research Group. Disaster study, |v no. 15  
500 \_\_ |a National Research Council. Publication 945.  
504 \_\_ |a Includes bibliographical references (p. 65-69).  
650 \_0 |a Civil defense |z United States.  
650 \_0 |a Air warfare |x Psychological aspects.  
700 1\_ |a Baker, George W. |q (George Walter), |d 1915- |e joint author.  
810 2\_ |a National Research Council (U.S.). |b Disaster Research Group. |t Disaster study ; |v no. 15.  
830 \_0 |a Publication (National Research Council (U.S.)) ; |v 945.  
856 41 |3 Table of contents |u <http://www.loc.gov/catdir/toc/fy0804/61064605.html>

Bibliographic fields

---

000 01563cam a22003377a 450  
001 6563162  
005 20080703101713.0  
008 711222s1961 dcu b 000 0 eng  
010 \_\_ |a 61064605  
035 \_\_ |a (OCoLC)ocm00185973  
040 \_\_ |a DLC |c CWR |d DLC |d OCLCQ |d BTCTA |d OCLCG |d DLC  
042 \_\_ |a lccopycat  
043 \_\_ |a n-us---  
050 00 |a UA927 |b .M23 1961  
100 1\_ |a Mack, Raymond W.  
245 14 |a The occasion instant : |b the structure of social responses to unanticipated air raid  
warnings / |c by Raymond W. Mack, George W. Baker ; Foreword by Robin M. Williams, Jr.  
260 \_\_ |a Washington, |b National Academy of Sciences-National Research Council, |c 1961.  
300 \_\_ |a xv, 69 p. ; |c 25 cm.  
490 1\_ |a National Research Council (U.S.). Disaster Research Group. Disaster study, |v no. 15  
500 \_\_ |a National Research Council. Publication 945.  
504 \_\_ |a Includes bibliographical references (p. 65-69).  
650 \_0 |a Civil defense |z United States.  
650 \_0 |a Air warfare |x Psychological aspects.  
700 1\_ |a Baker, George W. |q (George Walter), |d 1915- |e joint author.  
810 2\_ |a National Research Council (U.S.). |b Disaster Research Group. |† Disaster study ; |v no.  
15.  
830 \_0 |a Publication (National Research Council (U.S.)) ; |v 945.  
856 41 |3 Table of contents |u <http://www.loc.gov/catdir/toc/fy0804/61064605.html>

---

Location information

000 01563cam a22003377a 450  
001 6563162  
005 20080703101713.0  
008 711222s1961 dcu b 000 0 eng  
010 \_\_ |a 61064605  
035 \_\_ |a (OCoLC)ocm00185973  
040 \_\_ |a DLC |c CWR |d DLC |d OCLCQ |d BTCTA |d OCLCG |d DLC  
042 \_\_ |a lccopycat  
043 \_\_ |a n-us---  
050 00 |a UA927 |b .M23 1961  
100 1\_ |a Mack, Raymond W.  
245 14 |a The occasion instant : |b the structure of social responses to unanticipated air raid warnings / |c by Raymond W. Mack, George W. Baker ; Foreword by Robin M. Williams, Jr.  
260 \_\_ |a Washington, |b National Academy of Sciences-National Research Council, |c 1961.  
300 \_\_ |a xv, 69 p. ; |c 25 cm.  
490 1\_ |a National Research Council (U.S.). Disaster Research Group. Disaster study, |v no. 15  
500 \_\_ |a National Research Council. Publication 945.  
504 \_\_ |a Includes bibliographical references (p. 65-69).  
650 \_0 |a Civil defense |z United States.  
650 \_0 |a Air warfare |x Psychological aspects.  
700 1\_ |a Baker, George W. |q (George Walter), |d 1915- |e joint author.  
810 2\_ |a National Research Council (U.S.). |b Disaster Research Group. |t Disaster study ; |v no. 15.  
830 \_0 |a Publication (National Research Council (U.S.)) ; |v 945.  
856 41 |3 Table of contents |u <http://www.loc.gov/catdir/toc/fy0804/61064605.html>

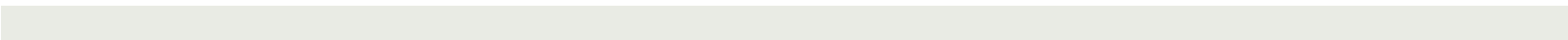
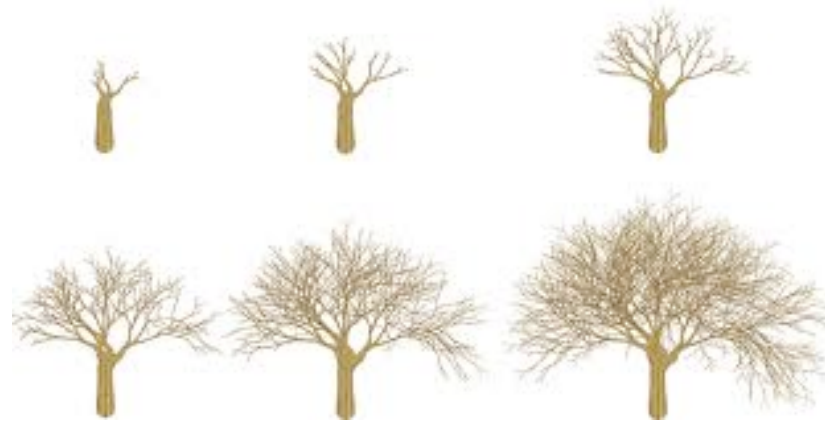
MARC21

AACR

ILS, cc

---

# Growth over time



---

# Growth over time



---

... same data in more than one  
place

008 language code — 041 more language codes

008 coded data — 006 repeatable coded data

007 data elements — same 007 data elements for other formats

---

---

... coded data and display data

008 711222s1961 dcu b 000 0 eng

260 \_\_ |a Washington, |b National  
Academy of Sciences-National Research  
Council, |c 1961.

---

---

# Inconsistencias

## **100 field, personal name subfields**

- \$a - Personal name (NR)
- \$b - Numeration (NR)
- \$c - Titles and words associated with a name (R)
- \$d - Dates associated with a name (NR)
- \$e - Relator term (R)
- \$q - Fuller form of name (NR)
- \$u - Affiliation (NR)

## **773 field, personal name subfields**

- \$a - Main entry heading (NR)
-

---

What if you could free MARC data from the MARC structure?

4. MARC is the container that holds our data today.

---

---

# Meaning in MARC

What are the data elements in MARC, apart from its structure?

Sometimes the structure obscures meaning.

# Language

008

---

## **35-37 - Language**

### - No information provided

zxx - No linguistic content

mul - Multiple languages

sgn - Sign languages

und - Undetermined

[aaa] - Three-character alphabetic code

041

---

- ▣ \$a - Language code of text/sound track or separate title (R)

Language code in the first occurrence of subfield \$a is also recorded in 008/35-37 (Language) unless 008/35-37 contains blanks (###) or the code "zxx" (No linguistic content).

- ▣ \$b - Language code of summary or abstract (R), etc.

---

# Language

Language of text/sound track or separate title

Language of summary or abstract

Language of sung or spoken text

Language of librettos

Language of table of contents

Language of accompanying material other than librettos

Language of original and/or intermediate translations of text

Language of subtitles or captions

xml:lang=

---

---

# Identifiers

## 024 Other standard identifier

### Indicator 1

- 0 - International Standard Recording Code
  - 1 - Universal Product Code
  - 2 - International Standard Music Number
  - 3 - International Article Number
  - 4 - Serial Item and Contribution Identifier
  - 7 - Source specified in subfield \$2
  - 8 - Unspecified type of standard number or code
-

---

# Identifiers

1. International Standard Recording Code
2. Universal Product Code
3. International Standard Music Number
4. International Article Number
5. Serial Item and Contribution Identifier
6. Unspecified type of standard number or code

(7 - Source specified in subfield \$2)

Identifier + Source

---

---

## Identifiers with source: URI/URN

<http://id.loc.gov/authorities/sj96005301>

URN:ISBN:0-395-36341-1

---

# same data, different coding

## 100, personal name

- ▣ \$a - Personal name (NR)
- ▣ \$b - Numeration (NR)
- ▣ \$c - Titles and words associated with a name (R)
- ▣ \$d - Dates associated with a name (NR)
- ▣ \$e - Relator term (R)
- ▣ \$q - Fuller form of name (NR)
- ▣ \$u - Affiliation (NR)

## 773, main entry

- ▣ \$a - Main entry heading (NR)

---

## Same data, different coding

- Person URI
  - relationship
  - affiliation

---

# same coding, different data

## 240, Uniform title

- ▣ \$a Pendolo di Foucault. \$l English
  - ▣ \$a Selections
  - ▣ \$a Concertos, \$m harpsichord, string orchestra,  
\$n BWV 1052, \$r D minor
-

---

## same coding, different data

Work title (“Pendolo di Foucault”)

Language of translation (“English”)

Collective title (“Selections”)

Musical form (“Concerto”)

Musical instruments (“harpsicord” “string orchestra”)

Music work number (“BWV 1052”)

Music key (“D minor”)

---

---

## ... some with controlled lists

Work title (“Pendolo di Foucault”)

Language of translation (“English”)

Collective title (“Selections”)

Musical form (“Concerto”)

Musical instruments (“harpsicord” “string orchestra”)

Music work number (“BWV 1052”)

Music key (“D minor”)

---

# RDA is inching in this direction

## My analysis

---

- Work title (“Pendolo di Foucault”)
- Language of translation (“English”)
- Collective title (“Selections”)
- Musical form (“Concerto”)
- Musical instruments (“harpsicord” “string orchestra”)
- Music work number (“BWV 1052”)
- Music key (“D minor”)

## RDA

---

- Title of the Work
- Language of expression
- Preferred title of the Work
- Medium of performance (Expression)
- Preferred title of the Work
- Numeric designation - musical Work
- Key (Work)

---

... but what about MARC?!  
How can we do this?

---

---

## Karen's do it yourself approach

- Create a database with all MARC fields, subfields, indicators, fixed fields
  - Analyze these into data elements
  - Code them as tab-delimited and as RDF
-

http://futurelib.pbworks.com/

## FrontPage

last edited by  Karen Coyle 6 months, 1 week ago

### Designing the future -- Library Systems and Data Formats

**How to Participate** PBwiki has changed its login procedures. To log in, you may need to request a password. If you can't figure out how to do this, you can contact me (kcoyle of kcoyle.net) and I'll try to help you.

*Note: I have gotten some password requests but all they give me is a user ID, so I have no idea who is requesting the password (could be a spammer). So send me mail and introduce yourself, and I'll set up an account for you.*

**Recent Activity:** Karen's analysis of [MARC Data Elements](#)

Adding to and editing this wiki is encouraged for anyone with an interest in these matters.

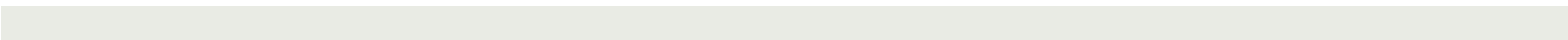
---

## 3 sections

- 00X's

- 0XX's

- XXX's



---

# 00X

- ▣ 160 different data elements in 007/008
    - ▣ 008music22 (Target audience)
    - ▣ 007motionPicture04 (Motion picture presentation format)
  - ▣ 1530 different values
    - ▣ 008music22j (Target audience: Juvenile)
    - ▣ 007motionPicture04d (Motion picture presentation format: Anamorphic (wide-screen))
-

---

# 0XX identifiers

- ▣ 007motionPicture04
  - ▣ 007motionPicture04d
- ▣ 008music22
  - ▣ 008music22j

# 0XX in RDF

@prefix dc: <

<http://purl.org/dc/elements/1.1/>>.

@prefix rdf: <<http://www.w3.org/1999/02/22-rdf-syntax-ns#>>.

@prefix skos: <<http://www.w3.org/2004/02/skos/core#>>.

<<http://marc21.info/vocab/007map03>> dc:title "Color" .

<<http://marc21.info/vocab/007map03>> rdf:type skos:ConceptScheme .

<<http://marc21.info/vocab/007map03/007map03a>> skos:prefLabel "One color" .

<<http://marc21.info/vocab/007map03>> skos:hasTopConcept <<http://marc21.info/vocab/007map03/007map03a>> .

<<http://marc21.info/vocab/007map03/007map03a>> rdf:type skos:Concept .

<<http://marc21.info/vocab/007map03/007map03a>> skos:inScheme <<http://marc21.info/vocab/007map03>> .

<<http://marc21.info/vocab/007map03/007map03a>> skos:topConceptOf <<http://marc21.info/vocab/007map03>> .

<<http://marc21.info/vocab/007map03/007map03c>> skos:prefLabel "multicolored" .

<<http://marc21.info/vocab/007map03>> skos:hasTopConcept <<http://marc21.info/vocab/007map03/007map03c>> .

---

# URIs & triples

- 1 <<http://marc21.info/vocab/007map03/007map03a>>
- 2 skos:prefLabel
- 3 "One color" .

---

# 0XX

- indicators

- Indicators can change everything

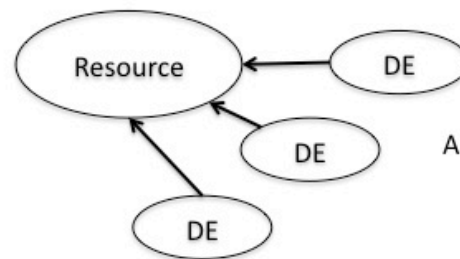
- multiple subfields

- A tag is not necessarily a single data element
  - A subfield is not necessarily a single data element
-

# 024 again

- \$a - Standard number or code
- \$c - Terms of availability
- \$d - Additional codes following the standard number or code
- \$z - Canceled/invalid standard number or code
- \$2 - Source of number or code
- \$a + \$d
- \$c -- dependency
- \$z – not dependent
- \$a + \$d (+ \$c) + \$2

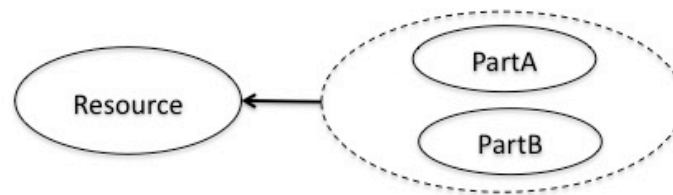
# Patterns



A. Subfields describe the resource directly and independently



B. Some subfields describe or qualify other subfields



C. Multi-part data element (usually ordered)

---

XXX's

HELP!!!!!!

---

---

## Some principles

- Define data apart from structure
  - Re-use data elements wherever they are needed
  - Code once, display many times
-

---

<http://kcoyle.net/presentations/>

Code4Lib journal, July, 2011