



INTERNATIONAL FEDERATION OF LIBRARY ASSOCIATIONS AND INSTITUTIONS

IFLA Namespaces Task Group

Update – 28 May 2012

IFLA Committee on Standards

The new IFLA Committee on Standards [<http://www.ifla.org/en/about-the-standards-committee>] is now up and running. One of its responsibilities is to “Ensure that digital versions of standards are accessible and stored in an appropriate IFLA website ‘portal’ according to requirements as proposed by the current IFLA Namespaces Task Group, this to ensure compatibility of IFLA standards with the semantic web”. During an audit of existing IFLA standards, the Cataloguing Section asked for information about the namespaces, and the following response from the Chair of the Technical Group has been sent to the committee:

"Currently, I see the namespaces as another way of publishing an IFLA standard (in parallel with print-based publishing by De Gruyter Saur, and online publishing by the responsible IFLA group), and I think it can be extended well beyond the bibliographic standards. I had a brief conversation about this point with Patrice Landry a couple of months ago - and I intend to be at the open session of the Committee on Standards in Helsinki ... One issue that we need to discuss in Helsinki is the ‘home’ of the Namespaces Technical Group. I think the intention is to report directly to the Committee on Standards, so I will suggest to the Classification and Indexing Section that the ‘Task Group’ is closed down as a project. The Cataloguing Section may wish to discuss whether it needs a small group within the Section to coordinate bibliographic namespaces, or whether representation on the Namespaces TG is sufficient. The list of Cataloguing Section standards seems to be missing the Multilingual Dictionary of Cataloguing. While it may be debatable whether this is a proper ‘standard’, it does have a namespace, and we should be thinking that anything with a namespace should/must have a standard behind it."

Project funding for 2012

The Cataloguing Section successfully applied for a budget of 2000 euros to support a project on “Development of IFLA Namespaces for bibliographic standards during 2012”. The funds are mainly allocated to support my attendance at meetings to coordinate and promote ongoing work relevant to namespaces for IFLA bibliographic standards; this report is one deliverable of the project.

De-referencing services

De-referencing services for the namespaces for ISBD and the Functional Requirements (FR) family (FRBRer, FRAD, and FR SAD) have been implemented. The services return human-readable

information associated with a namespace URI when it is entered in a standard Web browser, and machine-readable data when a semantic browser is used. A machine-readable RDF/XML file is also returned if the URI is suffixed with a “.rdf” extension in a Web browser.

De-referencing was set up following requests from external users, including the Linked Open Data project [http://www.hbz-nrw.de/projekte/linked_open_data/index_engl_html] at Hochschulbibliothekszentrum des Landes Nordrhein-Westfalen and the Variations/FRBR [<http://www.dlib.indiana.edu/projects/vfrbr/>] project at Indiana University. The services use a script developed by Metadata Management Associates [<http://managemetadata.com/>] which resides on the IFLA server and redirects URI/URL requests to the Open Metadata Registry [<http://metadataregistry.org/>] (OMR) where the namespaces are maintained.

For further information, see ISBD namespaces published [<http://www.ifla.org/en/news/isbd-namespaces-published>].

Guidelines for translations of RDF vocabularies

The ISBD/XML Study Group has developed draft guidelines for translations of RDF representations of IFLA standards. The guidelines cover element sets (RDF representations of schemas) and value vocabularies (RDF representations of controlled terminologies), and are intended to support IFLA's strategic plan in the areas of equitable access to information and being a global multilingual organisation. They include the common RDF properties in scope, the primary users of those properties, the style of translations, and reference sources for translations. The draft guidelines are based on the experiences of translating the ISBD element set and value vocabularies into Spanish and Croatian, and ongoing research into the multilingual Semantic Web by Spanish colleagues. The guidelines have been circulated to the IFLA Namespaces Technical Group, the ISBD Review Group, the FRBR Review Group, the DCMI Bibliographic Metadata Task Group, and the DCMI Vocabulary Management Community for comment.

FR namespaces

Two of the first six articles to be published in forthcoming issues of Cataloguing & Classification Quarterly [<http://www.tandfonline.com/action/showAxaArticles?journalCode=wccq20>] on the topic “The FRBR family of conceptual models” discuss the FR family, linked data, and the Semantic Web.

FRBRoo namespace

The object-oriented version of the FR family, FRBRoo, will be made available as an IFLA namespace later in 2012. The RDF/XML file currently hosted by CIDOC-CRM [http://www.cidoc-crm.org/frbr_drafts.html] will be updated with FRAD and FRSAD elements and then transferred for ongoing maintenance to the OMR. A de-referencing service will be added at the same time.

ISBD namespace

A draft mapping between the ISBD area 0 vocabularies for content and media type and the RDA vocabularies for content and carrier types has been developed, as described in the News from the ISBD Review Group [<http://www.ifla.org/files/cataloguing/scatn/scat-news-36.pdf>] in SCATNews no. 36. This is being circulated for wider comment before being discussed in Helsinki. A draft alignment

and namespace mapping between the ISBD and RDA element sets is nearing completion and will also be circulated for comment before Helsinki.

It has not been possible to carry out the planned development of guidelines for using and extending the ISBD namespace because of lack of funding. This remains an important development for the promotion and use of IFLA bibliographic standards in the Semantic Web, and requires further discussion.

MulDiCat namespace

The RDF/SKOS XML file for the Multilingual Dictionary of Cataloguing Terms and Concepts (MulDiCat) [<http://www.ifla.org/publications/multilingual-dictionary-of-cataloguing-terms-and-concepts-muldicat>] is being transferred for ongoing maintenance and individual term de-referencing to the OMR. Most of the namespace is [already available](http://www.ifla.org/publications/multilingual-dictionary-of-cataloguing-terms-and-concepts-muldicat) [<http://metadataregistry.org/vocabulary/show/id/299.html>], and the work is expected to be completed by the end of 2012. The OMR supports the multilingual, multi-script, and version control requirements of the dictionary.

MARC21 namespace

Although not an IFLA standard, MARC21 is important for the storage of bibliographic metadata and its publication as library linked data. Interoperability of MARC21 data with metadata based on the IFLA bibliographic namespaces is therefore a significant feature of universal bibliographic control in the linked data and Semantic Web environments. Metadata Management Associates is researching alignments and mappings for linked data interoperability, and has published a collection of [element sets and value vocabularies for MARC21](http://www.ifla.org/publications/multilingual-dictionary-of-cataloguing-terms-and-concepts-muldicat) [<http://marc21rdf.info/>] in the OMR. A blog post on [Adding MARC fruit to the cornucopia](http://www.ifla.org/publications/multilingual-dictionary-of-cataloguing-terms-and-concepts-muldicat) [<http://managemetadata.com/blog/2012/04/23/adding-marc-fruit-to-the-cornucopia/>] uses the “Target audience” attribute to show how MARC21 elements can be linked to corresponding elements in the FRBRer and ISBD namespaces, as well as the Dublin Core terms and RDA namespaces.

BibFrame initiative

The Library of Congress’s Bibliographic Framework Transition Initiative has announced that the new framework is likely to be [based on linked data principles and use RDF](http://www.loc.gov/marc/transition/news/minutes-alamw-2012.html) [<http://www.loc.gov/marc/transition/news/minutes-alamw-2012.html>]. This adds to the importance of the work of the IFLA Namespaces group, especially in the area of bibliographic standards. The Library of Congress has further announced a [contract with Zepheira](http://www.loc.gov/marc/transition/news/modeling-052212.html) [<http://www.loc.gov/marc/transition/news/modeling-052212.html>], a company with significant expertise in linked data modelling, to progress the initiative.

Five years on seminar

The Dublin Core Metadata Initiative (DCMI) held a seminar, [Five years on](http://dcevents.dublincore.org/index.php/BibData/fyo) [<http://dcevents.dublincore.org/index.php/BibData/fyo>], at the British Library in London on April 27 2012. The seminar marked the fifth anniversary of the Data Model Meeting at the British Library which stimulated the development of the FR and ISBD namespaces in IFLA. The seminar attracted an audience of 56, and included presentations by several IFLA colleagues. IFLA namespaces were

mentioned in several presentations; the paper on Declaring IFLA ISBD and FRBR family of conceptual models in RDF [<http://dcevents.dublincore.org/index.php/BibData/fyo/paper/view/117/53>] by Pat Riva and Mirna Willer is particularly relevant. Papers and presentations are freely available from the seminar website.

Interoperable and open bibliographic data [<http://www.infotoday.eu/Articles/Editorial/Featured-Articles/Interoperable-and-open-bibliographic-data-82263.aspx>] is a brief report on the seminar in Information Today Europe. A report will also be published in the news section of a forthcoming issue of Cataloguing & Classification Quarterly.

DCMI Bibliographic Metadata Task Group and Vocabulary Management Community

The DCMI Bibliographic Metadata Task Group

[http://wiki.dublincore.org/index.php/Bibliographic_Metadata_Task_Group] and the DCMI Vocabulary Management Community [<http://dublincore.org/groups/vocabulary-management/>] held inaugural face-to-face meetings hosted by the British Library in London on 26 April 2012. Both meetings had the maximum of 36 attendees, including several people active in IFLA. The Task Group meeting discussed application profiles for specifying the use of namespaces in particular applications and contexts, and mappings within and between bibliographic namespaces, before determining related tasks for the group during 2012. The Community meeting discussed more general issues of the management of element sets and value vocabularies, including some outcomes of the Linked Open Vocabularies (LOV) project [<http://labs.mondeca.com/dataset/lov/>]. These activities fit well with the work of the IFLA Namespaces group, and it will be beneficial to inform, and be informed by, these DCMI initiatives.

Unconstrained namespaces

The development of the mapping between the ISBD and RDA element sets has identified the need for unconstrained versions of RDF elements to reconcile semantic constraints applied to each standard. For example, the ISBD properties all have the class Resource as a domain, whereas the corresponding RDA properties have FRBR classes for Work, Expression, Manifestation, and Item as a domain. Mapping between these classes is likely to involve the use of OWL (Web Ontology Language) and mechanisms currently under development by the RDF Working Group. A simpler approach of wider utility is to “dumb-up” constrained properties to unconstrained versions which are easier to map.

Similar issues have been widely discussed in the DCMI and W3C Library Linked Data communities, and there is an emerging consensus that namespaces constrained to meet the requirements of their specific communities should consider publishing unconstrained versions for the use of external communities. Furthermore, there are advantages in bibliographic communities developing a common infrastructure for unconstrained namespaces:

- A single place to go for unconstrained bibliographic elements necessary for the interoperability of data triples, rather than external communities having to identify and distinguish unconstrained from constrained elements in the namespaces of specific formats.
- A shared namespace for bibliographic communities to use to develop and publish additional unconstrained elements, such as for aggregated statements and other application profile

components. Application profiles may wish to use elements from multiple formats. The administration of the unconstrained namespace can use separate authentication, so that work can be shared without compromising the security of the official namespace.

- A flexible namespace for supporting the rapid evolution of interoperable mappings and other building blocks of the Semantic Web, without the need for close coupling with necessary constraints on elements within a specific model or ontology.

This merits further discussion by the IFLA Namespaces group.

Gordon Dunsire, Chair
28 May 2012