RIMMF and Olisuite/WeCat by @cult, or how to implement RDA

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RDA (*Resource Description and Access*), the international cataloguing standard for resource description and access, offers a new approach to the information management, integrated with the digital environment technologies. Its distinctive characteristic is the clear demarcations between data description and data visualization: the guidelines (and no longer a cataloguing code like AACR2), indeed, limit their scope only to data registration according to the "entity-relationship" (E-R) models, defined by *Functional Requirements for Bibliographic Records* (FRBR) and *Functional Requirements for Authority data* (FRAD). The innovation allows us, therefore, to apply the two conceptual models irrespective of data storage syntax or of the visualization technology used for data management.

RDA, resulting of the work of the Joint Steering Committee for Development of RDA (JSC), composed of representatives from the Library of Congress, British Library, Library and Archives Canada, National Library of Australia, Chartered Institute of Library and Information Professionals, and Deutsche Nationalbibliothek, was published in June 2010 and shortly afterward made available online in Toolkit version. The Library of Congress and other important Libraries, mainly in the Anglo-American area adopted the standard since 31 march 2013.

The deep change in the cataloguing approach launched by RDA imposes new reflections, at both the practical and the theoretical level. If it is true that some innovations introduced by the guidelines lead to a moderate impact on the preexisting procedures, thus being compatible with the current applications (like the abolition of the "rule of three", as well as the abbreviations and the very limited use of square brackets), it is also true that the expression of the relationship between entities determines the need to work out new software able to express connections between the single data.

The commitment for the diffusion of this international standard in our country will become concrete with the official translation into Italian of the guidelines by a group of 23 experts leaded by prof. Mauro Guerrini (University of Florence), which has been completed on June 2015 and then directly uploaded into the online RDA Toolkit system by ICCU.

An important step toward RDA implementation in Italy (and other countries), is the elaboration of a new generation Integrated Library Sistem (ILS), Olisuite/WeCat, a web evolution of Amicus, a well-known software in the world of libraries. WeCat, developed by @Cult, is the cataloguing module of Olisuite, oriented to create bibliographic descriptions in RDA. This product has been presented in Florence on May 27, 2015, during a seminar promoted by Master in Cataloguing (SAGAS Department, University of Florence) and the Tuscan section of AIB.

WeCat, already in use in Italy in a prototype version commissioned by, among others, Casalini Libri, that since 2013 produce RDA records for the Library of Congress (and other important libraries worldwide), satisfies the international standard including MARC (MAchine Readable Cataloguing) updates, but structures data compatibly with Linked Open Data (LOD) and permits conversion to triple RDF (Resource Description Framework). Tiziana Possemato, who presented WeCat during Florence's meeting, explained that this application was born in the theoretical and technological context of

BIBFRAME (*Bibliographic Framework as a Web of Data: Linked Data Model and Supporting Service*) according to the standards of ICP (International Cataloguing Principles) and the semantic web protocols. Therefore, Olisuite/WeCat is a RDA oriented application platform, based on "identifying" and "connecting" entities, as proposed by the new catalogue model created to use entities attributes and relationships for the description. Even if it is in line with the international standards and with the latest trends, WeCat take into account the millions records produced by MARC21. Its purpose is to surpass the MARC21 format, which is not entirely compatible with RDA because it is inadequate for fully expressing the relationship between entities, in order to succeed in data registration according to FRBR and FRAD conceptual models. Indeed, the software, while still offering the option to fill in records according to MARC21 fields, also adds new data attributes, such as the FRBR entity type, and allows us to choose other types of visualization: ISBD (*International Standard Bibliographic Description*), BIBFRAME e RDA. For this reason, WeCat is an important transition facility from old records to new metadatation models. A change that by now has become necessary, in the elaboration of a transversal language that may support a full share of the cataloguing principles not only between libraries but also between all the institutions working in the organization of information. The work of @cult, with the WeCat application, takes into account the most innovative international experiences, like the RIMMF (RDA in Many Metadata Format) editor, presented at the beginning of the florentine seminar by Eleonora Belpassi, and, more generally, considers the community work on new metadatation processes. WeCat is based on the BIBFRAME theoretical model, that derives from FRBR and FRAD, keeping their same entities but using a simplified structure based on relationships, controlled vocabularies published in RDF format on Open Metadata Registry and XML (eXtensible Markup Language) language.

BIBFRAME was elaborated during the RDA trial, and has prevailed the last 3 or 4 years because of its adaptability to the contemporary publishing forms, which are increasingly focused on a diversified offer of their products. The entities Work (conceptual content) and Instance (phsysical materialization), reflect this change, offering the opportunity to recognize different publication supports and placing the work at the center of an organized structure rather than the author, as it is traditionally understood in the western culture.

RIMMF, developed by two librarians from Florida, is an interesting attempt of application of RDA; it is a metadatation-oriented visualization tool. The system is free downloadable and licensed under a Creative Commons Attribution, and offers the opportunity to produce linked data upgraded with other linked data. The idea is to propose a new kind of description, no longer linear, but instead obtained from assembling data according to the selected cataloguing policy, helping the new cataloguers to get used to the new procedures. BIBFRAME Editor has the same purpose as RIMMF: to overcome the "MARC record" mentality (to change from MARC record) and to approach the idea of data identification and description.

WeCat is a management software that, compared to these tools, assures, in addition to record structuring and record visualization in different formats, the construction of library services. If BIBFRAME is the model of the future, MARC 21 is a still existing reality that attempts to lead this transitional stage with a set of updates specifically made for RDA and the semantic web: 252 tags and subfields in the Bibliographic format and 167 in the Authority format have been modified or added, making a total of 3250 revised or introduced for first time elements, which Olisuite has integrated into its cataloguing module WeCat. The updates are especially about content management, media and support management, in which RDA provides dedicated lists of controlled words, and they are focused on names attributes and on relationships. As required in

RDA, the data hierarchical structure of data is based on three types of relationships: basic, primary, advanced. In other words, the record is now expressed with the visualization of the relationships between the work and its manifestations. In addition, WeCat uses definitions and words proposed in RDA Appendices that define the relationships designators between resource and person, family or corporate body (Appendix I); between works, expressions, manifestations and items (Appendix J); between persons, families and corporate bodies (Appendix K).

Another important RDA innovation, reproposed in WeCat, is the role assumed by the authority file in the identification of entities, which, as set forth in the guidelines, becomes crucial in the metadata elaboration, counterbalancing the importance that bibliographical description has had so far. WeCat takes into account this change of perspective, offering a huge possibility of linking with other LOD datasets and, then, meeting the need for integration with necessary tools, like VIAF (Virtual International Authority File), that considerably simplify the description and identification of works, persons, families and corporate bodies. The use of VIAF's API and web services for names variations and for capturing entire network data found online is very important as well. Finally, among the services offered, one worthy of mention is the function that, through a framework tested in the ALIADA (Automatic publication under LInked dAta paradigm of library DAta) project, enables conversion of data in triple RDF and updates them instantly. From BIBFRAME derives also the semantic description, which takes on a new importance in metadatation (subjects become work attributes, that, directly concerned the content, help to better identify resources), and the role of controlled vocabularies and ontologies (which define classes and properties to identify instances and the elements linked to them).

The BIBFRAME model is not yet universally adopted by the library community, but is about to establish itself as the most interesting

initiative for the deep changes in progress in the bibliographical world.

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ABSTRACT: The contribution discusses some considerations on the changes of the bibliographic universe, with particular attention to the changes due to the application of RDA guidelines on cataloguing and considering also a new-generation ILS presented on May 27th 2015 during a seminar held at the University of Florence. Developed by @Cult, the ILS Olisuite/WeCat allows the generation of bibliographic descriptions by creating data in Linked Open Data compatible format, while taking into account the relevant of records created with MARC21. Theoretical and technological models of reference are BIBFRAME and Semantic Web protocols, which are essential for a catalogue based on the functions to "identify" and to "connect" entities using the entities and relationships attributes.

KEYWORDS: RDA; Semantic web; BIBFRAME; Wecat; Linked Open Data.