FAST
Faceted Application of Subject Terminology

Jeff Mixter
Research Support Specialist, OCLC Research

Background
• Started in 1999-2000 as an OCLC Research Project
• Edward T. O’Neill and Lois Mai Chan
• Stemmed from the CORC (Cooperative Online Resource Catalog) Project – simple way to describe things on the Web using Dublin Core
  – Problem: there was no easy to use/learn subject vocabulary

Today
• Still being worked on…
  – Ed recently retired from OCLC Research and the project is now headed by Diane Vizine-Goetz
• Most recent development is applying FAST headings to WorldCat
Mechanics

• FAST uses LC vocabularies as the backbone for generating faceted subject terms
• Since FAST is derived from LC vocabularies, it is very complimentary to but also limited by the scope/coverage of the LC vocabularies
• The headings are derived in a few different ways
  – The MARC Authority records
  – Rules for creating complex LC headings
    • Cleveland (Ohio)--History--Civil War, 1861-1865

Creating FAST terms

• Derived from LC vocabularies
• OCLC gets copies of LC Authority files (MARC) which are then converted into FAST Authority files
• Conversion is based on a variety parameters
  – MARC field tags
  – Subfield codes
  – Set rules where opinions differ
    • History (Form vs. Topic)
• Faceting has benefits and drawbacks
  – Ease of use
  – Loss of semantics
Creating FAST terms

MARC with LC Headings:

600 $a Washington, George, $d 1732-1799
650 $a Trenton, Battle of, Trenton, N.J., 1776 $v Juvenile literature.
651 $a Delaware River (N.Y.-Del. and N.J).

FAST Converted Headings:

600 17 $a Washington, George, $d 1732-1799 $2 fast $0 (OCoLC)fst00178100
611 07 $a Trenton, Battle of (New Jersey : 1776) $2 fast $0 (OCoLC)fst01404397
648 7 $a 1776 $2 fast
651 7 $a New Jersey $z Trenton $2 fast $0 (OCoLC)fst01207908
651 7 $a United States $z Delaware River $2 fast $0 (OCoLC)fst01310316
655 7 $a Juvenile works $2 fast $0 (OCoLC)fst01411637

Facets

• FAST is divided into 8 facets:
  – Topical
  – Personal Names
  – Corporate Names
  – Event
  – Geographic
  – Uniform Title
  – Form
  – Period

Topical

• Derived from the 150 field in MARC
• Topics are separated from non-topical subfield headings
  – Geographic subfield heading is split into a separate Geographic heading
• Most popular facet by organizations that have adopted FAST
• Sailboats--Design and construction
Personal Names

- Derived from the 100 field in MARC
- Includes the largest number of terms
  - Must be used as a subject before it is created for use in FAST
- Enhanced with links to VIAF and Wikipedia.org
- Follow same general pattern as LCNAF names
- Washington, George, 1732-1799

Corporate Names

- Derived from 110 field in MARC
- Like Person headings, these are linked to VIAF and Wikipedia.org when possible
- General Motors Corporation

Event

- An event is any activity that occurs during a limited period of time
- LC focused on just meetings whereas FAST includes meetings and events
- Both single and reoccurring events are included
- Non-reoccurring events are generally qualified by place and date.
  - Great War (Uruguay : 1843-1852)
  - International Youth Year (1985)
  - Rose Bowl (Football game)
Geographic

- Geographic names will be established and applied in indirect order and abbreviations are not used:
  - Pennsylvania—Philadelphia
- First level geographic names are limited to continents, countries, and other high level names (e.g., Ohio, Victoria, China, Europe, etc.). Other names are entered as subdivisions under the smallest first-level name in which it is fully contained:
  - Europe—Curzon Line
- Parts of large bodies of water (bays, gulls, etc.) are established under the larger body of water:
  - Atlantic Ocean—Chesapeake Bay
- Geographic headings are enhanced with geographic coordinates
  - Based on GeoNames
  - This data drives the mapFAST service

Uniform Title

- Uniform titles are entered directly and qualified by author:
  - Anonymous:
    - Beowulf
    - Dead Sea scrolls
  - Personal Authors:
    - Paradise regained (Milton, John)
    - Killers (Hemingway, Ernest)
  - Corporate Authors:
    - Job Training Partnership Act (United States)
    - Basic law (Hong Kong)

Form

- Derived from the 155 field in MARC and also 150 field when appropriate
- This facet is currently undergoing some refinement
Period (Chronological)

- Periods are unique in that they are not related to any LCSH Authority records
  - They are mined out of bibliographic records
- As a result the Period headings are not comprehensive in coverage.

Result of Faceting

26.5 million unique LCSH headings
→ 1.7 million FAST headings

Recent developments

- FAST is now being added to WorldCat records
  - FAST has been added to ~80 Million records
- Perspective:
  - ~300 Million records in WorldCat
  - ~100 Million have LCSH headings
    - Not all are authority headings
    - Not all are valid
- Evaluation of how Form headings are created
  - Transition from subfield 'v' to use of LC Genre/Form Terms vocabulary
FAST Adoption

• Survey conducted 2013 to see who was using FAST
  – 10 organizations were using it
  – This did not include Cornell!
• Organizations using FAST:
  – From six countries
  – Variety of types – publishers, national libraries, special libraries
  – and other non-library organizations

FAST Usage

• Facets that are most frequently used:
  – Topical
  – Geographic
• Reasons for adopting FAST:
  – Ease of use
  – Simple syntax
  – Non-cataloger use
  – All headings are linked
  – Rich vocabulary

Questions?
FAST Features and Services

Services

- http://fast.oclc.org/

SearchFAST

- Lookup service for FAST headings
mapFAST
- Browse headings based on geographic location

FAST Converter
- Converts MARC encoded LC headings into FAST headings

assignFAST
- Create FAST headings that can be copied and pasted into MARC
FAST Linked Data

Introduction

• FAST Linked Data was first published December of 2011
  • Derived from MARC
• It was developed using SKOS (Simple Knowledge Organization Schema)*
  • Similar to Library of Congresses Linked Data project
• 2014 FAST Linked Data was remodeled using Schema.org
• FAST headings link to their respective Library of Congress heading(s)
• FAST Geographic headings are linked to GeoNames
Old Environment

2693.5  Chan, Lois Mai.  
O6C40  Cataloging and classification: an introduction / Lois Mai Chan. -- 2nd ed.  
xxii, 519 p. ; ill. ; 24 cm.  
Includes bibliographical references (p. 493-502) and index.  

Links: to & from

Embedding vs. Linking

Embedding  Subject headings

Linking  sh 85129426
Linking:
Is Full Enumeration Required?

**Synthetic:** Only a set of core headings are established but those terms can be combined or extended following the synthetic rules. (LCSH)

**Enumerative:** All subject headings are established and included in the authority file. (FAST)

Linking as MARC Fields

**LCSH:**

650 0 $aSubject headings $0(DLC)sh 85129426

FAST:

650 7 $aSubject headings $2fast $0(OCoLC) fst01136458

Linking: A Simplified Example

010 2010015675
050 08 2695.28 $b F373 2010
100 1 Chan, Lois Mai.
300 $a 234 p. : $b ill. ; $c 26 cm.
650 0 $b book ; $c book $0(DLC)sh 85129426
700 1 O’Neill, Edward T.
LCSH Linking; 3 cases

Simple Link 5.8%*

No Link

Multiple Links

*All Statistics as of 1/1/2013

FAST Linking; only simple links

Options for Simple Links

• Faceting.

• Validation records (Create authority records for all valid headings)

• Hybrid (Link when possible, embedded otherwise)
FAST URIs in MARC Bibliographic Records

- MARC is currently the data standard
- Should not prevent libraries from accommodating Linked Data URIs
- There is no way to actually imbed the FAST URIs into MARC
- It is possible to add all of the needed information to generate a URI
- Use of canonical identifiers
- The MARC $0
  - Works well with FAST but is sometimes problematic for LCHS

Canonical ID in the $0

http://id.worldcat.org/fast/1204623

5.8% of LCSH Headings are Established
24.8M are Unestablished
LCSH Headings are Growing Rapidly

- 26,423,651 unique LCSH headings in WorldCat,
- 1,490,619 new LCSH headings were added to WorldCat in 2012,
- 1,586,961 of the unique LCSH headings are established,
- 59,895 of the established LCSH headings were established in 2012.

Impact of Faceting

![Graph showing FAST vs. LCSH headings](image)

- **Canonical URIs**

  - On 2013-01-16 LC made the following changes to two name authority records:
    - n 78081636 Stein, Jock \rightarrow Stein, Jock (Cleric)
    - no2012157653 Stein, Jock, Pulp fiction writer  \rightarrow Stein, Jock
  - Of the 30 works that had Stein, Jock (n 78081636) as either a 100 or 700 entity, only 3 were changed to Stein, Jock (Cleric)
  - LC practice prevents a 400 field from being added to n78081636 because it is now the valid 100 field heading in no2012157653
  - It is now impossible to differentiate the two names
  - This change pattern occurred 840 times in 2013 alone
Questions?

Thank You!

Jeff Mixter
mixterj@oclc.org
@JeffMixter

©2014 OCLC. This work is licensed under a Creative Commons Attribution 3.0 Unported License. Suggested attribution: "This work uses content from [presentation title] © OCLC, used under a Creative Commons Attribution license: http://creativecommons.org/licenses/by/3.0/"