



European  
BIBFRAME  
Workshop

# Experiments at the George Washington University

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Schema.org: Action

# Synergy and Convergence

## GW Linked Data

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- April 2013-July 2016:
  - Systems & Web Team: Schema.org
- September 2013-:
  - Cataloging Metadata: URIs in MARC

# URIs in MARC Data

2018-07-26

- 
- GW MARC BIB Data: 1.7 million
  - Over 10 million URIs in \$0
  - 1.7 million OCLC Work ID in 758 \$1

=050 00\$aPN1993.5.T28\$bH836 2013  
 =082 04\$a791.430951249\$223  
 =049 \\\$aDGWW  
 =100 1\\\$6880-01\$aHuang, Ren.\$0http://id.loc.gov/authorities/  
 =245 10\$6880-02\$aXin Taiwan dian ying :\$bTai yu dian ying w  
 =246 30\$6880-03\$aTai yu dian ying wen hua de yan bian yu c  
 =246 1\\\$iEnglish title on cover:\$aNew Taiwan cinema  
 =250 \\\$6880-04\$aChu ban.  
 =264 1\\\$6880-05\$aTaipei Shi :\$bTaiwan shang wu yin shu gu  
 =300 \\\$a3, 348 pages, 14 pages of color plates :\$bcolor illustr  
 =336 \\\$btxt\$2rdacontent\$0http://id.loc.gov/vocabulary/conten  
 =337 \\\$bn\$2rdamedia\$0http://id.loc.gov/vocabulary/mediaTyp  
 =338 \\\$bnc\$2rdacarrier\$0http://id.loc.gov/vocabulary/carriers  
 =490 1\\\$6880-06\$aXin wan you wen ku. Yi shu =\$aNew varie  
 =504 \\\$aIncludes bibliographical references (pages 346-347).  
 =546 \\\$aText in Chinese.  
 =650 10\$aMotion pictures\$zTaiwan\$xHistory.\$0http://id.loc.go  
 =650 17\$6880-07\$aMotion pictures.\$2fast\$0http://id.worldcat.o  
 =651 17\$6880-08\$aTaiwan.\$2fast\$0http://id.worldcat.org/fast/f  
 =655 17\$6880-09\$aHistory.\$2fast\$0http://id.worldcat.org/fast/f  
 =758 \\\$1http://worldcat.org/entity/work/id/1299479103  
 =758 \\\$1http://worldcat.org/entity/work/id/5442219  
 =830 10\$6880-10\$aXin wan you wen ku.\$0http://id.loc.gov/aut  
 =880 1\\\$6100-01\$a黄仁.\$0(NL-LeOCL)383849489  
 =880 10\$6245-02\$a新台灣電影 :\$b台語電影文化的演變與創新  
 =880 30\$6246-03\$a台語電影文化的演變與創新  
 =880 \\\$6250-04\$a初版.  
 =880 1\\\$6264-05\$a台北市 :\$b臺灣商務印書館股份有限公司,\$  
 =880 1\\\$6490-06\$a新萬有文庫. 藝術 =\$aNew variety  
 =880 17\$6650-07\$a電影.\$2lcstt\$0http://catld.ncl.edu.tw/subjec  
 =880 17\$6651-08\$a臺灣.\$2lcstt\$0http://catld.ncl.edu.tw/subjec

Microdata POSH

Statement Collection #1

Entity <https://findit.library.gwu.edu/item/12859901>

Attributes

rdf:type	schema:Book
schema:image	
Name	新台灣電影：台語電影文化的演變與創新 / 黃仁編著。
Name	Xin Taiwan dian ying : Tai yu dian ying wen hua de yan bian yu chuang xin / Huang Ren bian zhu.
schema:author	黄仁. (NL-LeOCL)383849489
schema:author	Huang, Ren
schema:publisher	Taipei Shi : Taiwan shang wu yin shu guan gu fen you xian gong si, 2013.
schema:inLanguage	Chinese.
schema:isbn	9570528036,
schema:isbn	9789570528039

Search

Advanced Search / Search Tips

新台灣電影：台語電影文化的演變與創新

Xin Taiwan dian ying : Tai yu dian ying wen hua de yan bian yu chuang xin

黄仁. (NL-LeOCL)383849489

Huang, Ren

初版. Taipei Shi : Taiwan shang wu yin shu guan gu fen you xian gong si, 2013.  
 ISBN 9570528036, 9789570528039

Availability Details

Other Title	Tai yu dian ying wen hua de yan bian yu chuang xin English title on cover: New Taiwan cinema
Subjects	Motion pictures -- Taiwan Motion pictures. Taiwan.
Series	Xin wan you wen ku.
Description	3, 348 pages, 14 pages of color plates

# Additional Exposures

## Schema:Action

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- Schema.org: **TransferAction**
  - Locating Item: physical & electronic
- Schema.org: **CommunicationAction**
  - Language-Scripts codes

# Item Actions

## More specific Types

- [AchieveAction](#)
- [AssessAction](#)
- [ConsumeAction](#)
- [ControlAction](#)
- [CreateAction](#)
- [FindAction](#)
- [InteractAction](#)
- [MoveAction](#)
- [OrganizeAction](#)
- [PlayAction](#)
- [SearchAction](#)
- [TradeAction](#)
- [TransferAction](#)
- [UpdateAction](#)

## schema.org

### TransferAction

Canonical URL: <http://schema.org/TransferAction>

[Thing](#) > [Action](#) > [TransferAction](#)

## More specific Types

- [BorrowAction](#)
- [DownloadAction](#)
- [GiveAction](#)
- [LendAction](#)
- [ReceiveAction](#)
- [ReturnAction](#)
- [SendAction](#)
- [TakeAction](#)

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 =880 17\$6651-08\$a臺灣.\$2lcstt\$0http://catld.ncl.edu.tw/subjec

Microdata POSH

Statement Collection #1  
 Entity <https://findit.library.gwu.edu/item/12859901>  
 Attributes

<https://schema.org/Action>

More specific Types

- AchieveAction
- AssessAction
- ConsumeAction
- ControlAction
- CreateAction
- FindAction
- InteractAction
- MoveAction
- OrganizeAction
- PlayAction
- SearchAction
- TradeAction
- TransferAction
- UpdateAction

電影文化的演變與創新 / 黃仁編著。  
 ing : Tai yu dian ying wen hua de yan bian yu chuang xin  
 zhu.  
 du.tw/authority/AC000238426 @zh-cmn-Hant  
 authorities/names/n81057865 @zh-Latn-pinyin  
 n shang wu yin shu guan gu fen you xian gong si, 2013.

<https://schema.org/Action>

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GW Libraries About MyAccount Ask a Librarian

Search

Advanced Search / Search Tips

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 Taiwan.

Series Xin wan you wen ku.

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Microdata POSH

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schema:image	
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Name	Xin Taiwan dian ying : Tai yu dian ying wen hua de yan bian yu chuang xin / Huang Ren bian zhu.
schema:author	<a href="http://catld.ncl.edu.tw/authority/AC000238426">@zh-cmn-Hant</a>
schema:author	<a href="http://id.loc.gov/authorities/names/n81057865">http://id.loc.gov/authorities/names/n81057865</a> @zh-Latn-pinyin
schema:publisher	Taipei Shi : Taiwan shang wu yin shu guan gu fen you xian gong si, 2013.
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# W3C: Language in HTML & XML

The golden rule when creating language tags is to keep the tag as short as possible

Code	Language	Subtags
<code>en</code>	English	language
<code>mas</code>	Masai	language
<code>fr-CA</code>	French as used in Canada	language+region
<code>es-419</code>	Spanish as used in Latin America	language+region
<code>zh-Hans</code>	Chinese written with Simplified script	language+script

# BIBFRAME 2 Transformation (MARC 066 - Character Sets Present)

```
<xsl:variable name="vScript">
  <xsl:choose>
    <xsl:when test="$vScript6simple='(3'">arab</xsl:when>
    <xsl:when test="$vScript6simple='(B'">latn</xsl:when>
    <xsl:when test="$vScript6simple='$1' and $vLang008='kor'">hang</xsl:when>
    <xsl:when test="$vScript6simple='$1' and $vLang008='chi'">hani</xsl:when>
    <xsl:when test="$vScript6simple='$1' and $vLang008='jpn'">jpan</xsl:when>
    <xsl:when test="$vScript6simple='(N'">cyrl</xsl:when>
    <xsl:when test="$vScript6simple='(S'">grek</xsl:when>
    <xsl:when test="$vScript6simple='(2'">hebr</xsl:when>
  </xsl:choose>
</xsl:variable>
```

# BF Language & Script Codes

## BF2 Example

```
<rdfs:label xml:lang="zh-hani">中華民國99年8月第八次全國教育會議</rdfs:label>
- <bf:title> OCLC# 727650540 Language/script code
- <bf:Title>
  <bflc:title30MatchKey>中華民國99年8月第八次全國教育會議</bflc:title30MatchKey>
  <bflc:title30MarcKey>880 0$6830-08/$1$a中華民國99年8月第八次全國教育會議</bflc:title30MarcKey>
  <rdfs:label>中華民國99年8月第八次全國教育會議</rdfs:label>
  <bflc:titleSortKey>中華民國99年8月第八次全國教育會議</bflc:titleSortKey>
  <bf:mainTitle xml:lang="zh-hani">中華民國99年8月第八次全國教育會議</bf:mainTitle>
</bf:Title>
</bf:title>
```

<https://www.unicode.org/iso15924/iso15924-codes.html>

# Schema.org

## Language and Scripts

schema.org

### CommunicateAction

Canonical URL: <http://schema.org/CommunicateAction>

[Thing](#) > [Action](#) > [InteractAction](#) > [CommunicateAction](#)

Property	Expected Type	Description
<b>Properties from <a href="#">CommunicateAction</a></b>		
<a href="#">inLanguage</a>	<a href="#">Language</a> or <a href="#">Text</a>	The language of the content or performance or used in an action. Please use one of the language codes from the <a href="#">IETF BCP 47 standard</a> . See also <a href="#">availableLanguage</a> . Supersedes <a href="#">language</a> .

# Schema:CommunicateActions

## More specific Types

- AchieveAction
  - AssessAction
  - ConsumeAction
  - ControlAction
  - CreateAction
  - FindAction
  - **InteractAction**
  - MoveAction
  - OrganizeAction
  - PlayAction
  - SearchAction
  - TradeAction
  - TransferAction
  - UpdateAction
- BefriendAction
  - **CommunicateAction**
  - FollowAction
  - JoinAction
  - LeaveAction
  - MarryAction
  - RegisterAction
  - SubscribeAction
  - UnRegisterAction

## Properties from CommunicateAction

about

**inLanguage**

recipient

Language or  
Text

# Best Current Practice (BCP) 47

## Syntax of language tags

Each language tag is composed of one or more "subtags" separated by hyphens (-). Each subtag is made with basic Latin letters or digits only.

With the exception of private-use language tags (defined with the "x-" prefix) and grandfathered language tags (including those starting with the "i-" prefix and that were registered in the IANA database for language tags), the subtags occur in the following order:

- a single *language subtag* composed of 2 or 3 letters (potentially followed by up to three *extended language subtags* separated by hyphens: each one composed of 3 letters, those existing language tags that collided with the syntax of *extended language subtags* having been *grandfathered* in [RFC 5646](#), so that there is currently no *extended language subtag* registered in the IANA database without an equivalent and preferred (primary) *language subtag* : all others are reserved for future parts of ISO 639),
- an optional *script subtag*, composed of 4 letters only;
- an optional *region subtag*, composed of 2 letters or 3 digits only;
- optional *variant subtags*, each one composed of either:
  - 5 to 8 letters, or
  - one digit followed by 3 letters or digits;
- optional *extension subtags*, each one composed of:
  - a single digit or a single letter with the exception of letter *x*, used as a *singleton*,
  - a single hyphen, and
  - 2 to 8 letters or digits;
- an optional *private use subtag*, composed of a single letter *x*, followed by one or more of:
  - a single hyphen, followed by
  - 1 to 8 letters or digits;

a single *language subtag* composed of 2 or 3 letters  
Subtags are not **case sensitive**  
region subtags are **uppercase**  
script subtags are **titlecase**  
other subtags are **lowercase**

Subtags are not **case sensitive**, but the specification recommends using the same case as in the Language Subtag Registry, where region subtags are **uppercase**, script subtags are **titlecase** and all other subtags are **lowercase**. This capitalization follows the recommendations of the underlying ISO standards.

The use, interpretation (and matching) of language tags is currently defined in [RFC 4647](#) (in combination with [RFC 5646](#)).

# Language, Scripts and Regions

```
九龍 @cmn-Hant
      @nan-TW
九龍 @cmn-Hans
Kowloon @zh-yue-Latn-HK
Gaolang @zh-nan-Latn-TW
Jiulong @zh-cmn-Latn-CN
      or @zh-Latn-pinyin
      or @cmn-Latn-pinyin
```

a single *language subtag* composed of 2 or 3 letters

Subtags are not **case sensitive**  
region subtags are **uppercase**  
script subtags are **titlecase**  
other subtags are **lowercase**