

Integrated Search System: evolving the authority files

Elena Ravelli^(a), Maria Cristina Mataloni^(b)

a) Istituto Centrale per il Catalogo Unico - ICCU, http://orcid.org/0000-0001-6402-2039 b) Istituto Centrale per il Catalogo Unico - ICCU, http://orcid.org/0000-0002-2791-2822

Contact: Elena Ravelli, <u>elena.ravelli@beniculturali.it;</u>
Maria Cristina Mataloni, <u>mariacristina.mataloni@beniculturali.it</u>
Received: 1 April 2021; Accepted: 21 May 2021; First Published: 15 January 2022

ABSTRACT

The coexistence of separate authority files within the main databases managed by the ICCU for entities of the same kind is going to be superseded in the new SRI portal through the integration, at the level of cooperative application, of the authority files for EDIT16 and Manus OnLine with those of SBN. The clustering of authority files, made possible through batch procedures and services provided by the applicative protocol SBNMARC, is intended to the development of browsable links between different representations of the same entity. The presence of identifiers and link keys between informative objects is therefore crucial to match data from the specialised databases EDIT16 and Manus OnLine, stored in the digital aggregator Internet Culturale, and shared through the collective catalogue SBN, with diverse quality and model but referred to the same resources and entities. The cluster of entities will be built upon the SBN Index, according to the quantity of data already available in its authority file and to exploit existing services and infrastructures which make shared cataloguing possible. SBN will also provide the spine of the integrated representation of entities through the public access platform of the new portal.

KEYWORDS

SRI; SBN; EDIT16; MOL; Alphabetica.

^{© 2022,} The Author(s). This is an open access article, free of all copyright, that anyone can freely read, download, copy, distribute, print, search, or link to the full texts or use them for any other lawful purpose. This article is made available under a Creative Commons Attribution 4.0 International License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. JLIS.it is a journal of the SAGAS Department, University of Florence, Italy, published by EUM, Edizioni Università di Macerata, Italy, and FUP, Firenze University Press, Italy.



After the 1966 flood in Florence, which caused extensive damage to the library collections and catalogues of the Biblioteca Nazionale Centrale di Firenze, the Centro nazionale per il catalogo unico delle biblioteche italiane e per le informazioni bibliografiche, known since 1975 as the Istituto per il catalogo unico delle biblioteche italiane e per le informazioni bibliografiche (ICCU), decided to proceed with the microfilming of card and paper catalogues in State libraries. This was the first step towards the digitisation of historical catalogues of the library collections held at preservation libraries; digitisation would guarantee the very survival of the catalogues and furthermore would offer access to their contents to a very wide public, even from a remote location.

The initiative aimed at averting the risk of dispersion of the immense cultural heritage available in Italian libraries. This task, in which ICCU is still engaged today, is very demanding if we consider that the Anagrafe delle Biblioteche Italiane¹ registers approximately 12,000 libraries of different types, divided among state and local authorities libraries, university libraries, ecclesiastical libraries and cultural institution libraries. This is a snapshot, not yet exhaustive, of the Italian library reality, characterised by an extreme fragmentation from a geographical, organisational and institutional point of view, which is the manifestation of the historical and cultural events of the country.

This is the context in which the SBN (Servizio Bibliotecario Nazionaled)², the network of Italian libraries, promoted by the Ministero dei beni e delle attività culturali e per il turismo in collaboration with regions and the university system, and coordinated by the ICCU, was born. It is based on an organisational model of cooperation and participation, designed to manage thousands of institutions. With this purpose in mind, in addition to the design and management of SBN and its database, the projects that led to the creation of ICCU's specialized bibliographic databases (ED-IT16³ and Manus Online⁴) started in the 1980s. All these projects have been crucial in bringing libraries out of their isolation and pushing them to build a network to obtain a mutual advantage in terms of visibility. At the same time, moreover, the cooperative model has proved to be the only viable way to guarantee the technological infrastructures, the expertise and financial resources capable of supporting the profound changes and the great complexity that have affected the field of Library and Information Science over the last decades.

Now ICCU is called to take a further step forward, that is, to enhance and make available the enormous work carried out over the years by Italian libraries to the widest and most heterogeneous audience possible, with particular regard to digital resources that are becoming increasingly important in number and quality. This is how the project Integrated Research System (SRI) was born, which foresees the possibility of querying ICCU databases at the same time through the creation of a single access point for searching and returning results. A fundamental aspect in this regard is the integration project of the database authority files managed by the Institute.

¹ Anagrafe delle Biblioteche Italiane. Accessed June 3, 2021. https://anagrafe.iccu.sbn.it/it/

² Servizio Bibliotecario Nazionale - SBN. Accessed June 3, 2021. https://www.iccu.sbn.it/it/SBN/

³ Censimento delle edizioni italiane del XVI secolo - EDIT16. Accessed June 3, 2021. http://edit16.iccu.sbn.it/web_iccu/ihome.htm

⁴ Censimento dei manoscritti delle biblioteche italiane. Accessed June 3, 2021. https://manus.iccu.sbn.it/



Bibliographic databases of ICCU

Servizio Bibliotecario Nazionale - SBN

This infrastructural network is based on a stellar architecture whose centre is the Index (Indice), to which are connected the peripheral SBN Nodes (Poli), which include aggregations of libraries sharing resources, services, a user base and guidelines. The SBN Index, together with the management procedures, offers the services needed to establish the collaborative system that allows peripheral clients (the SBN Nodes) to share bibliographic information.

Currently there are nearly 6,600 libraries that have joined SBN, brought together in 104 Nodes. The size of the collective catalogue exceeds 18 million titles related to different types of material for a total of more than 102 million holdings.

Participation and cooperation are based on the sharing of common working methodologies, standards and uniform cataloguing rules as well as on a context characterised by flexibility in network participation. This flexibility allows Nodes to choose how to join on the basis of different profiles regarding the data to be shared with the collective catalogue. This context allows libraries to choose the quantity and quality of documents shared with the collective catalogue and the management of authority entries, and is essential in order to adhere to rules that make cooperation possible in a non-conflicting manner and consistent with the principles of the cataloguing involved.

On the catalogue front, ICCU has worked in recent years on the evolution of the SBN Index with the purpose of expanding the types of resources owned by libraries, including materials such as cartography, graphics, audio-visual, electronic resources and music. Moreover, in a highly modified context, both for the evolution of international standards and for the publication of the national cataloguing rules REICAT⁵, the realisation of the authority file has received particular care and attention. As of 2018, specific regulations have been developed for the registration of the different entities at the authority level in SBN. The quality of SBN catalogue data is a key value for user services. With this in mind, ICCU is working to strengthen and differentiate forms of cooperation through specific working groups, coordinated by ICCU, which involve librarians from different institutions, representative of the entire national territory, in the review and implementation of SBN authorities⁶.

EDIT₁₆

The Censimento per le Edizioni Italiane del XVI secolo – EDIT16 was born in the 1980s with the purpose of documenting printed production from 1501 to 1600 in Italy and in the Italian language in other countries. Animated by a strong cooperative spirit, the project currently involves 1,597

⁵ Regole italiane di catalogazione REICAT. 2009. Roma: ICCU. https://norme.iccu.sbn.it/index.php?title=Reicat

⁶ The following working groups were launched in 2020: Working group for the management and maintenance of SBN Authority File. Printers, publishers, etc. (https://www.iccu.sbn.it/it/attivita-servizi/gruppo-di-lavoro-e-commissioni/gruppo-di-lavoro-per-la-gestione-e-manutenzione-dellauthority-file-di-sbn.-nomi/)



Italian and extraterritorial libraries. Since 2017, EDIT16 has expanded to record editions and holdings beyond national borders, confirming the transformation of the Census from a catalogue to a fundamental bibliographic resource for the study of Italian Renaissance culture. The first foreign institution to join EDIT16 was the British Library, which made a significant contribution to the database, thanks to the wealth of its collections of Italian editions.

In addition to the database reserved for bibliographic descriptions, the authority file, characterised by a highly specialised level of detail, has been developed including personal names, printing places, publishers/printers, and printer devices. EDIT16's authority file comprises structured data according to the descriptive standards of authority records with appropriately diversified elements to ensure their peculiarities. The quality and homogeneity of the data and the consistency of the information in the various databases have been ensured by the research work carried out by the editorial group, set up within the ICCU's Area di attività per la bibliografia, la catalogazione e il censimento del libro antico; since the beginning of the project, the group has taken on the management of the centralised collection of bibliographic descriptions, the definition of a working methodology, and the registration of authority records.

Two independent collateral databases, still closely related to the larger database, are the bibliography database, which describes the printed and electronic references listed in EDIT16, and the dedications database.

Digitisation is a crucial feature in EDIT16. More than half of the bibliographic records are complemented by title page and colophon images, and the description of each printer device includes its image. In recent years a considerable number of links to complete Italian and foreign digital copies available on the web has been added to EDIT16.

MANUS Online

Launched in 1988 with the coordination of the ICCU's Area di attività per la bibliografia, la catalogazione e il censimento dei manoscritti, Manus Online (MOL) is the first national project focused on the recognition and cataloguing of the immense manuscript heritage in the Latin alphabet from the Middle Ages to the contemporary age and preserved in Italian libraries. In recent years more and more space has been allocated for the census of papers (15th-20th centuries).

Since 2007, Manus Online has been available as an application arranged into specialised fields that include both a catalogue available to users and a cataloguing module, available free of charge for conservation organisations (public, private, ecclesiastical) participating in the project. Manus Online was the result of a collaboration among librarians, manuscript scholars and computer scientists who worked together to create a platform, which, all the while ensuring respect for the traditional descriptive elements of manuscripts, was more in line with international standards to allow an exchange of data and a dialogue with other bibliographic databases. Manus Online is based on an XML/TEI data schema, which was the most suitable format for exhaustively encoding the descriptive data of a manuscript and for allowing data to be exchanged with other data models as well, without loss of information.

There are 415 conservation and research organisations currently involved in the Manus Online project. In addition to librarians, individual scholars are also invited to propose variations to de-



scriptive data through the Forum, a section of the portal that allows for a constant exchange of opinions and suggestions with ICCU and libraries.

Of particular interest is the section "Special projects": a module that allows the acquisition and management of specialist and international research projects. These projects, which maintain full organisational autonomy, use Manus Online as cataloguing software. The descriptions are offered to the public on each project's own platform as well as on the Manus Online website in the section reserved for such projects.

In 2015 the Gruppo di lavoro per la gestione e la manutenzione dell'authority file of Manus Online was established with the purpose not only to monitor and correct the authority file in Manus Online but also to draw up guidelines with methodological procedures for the registration of authority records. The Manus Online section reserved for authority work is aimed at managing personal, collective, family and place names in printed sources and catalogued manuscripts.

Critical issues

As expressions of different projects, ICCU databases and information systems have been developed and managed over the years by separate offices. In the absence of central coordination to ensure an integrated development, these projects have been carried out using different softwares, languages and developmental approaches, thereby producing platforms based on very different data models and also data quality that meet the different expectations of their intended user communities.

Reference standards, even when held in common, have sometimes been adapted to the need to ensure the specificity of different objectives; moreover, in recent years, not all platforms have updated to the latest standards. As a result, at present, the same resource or entity can be recorded in different forms on individual platforms. A very clear example is the comparison between EDIT16 and SBN: as many users will have had the opportunity to verify, there is not always a biunivocal correspondence between the same resource described in the two databases. Just think of the case of different issues by date: in EDIT16 they are recorded in separate records whereas in SBN they have been described for many years⁷ as variants within the same record. On the contrary, the same EDIT16 identifier can be associated with several SBN identifiers if in SBN a record has been created for each volume in a multi-level description, as well as for the main record, whereas only one record describing the whole edition has been created in EDIT16.

Even in cases where the name is recorded in the same form in the databases, their data model changes considerably. If we analyse, for example, the authority record of a printer including the same basic information, the structure of the data varies considerably. In EDIT16, in fact, the printers authority file, particularly significant for this resource, is organised into several fields and links, some of which are in SBN.

In order to access the resources of the individual ICCU databases, which are described separately in the different environments, the user needs to start from the specific search interfaces available,

-

⁷ The more recent 2016 guidelines for early printed books in SBN, which have amended previous regulations, require that variants by date of the same edition should be described in different records. Still many corrections remain to be made on previous records.



in the absence of any connection among the platforms. The only exception, since 2016, is the introduction of the link between the bibliographic records of SBN and the corresponding records in specialised databases related to early printed books, including EDIT16. However, this link is not always available, being the result of individual cataloguing work.

Moreover, the specialised databases EDIT16 and Manus Online, and the SBN system allow for the management of digital attachments to descriptive records, but the current system of indexing and using digital resources (Internet Culturale and its index based on the BIB-MAG profile) does not recognise them. The latter makes integrated management of digital resources inefficient and complicated.

Internet Culturale: a partial solution

An integral part of the BDI (Italian Digital Library) project is *Internet Culturale, cataloghi e collezioni digitali delle biblioteche italiane*⁸, a portal launched by ICCU in 2005 to promote knowledge of the Italian book heritage through access to both catalogues and digital collections. It also offers cultural insights through multimedia resources (itineraries, exhibitions, authors and works, 3D-paths), dedicated to literary, scientific, artistic and musical culture.

What you get from a search in Internet Culturale, in addition to the Digital Index, is a set of results returned from each database queried: EDIT16, Manus Online, SBN, Historical Catalogues⁹ and Digital Library, the digital repository made available by ICCU for the Italian libraries. This is achieved by mapping data from ICCU databases on a common minimum Dublin Core profile. Search options are therefore limited, compared to what is offered by the different front-ends.

In view of the logical separation between records managed by different platforms, however, the Meta-Index system queries these databases, limiting itself to juxtaposing the information objects coming from the autonomous management environments. In addition, there are no engineered import procedures that ensure synchronisation in the alignment of Internet Culturale Indexes with those of SBN and of the specialised databases, thereby generating different search results by accessing the specific search sites.

Digital collections make up the Digital library, with more than 15 million associated digital files. The search in these databases is done through the Meta-Index of Internet Culturale by extracting data from the original databases. The data, whose characteristics, content and format vary, have been partially made consistent through a common profile based on the Dublin Core standard and qualified with the necessary extensions. However, the data profile in Internet Culturale is less rich than that of the same resources as they are recorded in SBN and the other specialist databases, and therefore does not fully represent and integrate the digital resources described through them. In addition, the data-feed process of the Digital Library of Internet Culturale is complex, rigid and rather expensive, especially for the institutions which do not have their own digital heritage management system and suppliers to provide this service.

⁸ Internet Culturale. Accessed June 3, 2021. https://www.internetculturale.it/

⁹ Cataloghi storici digitalizzati. Accessed June 3, 2021. http://cataloghistorici.bdi.sbn.it/



Towards an integration of national bibliographic services: Integrated Research

In addition to the issues outlined above, there were cuts in professional resources, and, at the same time, the need to make new investments for the maintenance, updating and development of the individual platforms. As a result, we found ourselves having to rethink the structure of the information systems managed by ICCU in the twofold perspective of rationalisation and optimisation of resources, on the one hand, and of a new model of integration in data search and retrieval, on the other.

At the end of a process of reflection and in-depth analysis carried out within the framework of working groups promoted by the Direzione generale biblioteche e istituti culturali of the Ministero dei beni e delle attività culturali e per il turismo, the SRI project (Integrated Research System) was realised¹⁰. This project focuses on the integration of the databases managed by ICCU and at the same time will offer more effective services to meet the information needs of different user groups, ranging over from professional researchers up to the merely curious users. The project means therefore to overcome the fragmentation of the databases and rationalise the communication model of ICCU platforms, by creating a distributed information architecture that makes it possible to use the resources in the systems described above, including those in digital format, through a single access point.

The solution adopted to maintain information consistency among the elements of EDIT16, Manus Online and Internet Culturale Digital Index is achieved by configuring these systems in Client server mode with the SBN Index acting as a joint element and guide between these different systems. The new EDIT16 and Manus Online are, in fact, configured as specialist SBN nodes in the new set-up and are able to contribute to the collective catalogue while maintaining their own specificity and autonomy. The aim is to share a large part of the information with the reference record in the Index, with the future goal of sharing even greater information, once the system has been consolidated.

With this in mind, the back-end applications of EDIT16 and Manus Online have been re-engineered to enable dialogue with the central Index; at the same time, the Internet Culturale system has been optimised.

In order to achieve this goal, integration of the databases must be foreseen as early as in the creation phase of bibliographic records (only for EDIT16) and of the most important elements of the bibliographic data, such as names. The structural coherence between the databases is ensured by joint keys (mutual references) among the different information objects that refer to the same entities. This solution allows SRI to recognise that two representations refer to the same object. In particular, a resource X or an entity Y will be retrieved only once through the single search point, whereas specific representations, which are diverse for data models, for quality, or purpose, will be reached through links. Links will indeed allow navigation through the search interfaces, which will maintain their own functions and specificities designed for their own user community. As to the Manus Online database, the new re-engineered management application provides for the implementation of an exchange module exchange module, which allows sharing only authority

¹⁰ For an overview of the steps that led to the development of the Integrated Research System, see Patrizia Martini. 2018.

[&]quot;Verso un'integrazione dei servizi bibliografici nazionali." DigItalia no. 2 (2018): 9-16.



records (including both intellectual responsibilities for texts and material responsibilities related to codicological features) with the SBN Index and which are aligned through specific services of the SBNMARC protocol, the dialogue protocol allowing the exchange of data between the central index and the SBN nodes. Any additional fields needed to complete the information in the Manus Online authority record are stored locally and not shared with the SBN Index.

Internet Culturale will continue to serve as an infrastructure dedicated to the collection and indexing of digital copies in its own repository and to those made available by remote repositories, but it will no longer have its own website, including a search engine and other tools available to users. In the architecture of the new information system, it will provide all those digital resources which can be linked to a cataloguing record in the main database to the central integration and indexing system, while also enriching the bibliographic core with all the technical and usage details in order to enhance its research tool on digital heritage.

Moreover, to widen the range of external providers of digital content, the aggregator will only allow the acquisition of descriptive metadata, leaving to the digital repository the function of making its digital content publicly available to users.

The process of authority files integration

As for bibliographic records coming from the SBN Index and the EDIT16 database, SRI has planned the unification of authority records. In particular, we refer to the files of personal and collective names of SBN, EDIT16 and Manus Online, and also, as far as the EDIT16 and SBN databases are concerned, to the printers devices and printing places.

Whereas inconsistencies between bibliographic records can be merely the result of cataloguing choices (e.g., the option of multilevel cataloguing), inconsistencies between names are rather substantial, and may prevent the ability of end users to identify an object to be the same in SBN, EDIT16 and Manus Online.

For instance, the authority records for Saint Roberto Bellarmino occurs in the three databases in three different forms:

- 1. Bellarmino, Roberto in SBN
- 2. Roberto: Bellarmino<santo> in EDIT16
- 3. Bellarmino, Roberto <santo; 1542-1621> in Manus Online

The crucial role of a reconciliation among the three authority files is therefore clear, not only for end users but for cataloguers as well, who will be able to cross-reference authority records.

This process of integration of the authority files will be performed through a manual and painstaking double check of the databases. Some automatic procedures specifically developed will be useful at this stage to highlight problematic instances which require human intervention.

These procedures, which will concern the EDIT16, Manus Online and SBN authority files, will be addressed to catch duplicates or clearly erroneous forms. Such issues are rather frequent in SBN and Manus Online, whose data are the result of shared cataloguing, more exposed according to its nature to the risk of inconsistencies. This is not much of an issue for EDIT16, as its authority files are the result of research work carried out by the ICCU at a central level. However, EDIT16 records are often inconsistent with those of SBN from a formal point of view; indeed, EDIT16



authority records have been created according to the previous Italian cataloguing rules for authors (RICA¹¹) standards, as the database has been developed before the issue of the REICAT code in 2009. There has been no chance to update the authority records to the new cataloguing rules to date.

After these preparatory cleaning tasks, we will go ahead with the identification of SBN records matching records in specialised databases. In this process, SBN IDs will be added to the link field of the specialised databases, as well as the identifiers of the specialised databases to the SBN database. This will ensure data persistency, and their mutual reference will also be guaranteed. The inclusion of these relationships within the UNIMARC exchange files, meant to feed the new search interfaces, will make possible the aggregation of clusters of information objects by SRI's indexing engine.

The joint keys, which are built automatically within previous databases, will still be created when the new system is fully operational through the cooperation procedures. For this purpose, the matching algorithms, defined and refined within the development of the procedure described above and named 'Import-as-recognition', will also be included in the re-engineered specialised applications. The term 'import' means that names (of personal and collective entities) only included in EDIT16 and Manus Online will also be added to the Index database, which will store the whole set of authority records.

During the import procedure, the three authority files of SBN, Manus Online and EDIT16 will continue to be enriched and amended by the work carried out at the central level, as well as at a peripheral level by Nodes and libraries, both in the Index and in the specialised databases (as in cataloguing, data correction, etc.). In order to avoid the risk of misalignment and of jeopardising the consistency of the work done, the EDIT16 and Manus Online management systems will be re-engineered before performing the clustering procedures.

The reference information sheet, represented by the SBN record, is thus enriched with links to specialised databases, which, in turn, will have the chance to reach a larger audience, having their results listed not only in the new portal but also in the new OPAC SBN. Manus Online and EDIT16 will still maintain their own representation of entities in the reference systems as a result of the expertise of each database.

If these activities and tools prove to be apt to the task, similar procedures will be undertaken for other authority files, that is the printer devices database in EDIT16 and place names ones in both EDIT16 and Manus Online.

Integrated Research System – SBNTeca – Main services

As previously mentioned, the integration of the entire ecosystem also involves substantial correlation with digital resources and related metadata, stored and managed by the Digital Library system.

Therefore, an organisation of the complex system of aggregation and fruition of the digital resources of ICCU and Internet Culturale is in progress, as a companion to the development of the

_

¹¹ Regole italiane di catalogazione per autore. 1982. Roma: ICCU.



new management applications. Basically, the new architecture of the digital flow allows digitised items to be in fact an extension of the catalogue through the link between digital copies and the bibliographic records, which was often missing in the information set provided in the previous systems.

Another fundamental component of the SRI is therefore the SBNTECA, which is a digital library capable of allowing the management of digital objects (images, audio-visual documents, etc.) within individual SBN Nodes and their exposure to the central SRI system and, from here, their display through the central SRI system as well.

SBNTECA, besides allowing the management of digital objects, is also used for the creation, import and management of metadata associated with such digital objects (technical metadata), as well as aggregates between them (e.g., the pages of one book). To do this, it must be able to act on the main metadata standards for digital content: MAG, a standard for management and administrative metadata, and METS (mainly in the Google-METS and METS-ICCU specifications).

The services made available by SBNTECA are also meant to recover the 'submerged digital', often included in often difficult to access share due to preservation contexts, as well as poorly valued or only available in off-line environments managed by Italian libraries. Also, the new digitisation campaigns find, in this context, an efficient system of management and fruition of digital and multimedia content.

Network of portals¹²

The multi-layer work described so far, mainly addressed to reconcile authority files, proves to be meaningful for end users in the results of the new platforms. Each database presents indeed a new faceted search interface providing features made possible by the new architecture. It is, in fact, a network of portals, each of which gives access to research services and types of content intended for different communities of users characterised by diversified information needs.

The case of Manus Online is significant under this respect, as it offers a more articulated internal representation of the manuscript record and a clearer identification of the textual units and their grouping in codicological units.

Functionalities will not be weakened; on the contrary, the system as a whole will provide new search options in a more technologically advanced and optimised context.

SBNTECA's services, which are integrated into the management systems of specialised databases, make direct representation of digital content available through the ecosystem's central viewer, Mirador, based on the IIIF protocol.

Alongside the re-engineering and functional review of the specialised research platforms, the project has planned a similar intervention on the portal of the SBN catalogue. The main difference is that the SBN OPAC will provide an integrated search within the bibliographic records of EDIT16 and Manus Online. The SBN catalogue will be complemented by links to records coming from EDIT16 and Manus Online; EDIT16 records can either be referred to resources also includ-

-

¹² Cerullo, Luigi, and Maria Cristina Mataloni. 2020. "Sistema di ricerca integrato: un nuovo catalogo di servizi per le biblioteche." *DigItalia* no. 2 (2020): 16-25.



ed in SBN as part of the collections of one or more SBN libraries, or to resources not included in SBN when part of collections of libraries not participating in SBN. Manuscripts coming from Manus Online, on the other hand, are resources of a type not managed in the collective catalogue to date. In this case, internal descriptions of manuscripts are anyway retrieved, i.e. records including bibliographic elements and authorities, whose descriptive profile is better suited to the data return model of the shared catalogue.

ALPHABETICA: a new portal for Italian libraries13

To the eyes of end users, the most relevant new tool will be the new portal of Italian libraries, Alphabetica. The bibliographic core, represented by the general catalogue and its logic integration, is enriched by the data coming from other related databases managed by the ICCU, such as the portal 1418 – documenti e immagini della grande guerra14, the historical catalogues, virtual exhibitions built with Movio—Mostre virtuali Online15 (Digital Online exhibitions). Moreover, the architecture of Alphabetica will possibly allow the integration of more databases potentially interested in joining the Alphabetica network. The logic behind the portal goes beyond the traditional model of bibliographic research and restitution of an OPAC, even of an advanced one, and is an attempt to build a proper search model based on a solid but flexible system of taxonomies.

Alphabetica classifies all kind of resources and related entities (names of collective entities, places, persons) according to a dual classification system to comply both with the traditional classification of material in SBN, and with controlled vocabularies for the classification of objects in order to arrange them within thematic channels. This approach will provide a way round to the oddity of semantic terms in the catalogue, which we are in the meantime trying to address through rather complex off-line procedures on the SBN Index.

The stages required for the analysis, planning and testing of Alphabetica are obviously along and painstaking process in order to realise an innovative and effective new reference, which will be able to exploit and showcase the longstanding and valuable work carried on in Italian libraries, not only for a specialist audience but open to a new and diverse user base.

¹³ Buttò, Simonetta. 2020. "Alphabetica, il nuovo portale per la ricerca integrata: un salto di qualità per le biblioteche italiane." *DigItalia* no. 2 (2020): 9-15.

¹⁴ http://www.14-18.it/home

¹⁵ https://www.movio.beniculturali.it/



References

1418 Documenti e immagini della grande guerra. Accessed June 3, 2021. http://www.14-18.it/home. Anagrafe delle Biblioteche Italiane. Accessed June 3, 2021. https://anagrafe.iccu.sbn.it/it/.

Buttò, Simonetta. 2020. "Alphabetica, il nuovo portale per la ricerca integrata: un salto di qualità per le biblioteche italiane." *DigItalia*, no. 2 (2020): 9-15. http://digitalia.sbn.it/article/view/2624

Cataloghi storici digitalizzati. Accessed June 3, 2021. http://cataloghistorici.bdi.sbn.it/.

Censimento delle edizioni italiane del XVI secolo - EDIT16. Accessed June 3, 2021. http://edit16.iccu.sbn.it/web_iccu/ihome.htm.

Censimento dei manoscritti delle biblioteche italiane. Accessed June 3, 2021. https://manus.iccu.sbn.it/.

Cerullo, Luigi, and Maria Cristina Mataloni. 2020. "Sistema di ricerca integrato: un nuovo catalogo di servizi per le biblioteche." *DigItalia*, no. 2 (2020): 16-25. http://digitalia.sbn.it/article/view/2625

Internet Culturale. Accessed June 3, 2021. https://www.internetculturale.it/.

Martini, Patrizia. 2018. "Verso un'integrazione dei servizi bibliografici nazionali." *DigItalia*, no. 2 (2018): 9-16. http://digitalia.sbn.it/article/view/2162.

MOVIO Mostre Virtuali Online. Accessed June 3, 2021. https://www.movio.beniculturali.it/.

Regole italiane di catalogazione per autore. 1982. Roma: ICCU.

Regole italiane di catalogazione REICAT. 2009. Roma: ICCU. https://norme.iccu.sbn.it/index.php?title=Reicat

Servizio Bibliotecario Nazionale - SBN. Accessed June 3, 2021. https://www.iccu.sbn.it/it/SBN/.