

# The International Standard Name Identifier: extending identity management across the global metadata supply chain

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**The British Library**

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# Outline

- **Metadata, Data Silos and the Supply Chain**
- **ISNI's place in the supply chain**
- **ISNI at work – some examples of ISNI adoption outside the library data silo**
- **The British Library**
  - A national library case study
  - Legal Deposit, the British National Bibliography and the UK Publishing Supply Chain

# Metadata silos

- **Text publishing**
  - ONIX, THEMA subject codes, ISBN (barcodes), EDI (SAN & GLN), Epub, etc
  - ISSN, DOI, EAN barcodes, etc.
  - See: <https://www.editeur.org/>
- **Music publishing**
  - DDEX, ISRC, ISWC, RIN, RDR, etc. See: <https://ddex.net/>
- **AV and film publishing**
  - EIDR, ISAN, DOI, etc.
  - See: <https://www.eidr.org/standards-and-interoperability/>
- **Libraries**
  - MARC, RDA, BibFrame, IFLA LRM, subject and classification standards, etc.
- **Archives**
  - ISAD-G, EAD, TEI, ISAAR-CPF, etc.

# Metadata silos

- **Many silos**
- **Some crosswalks and common identifiers**
  - E.g. ISBN and ISSN critical in automated workflows for libraries
  - Also much re-work of metadata – machine and human
- **Increasing recognition of the need for high quality metadata**
  - End to end supply chain
  - Across supply chains – where appropriate
- **Initiatives to link through/across supply chains**
  - RDA/ONIX Framework for Resource Categorization, 2006
  - Principles of Identification, Linked Content Coalition, 2014
  - Creating a Talent Identifier for the Entertainment Industry, MovieLabs Whitepaper, 2019
  - Book Industry Communications: Metadata Capability Directory, 2020

# Metadata control

- **Metadata control underpins the business of the global content supply chains**
  - Content specific differences between supply chains
  - Content neutral commonalities across supply chains
- **Good metadata at the beginning of any supply chain should be re-used and consumed efficiently throughout the supply chain**
- **Good metadata supports automation, interoperability, efficiency**
- **Different stages of the supply chain add value according to business need**
- **Can metadata created to support e-commerce free up library resource and expertise to focus on enhanced discovery and curation?**

# International Standard Name Identifier (ISO 27729)

## ISNI's place in the supply chain

- **Content neutral standard for name identification**
- **Resolves name ambiguity**
- **Unique 16 digit identifier**
- **Bridge-identifier – linking name disambiguation across data silos**
- **Authors, editors, musicians, actors, artists etc, and also groups, institutions...**
- **Network of Registration Agencies specialising across multiple sectors**
  - Publishers, music, libraries, sound recordings, research, etc.
- **Built on contributed data at scale using matching algorithms and human curation**

# *ISNI at work...in the music industry*

# Apple



Consolidated Independent



QUANSIC  
QUANSIC



Jaxsta

soundexchange

Muso.AI

© muziekweb

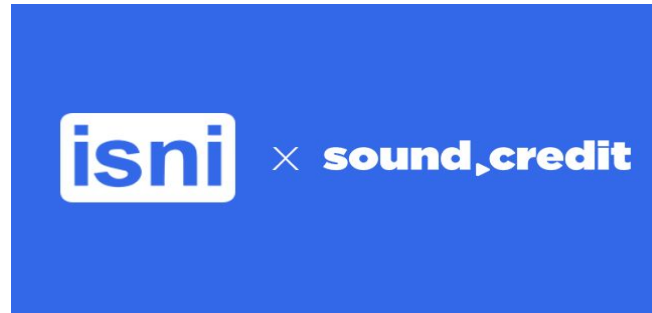
de muziekbibliotheek van nederland

The ISRC Team

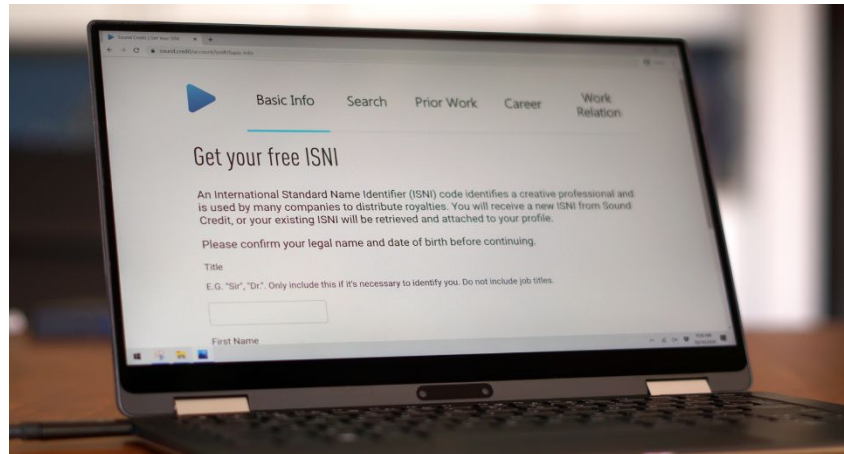


# ISNI at work...

- **Soundways - Sound Credit**



- Sound Credit's free and automated ISNI registration system writes ISNI codes into a digital profile used for crediting music creators





## ISNI at work... in the book supply chain



- “assign an ISNI to all creators listed in the Verzeichnis Lieferbarer Bücher (VLB), the books-in-print catalogue used in the German-speaking world”
- “publishers whose books are listed in VLB will be able to register new ISNIs for the creators of their works”

# The British Library and ISNI

- **Member of ISO 27729 International Standard Name Identifier Committee to draft the standard**
- **Founding Member of ISNI with the Bibliothèque nationale de France, co-representing the Conference of European National Librarians (CENL)**
- **Provide QA services to ISNI-IA for build and maintenance of the ISNI database**
- **Foundational work with data from national library authority files**
  - **Virtual International Authority File (VIAF)**

# The British Library as ISNI Registration Agency

- Strategic shift from name disambiguation in the British National Bibliography (BNB) and in our catalogues
- Towards
  - Bridging data silos
  - Identity management for the supply chain
  - Exploiting the potential of the BNB and Cataloguing-in-Publication (CIP) workflows
  - Developing an ISNI Registration Service



# The British Library as ISNI Registration Agency

- Principles

- Embed ISNI in all cataloguing workflows
- Automate processes as far as possible
- Engage with the supply chain



# The British Library as ISNI Registration Agency

- **Challenges**

- **Embedding ISNI in the LC/NACO file**
  - Collaboration with Library of Congress and PCC network
- **Embedding ISNI in legacy bibliographic data**
  - Developing matching algorithms and processes
- **Building a Registration Service**
  - Online User Portal
- **Engagement with the supply chain**
  - UK Publishers Interest Group



# BL ISNI engagement activities

- **Publisher Licensing Services** hosted meeting on ISNI for Publishers & Imprints January 2018
- **BIC Breakfast** March 2018: International Identification for Authors, Publishers & Imprints
  - Included a presentation by the **Bibliothèque nationale de France** on the integration of ISNI in their CIP workflows

# BL ISNI engagement activities

- BL hosted a series of follow up meetings with a **Publisher Interest Group** to explore options for:
  - Using ISNI to identify Imprints and Publishers across the supply chain
  - Explore ways for sharing existing ISNIs for authors in publisher and trade supply chain metadata
  - **EDItEUR** has provided valued support in cultivating publisher contacts
  - **Bibliographic Data Services** also a key publishers' liaison as the BL's CIP provider

# ISNI Publisher Interest Group

**Bibliographic Data Services**

**BIC**

**British Library**

**Cambridge University Press**

**EDItEUR**

**Hachette UK**

**International ISBN Agency**

**Harper Collins**

**ISNI International Agency**

**Nielsen**

[www.bl.uk](http://www.bl.uk)

**Pan Macmillan**



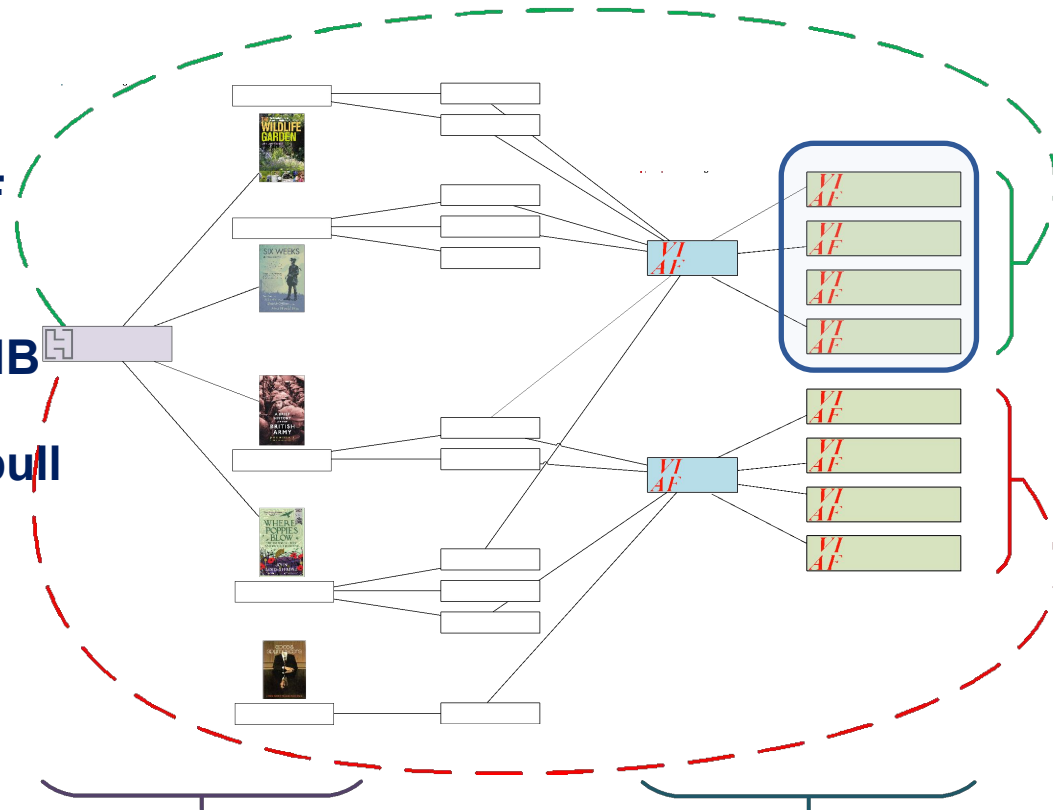
# ISNI Publisher Interest Group

- *Use cases for ISNI for publishers/imprints*
- **Options for supplying author's ISNIs for products**
- **Matching ISNIs to in-house publisher IDs & NACO IDs**
- **Formats for exchanging data**
- **How we might introduce ISNIs into the supply chain**

# Embedding ISNIs in the British National Bibliography

## Graph Matching

- BNB ISBNs matched against VIAF
- NACO names strings in VIAF correspond to name strings in BNB
- VIAF record cross referenced to pull the appropriate ISNI into BNB



# ISNI in bibliographic records

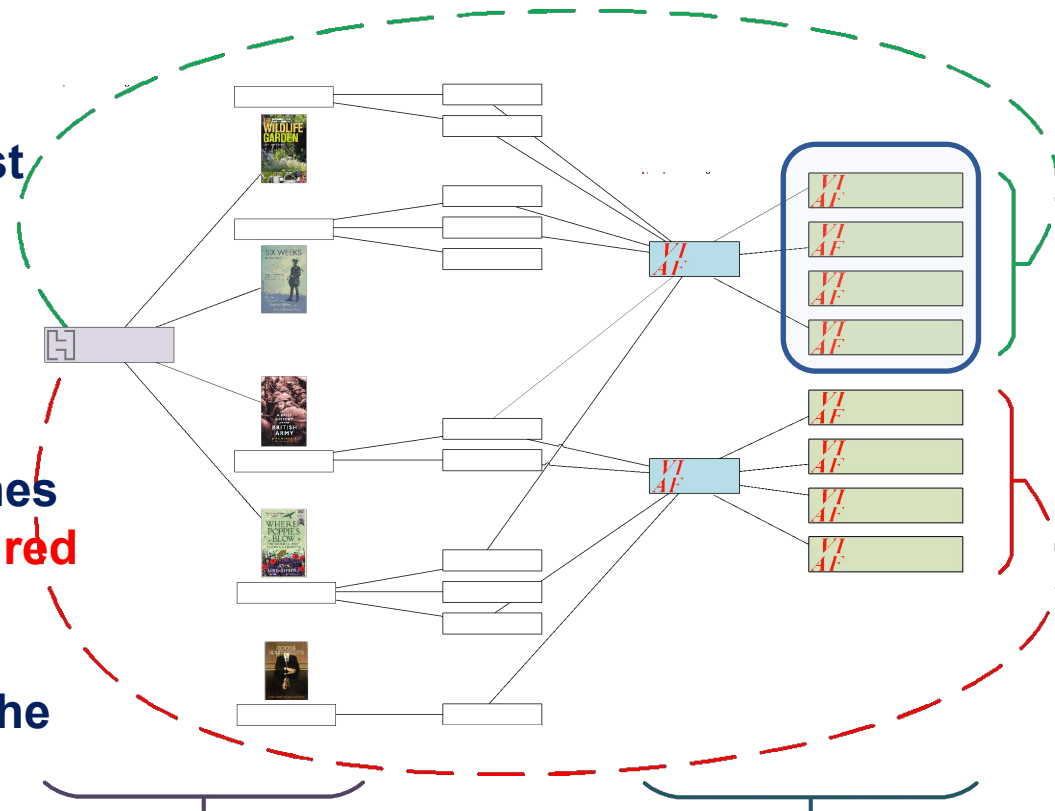
- Investigating population of ISNIs into our back file of bibliographic records
- Matching process with British National Bibliography data

Publisher	Number of records in file	Number of names	Number of matches	Success rate
BL	18,833,486	4,585,373	3,160,908	69%

# Using the BNB to map publisher data via VIAF to ISNI

## Graph Matching

- Publisher provides a name string and associated product(s)
- Equivalent ISBNs matched against BNB
- ISBNs matched against VIAF
- NACO name strings compared to the original name to find matches  
(**green line**: similar name strings; **red line**: name strings differ)
- VIAF record cross referenced to the appropriate ISNI



# Publisher ID to ISNI

## Example Match Results

ISBN	Title	HC/Reverse NACO	ISNI	HUK Proprietary ONIX ID	Person ID
9780297608134	The Beatles Lyrics	Hunter Davies		HC31803	31803
9780297608134	The Beatles lyrics : the unseen story behind the	Hunter Davies 1936-	0000000108900319		
9780297608226	Not forgetting the whale	J W Ironmonger	0000000379458825		
9780297608226	Not Forgetting The Whale	John Ironmonger		HC34210	34210
9780297608271	The Tipping Point	J G Jurado		HC33323	33323
9780297608271	The tipping point	Juan Gómez-Jurado	0000000109195287		
9780297608493	Woman of the dead : a thriller	Anthea Bell	0000000122790646		
9780297608493	Woman of the Dead	Bernhard Aichner		HC131251	131251
9780297608493	Woman of the dead : a thriller	Bernhard Aichner 1972-	0000000078486881		
9780297608561	My life with Wagner	Anthea Bell	0000000122790646		
9780297608561	My Life with Wagner	Christian Thielemann		HC131846	131846
9780297608561	My life with Wagner	Christian Thielemann 1959-	000000011700249X		
9780297608721	White Mountain	Robert Twigger		HC31401	31401
9780297608721	White mountain	Robert Twigger 1964-	0000000114614538		
9780297608752	Summer Requiem	Vikram Seth		HC31988	31988
9780297608752	Summer requiem : a book of poems	Vikram Seth 1952-	0000000109327921		
9780297608905	The Second Half	Roddy Doyle		HC56005	56005
9780297608905	The second half	Roddy Doyle 1958-	0000000108749380		
9780297608905	The Second Half	Roy Keane		HC132040	132040
9780297608905	The second half	Roy Keane 1971-	000000004570239X		
9780297609346	Chicken & egg	Dave Myers 1967-	0000000108321958		
9780297609346	The Hairy Bikers' Chicken & Egg	Hairy Bikers		HC34183	34183
9780297609346	Chicken & egg	Si King	0000000383954661		



## BRITISH LIBRARY

ISBN	Title	HC/Reverse NACO	Original NACO	ISNI	Proprietary	Person ID
9780297608134	The Beatles Lyrics	Hunter Davies			HC31803	31803
9780297608134	The Beatles lyrics : the unseen	Hunter Davies 1936-	Davies, Hunter, 1936-	000000013900319		
9780297608226	Not forgetting the whale	J W Ironmonger		0000000158825		
9780297608226	Not Forgetting The Whale	John Ironmonger			HC34210	34210
9780297608271	The Tipping Point	J G Jurado			HC33323	33323
9780297608271	The tipping point	Juan Gómez-Jurado		0000000195287		
9780297608493	Woman of the dead : a thriller	Anthea Bell		00000001646		
9780297608493	Woman of the Dead	Bernhard Aichner			HC131251	131251
9780297608493	Woman of the dead : a thriller	Bernhard Aichner 1971-		00000001881		
9780297608561	My life with Wagner	Anthea Bell		00000001646		
9780297608561	My Life with Wagner	Christian Thielemann			HC131846	131846
9780297608561	My life with Wagner	Christian Thielemann 1959-	Thielemann, Christian, 1959-	000000014788818X		
9780297608752	Summer Requiem	Vikram Seth				31988
9780297608752	Summer requiem : a book of p	Vikram Seth 1952-	Seth, Vikram, 1952-	0000000100000		
9780297608905	The Second Half	Roddy Doyle				56005
9780297608905	The second half	Roddy Doyle 1958-	Doyle, Roddy, 1958-	0000000100000		
9780297608905	The Second Half	Roy Keane				132040
9780297608905	The second half	Roy Keane 1971-	Keane, Roy, 1971-	0000000100000		
9780297609346	Chicken & egg	Dave Myers 1967-	Myers, Dave, 1967-	0000000100000		
9780297609346	The Hairy Bikers' Chicken & Egg	Hairy Bikers			4183	34183
9780297609346	Chicken & egg	Si King				
9780297609728	Our Korean Kitchen	Jordan Bourke			38489	138489
9780297609728	Our Korean Kitchen	Rejina Pyo			38490	138490
9780297609728	Our Korean kitchen : food is at	Tara Fisher				
9780297856269	The watcher in the shadows			0000000121031912		
9780297856269	The watcher in the shadows			0000000077305583		
9780297857426	The Watcher in the Shadows				HC32693	32693
9780297857426	The watcher in the shadows	Carlos Ruiz Zafón 1964-	Ruiz Zafón, Carlos, 1964-	0000000121031912		
9780297857426	The watcher in the shadows	Lucia Graves	Graves, Lucia	0000000077305583		
9780297859147	Testament of Youth	Vera Brittain			HC32217	32217
9780297859147	Testament Of Youth : An Autok	Vera Brittain 1893-1970	Brittain, Vera, 1893-1970	0000000122770055		

# Publisher Name & ISNI Matching Results

Publisher	Number of names	Number of matches	Success rate
Atlantic	1,201	954	79%
Bloomsbury	43,558	28,420	65%
BurleighDodds	681	35	5%
ChannelView	1,392	1,146	82%
Canongate	521	363	70%
CUP	21,298	16,292	76%
DK	2,103	1,409	67%
Hachette	10,857	7,820	72%
HarperCollins	13,406	8,107	60%
Kogan Page	1,117	708	63%
Liverpool University Press	1,498	1,064	71%
PanMacmillan	1,642	1,332	81%
Penguin	14,297	9,638	67%
Pluto	1,589	1,107	70%
RandomHouse	24,060	16,127	67%
TaylorFrancis	107,871	68,878	64%
<b>Total</b>	<b>247,091</b>	<b>163,400</b>	<b>66%</b>

# Publisher name and ISNI Matching results

## Name de-duplication

isni:000000006655121X	panmacmillan:8348	Carol Ann Lee
	penguin:22163	Carol Ann Lee
	randomhouse:64069	Carol Ann Lee
isni:0000000066553901	harpercollins:1	Anonymous
	panmacmillan:2127	Nikki Gemmell
isni:0000000066567182	penguin:8976	Frank Broughton
	randomhouse:30805	Frank Broughton
isni:0000000066578383	dk:31521	Jennifer Joyce
	harpercollins:15192	Jennifer Joyce
	penguin:31521	Jennifer Joyce
isni:0000000066579589	penguin:29760	Guy Parker Rees
	penguin:29896	Guy Parker-Rees
isni:0000000066588178	penguin:21702	Annie Bell
	randomhouse:9459	Annie Bell
isni:0000000066597015	dk:29960	Monty Don
	randomhouse:51095	Monty Don
isni:000000006660895X	penguin:33238	Lisa Chaney
	randomhouse:14857	Lisa Chaney
isni:0000000066653208	panmacmillan:5708	Timothy Knapman
	penguin:30380	Timothy Knapman
isni:0000000066682690	penguin:59086	Chas Newkey-Burden
	randomhouse:60058	Chas Newkey-Burden



# Name de-duplication

*Resolving within and between publishers' data files*

Publisher	Number of de-duplicated IDs (across all publishers)	Number of de-duplicated IDs (within publisher)
Atlantic	0	12
Bloomsbury	5409	619
BurleighDodds	0	0
ChannelView		
Canongate	139	0
CUP	3363	2225
DK	398	62
Hachette	1940	746
HarperCollins	2350	119
Kogan Page	0	0
Liverpool University Press	0	4
PanMacmillan	524	33
Penguin	3449	846
Pluto	0	4
RandomHouse	4386	1788
TaylorFrancis	8650	9916
Total	30608	16374

# ISNI in ONIX

## Example from Harper Collins

```
<TitleElement>
  <TitleElementLevel>01</TitleElementLevel>
  <NoPrefix/>
  <TitleWithoutPrefix textcase="02">Boy Giant</TitleWithoutPrefix>
  <Subtitle>Son of Gulliver</Subtitle>
</TitleElement>
<TitleStatement>Boy Giant: Son of Gulliver</TitleStatement>
```

```
<Contributor>
  <SequenceNumber>1</SequenceNumber>
  <ContributorRole>A01</ContributorRole>
  <NameIdentifier>
    <NameIDType>01</NameIDType>
    <IDTypeName>HCP UK Author ID</IDTypeName>
    <IDValue>4121</IDValue>
  </NameIdentifier>
  <NameIdentifier>
    <NameIDType>16</NameIDType>
    <IDValue>0000000121251907</IDValue>
  </NameIdentifier>
  <PersonName>Michael Morpurgo</PersonName>
  <PersonNameInverted>Morpurgo,
Michael</PersonNameInverted>
  <NamesBeforeKey>Michael</NamesBeforeKey>
  <KeyNames>Morpurgo</KeyNames>
</Contributor>
```

```
<Contributor>
  <SequenceNumber>2</SequenceNumber>
  <ContributorRole>A12</ContributorRole>
  <NameIdentifier>
    <NameIDType>01</NameIDType>
    <IDTypeName>HCP UK Author ID</IDTypeName>
    <IDValue>1897</IDValue>
  </NameIdentifier>
  <NameIdentifier>
    <NameIDType>16</NameIDType>
    <IDValue>000000012147035X</IDValue>
  </NameIdentifier>
  <PersonName>Michael Foreman</PersonName>
  <PersonNameInverted>Foreman, Micha
el</PersonNameInverted>
  <NamesBeforeKey>Michael</NamesBeforeKey>
  <KeyNames>Foreman</KeyNames>
</Contributor>
```

# Publisher ID to ISNI

## Ongoing work

- Further work on improving of match rates
- Bringing NACO up to date in ISNI and re-run publisher files.
- Bringing coverage to 100%
- New ISNI assignment
- Options for filling in gaps
  - Priced batch services
  - CIP feedback loop
  - BL ISNI Service Portal



# Embedding ISNI in our Legal Deposit workflow

- **Working with our CIP contractor Bibliographic Data Services to integrate into the workflow**
  - Developing workflows for inclusion of ISNIs in CIP – will implement in 2021
  - BL supplied BDS with a reconciliation file 4.2 million ISNIs & NACO equivalents
  - BL working with ISNI-IA to bring NACO reconciliation up to date and supply on to BDS – 2021
  - BDS then to incorporate ISNIs in their in-house product dataset & CIP workflows
  - BDS examining ISNI membership options to assign new ISNIs
  - Feedback loop to publishers
  - Identity management embedded in supply chain

# BL ISNI Registration Portal

- **Only ISNI Registration Agencies and ISNI Members can register new ISNIs**
  - Using ISNI XML via Atom Pub API
  - Submit CSV files
  - Online web interface for individual submissions
- **All requests are processed through ISNI matching algorithms to prevent duplication**
- **Rich metadata is required to assign new unique ISNIs and assure disambiguation**

# BL ISNI Registration Portal

- **As a Registration Agency the BL can mediate for batch or individual requests**
- **Processing individual requests is currently a manual process**
  - Requests mostly via email
- **The BL is developing an online service to allow non-members to request ISNIs directly through a mediated interaction with the ISNI database**

# BL ISNI Registration Portal

- **Three main functions:**
  - Search for an existing ISNI
  - Add data to an existing ISNI (no changes or deletions)
  - Register a new ISNI
- **User experience – online, real time turnaround**
- **Nominal fee for ISNI registration**
- **QA support by BL Quality Team**

**ISNI Portal**



# ISNI - International Standard Name Identifier

## What is ISNI?

ISNI is the ISO certified global standard number for identifying the millions of contributors to creative works and those active in their distribution, including researchers, inventors, writers, artists, visual creators, performers, aggregators, and more. It is a part of a family of international standard identifiers that includes identifiers of works, recordings, products and rights holders in all repertoires, e.g. DOI, ISAN, ISBN, ISRC and ISWC.

## ISNI services from the British Library

The British Library offers three services for ISNI users. You can register for a new ISNI, which costs a one-time fee of **GBP5.00**. You can also search the ISNI database to find and view records, and finally, you can recommend additions or corrections to existing ISNI records. All of these functions require that you are registered for a free British Library user account. [Registration](#) takes only a few minutes.



### Search ISNI

Search the global ISNI database



### Register an ISNI

Get a new ISNI for yourself or anyone else



### Add data to an ISNI

Find an ISNI record and add information to it

Please take a moment to read our [terms and conditions](#).



