

OCLC Online Computer Library Center

Terminology Services

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OCLC Research

Terminology Services Project: Research Agenda

- Extend the value and usefulness of terminology resources
- Investigate new ways of representing & viewing knowledge structures
- Explore new models for delivering services & distributing vocabularies
- Offer services that will benefit libraries in an increasingly diverse environment

Extend value of terminology resources

Cross Vocabulary Mappings

Vocabulary	DDC	ERIC	GSAFD	LCC	LCSH	LCSHac	MeSH	WJ
DDC (Dewey Decimal Classification)				X	X	X	X	
ERIC thesaurus (Educational resources Info. Center)					X			
GSAFD (Genre terms for fiction)					X	X		
LCC (LC Classification)	X							
LCSH (Library of Congress Subject Headings)	X	X	X				X	X
LCSHac (LC Children's Headings)	X		X					
MeSH (Medical Subject Headings)	X				X			
WJ (WebJunction thesaurus)					X			

DDC / LCSH mappings

Class Number: 006.74
Segmented Number: 006.7/4
Caption: *Markup languages

[Browse](#) [Tables](#) [Create Note](#)

[Notes](#) [Terms](#)

Main Classes

- 000 Computer science, information & general works
- 000 Computer science, knowledge & systems
- 006 *Special computer methods
- 006.7 *Multimedia systems
- 006.74 *Markup languages

Authority File: XML (Document mar ... [MARC Help](#)

ARN 04548446

Rec stat	n	Entered	19971016	Replaced	19971121104848.6
Type	z	Upd status	a	Enc lvl	n
Roman		Ref status	a	Mod rec	
Govt agn		Auth status	a	Subj	a
Series	n	Auth/ref	a	Geo subd	
Ser num	n	Name	n	Subdiv tp	n
Source		Name use	b	Subj use	a
		Ser use	b	Rules	n

Terms

Relative Index Terms	LC Subject Headings
Document markup languages	HTML (Document markup language)
Extensible markup language	HTML editors (Computer programming)
Hypertext markup language	SGML (Document markup language)
Markup languages	WML (Document markup language)
	XHTML (Document markup language)
	XML (Document markup language)
	XSL (Document markup language)

- 010 sh 97007825
- 040 DLC Ꞇc DLC
- 150 XML (Document markup language)
- 450 Extendible Markup Language (Document markup language)
- 450 eXtensible Markup Language (Document markup language)
- 550 Document markup languages Ꞇw g

HTML (Document markup language)

HTML editors (Computer programming)

SGML (Document markup language)

WML (Document markup language)

XHTML (Document markup language)

XML (Document markup language)

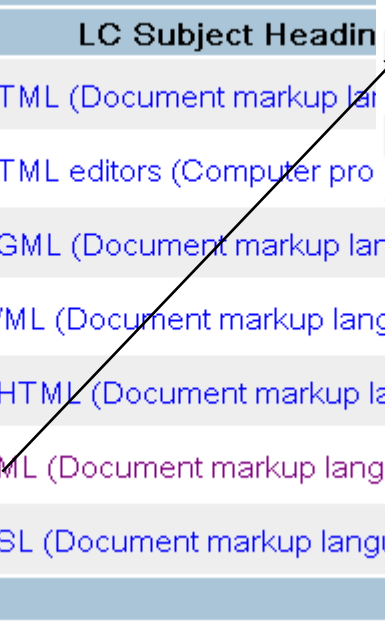
XSL (Document markup language)

150 XML (Document markup language)

450 Extendible Markup Language (Document markup language)

450 eXtensible Markup Language (Document markup language)

550 Document markup languages Ꞇw g



DDC categories for Selected LC Subject Headings for Holidays - Microsoft Internet Explorer

- ▶ **DDC categories for Selected LC Subject Headings for Holidays**
 - ▶ **Religious customs & observances**
 - ▶ **General customs & observances**
 - ▶ **Special occasions**
 - ▶ **Secular holidays**
 - ▶ **Holidays of December, January, February**
 - ▶ **Holidays of March, April, May**
 - ▶ **Holidays of June, July, August**

Bastille Day	394.2635
Canada Day	394.263
Dragon boat festival	394.263
Father's Day	394.263
Fourth of July	394.2634
Independence Day (Iceland)	394.263
Independence Day (Philippines)	394.263
John the Baptist's Day	394.263
National Aboriginal Day (Canada)	394.263
National Day (Singapore)	394.263
Saint Stephen's Day	394.263
 - ▶ **Holidays of September, October, November**

Done Local intranet

GSAFD / LCSH /LCSHac mappings

000 00000nz a2200000n 4500

001 GSAFD000001

003 OCoLC-O

005 20030505103803.0

008 000720 n anznnbabn a ana d

035 |a(IChALCS)GSAFD000001

040 |aIChALCS|beng|cIEN|dOCoLC-O|fgsafd

155 |aAdventure fiction

455 |wnne|aAdventure stories

455 |aSwashbucklers

455 |aThrillers

555 |wh|aPicaresque literature

555 |wh|aRobinsonades

555 |aSea stories

555 |wh|aWestern stories

680 |iUse for works characterized by an emphasis on physical and often violent action, exotic locales, and danger, generally with little character development.

750 1|aAdventure and adventurers|vFiction|0(DLC)sj 96004703

750 0|aAdventure stories|0(DLC)sh 85001072

WebJunction Thesaurus / LCSH

000 00000nz a2200000n 4500

001 Gates0004

003 OCoLC-O

040 |aOCoLC-O|beng|cOCoLC-O|dOCoLC-O

065 |aX5|cQualities and Measurements

150 |aaccessibility

450 |apublic access

450 |aequal access

550 |alimitations|wh

550 |awheelchair accessibility|wh

550 |adisabled

550 |afurniture

550 |apublic access workstations

680 |iRefers to physical access to workstations. For maintenance of or access to content, use user profiles or system configuration.

750 |aAssistive computer technology|0(DLC)sh2002012108

750 |aComputers and people with disabilities|0(DLC)sh 86002534

WebJunction Thesaurus / LCSH

000 00000nz a2200000n 4500

001 Gates0019

003 OCoLC-O

040 |aOCoLC-O|beng|cOCoLC-O|dOCoLC-O

065 |aR11.3|cResources and Services

150 |ablack history resources

550 |aInternet resources|wg

550 |aAfrican Americans

550 |areference software

750 |81.1|aAfrican Americans|0(DLC)sh 85001932

780 |81.2|xComputer network resources|0(DLC)sh 99005290

788 0|iEquivalent headings are formed by combining fields linked by subfield code="8" (Field Link and Sequence Number). Fields with the same linking number are considered part of the same heading. The sequence number is separated from the linking number by a period and indicates the order of the linked fields in the fully constructed heading.

Investigate new ways of representing & viewing knowledge structures

- MARC21 authority & classification formats
 - Construction, maintenance & exchange
- Z39.19 (NISO thesaurus standard)
 - Construction & presentation
- Z39.50 Zthes profile
 - Searching
- Common standard for all of the above?

Common vocabulary elements

Vocabulary Element	Code	Z39.19	MARC21 Authorities	Zthes Profile
Preferred term/Descriptor	PT	X	X	X
Preferred term/Linguistic equivalent	PT (LE)			X
Non-Preferred term	NPT (X)	X	X	X
Non-Preferred term (earlier form)	NPT (E)		X	
Non-Preferred term (acronym)	NPT (A)		X	
Broader term	BT	X	X	X
Broader term (generic)	BTG	X		
Broader term (instance)	BTI	X		
Broader term (partitive)	BTP	X		
Node label	NL	X	X	X
Narrower term	NT	X	X	X
Narrower term (generic)	NTG	X		
Narrower term (instance)	NTI	X		
Narrower term (partitive)	NTP	X		
Related term	RT	X	X	X
Note--Scope note	SN	X	X	X
Note--History note	HN	X	X	
Mapped term	MT		X	
Classification/Category number	CN		X	

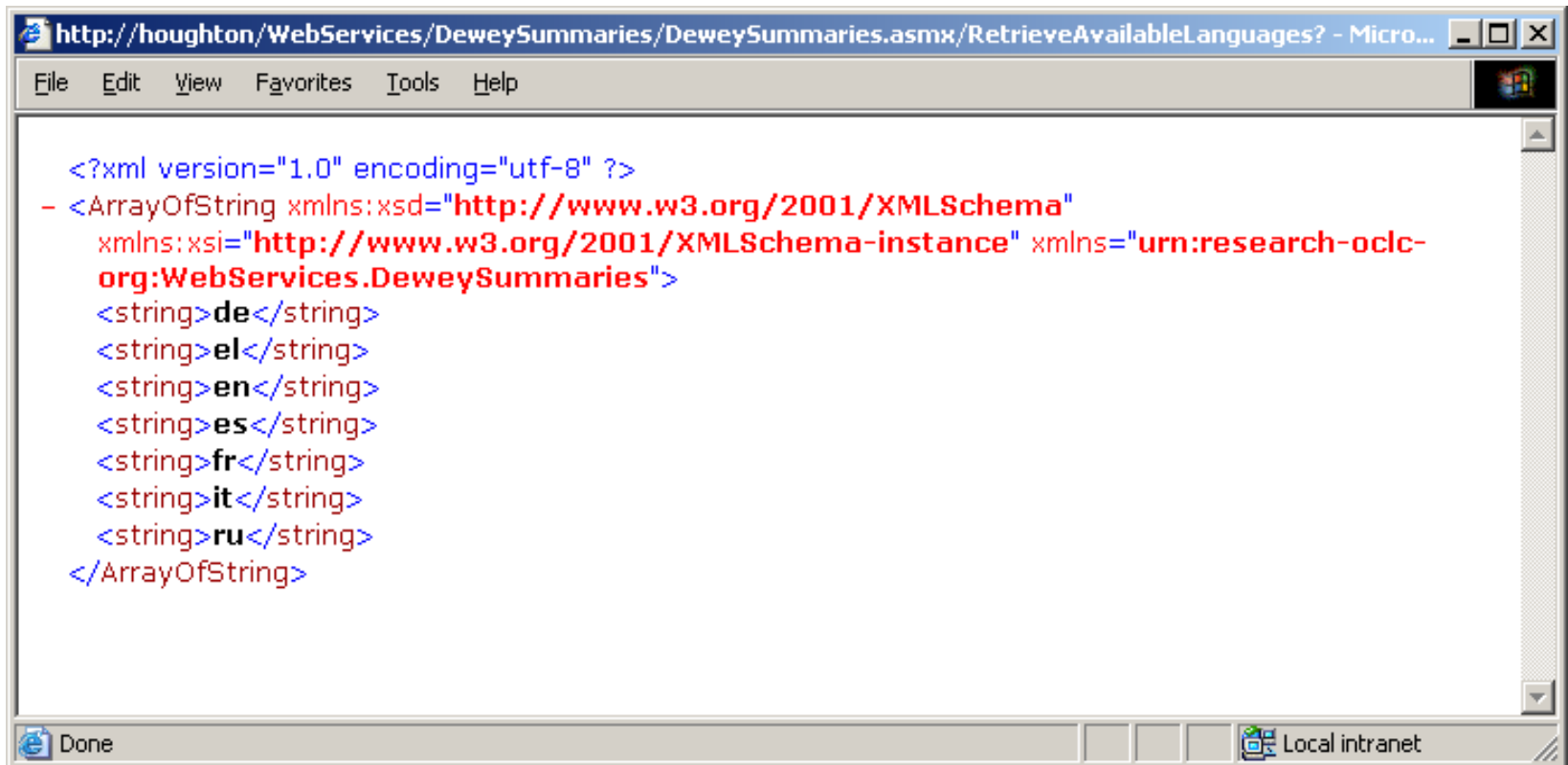
Explore new models for delivering services & distributing vocabularies

- Custom web services
 - DDC Captions (private)
 - Provides DDC captions in languages of translations
 - [GSAFD / LCSH Web Services](#) (public)
 - Provides co-occurrences of genre terms and LC subject headings based on WorldCat usage
- OAICat - OAI-PMH v2.0 repository framework
- Z39.50 (SRU/W) as a Web Service using the Zthes profile

DDC Caption Service

- Available as Web service
- Provides DDC captions in languages of translations
- Potential uses
 - Enhancing metadata descriptions & results displays

Retrieve languages of translations

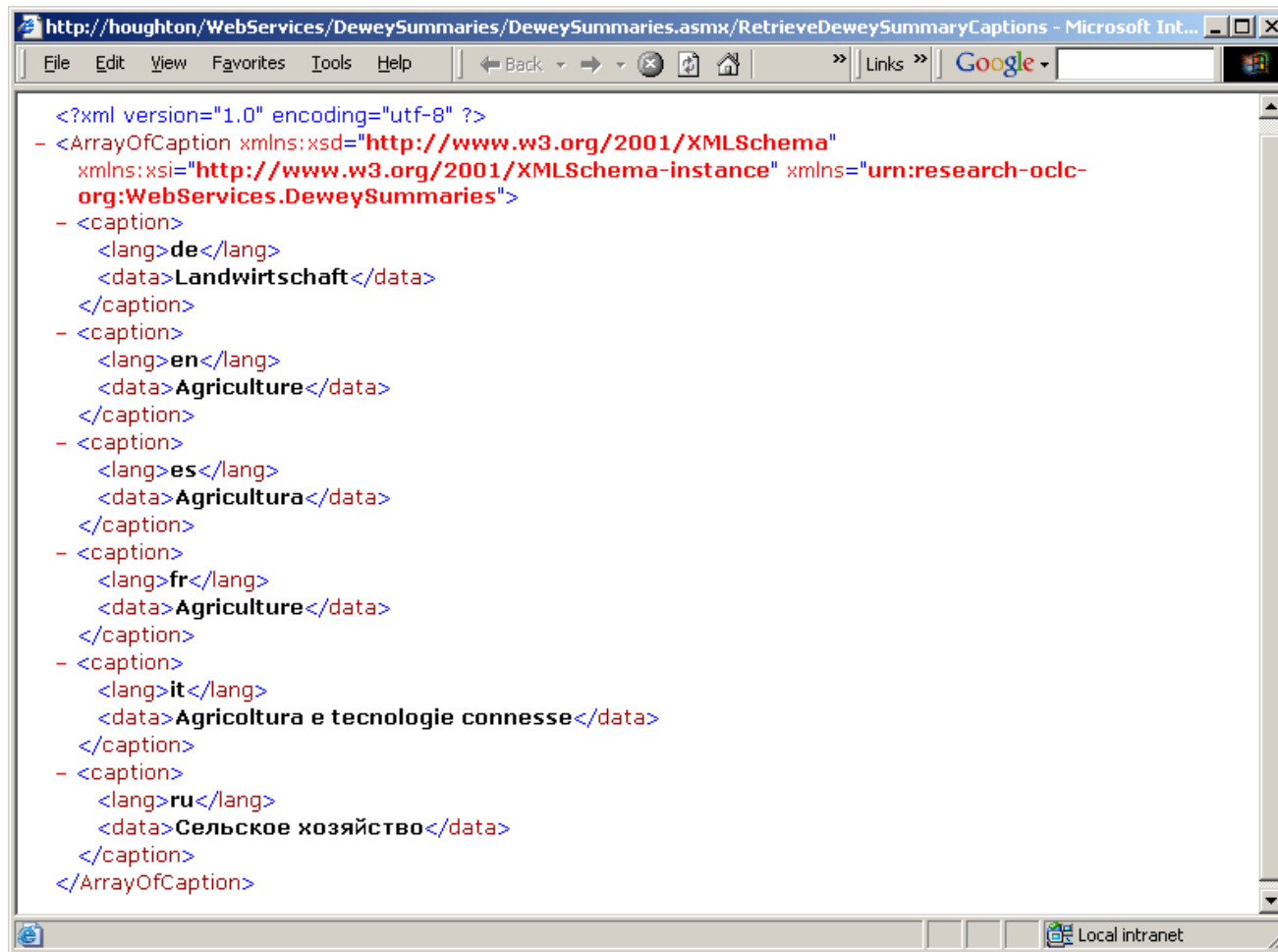


The screenshot shows a Microsoft Internet Explorer browser window with the address bar containing the URL: `http://houghton/WebServices/DeweySummaries/DeweySummaries.asmx/RetrieveAvailableLanguages? - Micro...`. The browser's menu bar includes File, Edit, View, Favorites, Tools, and Help. The main content area displays the following XML response:

```
<?xml version="1.0" encoding="utf-8" ?>
- <ArrayOfString xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="urn:research-oclc-
  org:WebServices.DeweySummaries">
  <string>de</string>
  <string>el</string>
  <string>en</string>
  <string>es</string>
  <string>fr</string>
  <string>it</string>
  <string>ru</string>
</ArrayOfString>
```

The status bar at the bottom of the browser window shows "Done" on the left and "Local intranet" on the right.

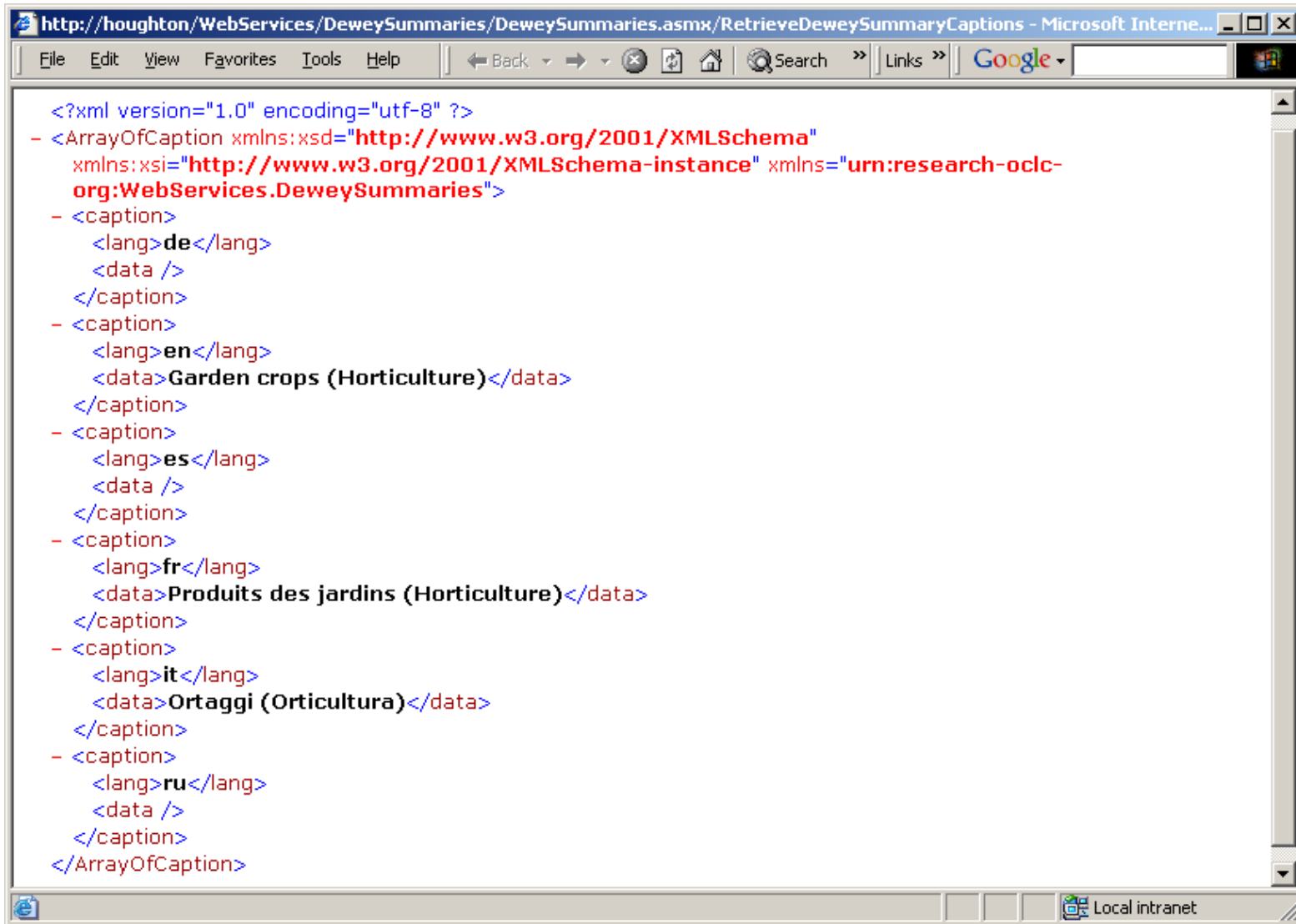
Retrieve translated summaries



The screenshot shows a Microsoft Internet Explorer browser window with the address bar containing the URL: `http://houghton/WebServices/DeweySummaries/DeweySummaries.asmx/RetrieveDeweySummaryCaptions`. The browser's menu bar includes File, Edit, View, Favorites, Tools, and Help. The address bar also shows navigation buttons (Back, Forward, Stop, Home) and a search box with the Google logo. The main content area displays XML data in a monospaced font. The XML starts with a declaration: `<?xml version="1.0" encoding="utf-8" ?>`. It then contains an `<ArrayOfCaption>` element with several child `<caption>` elements. Each `<caption>` element has a `<lang>` attribute and a `<data>` element. The translations shown are: German (de) for "Landwirtschaft", English (en) for "Agriculture", Spanish (es) for "Agricultura", French (fr) for "Agriculture", and Italian (it) for "Agricoltura e tecnologie connesse". The Russian (ru) translation is "Сельское хозяйство". The XML ends with `</ArrayOfCaption>`. The browser's status bar at the bottom indicates "Local intranet".

```
<?xml version="1.0" encoding="utf-8" ?>
- <ArrayOfCaption xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="urn:research-oclc-
  org:WebServices.DeweySummaries">
- <caption>
  <lang>de</lang>
  <data>Landwirtschaft</data>
</caption>
- <caption>
  <lang>en</lang>
  <data>Agriculture</data>
</caption>
- <caption>
  <lang>es</lang>
  <data>Agricultura</data>
</caption>
- <caption>
  <lang>fr</lang>
  <data>Agriculture</data>
</caption>
- <caption>
  <lang>it</lang>
  <data>Agricoltura e tecnologie connesse</data>
</caption>
- <caption>
  <lang>ru</lang>
  <data>Сельское хозяйство</data>
</caption>
</ArrayOfCaption>
```

Retrieve translated summaries



```
<?xml version="1.0" encoding="utf-8" ?>
- <ArrayOfCaption xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="urn:research-oclc-
  org:WebServices.DeweySummaries">
- <caption>
  <lang>de</lang>
  <data />
</caption>
- <caption>
  <lang>en</lang>
  <data>Garden crops (Horticulture)</data>
</caption>
- <caption>
  <lang>es</lang>
  <data />
</caption>
- <caption>
  <lang>fr</lang>
  <data>Produits des jardins (Horticulture)</data>
</caption>
- <caption>
  <lang>it</lang>
  <data>Ortaggi (Orticultura)</data>
</caption>
- <caption>
  <lang>ru</lang>
  <data />
</caption>
</ArrayOfCaption>
```

Natural gardens - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Google Search Web Search Site News Page Info Up Highlight



Natural gardens /

Laura Coit

2001

English Book 120 p. : col. ill. ; 28 cm.
Minnetonka, Minn. : Creative Pub. International, ISBN: 0865734631 (hardcover) 086573464X (softcover)

Title: **Natural gardens /**

Author(s): [Coit, Laura.](#)

Publication: Minnetonka, Minn. : Creative Pub. International,
Year: 2001

Description: 120 p. : col. ill. ; 28 cm.

Language: English

Series: Black & Decker outdoor home;

Standard No: **ISBN:** 0865734631 (hardcover); 086573464X (softcover); **LCCN:** 00-48504

SUBJECT(S)

Descriptor: [Natural gardens.](#)
[Natural landscaping.](#)

Note(s): Includes index. **635 = Garden Crops (Horticulture)**

Class Descriptors: **LC:** [SB439](#); **Dewey:** [635.9/51](#)

Responsibility: author, Laura Coit ; photographer, John M. Rickard.

Document Type: Book

Database: WorldCat

Done Local intranet

Aménager avec style votre jardin sauvage - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Google Search Web Search Site News Page Info Up Highlight



Aménager avec style votre jardin sauvage /

Laura Coit; John M Rickard

2003
French  Book
Saint-Constant, Québec : Broquet, ISBN: 2890005909

Title: Aménager avec style votre jardin sauvage /

Author(s): Coit, Laura. ; Rickard, John M.

Publication: Saint-Constant, Québec : Broquet,

Projected Date: 0303

Year: 2003

Language: French

Series: Collection Jardinage; **Variation:** Collection Jardinage (Saint-Constant, Québec)

Standard No: ISBN: 2890005909; **National Library of Canada:** 20029417643

SUBJECT(S)

Descriptor: Jardins naturels.
Aménagement paysager naturel.
Jardins naturels -- Architecture.
Plantes indigènes -- Culture.

635 = Produits des jardins (Horticulture)

Note(s): Traduction de: Natural gardens./ Comprend un index.

Class Descriptors: Dewey: 635.9/51; NLC: SB439

Responsibility: Laura Coit ; John M. Rickard, photographe.

Document Type: Book

Accession No: OCLC: 50842963

Done  Local intranet

GSAFD Web Services

Title: Prey /

Author(s): Crichton, Michael, 1942-

Summary: In the Nevada desert, an experiment has gone hor
nanoparticles - microrobots - has escaped from th
is self-sustaining and self-reproducing. It is intellig
experience. For all practical purposes, it is alive. It
as a predator. It is evolving swiftly, becoming more
passing hour. Every attempt to destroy it has faile
prey.... Drawing on up-to-the-minute scientific fact
into the emerging realms of nanotechnology and a
intelligence - in a story of breathtaking suspense..

Also wrote as: Douglas, Michael
Hudson, Jeffrey
Lange, John

Fiction Categories: Suspense fiction
Science fiction

Setting: Nevada

Subjects: Nanotechnology
Artificial intelligence
Molecular biologists
Artificial life

Publication: Toronto : Harper Collins,

Projected Date: 0211


Year: 2002

Language: English

Standard No: ISBN: 0002005549 ; Nation

Class Descriptors: Dewey: 813/.54; NLC: PS3f

Responsibility: Michael Crichton.



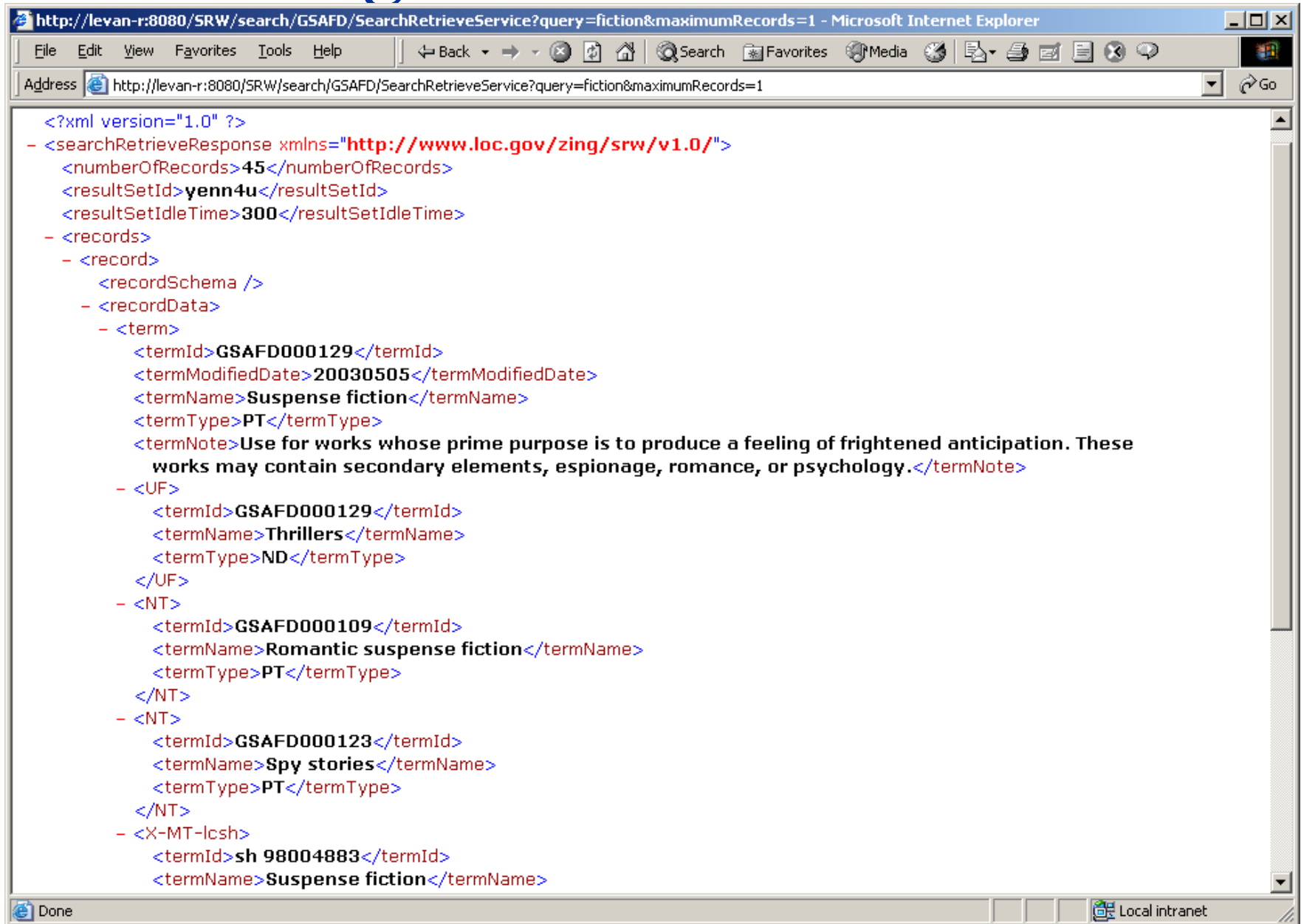
```
<?xml version="1.0" encoding="utf-8" ?>
- <RetrieveSubjectHeadingsForGenreTermAndSubjectTypeResult
  xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xmlns="http://research.oclc.org/WebServices/GenreTermsAndSubjectHeadings">
  <GenreTerm>science fiction</GenreTerm>
  <SubjectType>place/setting</SubjectType>
- <SubjectHeadingList>
  <SubjectHeading>Mars (Planet)—Fiction</SubjectHeading>
  <SubjectHeading>Dune (Imaginary place)—Fiction</SubjectHeading>
  <SubjectHeading>Pern (Imaginary place)—Fiction</SubjectHeading>
  <SubjectHeading>Venus (Planet)—Fiction</SubjectHeading>
  <SubjectHeading>New York (N.Y.)—Fiction</SubjectHeading>
  <SubjectHeading>Amber (Imaginary place)—Fiction</SubjectHeading>
  <SubjectHeading>Los Angeles (Calif.)—Fiction</SubjectHeading>
  <SubjectHeading>Outer space—Exploration—Fiction</SubjectHeading>
  <SubjectHeading>Darkover (Imaginary place)—Fiction</SubjectHeading>
  <SubjectHeading>London (England)—Fiction</SubjectHeading>
  <SubjectHeading>San Francisco (Calif.)—Fiction</SubjectHeading>
```

New service models (cont.)

- OAICAt - OAI-PMH v2.0 repository framework ([GSAFD](#) via OAICAT)
 - Deliver services
 - Authorized headings and classification are URI-accessible
 - Distribute vocabularies
 - Resources (thesaurus & classification records) can be harvested

- Z39.50 as a Web Service
 - SRU & SRW ([GSAFD](#) via SRW)

Searching GSAFD with SRW/U



The screenshot shows a Microsoft Internet Explorer browser window displaying an XML search result. The address bar shows the URL: `http://levan-r:8080/SRW/search/GSAFD/SearchRetrieveService?query=fiction&maximumRecords=1`. The XML content is as follows:

```
<?xml version="1.0" ?>
- <searchRetrieveResponse xmlns="http://www.loc.gov/zing/srw/v1.0/">
  <numberOfRecords>45</numberOfRecords>
  <resultSetId>yenn4u</resultSetId>
  <resultSetIdleTime>300</resultSetIdleTime>
- <records>
  - <record>
    <recordSchema />
  - <recordData>
    - <term>
      <termId>GSAFD000129</termId>
      <termModifiedDate>20030505</termModifiedDate>
      <termName>Suspense fiction</termName>
      <termType>PT</termType>
      <termNote>Use for works whose prime purpose is to produce a feeling of frightened anticipation. These works may contain secondary elements, espionage, romance, or psychology.</termNote>
    - <UF>
      <termId>GSAFD000129</termId>
      <termName>Thrillers</termName>
      <termType>ND</termType>
    </UF>
    - <NT>
      <termId>GSAFD000109</termId>
      <termName>Romantic suspense fiction</termName>
      <termType>PT</termType>
    </NT>
    - <NT>
      <termId>GSAFD000123</termId>
      <termName>Spy stories</termName>
      <termType>PT</termType>
    </NT>
    - <X-MT-lcsh>
      <termId>sh 98004883</termId>
      <termName>Suspense fiction</termName>
```

The browser interface includes a menu bar (File, Edit, View, Favorites, Tools, Help), a toolbar with navigation buttons (Back, Forward, Stop, Home, Search, Favorites, Media), and a status bar at the bottom showing "Done" and "Local intranet".

Potential service directions

- Search argument optimization service
 - Background, on-demand, term-to-term service
 - natural language to a controlled vocabulary or cross-vocabulary mapping
 - either as a custom web service or SRU/SRW
- Format interchange
 - MARC21 classification & authorities, z39.19, Zthes, etc. for various vocabularies; conversion of full files or single records on demand
- Hosting vocabulary files
 - Files for distribution/remounting locally (ftp, OAI)
 - Web services access to authoritative source files

Potential service directions

- Metadata authoring support
 - Vocabulary lookup/validation web services integrated into editing interfaces
 - Domain-specific subsets of vocabularies:
 - Packages of low-cost, lightweight, rich subsets of DDC, LCSH, etc. targeted to meet the needs of specific audiences (e.g., classics scholars, learning object repositories)

- Distributed vocabulary input for editorial maintenance
 - Channel for queuing corrections, suggested additions, changes from distributed users to editorial staff

Links

- Terminology Services project page
 - http://www.oclc.org/research/projects/mswitch/4_termser_vs.shtm)
- GSAFD/LCSH web service
 - <http://research.oclc.org/WebServices/GenreTermsAndSubjectHeading>
- GSAFD via OAICat
 - <http://alcme.oclc.org/gsafd/>
- OAICat Project page
 - <http://www.oclc.org/research/software/oai/cat.shtm>
- Search and Retrieve on the Web project page
 - <http://www.oclc.org/research/projects/webservices/>

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