

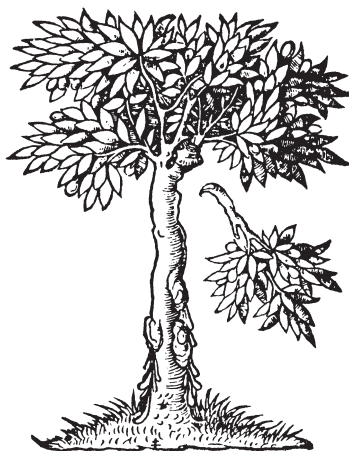
MANY INTO ONE

CERL PAPERS · VI

Many into one:
*Problems and opportunities in creating
shared catalogues of older books*

Papers presented on 11 November 2005
at the CERL Seminar hosted by the
Biblioteca Nazionale Centrale, Rome

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Introduction by the Director of the Biblioteca Nazionale Centrale, Rome

OSVALDO AVALLONE

Il Dr Avallone diede il benvenuto ai membri del Consortium of European Research Libraries in occasione del loro annuale convegno, tenutosi nel 2005 a Roma presso la Biblioteca Nazionale Centrale.

La BNC ha per lungo tempo collaborato con diversi enti nel campo dei libri antichi, interessandosi all'Indice Generale degli Incunaboli del dopo-guerra e al suo diretto successore, ovvero il progetto internazionale ISTC. Insieme all'ICCU, la BNC é stata poi responsabile sia della realizzazione delle regole di catalogazione per il sistema italiano nazionale dei libri antichi, sia della collaborazione di progetti nazionali per la catalogazione dei manoscritti. Inoltre, la BNC supporta il CERL nella sua volontà di incrementare l'accesso al patrimonio europeo stampato attraverso una profiqua collaborazione tra le biblioteche di ricerca.

It is a great pleasure for the National Central Library of Rome to host the annual meeting of the Members of CERL, the Consortium of European Research Libraries and its by now usual Seminar. Today's meeting is a crowded discussion point where it is possible to compare the different opinions of people working in the field of librarianship and other disciplines.

Our institute has always believed in cooperation as a mean not only to increase access to the cultural heritage and the services offered to users, but also as the opportunity, for the librarians, of a professional growth, given by the contact with several various experiences.

A great cooperative tradition in the field of antiquarian books has always characterised the National Library of Rome. I want to mention here the great task of the IGI – Indice Generale degli Incunaboli delle biblioteche italiane – which began in the forties, a difficult period for well-known reasons, and after more or less half a century, was accomplished in 1982. Thanks to the cooperation of more than 800 libraries, it has been, for

a long time, the only complete national union catalogue, at a European level, concerning the 15th-century editions. It is once again this idea of cooperation that made us join, in the nineties, the ISTC project – Incunabula Short-Title Catalogue – promoted by the British Library, which has taken up the necessary updating of the IGI, with the cooperation of more than 900 Italian libraries. Today, this catalogue too has converged into the IISTC – Illustrated Incunabula Short-Title Catalogue. The National Central Library was the first pole of SBN, the national library service, that operated on the database of Ancient Books. In cooperation with ICCU, the Central Institute for the Union Catalogue, the National Library created the ‘Guide to cataloguing in SBN-Antiquarian’ and took part in the testing of that same database. I am pleased to underline that at present our library has created and localised the biggest amount of records (more or less 90,000) in SBN-Antiquarian, with good quality cataloguing, ‘book in hand’, following the description standards determined on a national basis.

All of these tasks and participation in the manuscripts project in MANUS, or participation in national and international technical committees, have been possible thanks to the professionalism of the people working in these fields.

As a result of the interest we have traditionally had in older material, we were very interested in CERL, which has the same goals as us, that is to say ‘research libraries sharing resources and competences with the aim of increasing access, utilisation and conservation of the printed heritage of Europe’.

Times are hard, for everybody. The financial resources in our field are progressively being cut, making every day more difficult in offering services and adequate tools, which depend even more often on the good will and professionalism of people working in our institutes. MAR.T.E., the database of the Italian printers’ and publishers’ devices of the 17th century that we are presenting today, is a really good example of all this work.

November 2005

ICCU and the national collective catalogues SBN Index and EDIT16: from data gathering to fruition

MARCO PAOLI

It may be useful to go back to the beginnings, and recall what the *Centro per il catalogo unico* (Centre for the Union Catalogue) was back in the 1950s when it was set up with the aim of creating a union catalogue of national book production; an ideal national bibliography that was to be the surrogate for a single cultural centre that Italy lacked because of its past history; on the one hand the cultural dynamism of the country was a precious resource, but on the other it caused problems from the standpoint of the collection of data on books.

With the establishment of the Ministry for Cultural Heritage in December 1975, the former Centre was transformed into one of four central institutes and was given the name of Istituto Centrale per il Catalogo Unico delle Biblioteche Italiane e per le Informazioni Bibliografiche (ICCU – Central Institute for the Union Catalogue of Italian Libraries and for Bibliographic Information), which was under the obligation of publishing and selling a union catalogue. The institute also had other tasks according to the law which, without interfering with the tasks attributed to the two national central libraries were to contribute to the creation of a comprehensive national library system.

Two circumstances played a critical role in the policy of the new Institute: devolution in 1972 to the Regions of power over matters concerning libraries and the diffusion of the principles and goals of international programmes promoted by UNESCO and IFLA. Decentralisation ran the risk of being not a means of progress but a turning inward by emphasising the fragmentation of libraries in stark contrast with the orientation that was coming to the fore at the international level as a result of the aggregation processes driven by the expansion of computer technology. In order

to emerge from the isolation that threatened the Institute, the only solution was that of promoting cooperation, seen as the sole possible strategy that would enable all the libraries to provide a consistent level of services across the country within an organisation in which each member would contribute human resources, technical means and experience in order to improve its own performance in providing services and that of the other libraries in the network.

Cooperation was the *leit motif* of the activities carried out by the Institute as it prepared cataloguing instruments to facilitate communication among libraries, as it developed description rules and standards, application handbooks, registration formats, and also when, in the early 1980s, a Census was organised of sixteenth-century editions as the preparatory phase for the much invoked national bibliography, and also when tackling the problems raised by the introduction of the new technologies in the library world. While the *National Library Service* (SBN) was the project that was most fully pursued and implemented, coordinated and managed by the Institute with the hallmark of cooperation and for which efforts were made to reconcile the scholarly approach with the broader administrative and functional decentralisation, the *National Census of Italian Editions of the 16th Century* proved to be by far the most difficult and demanding project for the human resources of the Institute that were involved.

This paper is intended to bear witness to the twofold experience of the Institute in managing the two major national collective catalogues of older books: The National Census of Italian Editions of the 16th century, and the SBN database of Older Books.

The first is a project aimed at surveying the editions produced in Italy and printed in Italian abroad during the 16th century, as a natural continuation of the General Index of Incunabula (IGI). The Institute was responsible both for the organisation – it selected the libraries that were to participate and the bibliographic instruments to be used – and for data management, from gathering to merging, processing and review of the data. Created in the Eighties as a traditional and bibliographically classical collective catalogue and as a catalogue primarily designed for printed publication, starting from 1997 the project, actively promoted by Angela Vinay, Director of ICCU at the time, identified electronic media as the ideal way to manage the huge mass of articulated, complex and diversified information. And in shifting to the new medium it successfully exploited all of its potential to the benefit of the users.

ICCU and the national collective catalogues SBN Index and EDIT16

SBN's cooperation plan is, on the contrary, based on the principle of shared cataloguing, whereby the catalogue of each library is made available to the other members of the project as the end result of the normal cataloguing function, but in accordance with a common set of rules and a common structuring of the bibliographic data. The libraries are grouped into local poles, each comprising a number of libraries that manage all their services through automated procedures using a client-server logic. Shared cataloguing, in a stable state from 1992, was initially applied only to modern books. The expectations of the institutions that already participated or that wanted to participate in the network inevitably focused on the SBN, and there was a general request for retrospective cataloguing of books according to the same rules. The Older Books database, designed and initiated in 1994, offered ample possibilities of concentrating otherwise scattered initiatives, and of involving local projects into a comprehensive national retrospective cataloguing project. ICCU played the role of coordinator and manager of the index-network system, exercising intellectual and technical control in order to ensure compliance with international standards and to preserve consistency which is indispensable for any cooperative system.

THE NATIONAL LIBRARY SERVICE (SBN)

The existence of a shared catalogue of bibliographic records for retrieval is the basic condition through which the fundamental goal of cooperation can be achieved: the mutual availability of documents. The Index is structured in such a way that each record is present only once in the database and is re-used for other records. The bibliographic information relative to one publication is hence constituted by a set of 'n' records that are inter-related to each other through relationship codes (network). Now, precisely because the record is to be recorded only once in the archive, the dialogue between Pole and Index is designed to guarantee the uniqueness of the bibliographic record. This is done by making a preventive search for the record (whose outcome may be retrieval if the search is positive or the creation of a new record when the outcome is negative) and by the Index presenting 'similar' records to the cataloguer. In order to ensure cataloguing uniformity, the changes made to a record by any member of the SBN are circulated among the libraries of the other poles where the record has been located. It is mandatory to accept the corrections made: indeed it is not possible to intervene on a record if one does not have the updated version of that record.

In order to simplify things and to make cooperation more attractive, ICCU has drawn up a guide for SBN cataloguing which provides not only the descriptive rules proper but also envisages codes for bibliographic qualification (such as nature, country, language, date, place and genre), and it offers various types of links between items of information about authors and about titles. The reason for descriptive cataloguing rules lies in the need to ensure, in any individual case, the same standardised result and uniformity in processing, especially with regard to access and grouping.

Right from the beginning of cooperative cataloguing, ICCU has set out to spread the rules and standards of description across the country and it has also engaged in providing an interpretation of our cataloguing code (Italian Rules for Author Cataloguing), especially the section on the form of names, with a view to correctly expanding the catalogue, especially the access points. In order to ensure uniformity in cataloguing practice, formal punctuation for personal and collective names has been introduced which is useful for automatic data processing and especially for the arrangement of the items.

If a real library service cannot exist without a bibliographic architecture, the latter cannot exist without authority control which ensures unique and uniform access. In spite of its great importance for catalogues both in the past and today, authority control has been and still is an activity that is often forgotten or neglected, unlike the more conspicuous activity of the creation of bibliographic records. ICCU has fostered the need for authority control at the points of access and for envisaging cleaning-up activities as part of the maintenance of the Index, which is a first step towards the creation of the National Authority Archive. Created on the basis of SBN data, this authority archive has the twofold aim of being a support and control instrument for the activities of the national collective catalogue and at the same time it is the reference point also for non-SBN realities.

Anyone with experience and practice with older books knows how complex are the problems linked to the control of access points (authors, editors, places, printer's marks) with some of the problems being the following:

- cases for which it is difficult to apply the rules because at times they are too strict or too general, or they do not take into account all types of names; suffice it to recall authors ignored by the repertories or whose identity is confused even in the bibliographic sources;

- definition of entities and group titles. For the former the forms that are present in titles are not always recorded in the sources, and only a search in the archives can reveal the history and forms taken on in time; as regards group titles, this concerns also apocrypha and works whose authors are uncertain, those that are documented in a uniform manner in the repertories are matched by those that are handed down in different forms or that are not documented and need a group title;
- responsibility for publication, namely editors, printers and booksellers, primary accesses, that the archive of SBN Authors understands and treats as companies and hence as entities. Economic, commercial, family, institutional and political events, homonyms, anonymous works, forgeries, and fakes make the universe of people in charge of an event at the time of manual printing rather rough and treacherous terrain. If we think of the great dynasties of printers that may have changed workshop, name, company name, or modified by marriage, inheritance and partnerships, it is self-evident how difficult it is to identify the person responsible for publication without the support of an authority file. For the printers of the 16th century, on the basis of the ‘authority’ experience accrued through EDIT16, the Institute has initiated the activity of cleaning up forms and names;
- identification and management of printers’ devices, which are essential for identifying who produced or financed a publication and can be considered as real subscriptions. Also for devices, the elements of the description had to be predefined at the central level, and a selection had to be made of the bibliographic sources useful for defining standard citations.

The recent project for the evolution of the SBN Index, completed in 2004, introduced greater flexibility and facilitated participation, especially in the last few months by accepting non-SBN applications during the implementation phase. Provisions have been made for expanding the centralised cataloguing functions and for developing the management, monitoring and statistics functions and for expanding the typology of authority archives. The archive on authors, uniform titles and printers’ devices concern older books proper, whereas the archive on places is in the process of being set up (archives on subjects are peculiar to modern books only).

Cataloguing uniformity and requirements of completeness in the Index are met by choosing the needed cataloguing level (backwards conversion, minimum, average, maximum) on the one hand, and on the other by

following an expansion method based on batch retrieval: direct cataloguing of books co-exists in the Older Books database with backwards conversion activities and off line bibliographic data acquisition.

The new SBN Index has provided for the development of such functions as bibliographic control through updating procedures aimed at cleaning up the archives and at managing the authority archives, as well as statistics, monitoring and administration functions that are carried out by working directly on the central database, through the Direct Interface procedure, which has become normal practice in the last few months. The monitoring functions include a series of centralised activities that are available to the system administrators (access control and management of authorisations; monitoring of the system's performance) part of which are available also at the decentralised level. We intend to develop mechanisms to support archive cleaning activities, the retrieval of lists of possible duplicates on which the people in charge of maintaining the archives can intervene. Among the system administration services, some worthy of being mentioned are statistics on the data and on matching techniques that show up anomalies, inconsistencies, gaps and errors, and the statistics on the duplication of authors and titles, a risk that is even higher for older books considering the cases of multiple editions, issues and variants, of works in several volumes or parts, and of mutilated volumes.

The Older Books Database contains information about monographs whose date of publication goes from the beginning of the printing era up to 1830. As at September 2005, the database contains 524,525 items of information about titles corresponding to 1,147,696 localised copies relative to 1251 libraries (of which 501 operate on-line, while the others work by remote retrieval activities).

NATIONAL CENSUS OF ITALIAN 16TH-CENTURY EDITIONS (EDITI6)

Moving on to the other experience of shared cataloguing, the *National Census of Italian Sixteenth-Century Editions*, it must be pointed out, as already mentioned earlier, that the contribution by the Institute has been provided in a totally different way. The project was conceived during the 1980s, when the national network was still a very long way off and the centralised index was in its early infancy, with the aim of starting a retrospective national bibliography, consisting in a census by century of the older books held in Italian Libraries.

The ICCU had to face a variety of problems:

- The strategy to be adopted in organising the census;
- Identification of the libraries and their degree of involvement;
- Use of the impressive mass of repertories;
- The description level to be adopted.

The conference on *Older Books and Cataloguing*, held in Rome in September 1981 revealed that it was necessary to reconcile the need for a bibliography that could record Italian 16th-century editions by gathering all useful information, with the need for a census whose task was that of providing an overview of existing books. Cooperation was considered to be the sole winning strategy with the success of the enterprise being measured primarily by the ability to involve as large a number of libraries and institutions as possible through extensive clerical work. What makes us proud about the project has always been the fact that so many different libraries were attracted into participating in a common endeavour towards a common goal.

The fact that Italy's cultural heritage is scattered all over the country is still a problem that can be overcome only by the willingness of libraries to participate (state, university, church, private, school libraries and the libraries of local authorities, of cultural institutes and those abroad), in the firm belief that not only the major book collections but also minor collections or those that have received little attention are equally precious for the enhancement and knowledge of our book heritage. Initially there were 417 participating libraries; now the number has grown to 1335 (of which 644 have not joined the SBN cataloguing project). An analysis of the types of libraries is interesting, with the largest number being church libraries (476), which are the least represented in the Older Books Index. Such a high number of participants was reached because each library could choose its degree of cooperation, and whereas the Census has to be granted the credit for giving momentum to a revival of interest in cataloguing, the libraries have the merit of having participated with a spirit of mutual enrichment.

Currently the EDIT16 database contains 57,000 items of information on titles (relative to 359,844 localisations), which include 345 group titles; 22,000 forms of author names (11,454 accepted forms); 5,261 forms of printers', publishers' or booksellers' names (2,341 accepted forms); 1,983 printers' devices (census not yet taken for 628); 532 forms of printing

places (191 accepted forms); 18,888 bibliographic sources. With respect to the project, the ICCU has taken the role of technical referee and coordinator, but above all it is responsible for the intellectual content. The Laboratory for Retrospective Bibliography has been assigned responsibility for the centralised collection of cataloguing descriptions, management of heterogeneous data that require more thorough investigation, with direct inspections of the books, and authority control using a methodology that includes the tasks of bibliography, bibliology and literary history. Being a centralised collective catalogue, the Census handles heterogeneous data with differing descriptive levels, it gathers items of information by comparing multifarious descriptions; it ascertains the correctness of each element before reaching the catalogue definition. Even greater caution must be exercised when defining variants and issues: differences in paper, imprints, dates, parts or volumes require further investigations that are carried out directly on the books.

The creation of the EDIT16 database (1997) marked a key moment in the Census's activities in that it provided for the gathering and management of all the relevant data and their accessibility on the Web (2000). The database contains the Titles archive, collateral archives that manage the authority items (Authors, Printers, Publishers, Places, Devices), bibliographic sources (Bibliography) and administrative data (Libraries). These archives are anything but marginal. They have their own status and autonomy with a view to being a source of information and research. From this standpoint a new archive is being designed for Dedications, which, besides providing information about the dedicator and the recipient, envisages also the electronic storage of the pages on which the dedication appears alongside the title pages, colophons and devices. This archive will come to add to the other archives hence providing additional forms of access. The quality, uniformity and consistency of the data in the various archives are the most demanding part of the work. They are assured by the editorial group which has adopted a common methodology and has defined criteria for the cataloguing choices and for authority control activity on the access points.

The diversification of activities can be seen from the coexistence of non-uniform bibliographic information characterised by a statement of the working phase they have reached (minimum, average, maximum). In recent years special attention has been paid to the authority archives with major effort being made to intensively review and define the items. It may be interesting to highlight the fact that consistency within each archive

and among the archives is ensured in EDIT16 through *ad-hoc* control software designed to prevent the omission of compulsory elements, avoid inconsistencies, monitor the archives and plan tidying interventions. With a view to cataloguing description, the system indicates missing bibliographic qualification codes, the existence of duplicates, inconsistencies in the dates (date of publication, date of the imprint, normalised date), dates that are different from the dates recorded in the printers' archive, and it shows up inconsistencies in the imprint string by comparing it with the collation area. For some elements a consistency check is made with the corresponding archive (e.g. library/secretariat code, initials of the repository or bibliography). The same types of checks are carried out for the authority archives.

The complexity of the control systems has gone so far as to envisage four types of dates of activity for instance in the printers' archive (dates derived from the editions in the archive, dates resulting only from the editions that have been checked, dates deriving from repertories and finally the dates obtained by integrating the dates taken from the repertories and those that have been checked) with the possibility of spotting inconsistencies, if any. Indeed, since this is work in progress, any mistake in the cataloguing description would generate a bibliographic 'phantom' and modify the dates of the printers' activities in the Printers' Archive, hence undermining the general reliability of the data.

The experience of the ICCU speaks strongly in favour of the two paths taken in Italy in the recovery of our old books heritage: specialised bibliography and shared cataloguing. Discussions have begun as to whether a unified Index like the *Servizio Bibliotecario Nazionale* should also play the role of retrospective national bibliography. From this standpoint, the Guidelines for backwards conversion activities indicated by the ICCU recommend a coordinated level of interventions that should be uniform across the country albeit taking into account local specificities and local needs. We are also aware of the fact that the actual breadth and size of the bibliographic heritage held in the Italian collections makes the task of providing an overview of existing works in the country a long-lasting and complex endeavour.

In this scenario, the National Census of Italian 16th-Century Editions marks the conclusion of the fact-finding survey by century that was to involve Italian libraries, and has taken on the features of a *unicum*, albeit far from being complete. The 16th century, which is so significant for the history of Italian printing, remains a century that is bibliographically

privileged for amount of information and for existence of copies, with all the data being examined in an extremely thorough manner and in a way that goes well beyond mere cataloguing practice. The Census is a source of indisputable importance for studies on Italian 16th-century culture. EDIT16 bears witness to Italy's 16th-century printing and publishing history (what was printed, where and by whom), of the diffusion of ideas, of the success and circulation of the texts, of the historic growth, development and movement of collections. Being a comprehensive map of book collections, the database allows for a diversified reading approach which is capable of bringing out historic and cultural meanings from ancient books that have not been fully investigated: the relationship between firms and intellectuals, the relationship with power, the types of readership, taste, social history and the aspect of the collections and of their items in relation to the community.

In the light of the Italian experience with national collective archives on old books, I think I can confirm that cooperation is the winning strategy for asserting the unity of cultural heritage and the right of people to use it. Today's meeting confirms the validity of this strategy also at the international level, and in this sense ICCU is open to any form of collaboration, as demonstrated by its participation in the activities of the Consortium right from the beginning in 1992, and its willingness to provide the bibliographic and authority data gathered through our two projects.

The language of the catalogue and the form of heading: vernacular, original, conventional

MAURO GUERRINI

LA LINGUA DEL CATALOGO E LA FORMA DELL'INTESTAZIONE:
VERNACOLA, ORIGINALE, CONVENZIONALE

Tra i problemi della catalogazione vi è quello relativo alla forma dell'intestazione. Le soluzioni proposte dai Principi di Parigi e dalle RICA sono due: formulare il nome degli autori nella lingua in cui hanno scritto le loro opere, oppure esprimere il nome degli autori nella forma stabilita dall'uso, nella lingua principale del catalogo. Le alternative permettono di superare la discrasia fra formulazione dell'indice nella lingua del catalogo per le voci dei soggetti, secondo quanto disposto dal Soggettario, e formulazione dell'indice nella lingua originale per le voci degli autori, secondo quanto prescritto dalle RICA. Il problema della lingua del catalogo si è posto perciò come continua incertezza tra la scelta della lingua originale e l'uso convenzionale e si esplica in una domanda: dobbiamo soddisfare le esigenze della cooperazione internazionale o del lettore? Tutti vorremmo soddisfare entrambe le necessità, la domanda da porre dovrebbe allora essere: può un authority file internazionale, come il VIAF, rispondere a entrambe le esigenze?

The issue of the form of heading stands out among the few still open questions relating to modern catalogues; the problem consists in finding the right form to express the name of an author who lived in a different cultural context, different in time and space, from the context in which the catalogue is produced. Carlo Revelli writes that the rationale for the name of modern authors is 'the preference declared by the author', that is expressed in the original publications. The principle is clear, but he adds that 'it is not always easy to ascertain the form of the name desired by the person himself by his original publications, as the cataloguer cannot verify

it in a large number of original publications and he tends to ascertain the form that results from the item in hand, even if it is not original (e.g. it could be a translation): so one needs to be sure that the name is not displayed in a different form in other publications and, when in a state of uncertainty, it will be useful to verify the most agreed form in the reference books, if possible in the country of the author², not that of origin, but that chosen by him.¹ As we can see, it is a very tortuous argument!

The question of the form of the heading could be more easily examined and understood in a functional perspective, that is to say considering that the heading enables us to find the works of an author, the works related to him and to find anonymous works. Retrieval is not optimal, or it is not possible at all, if the file of the records does not have uniform accesses; uniformity of the access points is the most economic way to retrieve information.

To express a heading is a very complex process that requires analysis of:

1. the form of the name to choose, if the name of the author appears in variant forms in different edition of his works (this includes also the analysis of the form by which the author is mainly identified in the editions of his works in the original language and/or the form by which is usually recorded in reference books);
2. the language to be used for the name (e.g. *Tommaso d'Aquino* or *Thomas de Aquino*?);
3. the order of the elements of the name in the heading: *Dante Alighieri* or *Alighieri, Dante*?;
4. the qualifier of the name (mandatory or optional). Further, for anonymous works, the cataloguer should also analyse:
5. the choice of the form of the title of the work;
6. the language to be used for the title.

The choice of the form of the name of the author and of the title of the work is related to the two functions of the catalogue defined in the Paris Principles:

1. 'which works by a particular author' and
2. 'which editions of a particular work are in the library' (§ 2.2).

The first is an essential term, because uniform headings let the user ascertain 'which works by a particular author' are held by the library; the

The language of the catalogue and the form of heading

second term is essential because it lets the user find, by the same label, all the editions of the same work.²

The choice of the form of the title requires as much attention as the choice of the form of the name of the author; titles, in fact, can present variant formulations in different manifestations of the same work, because of different publishing traditions, particular interpretations of the editor, special publishing needs etc. About this topic, Pino Buizza writes: ‘The choice of the Paris Principles to prefer literary unit rather than bibliographic unit has the consequence to enhance the value of the uniform title to represent in the catalogue works with many editions with different titles. It is quite easy to ascertain the original title for modern works, but there are classes of work for which the tradition is uncertain and not surely related to one conventional title: for these work, the choice of the uniform title becomes problematic and international exchange of information requires the sharing of agreed lists’.³

The Paris Principles, at point 7, establish that the uniform heading should normally be ‘the most frequently used name (or form of name) or title appearing in editions of the works catalogued or in references to them by accepted authorities’ and specify, at point 7.1, that ‘When editions have appeared in several languages, preference should in general be given to a heading based on editions in the original language; but if this language is not normally used in the catalogue, the heading may be derived from editions and references in one of the languages normally used there’. So we can see that at point 7.1, the Paris Principles introduce the thorny question of the form of the heading expressed in a language that is foreign for the culture of the library and its patrons, and underline a dichotomy between language of the resource (that constitutes the basic criterion) and language used in other editions or in the reference works assumed as authority sources for the library. In other words, point 7.1 considers, in the frame of a general approach to the question, the possibility that the library can choose a form in the same language of the community of the library, rather than the form used in the original editions of the work. The uniform heading of an author – one can read at point 8.2 – should be the name by which the author is most frequently identified in editions of his works, in the most complete form that usually appears in them, excepted for what is provided at point 8.21: another name or form of the name must be preferred as uniform heading if it has become constant in general use both in references to the author in biographical, historical and literary works, and in relation to his public activities, different from the authorship.

To sum up, we are required to choose:

1. the *name most frequently used* in the editions of the catalogued works;
2. a *form taken from bibliographic sources* in a language usually adopted in the catalogue, if the language of the edition in hand is not used in the catalogue;
3. the *form of the name constantly in use*, that is to say a form different from that by which the author can be more frequently identified in the editions of his works (but what does it mean by ‘constantly?’).

The solution seems to require the collation among the various editions of the same work, to single out the more frequent form, with a preference (not an obligation) for the adoption of the form based on the editions in the original language. Paris Principles refer to catalogued works, but it is not completely clear if they mean works held by the library or works catalogued *tout court*, therefore held by libraries all over the world, that would mean the name most frequently used in the editions of the work. So, the choice of the form depends on three principles not always in agreement, but on the contrary often antithetical. Above all, the choice of the form of the name constantly in use is a source of difficulties; if it is possible, in fact, not without difficulties, to single it out for the classical authors, how can it be surely ascertained for contemporary writers or authors who are still alive?

After more than forty years, we can point out that the Paris Principles have obtained a positive result as to the choice, but not as to the form of the heading: each code followed a particular route, continuing almost always the local tradition. In effect, RICA, the Italian rules, prescribe general principles for the choice of the form applicable to classical and modern authors:

- a. ‘the name by which [the author] is prevalently identified in the editions of its works in the original text’ (RICA 50.1); general rule;
- b. the ‘name constantly used in the publications [...] even if it is not the real name or the original form’ (RICA 50.2);
- c. the most used form nowadays ‘if the name of an author is not constant in the editions of his works in the original text and there is not a prevalent form’ (RICA 51.1);
- d. the ‘name by which [the author] is most frequently identified’ if ‘in the editions of his work he uses different names’ (RICA 51.4).

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So RICA is based on four principles:

1. formal evidence on the bibliographic source (RICA 50.1; RICA 50.2);
2. the form commonly used in the general sources (RICA 52.1; RICA 52.2), because the catalogue must 'integrate with the other communication and information devices';⁴
3. the tradition of the citation (RICA 52.3);
4. the best known form of the name (RICA 53.2).

In the Final Report, the Commission observed: 'the form of the heading corresponds, as a general rule, to the one the same author chose for his publications, or to the one the author is *best known* by',⁵ but the expression 'best known' is subject to interpretation: is it the registry name? A pseudonym? The family title? The nickname? The initials? A periphrasis? An appellation?

The past participle *known* opens above all the radical question of the means of knowledge: the formal evidence of the bibliographical units, the solutions adopted in the bibliographical sources or the linguistic use of the community of reference.

THE PROPOSALS FOR THE REVISION OF RICA

From 1997 on, as a result of the setting up of a new special Commission, a new process started for a deep revision that, so far, has resulted in the publication of an organic, even if not definitive, draft of the rules for the form of the *Uniform heading – Persons*.⁶ General principles that inspire the draft of the new rules for the form of uniform headings are first of all defined by contemporary cataloguing theory and ratified by the Paris Principles (even if not always consequently developed): headings are, as far as possible, based on the 'formal presentation of the publications (that is to say on the way authors present themselves or are presented in the editions of their works, not in encyclopaedias or similar sources)' but also 'as far as possible, on original forms (the publications of the works by an author in the original language), rather than on translations or adaptations'.⁷ In the new RICA Commission's judgement, among the fundamental principles which inspire the form of the headings 'the most general and appropriate is the prevailing form in the publications, as agreed in Paris'.⁸

The new RICA Commission clearly understands the difficulties of taking up as main principle the form of the name which an author is *best known* by, because 'if one carefully considers, this is not a real principle, to

be actually followed, but a kind of petition of principle. It seems obvious that a catalogue, as a retrieval device, will try to adopt the best known forms. But if this would be a real principle, it should be well defined and above all operationally verifiable [...] we should firstly define the general context: *best known* by whom? By a sample of the community or by the patrons of the library (who are a minority, often very reduced, of the community)?⁹ To sum up, the *best known* formula should be explained by one of the two possible references: ‘the publications themselves or the reference authorities’.

After underlining the deep difference among the functions of the catalogue and of the reference authorities (the former to be referred to the universe of publications, the latter to biographic, historical, administrative information, etc.), the new RICA Commission reaffirms that ‘the recent evolution of information technology asks for emphasis to be put on the general role of the publication principle and for circumscribing, as far as possible, the role of reference authorities’.¹⁰ This choice is based on several reasons: first of all ‘the function of reference authorities [...] is not access to publications, but, for example, biographic information, historical information, administrative information etc.’; secondly, the suggestion for circumscribing the role of reference authorities comes mainly from practical reasons. The normal conditions of today’s cataloguer induce us to follow this direction: ‘Today any cataloguer has access to on-line information and to large OPACs (from SBN to those of the main national libraries), can easily find bibliographic records of a very large sample of the publications produced from the creation of the printing onward and described by ISBD standards, that provide for faithful transcription of the information we need to formulate the access points’.¹¹

In a general line that aims to reduce to the utmost level any exception to the fundamental principle of the form of name in the ‘original language’, the new draft opposes creating separate headings for the same person, as prescribed by AACR2. The rationale is that, over time, the separate headings merge as catalogue users come to know the author primarily by one name (e.g. the name could be a pseudonym). As for pseudonyms, references from alternative and variant names to a single heading are just as effective as multiple headings with references between them. It should be noted, at this point, that this choice could not be so clear to the end user, who usually searches for the form of the manifestation, regardless to its being a pseudonym or other bibliographic identity. This question is still open and it brings us back, once again, to the main

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choice among the original language and one convention or another. This is the real rationale of the second principle of the Paris Principles, that provides: ‘when editions have appeared in several languages, preference should in general be given to a heading based on editions in the original language; but if this language is not normally used in the catalogue, the heading may be derived from editions and references in one of the languages normally used there’ (7.1).

The same question very much calls to mind the not easy choice of RICA for the names of ancient writers: in the past many codes provided for the use of Latin, because the reference authorities adopted a Latin form or a cultural convention based on Latin form, instead of the vernacular form of the name or in the original language, and RICA rules were based on the advisability of agreeing with them all.

Nevertheless, for a long time, the largest part of the reference authorities use the vernacular form and the catalogue too should adopt this solution. In the perspective of the catalogue as a historically determined device, the choice of the Latin language was justifiable as a learned language, as a scholars’ language; today no more, because it does not have this function anymore or it still does only for a very small number of persons. In Italy, the catalogue has adopted as standard language the Italian one for a long time. So, only the following two possible solutions remain:

1. to express the authors’ name in the language they used to write their works (or the largest number of them): in an ancient language for classical authors and in the original language for authors that used languages in non-Latin characters (e.g. Chinese or Arabic);
2. to express the authors’ name in the form established by use, in the language of the country of the bibliographic agency or, better, in the main language of the catalogue (in Italy, Italian), as done by the largest number of the modern codes and of national bibliographic agencies, assuring access anyway by the creation of a parallel heading in the language the authors used to write their works (or the largest number of them).

Both solutions – personally I am in favour of the latter – allow us to overcome the inconsistency, unsustainable in an electronic catalogue, between the subject index in Italian, as provided for by *Soggettario*, and the author index in Latin, as provided for by RICA at the moment.¹² Cataloguing is a language that has the goal of communicating, and effectiveness is

increased the more it reflects the principle of the linguistic use and users' customs.

In Maltese's opinion, this was the crux of the question, at least since 1966, when he suggested the Italian form of the name for classic authors.¹³ In one of his last contributions on this matter, immediately after the publication of RICA, Maltese still shows doubts on the two possibilities: 'RICA strictly respects the principle of uniform heading for the name most used to identify the author in the editions of his works, but perhaps they did not draw all the necessary conclusions relating to the exception in favour of another name or form of the name that become constant or prevailing in the general use of current literature or in the most common reference authorities [...]. When RICA was written, it was not even thinkable to bring a secular tradition of use of the Latin form of the ancient authors' name into question, but perhaps today, when the maintenance of the learned tradition of the old Europe would not grant any uniformity in headings at an international level, the exception provided for by Paris Principles could be more carefully recognised and extended to all the cases in point.'¹⁴

Examining the question, we should not forget that the principle of the original language already showed its weakness on a practical and international level with the attempts made by IFLA to prepare authority lists based on original forms.¹⁵

If our predecessors, who used Latin, recorded in Latin the name of a Greek, or Arabian or Chinese ... author, and the name of the pope, why can we not record these names in Italian? Is the time not ripe for updating the catalogue with the language we commonly use?

To sum up, the problem of the language to be used in the catalogue consists, since Cutter, in a continual alternation, that is uncertainty, among three different options: original language, conventional form and common usage. As to original language, it offers the advantage of being philologically correct and always ascertainable and, at first glance, it seems the best, if not unique way to satisfy the objectives of the catalogue. Nevertheless, while the choice of the original language assures uniformity, it is not always a suitable criterion to reach the users of the catalogue.

Conventional forms, explicated mainly by expressions like 'best known', are adopted when it is impossible to satisfy the functions of the catalogue using the original language; among publishers, it is a common practice to adopt conventional names for Arabian or Chinese authors' names (e.g. Ben Jalloun or Mahfuz), because the original names could puzzle the users

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and have opposite effects. Conventional names introduce the third option for the catalogues, that is common usage. Users are more suited to common usage, which corresponds better to the needs of the catalogue as communication device among peoples, towards real and not hypothetical users. Each code of rules dwells upon these options, searching for the right balance between philology, conventions and common usage.

The question of the language of the catalogue, i.e. original versus vernacular language, could be expressed in a different but substantially identical form: must we serve international cooperation or end user? Do we desire a name to identify uniquely and universally an author, or do we want a user-friendly access for our end user? To sum up, as we would surely prefer to satisfy both kinds of needs, the right question could become: how can an international authority file, such as VIAF, answer to both of them?

NOTES

1. Carlo Revelli, *Il catalogo*, with the assistance of Giulia Visintin. 2. ed., Milano: Editrice Bibliografica, c. 2004, p. 228; also the following pages up to p. 232.
2. Maria Vittoria Gambelli, *Forma dell'intestazione (RICA, par. 49–63)*. In: *Le Regole italiane di catalogazione per autori e la loro applicazione: atti del seminario di Roma, 2–7 marzo 1981*, a cura di Anna Giaccio, Maria Grazia Pauri. Roma: ICCU, 1985, p. 121.
3. Pino Buizza, *La catalogazione dopo Parigi: attività normative e strumenti per il controllo bibliografico universale, 1961–1997*. Udine: Forum, 1998, p. 33.
4. Diego Maltese, *Principi di catalogazione e regole italiane*. Firenze: Olschki, 1965, p. [3].
5. *Relazione della Commissione incaricata della revisione delle Regole italiane di Catalogazione per Autori*. Roma: ICCU, 1979, p. xiii.
6. *Intestazione uniforme-Persone* (text updated to 21 December 2004), http://www.iccu.sbn.it/PDF/Intestazione_uniforme-Persone.pdf.
7. Alberto Petrucciani, *Ragioni e principi della revisione delle RICA: per un nuovo codice italiano di catalogazione*, pp. 149–184. Bollettino AIB. Roma, vol. 45, n. 2 (2005), p. 161.
8. 'The *uniform heading* should normally be the most frequently used name (or form of name) or title appearing in editions of the works catalogued or in references to them by accepted authorities.' (§ 7). As to single personal author, 'The *uniform heading* should be the name by which the author is most frequently identified in editions of his works' (§ 8.2), but specifying (see § 7.1. reminded at note § 8.2) that 'preference should in general be given to a heading based on editions in the original language'. For exceptions (8.21) see below.
9. Ibidem.

10. Ibidem, p. 162
11. Petrucciani, *Ragioni*, p. 162.
12. *Soggettario*, the Italian guide for the subject catalogues, p. xx, is favourable to 'a larger use of the Italian language' based on the special scopes of the subject catalogue, and not – as somebody sustains – because of more popular scopes for the subject catalogue than for the author-title catalogue. Cf. *Soggettario per i cataloghi delle biblioteche italiane*, a cura della Biblioteca Nazionale Centrale di Firenze. Roma: [Centro Nazionale per il Catalogo Unico delle Biblioteche Italiane e per le Informazioni Bibliografiche], 1956. See also *Manuale del catalogatore* a cura della Bibliografia Nazionale Italiana. Firenze: [Biblioteca Nazionale Centrale di Firenze], 1970.
13. Diego Maltese, *Elementi di catalogazione per autori: scelta e forma dell'intestazione*. pp. 209–223. In: Accademie e biblioteche d'Italia. Roma, a. 34 = 17 n.s., n. 4 (luglio-ag. 1966), p. 219.
14. *La catalogazione verso il futuro: normative, accessi, costi: atti del seminario, Roma, 13 marzo 1998*. Istituto centrale per il catalogo unico delle biblioteche italiane e per le informazioni bibliografiche. Roma: ICCU, 1998, pp. 31–32. See also Diego Maltese, *I principi rivisitati*, pp. 150–159. In: Bollettino AIB. Roma, vol. 38, n. 2 (giugno 1998), in particular pp. 155–156. La proposta di usare la forma italiana del nome è stata avanzata in Mauro Guerrini, *Chiesa cattolica e santi: quale forma dell'intestazione?: una riflessione critica sul comportamento di RICA, AACR2R ed altri codici di catalogazione*. pp. 5–32. In: Accademie e biblioteche d'Italia. Roma, 63 (1995). Now in Mauro Guerrini, *Riflessioni su principi, standard, regole e applicazioni*. Udine: Forum, 1999, pp. [127]–155.
15. Mauro Guerrini, Lucia Sardo, *Authority control*. Roma: Associazione italiana biblioteche, 2003.

Tribal lays and the history of the fingerprint

NEIL HARRIS

There are nine and sixty ways of constructing tribal lays,
And-every-single-one-of-them-is-right!

Rudyard Kipling, *In the Neolithic Age* (1895)

CANTI TRIBALI E LA STORIA DELL'IMPRONTA

Dopo una breve spiegazione dei modi differenti in cui un tipografo generava varianti all'interno di una edizione fatta sul torchio manuale, il saggio descrive la tradizione dell'«impronta». Lo scopo comune di tutti questi strumenti è quello di facilitare il riconoscimento di varianti di stato o di emissione, nonché di identificare agevolmente esemplari danneggiati come appartenenti a una determinata edizione. Esistono due procedure diverse. La prima consiste nel rilevamento di parole o di caratteri da punti fissi all'interno dell'edizione: esempi sono il sistema di Robert Steele nella Bibliotheca Lindesiana (1913), i repertori di incunaboli che trascrivono la prima riga del secondo fascicolo (in particolare il Gesamtkatalog), e l'impronta LOC, ideata da John Jolliffe, che riporta sedici caratteri da quattro luoghi differenti. La seconda rileva la posizione della segnatura rispetto al testo nella riga finale della pagina soprastante, come nel catalogo STCN e nel «Bibliographical profile» recentemente ideato da Douglas Osler. I tre principali sistemi (LOC, STCN, Osler) vengono applicati ai casi rappresentati dalla contraffazione della princeps delle Prose di Pietro Bembo (1525) e alle edizioni cinquecentesche del Morgante di Luigi Pulci, di cui un elenco si trova in appendice. La valutazione dell'impronta LOC, che è stata ingiustamente criticata, deve tenere conto del fatto che fu concepita per essere utilizzata in un ambiente elettronico, come quello del Censimento delle edizioni italiane del Cinquecento, in cui si è rivelato un descrittore utilissimo per ordinare e reperire nuclei di voci, mentre altri metodi, essendo più soggettivi, rivelano limiti nell'abbinamento con il computer. La conclusione è che l'impronta, qualunque sia il sistema adottato, rappresenti uno strumento indispensabile della catalogazione moderna.

The place, the time, the audience, all constitute an irresistible temptation, resisting temptation has never been one of my better virtues, and therefore, also because the epithets seem appropriate and right, let me begin with a resoundingly declamatory: Friends! Romans! Countrymen! No matter how banal, this perfect opening allows me to carry on and say that I come not to praise the Fingerprint, nor to bury it. And, unlike Mark Antony, I shall stick closely to the agenda that has just been outlined. The aim of this paper is to furnish a brief comparative survey of a number of different, sometimes rival, sometimes complementary, devices that can be loosely grouped under the denomination: Bibliographical Fingerprint. The need to obtain proper information about the settings of type from within the body of early-printed artefacts, both as a way of recognising these books and as a means of discovering variants, was first expressed well over a century ago. More recently, but still fifty odd years ago, Fredson Bowers remarked that 'If we are sincere in desiring to record the true details by which to identify books, let us deliberately describe books as if they had no title-leaves', i.e. as purely material objects, and the implications of this statement still have to be worked out fully by later generations of scholars, especially those in the field of cataloguing early-printed books.¹ After a survey of the history of these various systems, this paper attempts a comparison between three devices that are actually being applied in present day catalogues and bibliographies. The first is used in a broad international context, albeit with a concentration of interest in Italy and in Germany; the second is employed in two specialist bibliographical projects in the Low Countries; and the third is to be found in the work of an individual scholar constructing a repertory of legal imprints.

The existence of rival systems brings us to the fact that partisanship has been a dominant feature of the discussion rotating around the Fingerprint as a concept and as a device. Part of this tendency is undoubtedly due to advocacy by the propugnators of the various methods, since, even in an atmosphere as rarified as hand-press book cataloguing, a touch of salesmanship, in which one's own product is good and other products are marked out as inferior, inevitably creeps in. It serves little purpose to enter into the merits of these various criticisms, claims and counterclaims, partly for reasons of space, partly because much of it is irrelevant to the application of the Fingerprint in a modern bibliographical context. A willingness to indulge in rational comparison is thus essential to understand the present paper. Like many people who have grown up with a particular way of doing things, one always prefers a familiar devil, since both its virtues

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and its defects are known. When a different way is proposed, it is all too easy to adopt a mother-in-law attitude and refuse to contemplate any alternative of any kind, not because the other system is intrinsically good or bad, but simply because it is different from what we have always been used to doing. What has never been proposed, and in retrospect the omission appears a surprising one, is a thorough comparison between different ways of constructing Fingerprints, including their application to the description of the same books. This paper will therefore explore a certain number of case studies on this basis, with conclusions that might prove surprising to some.²

The nature of the *querelle* surrounding Fingerprints³ has disguised one significant fact that the architects of large cataloguing projects ought to take into account. Once people have got into the habit of using them, they are very reluctant to stop using them. I confess that, whenever I have to compare a printed book to its catalogue description, the Fingerprint is usually the first item I check, if available, as a first step towards establishing the identity of the edition. While most of the attacks on the concept and on the use of Fingerprints derive from scholars who are not involved in cataloguing as a day-to-day activity, many experts in the field of hand-printed books, whatever system is being touted, are united in their positive view of such devices. In other words, though opinions might well differ about the efficacy of one Fingerprint system with respect to another, doing without them is an option few genuine professional users are willing to consider.⁴

Having now, in truly Shakespearian fashion, expressed our darker purpose, it behoves us to define the two basic questions that are being asked, i.e. what do Fingerprints do and do they really work? Before embarking on this quest for the siege perilous, a brief explanation of the technological features of early printing methods might help neophyte readers to understand how books produced on this mechanism can transform themselves into a bibliographical maze. (For other readers this explanation may prove old hat and therefore I invite them to jump forward to the next paragraph.) Books printed with hand-set type are never produced all in a piece at one single moment in time; they are created instead through a series of typographical units called formes. To print a sheet of paper on both sides, two formes were usually employed. While the forme was under the press, at any moment the work could be stopped and alterations made to the text. Renaissance printers in particular worked with a very small supply of letterpress, so that the intervals between a forme being set, the proofs

being pulled and corrected, and the print-run itself were necessarily tight.⁵ If however, while the forme was being printed, an error was noticed or an improvement to the text was requested, it was a simple task to stop the press for a few minutes, make the required change and resume work. The sheets with the earlier and less correct reading – in bibliographical parlance a *state* – were not discarded but distributed among the copies.

This technical possibility of halting the impression in order to modify the forme constituted, however, a potentiality that by the end of the fifteenth century and increasingly through the course of the sixteenth-century printers learnt to exploit in a creative fashion, not just in order to provide a more correct text, but also in order to manipulate the way a book addressed itself to a public of readers and purchasers. One favourite trick was to alter the date on the title-page or in the colophon: in the edition of Bembo's *Rime* published by Giolito in Venice, some copies have 1569 [Fig. 1] and some have 1570 [Fig. 2].⁶ Love of truth constrains me to introduce a further complication, or the fact that the edition is in two parts, since the poems are followed by a separate rhyme-concordance, which has its own title page and on which the same typographical artifice has been employed. Worse still, the person who a little under five centuries ago in the Giolito warehouse assembled the copies was wholly careless about matching 1569 part I with 1569 part II and likewise 1570 part I with 1570 part II and therefore procreated in roughly equal proportions four bibliographical combinations, i.e. 1569 [I] + 1569 [II], 1569 [I] + 1570 [II], 1570 [I] + 1569 [II], 1570 [I] + 1570 [II]. The outcome is a sad puzzle and, as in the children's song where a kingdom is lost for the want of a horse-shoe nail, here, if not wholesale loss, mild havoc ensues from the manipulation of a couple of pieces of lead: ensues, that is, if we do not adopt the viewpoint of the makers of these books and recognise these variants as no more than ordinary administration in the production of an edition.

Instead of considering such manoeuvres as vile, we need to understand how up to the eighteenth century the publishing trade was dominated by a single profession, that of the bookseller. People might be printers, they might be publishers, but they all sold books and their prime common concern was to find stratagems that would make it easier to push their merchandise across the counter.⁷ Changing the year on the title-page, as described above, allowed a printer, who was also a publisher, who was also and above all a bookseller, to pass mutton off as lamb, giving the impression that a book printed up to twenty-four, thirty-six or even forty-eight months ago, had come freshly off the presses. Returning to Giolito,



FIGURES 1 & 2 Two issues of Bembo's *Rime* with variant dates (1569 and 1570). (Florence, Biblioteca Nazionale Centrale)

who was extremely fond of manipulating dates in this fashion, in 1565 he issued a voluminous tome containing the translation into Italian of Dio Cassius. Not being unduly optimistic about its bestseller potential, the date on the title page was changed three times to read 1566, 1567 and 1568. In all events his pessimism was justified, since, after his death in 1578, his heirs, seeking to clear the warehouse, reissued the residual copies employing the same trick, because copies can be found with dates 1584, 1585 and 1586.⁸

A touch of artifice in presenting the information on a title-page could also signify changing the name and the mark of the printer/publisher. At times this took the form of a simple sharing: for instance, if we continue

to look at Giolito as a constant practitioner, his edition of Bede in 1543 was co-published with the heirs of his cousin Stagnino, so that the title-page variously reads ‘Venetiis, apud Gabrielem Iolium de Ferrariis, 1543’ or ‘Venetiis, sub signo sancti Bernardini, 1543’, while the colophon, with even greater variety, has ‘Venetiis, apud Gabrielem Iolium de Ferrariis de Tridino Montisferrati, 1543’, or ‘Venetiis, sub signo sancti Bernardini, 1543’, or ‘Venetiis, apud Gabrielem Iolium de Ferrariis de Tridino Montisferrati characteribus Bernardini Stagnini sibi accomodatis, 1543’ (some copies have ‘sibi concessis’).⁹ Two variants in the sheet containing the title page and four in the colophon, giving a total of eight potential combinations, might reduce a temperamentally inclined librarian or literary scholar to tears, but true bibliographers will be exhilarated rather than daunted by the prospect. At times the alterations were made on an even more impressive scale: the 1584 edition of the works in Latin of Saint Augustine was published in Venice in eleven volumes, each of which has six variants, rotating the names and marks of the consortium formed by Franceschi, Giunta, Sessa, Valgrisi and Zenaro (the latter obtained a further variant with the name of the bookshop at the ‘sign of the fountain’).¹⁰ Again this sort of manipulation, infinitely small in typographical terms, can engender bibliographic and catalographic chaos unless we learn to see it for what it was, a rationale for marketing books, in which the cost of a large, expensive, slow-selling edition was split between six publishing outlets, each of which required a block of copies with their own name on the title-page.

What bibliographers call ‘standing type’ was an extremely rare phenomenon up to the eighteenth century,¹¹ which also saw the introduction of stereotyping. But accidents and miscalculations were commonplace, so that sheets which had been printed off were discovered to have omissions or errors that could only be remedied by resetting them *ab initio*. In more precise terms, when type was reset, five possible causes are usually at the root of the problem.¹²

1. A forme was broken up before the press-run was completed, probably because it was dropped while being taken off the press for correction or to make way for another more urgent piece of work. Instances are rare, though many certainly still have to be recognised, since only one of the formes used to print the sheet was involved and it was reset in exactly the same fashion.¹³
2. A shortfall took place in one or more sheets in the original press run. The printer therefore reset the sheet from the first state of the same

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and, since an adequate number of copies were already available, the operation of integrating the missing sheets was performed when the printing shop had some slack on its hands, in some instances quite some time after the original impression.¹⁴

3. The print-run was increased after part of the edition had been run off. This decision meant that the printer had to go back and reset the previous gatherings in order to complete the total number of copies. Since in the sixteenth century preliminaries were often the last sheets to be printed, the resetting was thus concealed in the body of the book.¹⁵
4. A change was made to the text, either to improve a reading, to correct an error or, alternatively, to suppress something. Examples are legion.
5. Old sheets are reissued as new, as took place in 1584 with the already mentioned Giolito edition of Dio Cassius. This process involved substituting the entire title page, usually by reprinting the whole sheet, but in the Renaissance it can also involve the replacement or the elimination of a colophon. Examples again are too numerous to list.

The history of analytical bibliography in the course of the twentieth century has been largely about finding variants such as these and making sense of them.¹⁶ Before we discuss Fingerprints proper and their application to the detection of variance, it is necessary to point out a fallacy common to all the systems shortly to be described. Quite simply, as has been explained above, since every forme used to print a book represents a distinct physical unit, unless we devise a control method capable of checking every single one of them, which would be impossible to apply, there is no guarantee that the Fingerprint will chance on the telling difference in an edition. It has to be seen therefore as a trip-wire or an alarm-bell, which plays on the likelihood that a printer seeking to manipulate the appearance of an edition will follow a certain typographical route, for instance changing the preliminaries of an edition.

Our bibliographical thinking always has to take account of the fact that the physical difference is still a sign that has to be interpreted and understood. To take a further Shakespearian parallel, as the drama in *Othello* moves towards its climax and as the hero's certainty of Desdemona's unfaithfulness grows, Othello torments himself with the symbols of his invisible cuckoldry, crying out that 'a horned man's a monster and a beast', to which Iago blandly replies that 'there's many a beast then in a populous city, / and many a civil monster' (IV, 1). The excruciating pun, quite

possibly the worst in the whole of English literature, encapsulates the dilemma of not a few bibliographers and cataloguers of printed artefacts: face to face with the faithlessness of the material object, we are all cuckolds, whether real or imaginary is up to how we interpret the evidence. In Shakespeare's story the handkerchief, given by him to Desdemona as a gift and stolen by Iago to implicate her, tells Othello that something is amiss: the material object is, so to speak, performing its appointed task; the hero's reading of the evidence, however, vitiated by Iago's malice, goes awry and thus precipitates the final tragedy. If bibliography is not to find itself in a similar bloody shambles, it has to ensure that material evidence and the signs pointing to that evidence are correctly interpreted.

An all too common complaint about Fingerprints, for instance, is that they do not tell the user what is happening. Of course they don't. They only tell you that something might be happening. An alarm will often go off for no apparent reason; it may be a breath of wind or the cat; but it may also be a six-foot masked intruder with a kalashnikov and evil intentions on your jewellery. When it goes off, the only safe policy is to get out of bed and look. When installing an alarm, only a fool does not recognise that a clever or a lucky burglar might nevertheless circumvent the system. This does not mean that the alarm is a failure; it simply means that no system is completely secure. The fact remains that a house protected by an alarm system will always be safer than a house without one.

A second deeper misapprehension relating to Fingerprints is that bibliographical investigation somehow requires them in order to uncover variant settings or to establish that two apparently different settings are in fact one and the same. Behind this misconception there may be a residue derived from claims made for such devices in the period when they were first experimented and introduced. Experience has since made it clear that fingerprints function in quite a different manner, though no wise researcher will neglect to keep an eye on the Fingerprint as a trip-wire that, if triggered, sometimes draws attention to fascinating bibliographical conundrums. Bibliographical analysis and description in fact has a series of thresholds: these go from the short-title format, in which only the most essential data is given and in which only the variants affecting the presentation of the edition receive mention, to a full-scale collation employing an optical collator, in which even minute differences, such as damage to type, are described.¹⁷ If all published books were to undergo the same extensive bibliographical investigation as has been meted out to the Shakespeare *First Folio* of 1623, devices such as Fingerprints would be redundant. But

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the truth is that expert bibliographers are few and far between (and miserably underpaid), that printed artefacts are widely dispersed, that libraries hold an enormous quantity of books, often in a damaged condition, that are poorly described or have not been described at all, and that the number of editions printed still awaiting investigation beggars all understanding. When we talk about Fingerprints therefore, the emphasis should not be on a be-all-and-end-all instrument, but on a very simple and even primitive finding and sorting tool.¹⁸

In any survey of the Fingerprint as a bibliographical instrument, the three main considerations have always been the universality of the application, the facility of understanding, and the rapidity with which it can be applied: in other words no system stands any chance of success unless it is easy to understand, quick to use and makes obvious sense. A Fingerprint therefore has a primary purpose: it has to act as a recognition code identifying a specific edition (or group of editions) without confusing it with others.¹⁹ It has a double secondary purpose: it has either to *conjoin*, i.e. recognise that, though two books might appear different in terms of the date or the printer/publisher named on the title-page (and/or in the colophon), it is nonetheless the same edition; or it has to *separate*, i.e. distinguish two books, which ostensibly are the same, but which in their typographical settings are somehow divergent. For a Fingerprint to be efficacious, therefore, it has to perform these tasks and it also has to be able to express itself through a clear and unambiguous system of annotation. Experience of Fingerprints employed in on-line catalogues in recent years adds a further important requirement: it should be possible to use the Fingerprint, in whole or in part, as a short cut to finding a particular edition, without having recourse to other data.

When we talk about the need for the Fingerprint to be universal in its application, this also has to signify an instrument that works equally well in the hands of very different users. It is one thing for an individual bibliographer or for a small group of scholars, united in a circumscribed project, to conceive a method and a notation that suit their particular and private needs; it is quite another to produce a universal, all-purpose device, one which can be useful to specialists at one level and at another be employed by cataloguers, who have only a limited knowledge of the problems posed by the edition produced on the hand-press, but who nevertheless have to furnish a description of the book they have in front of them. In the first case both the method and the relative notation can be subtle, even arcane; in the second, the simpler the better.

As any inquiry into the history of Fingerprints rapidly establishes, two essential procedures and principles have been suggested over time, as follows:

1. *The placing of particular words, letters, or symbols on particular pages.* The earliest reference to such a usage, as a way of distinguishing different typographical settings, appears in 1893 in an article by the Oxford librarian and bibliographer, Falconer Madan, who suggests ‘the mention of the first words of page II (and occasionally 101 or 501) to identify imperfect copies and to separate different issues.’²⁰ Two useful observations can be made in this context: first, on a purely practical level, Madan, who was aware of the cataloguing difficulties encountered in libraries over a century ago, also sees the device as a way of identifying damaged copies;²¹ second, the fixed points suggested are all a certain distance into the body of the book: in the hypothesis of an edition with the structure A–Z⁸ and paged from the beginning, p. II corresponds to f. A5^r,²² while p. 101 falls on f. G3^r. In a later contribution of 1908, Madan suggested that ‘for identification of imperfect copies, or varieties of editions [...] give the first (or last) two or three words of pp. II, III, IIII, or on signn. C1^r, Cc1^r.’²³ Again it is worth emphasising how the recommended points are materially well inside the artefact and thus have a better chance of surviving in the event of a copy being damaged.

A couple of years later, in the bibliography of royal proclamations that forms the fifth volume of the *Bibliotheca Lindesiana*, Robert Steele provided the first practical example of a Fingerprint, albeit not under that name. His method consisted essentially in three/four fixed points: these were the last word of the first line of the text of the document; the word at the lower right-hand corner of the large initial woodcut letter, which is always included as the *incipit* of the text of the proclamation; the last word of the first line of the second leaf, if present; and the last word of the last complete line of the text, independently of the page on which it was to be found.²⁴ What is, in deference to its origin, termed ‘Steele notation’ has subsequently found its way into the electronic bibliography, conceived by Robin Alston and known originally as the *Eighteenth-century Short Title Catalogue* (ESTC), now subsumed into the much larger *English Short Title Catalogue* (which also enjoys the acronym ESTC). Steele’s *modus operandi* is based of course on the fact that the documents concerned are often devoid of precise typographical information, though reliance can usually be placed on the date of the proclamation, and are also simple in

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structure, since they consist for the most part in no more than a couple of leaves.²⁵ Although it chooses whole words rather than a fixed number of symbols, the method prefigures much in the subsequent LOC Fingerprint and the inventors of the latter system were certainly aware of this precursor.

Not mentioned in the critical debate so far, but certainly relevant, is the practice of the *Gesamtkatalog der Wiegendrucke* (GW), from the first volume published in 1925 up to the present day, of transcribing the first line of the second gathering in large books (and a suitable equivalent in shorter books), though the method itself is older and seems to go back to the catalogues drawn up around the turn of the century by Marie Pellechet. The bibliographical criterion, perhaps because judged obvious, has not received – to my knowledge – any discussion. This simple device is surprisingly effective, not only for identifying damaged copies, but also as a rudimentary sorting mechanism for editions reprinted on a line-by-line basis. Again it should be pointed out that the method derives from the experience of the scholars who conceived the project. Not only are incunabula generally lacking in title-pages and other paratextual paraphernalia, but when reprints are set in type there is a greater variety in the employment of abbreviations, even when a previous model is being closely followed. This method therefore, which works less well when applied to a later period (see the examples in the Appendix), is fully effective within the time-scale represented by the fifteenth-century book.

The final and best known stage in this particular application is the LOC Fingerprint, thought up by John Jolliffe (1930–85), as part of a pioneering automated cataloguing project. LOC stands for London-Oxford-Cambridge, which in the strange parlance of the English *STC* catalogue really signifies the British Library, the Bodleian Library and Cambridge University Library.²⁶ After a series of trials and experiments in the course of the seventies, a trilingual manual of instructions and a valuable selection of images with practical examples were published in 1984.²⁷ For those not familiar with the Fingerprint, its principal feature is that it consists of a sixteen-character set taken from four separate points in the book described. The *first* group is made up of the last two symbols, including punctuation, from the last line and the last two from the penultimate line of the first printed recto following the title-page. The *second* group is constructed in the same fashion, as far as the choice of symbols is concerned, and is taken from the fourth following recto, not counting any blank leaves. The *third* group follows the same principle in terms of its

construction and comes from the first recto numbered 13; if there is more than one such page, an arabic numeral prevails with respect to a roman one;²⁸ if there is no recto numbered 13, the choice falls on 17 (again with arabic prevailing over roman in the case of more than one sequence); if there is no recto numbered 13 or 17, or if the leaves/pages are unnumbered, the group is taken from the fourth recto following that provided by the second group. For the *fourth* group a variation is introduced, since it takes the *first* two letters from the last line and the *first* two from the penultimate line of the verso of the leaf/page used for the third group.²⁹ A series of subordinate rules prescribe solutions for situations where the layout of the page poses a complication, such as columns (always take the left-hand one), text surrounded by commentary, lines with only one symbol, symbols with abbreviations or not in the usual character set, and so on. Other rules govern situations such as very short texts, where the Fingerprint simply backs up, since, even with items printed on a single page, it is always necessary to fill in the whole sixteen-character set. The Fingerprint is completed with three other elements: a symbol placed in round brackets indicating the provenance of the third group (3 = 13, 7 = 17, C = counted), the date of the edition, and a further symbol, again in round brackets, indicating how that date is formulated in the book or has been arrived at (R = roman, A = arabic, are the most usual solutions).

What precisely happens therefore when a LOC Fingerprint is taken? Experience shows that it has a kind of scatter-gun effect and that the four groups tend to behave in quite different ways. Even though the groups are not linked to the signing system, as happens in other methods, it is unusual for all four groups to fall within the same gathering.³⁰ If we presume that a book has a structure of the kind a⁸ A–Z⁸ and that it is numbered by pages from A1 onwards, the groups providing the Fingerprint will be found on ff. a2^r, a6^r, A7^r, and A7^v; if the preliminaries are less than four leaves in extension, the second group shifts into the main body of the book. In terms of Renaissance publishing, when something happens, the preliminaries are usually altered by an insertion or a *cancellans*, while the main text is left unchanged: in the Fingerprint this shows up as a difference in the first group and sometimes in the second, whereas the third/fourth remain the same. Experienced users of the LOC Fingerprint will confirm that, when variance occurs within an edition, this is the commonest pattern.

The second method involves two slightly different procedures, which we shall treat separately.

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2a. *The position of the whole signature with respect to the word above it.* Rather curiously, but perhaps not unsurprisingly, the genesis of this method can again be traced back to Falconer Madan, or at least he deserves the credit for being the first to mention it in print. In the already cited 1908 article, after describing the fixed word method, he continues: 'It may be noted that the readiest method of distinguishing a reprint from a reissue, is to note the exact position of the signatures on a few pages in relation to the letters of the text immediately above them. A re-printer never adheres precisely to the usage of the original edition'.³¹ In 1975, in the introduction to his *English verse, 1701–1750*, David Foxon described his own particular bibliographical method in the following terms:

Soon afterwards I heard Fredson Bowers read a paper to the Bibliographical Society on his bibliography of the Restoration drama, in which he described his technique of comparing as many copies as possible of each edition with a control copy on microfilm. The points that impressed me most were the number of unrecorded variants, issues and even editions which could be found only by personal examination of multiple copies, and his argument that the more copies a bibliographer has examined, the more safely can his descriptions be condensed. It became clear to me that though my catalogue could not provide full bibliographical descriptions, any attempt to produce a reliable work must involve seeing as many copies as possible myself and not relying on published catalogues or other second-hand sources. As a check against concealed editions, reset sheets, and reissues I decided to adopt Falconer Madan's practice of recording the position of signature letters relative to the text above them, a method of identification I had already come to trust and one which was far cheaper and easier than the use of microfilm. Needless to say, it cannot provide the precision of Bowers' technique, and the user of this catalogue will soon become irritated by the frequency of notes like 'apparently a reimpression' or 'sheet apparently reset' which are based on the evidence of the signatures.³²

While Foxon modestly described his work as 'not a descriptive bibliography but a short-title catalogue with frills', there is no doubt that it had a certain influence on contemporary descriptive practice and theory, especially among those unwilling to adhere to the Bowers paradigm. From our point of view it is important to emphasise that it is the work of a single scholar, in full control of his material and with ample opportunities to check copies in different libraries. His catalogue does not, however, furnish the readings obtained from the books described, so the all-important question of finding an adequate system of notation remained unresolved.³³

Foxon's basic method was taken up and transformed into a notation instead in a significant cataloguing enterprise, begun in the 1970s as the

Short Title Catalogue of the Netherlands (STCN) or the Dutch retrospective bibliography for the period 1540–1800. Author of the adaptation, some time around 1971, was the bibliographer and father of the project, Johan Gerritsen; it was revised by the editors of the STCN to take account of computer-based cataloguing in 1982, while a summary of the method and the basic rules were published in English in 1986.³⁴ The project rests on a collaboration between institutions, coordinated by the Koninklijke Bibliotheek in The Hague, comprised within a small geographical area and able to call on the services of a team of expert cataloguers. In terms of numbers, in 2006, the file contained some 130,000 titles. The criteria of the STCN catalogue are applied also in a smaller, sister project, the *Short Title Catalogus Vlaanderen* (STCV), which describes the seventeenth-century books printed in Flanders and which in 2006 had reached a total of some 5,500 editions.

Essentially the STCN Fingerprint works as follows. Each group is formed by transcribing the letters immediately above particular signatures, including punctuation and spaces between words (rendered with a dollar sign [\$]). The signatures used are the first and the last of separately signed preliminary, principal and postliminary material: this has the consequence that the number of groups can be as high as six and as low as one, though by far the commonest options are four and two. The groups of the Fingerprint are preceded by a code which gives the year and the format of the book (i.e. 150104, signifies a quarto printed in 1501).

In terms of assessing this device as a working tool, several of the observations made above about the distribution of the groups in the LOC Fingerprint hold true also for the STCN one. The most important selection differences are, first, that the distinction between the preliminaries and the main body of the book is made more precise and, second, that at least one group comes from the end of the book. On the other hand, short texts, texts with a single printed signature, and texts without printed signatures, such as proclamations, clearly pose a problem if this method is to work on a universal basis. The solution for books without signatures consists in transcribing the text in the penultimate line placed above the prepenultimate word in the last line; but there is just a touch of desperation in the suggestion, which is not without risks. Not only can uncertainty exist about what precisely defines a word (the placing of hyphens in vernacular texts often poses ambiguities), but there is also the danger of the third word from the end of the line turning out to be a Latin superlative and thus being too long for comfort.

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2b. *The position of the first letter of the signature with respect to the word above it.* Employing the same basic principle as Foxon and the STCN Fingerprint, but referring exclusively to the position of the first symbol in the signature with reference in the line above it, are some solutions practised by individual scholars. In 1965 William B. Todd published an article describing the history of the eighteenth-century English periodical, *The Gentleman's Magazine*.³⁵ The bibliographical problem was caused by the success of the journal, which meant that the early issues had to be reprinted several times, either from standing type, or from a new composition. In order to allow scholars to distinguish between the different settings, Todd transcribed the word above the first signature in each gathering, italicising the letter directly above the first letter in the signature. Again some observations are necessary. The system is proposed in the context of an in-depth bibliographical research derived from the examination of multiple copies and is not proposed as a way of finding variant settings, since Todd's descriptions are already based on a considerable amount of data and observations not included in the text of the article. Since the variant readings are known, any ambiguities in the notation – for instance, signatures that chance to fall in the same position – can be clarified by further explanation. With respect to the functions of the Fingerprint defined above, Todd's method consists primarily in a shorthand reporting notation rather than in a finding device.

Much the same procedure reappears in the published and ongoing research of Douglas Osler, who is a bibliographer specialising in the history of European legal imprints at the Max Planck Institut für Europäische Rechtsgeschichte in Frankfurt. In an article of 1999, unfortunately published in an obscure set of Italian conference acts, Osler furnishes an accurate and intelligent, if strongly polemical, survey of extant Fingerprint methods.³⁶ He contests both the effectiveness of the LOC Fingerprint, especially where it has to distinguish between one or more close resettings, and the abstruse character of the notation required by the STCN Fingerprint. He baptises his alternative method as the 'Bibliographical Profile'. It consists in indicating the position of the first character in the signature, separated by means of two diagonal slashes, underneath a word in the last line. The groups chosen are the first and last of separately signed preliminaries (also of postliminaries, if present) and the first signature of the first two and of the last two gatherings in the main sequence. The number of groups can rise therefore to at least eight in the case of a large and complex book. No suggestions are made about how to deal with short texts and

texts devoid of signatures: this disinterest probably reflects the bulky character of most legal writings and the fact that small items do not play a significant role in Osler's bibliographical project. Since the *magnum opus* still has to appear, it has not yet been possible to see the method in operation on a large scale, but a sample is provided by a recent short-title listing of a collection of legal imprints in Florence.³⁷ As far as evaluating the method goes, one obvious advantage is that it is not dauntingly bibliographical. When some specialist curators were asked to take the 'Bibliographical Profile' for books that had been seen for this research, but for which this device had not been noted, a couple of them remarked on the simplicity of the method with respect to other Fingerprints.

At this point in our survey we have three rival and distinct propositions, which collectively sound more like a headache than an effective way of cataloguing books. Rather than wasting time in abstract pros and cons, a better idea of the working of each system can be gathered by seeing them applied to real items. Let us start with a relatively unproblematic case: the edition of the *Morgante* by Luigi Pulci published in Venice by Comin da Trino in 1550 (the colophon has the same date). There are copies of the same book with 1551 on the title-page, so we have the trivial, but delightful, bibliographical pursuit of establishing whether this is yet another case of an Italian printer modifying the date while the forme concerned is going through the press. The edition is in a quarto format and has a collational formula $*-2^*8 A-2A^8 2B^6$.³⁸ In both versions the LOC Fingerprint reads:

meer .13. e.e, VI G1 (3) 1550 [or 1551] (R).

The groups come from ff. $*2^r$, $*6^r$, $A7^r/v$, so both the preliminaries and the body of the book are being verified. The total length of the Fingerprint is 23 characters. The STCN Fingerprint reads:

155004 - a1 $*2$ \$8.col : a2 2^*4 \$ - b1 A1 e : b2 2B3 e\$parte.

This might sound like gibberish, or just Dutch, but it makes perfectly good bibliographical sense. After the year and the format (with a possible variant 155104, due to the change of the date on the title-page), the hyphen introduces the first indicator (a1) with a reading taken from f. $*2^r$; it is followed by a punctuation sign (: [colon]) and by the second indicator (a2), giving the last signed preliminary, which falls at f. 2^*4^r (which happens to be a space between two words, rendered with the dollar sign [\$]); the third (b1) and fourth (b2) indicators fall respectively at ff. $A1^r$ and

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at 2B3^f (in the latter the final full stop is part of the reading). The STCN Fingerprint convincingly establishes what was already a strong suspicion on the basis of the LOC Fingerprint, i.e. that the two versions represent no more than an infinitesimal alteration of state on the title page. It is nearly twice as long and contains 42 characters. The ‘Bibliographical Profile’ employs six groups to describe this book and reads:

*2 car./ /8 2*4 car./ 1/26 A fron/te/. B2 co/no/sca 2A2 f/ue/. 2B2 past/o/re.

This requires relatively little comment or interpretation, apart from a note about the fact that, since the text is in verse, quite often a signature does not have a word above it and therefore, in three instances, the reading has not been taken from the first leaf in the gathering.³⁹ While this shows the flexibility of the system on the one hand, on the other it could lead to divergences in the selection of the group. Whatever the choice, the outcome is lengthy, with a total transcription of 64 characters.

It should by now be obvious that the principal source of strength, and also of weakness, of the STCN Fingerprint and, to an even greater extent, of the ‘Bibliographical Profile’, is that both have been conceived in terms of a dominant purpose, i.e. to separate editions reset on a line-by-line basis and, less frequently, to draw attention to the fact that different states or issues belong to the same edition. Let us therefore see them in action with a test case that has already caused embarrassment to Italian bibliography. Early in 1526 Pietro Bembo angrily complained that his *Prose della volgare lingua*, published only the previous September, had been pirated by another, unknown publisher. The whole matter remained mysterious until 1976, when the piracy was first identified.⁴⁰ There is no question that this sixteenth-century counterfeit is a skilful piece of deception, good enough to deceive an EDIT16 still in its teething phase, which in the letter ‘B’, published in 1989 (the first real volume of the project, since the letter ‘A’ issued in 1985 had a provisional status and was republished in 1990), failed to distinguish the piracy from the original edition.⁴¹ This setback rested very much on the inability of the LOC Fingerprint to separate two very similar typographical settings. It seems only just and proper therefore to unleash other methods on the problem: here for instance are the original and the counterfeit as rendered by the STCN Fingerprint:

Original: 152502 – b1 A2 che\$ui : b2 Q3 PVN

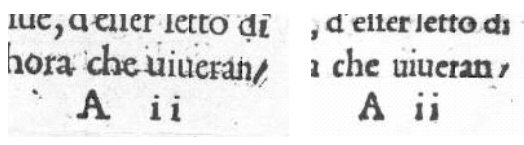
Counterfeit: 152502 – b1 A2 e\$uii : b2 Q3 PVN

And here they are according to the ‘Bibliographical Profile’:

Original: A2 /c/he B qual/ /tempo P lum/e/ Q eti/an/do
 Counterfeit: A2 ch/e/ B q/ua/l P lume/ t/ene Q / et/iando

When the two opening signatures are placed side by side, the difference between the two settings is obvious even to untrained eyes [Figs 3–4]. To all intents and purposes this case demonstrates the superiority of signature-position methods, at least in circumstances such as these, though it does also draw attention to a weakness in the STCN procedure. Any bibliographer reading the above would not conclude that these are necessarily two different editions, since the second group, that taken from f. Q3^r, is the same in both cases. It of course often happens that, when an edition is reset on a line-by-line basis, especially if the intent is to counterfeit an original, the signatures fall in the same position. If we take the Bembo piracy as an example in this sense, scrutiny of the edition as a whole shows that in 10% of instances the signature is in exactly the same position and in another 30% it is very close, enough in some cases to give the same reading. For the STCN Fingerprint to take only two groups constitutes therefore, as Douglas Osler has duly pointed out, an element of risk and does not guarantee a safe outcome.⁴²

The second problem with using a system based on the signature is nicely exemplified by an illustration on the STCN website, explaining their Fingerprint, which provides an example from a 1637 edition of Vondel. The text accompanying the illustration states that the reading is ‘,\$en’, since ‘the letter r before the comma and the space after “en” are not entirely above A2, and are therefore left out’ [Fig. 5]. Is it? to my eye the ‘A’ of the signature is covering the final ‘r’ in the word ‘Tiber’ (and therefore the reading should be ‘r,\$en’). Is it? isn’t it? does it really matter? The point is that in this situation some people will do one thing (include the ‘r’) and some will do another (leave it out).⁴³ Again random tests on sixteenth-century books suggest that this dilemma is going to raise its ugly head in



FIGURES 3 & 4 Signature position in the first edition and a counterfeit edition of Bembo's *Prose* (1526). (Udine, Biblioteca Civica, and Reggia Emilia, Biblioteca Panizzi)



FIGURE 5 Signature position on A2^r in Vondel, *Gysbreght van Amstel*, 1637. (STCN website)

some 5–10% of cases.⁴⁴ I also noticed that in my own trials, admittedly as a bumbling novice, of the STCN Fingerprint, readings quite often changed slightly when I went back to the book a second time or looked at another copy. In a controlled bibliographical environment, such as the STCN project, which explicitly follows the rule that, if there is the slightest doubt, leave it out, it is possible to reduce subjectivity to a minimum; in a freer environment, such as the Italian census, which depends a great deal on the contribution of relatively unskilled cataloguers in remote centres, or in any large collective catalogue without a controlling hub (such as OCLC, the French CCFR, or the Italian SBN *Libro Antico*), subjectivity runs amok, as the experience of the LOC Fingerprint has duly and dutifully shown.

Any and every evaluation of the Fingerprint, any Fingerprint, has therefore to draw not on what is exceptional, but on what is average. Returning

therefore to the issue of a systematic comparison between opposing methods, a test was conducted on the progress of a single text over a period of a hundred years, from the beginning of the sixteenth to the beginning of the seventeenth century. In the first instance the choice was a wholly random one, dictated by having available a short-title listing of the editions of the *Morgante*, constructed for other reasons, so that it became possible to hit a maximum number of birds with a minimum number of stones.⁴⁵ A secondary reason, one looking for a worst case scenario, did however insinuate itself: since Pulci's poem is written in octaves, the rigidity imposed on the page lay-out by the verse structure, together with the limited possibilities existing in Italian for final syllables in rhyme, made it probable that the LOC Fingerprint would perform badly and that the STCN Fingerprint would do well. Twenty-five editions of the text are known to be extant between 1502 and 1606, though others were certainly printed and have been entirely lost. The full listing appears in the Appendix: it includes for each edition, as well as the basic physical structure (format, cartulation or pagination, collational formula), the first line of the second gathering of the text (as in GW), the LOC Fingerprint, the STCN Fingerprint, the 'Bibliographical Profile', and, where I have seen the book myself, idiosyncracies in the type-setting (or 'Earmarks').

The heart of the comparison naturally rests on the LOC and STCN Fingerprints, so here is a summary of the results obtained. Where the reading is identical to that found in another edition, it is highlighted in italics.

LOC: ioio toto nono egse (3) 1502 (R)	STCN: 150208 - b1 A2 ghie : b2 &4 ebils
LOC: ioio toto toto acac (C) 1507 (R).	STCN: 150708 - b1 A2 inghi : b2 &4 lebilsc
LOC: e.te e:ce o.to ilin (C) 1508 (R).	STCN: 150804 - b1 a2 cešc. : b2 [rum]4 tišti
LOC: o.do dodo toto ioOr (C) 1510 (Q).	STCN: 151004 - b1 A2 conšlei. : b2 2B5 dišR
LOC: tete rec. o.to ilin (C) 1515 (R).	STCN: 151504 - b1 a2 ice. : b2 [rum]4 electi
LOC: tete e:e: toto acac (C) 1517 (R).	STCN: 151708 - b1 a2 šlšeli : b2 [cum]4 špaluci
LOC: tete rara riri dier (C) 1518 (R).	STCN: 150804 - b1 a2 tašpe : b2 uš došl
LOC: a.a: o.o: a.za MaDa (C) 1521 (R).	STCN: 152104 - b1 A2 e,ošc : b2 2B2 ta:ešic
LOC: tete vere toto acac (C) 1522 (R)	STCN: 152208 - b1 a2 ielšfel : b2 [cum]4: dešpu
LOC: tete vere toto acac (C) 1525 (A)	STCN: 152508 - b1 A2 šfelice : b2 2B4 usešdelšpul
LOC: tete e, re o.o, vnta (C) 1530 (A)	STCN: 153008 - b1 A2 elšfelic : b2 2A4 fiorita
LOC: tete i,ni nana Brre (3) 1530 (R)	STCN: 153008 - b1 A2 ešve : b2 2B4 [signed 2B2] arti
LOC: a,a, o.o, a,a, mada (C) 1532 (R)	STCN: 153204 - b1 A2 red : b2 2B2 ašsušpa
LOC: e.te coe- a.ea L'Ve (3) 1534 (R)	STCN: 153408 - b1 A2 rittašp : b2 2B2 š'altrasi
LOC: o.io e.re o.to vnta (C) 1537 (R)	STCN: 153708 - b1 A2 cielšfe : b2 2A4 lšsuošMart
LOC: a,a, o.o, a,a, mada (C) 1539 (R)	STCN: 153904 - b1 A2 e,ošcre : b2 2B2 ašsušpa
LOC: tete nini nana Brre (3) 1541 (R)	STCN: 154108 - b1 A2 onšneš : b2 [cum]4 štore
LOC: l-la a.a; i,ri ChDi (3) 1545 (R)	STCN: 154504 - b1 A2 onešdel : b2 2B4 hebe.
LOC: uera i,i, o.o. TuDi (3) 1546 (R)	STCN: 154604 - a1 *2 onštut - b1 A1 n : b2 2B4 ,šešfede.
LOC: tete nini tete epsi (C) 1549 (R)	STCN: 154908 - b1 A2 ešver : b2 [cum]4 ešDio

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LOC: meer .13. e.e, VIGl (3) 1550 (R)	STCN: 155004 - a1 *2 \$8.col - a2 2*4 \$: b1 A1 e : 2B3 e\$parte.
LOC: a.a, moo, a.za mada (C) 1552 (R)	STCN: 155204 - b1 A2 ce,o\$C : b2 2B2 \$sua\$pa
LOC: <i>tete nimi tete epsi</i> (C) 1560 (Q)	STCN: 156008 - b1 A2 e\$verr : b2 [cum]2 ia\$fd
LOC: e,ta 70Me o.o, EmMo (3) 1574 (R)	STCN: 157404 - a1 +2 suo\$: a2 +4 ista\$ - b1 A1 \$: b2 2B2 \$.
LOC: e,n- 70Me o.to EmMo (3) 1606 (R)	STCN: 160604 - a1 *2 otti : a2 *4 [signed +4] alista. - b1 A1 \$: b2 2B2 co\$.

In all honesty the sterling performance of the LOC Fingerprint, in a test deliberately weighted against it, was something of a surprise. On three occasions it gives pairs of identical readings, but otherwise it separates the editions into manageable units. As was predictable, STCN did a better job on the whole, although in one case the second group is the same. Obviously the ‘Bibliographical Profile’, as can be seen from the Appendix, was entirely successful in distinguishing the different settings.

We seem to be heading towards a univocal solution, one in which the ‘Bibliographical Profile’ is going to be by *force majeure* and public acclamation recommended for universal adoption. I have a troubling suspicion, however, that this conclusion will not have experienced early-book practitioners dancing for joy in the aisles. The reasons are obvious: on average it is twice as long and twice as cumbersome as the STCN Fingerprint and some three to four times longer than the LOC Fingerprint;⁴⁶ it requires careful transcription and, where the position of the symbol is uncertain, no two cataloguers are going to render it consistently in the same fashion. Is this outcome so very necessary? Experience teaches that look-alike editions form a small percentage of total book output and that they are best dealt with through traditional bibliographical inquiry. The easiest way to tell the counterfeit edition of Bembo’s *Prose* from the original is to look at the colophon: in the genuine *princeps* the last two words read ‘le stampino’, while the pirate reprint has an erroneous ‘la stampino’. This last difference is what I call – with thanks to Paul Needham, who has suggested this useful term⁴⁷ – an ‘Earmark’, i.e. an idiosyncratic difference, in this case an error in the text, that clearly distinguishes two different typographical settings. It is a simple enough task for the two editions of the *Prose* to compile a list of Earmarks that distinguish them apart. The principal characteristic of an Earmark is that the variants have to be known and based on careful comparison, i.e. it is a pure descriptor: this fact obviously separates it with respect to the trip-wire principle which lies at the heart of the Fingerprint.

For all its virtues, the ‘Bibliographical Profile’ is akin to going out always with an umbrella, even on a fine day. Of course an unexpected

thunderstorm might blow up and catch one unawares, so that proponents of the umbrella-ever-with-one theorem can have the vicarious satisfaction of sometimes being right, but for most of the time it is an encumbrance. As has already been remarked, when we employ a Fingerprint, whatever the system, we should always bear in mind the difference between *finding* and *reporting*. The true function of a Fingerprint is to discover, it is not to describe. Of course, if a group of the Fingerprint serves also as an agile shorthand for separating divergent settings, all the better, but to some extent this signifies that it is undergoing a metamorphosis into an Earmark. The simple truth is that there are always going to be cases in which the inherently mechanical nature of the Fingerprint fails to distinguish. This percentage of failure needs to be built into the system and indeed failure is a something of a misnomer. All that is necessary, in awkward cases, after appropriate analysis, is to introduce a further distinction in the form of an Earmark. From this point of view the 'Bibliographical Profile' provides a very convenient notation and its wider adoption could be urged for this reason. The proviso is of course that this would nevertheless regard a small number of difficult instances, in which bibliographical research has established that a problem exists and is seeking a means to communicate it.

If any long-suffering reader, especially one truly practised in handling the LOC Fingerprint, has endured so far in this article, rather than just slamming the volume down on the table and turning on the TV, it is to be presumed that, far from being convinced, they are probably seething with rage at the devious, underhand manner in which I have skipped around the most important issue. Similar displays of obtuse irrelevance have, however, been typical of much of the critical debate surrounding Jolliffe's brainchild, ever since it first appeared, so that, having to some extent explored the misconceptions lurking in the undergrowth, we can turn the whole question on its head in a final triumphal coda, or even *fandango*.

The fundamental characteristic of the LOC Fingerprint is that it was conceived for exploitation in an electronic environment. This fact may be banal or obvious, but for the most part it is so banal and so very obvious that most critics have failed to notice it or to appreciate its innate significance, since it is not an optional extra but an absolute value. The Procrustean bed formed by the sixteen-character grid and by the rules dictating what those symbols are going to be are governed by the circumstance that no computer can think for itself and therefore all subjective elements have to be ruled out. When we remember that this instrument was thought up

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some thirty years ago, when the few computers available were primitive, expensive, inefficient monsters, it reveals – to my mind – the extraordinarily prescient quality of its construction.

If we look at the history of the LOC Fingerprint, today it is almost forgotten in its country of origin, although – a bit like Margaret Thatcher – nothing better has taken its place. Its failure to catch on, after initial enthusiasm, owes more perhaps to the atmosphere of cutbacks and cost-cutting characteristic of that era than to rational bibliographical considerations, but its fortunes were certainly not helped by John Jolliffe's sad and untimely death in March 1985. Its most significant setback had come a few years earlier, with the decision not to include it in the entries being drawn up by the British Library for the ESTC, although, rather inconsistently, the same project was willing to take extant examples of Steele notation on board.⁴⁸ This defeat led to its gradual abandonment in other libraries, including its main British promoter, the National Library of Scotland, and subsequently to its disappearance from analogous French projects. Whether one feels that these decisions were wrong or right, it should be pointed out that no cataloguing project in the English-speaking world has made provision for an alternative method, with the consequence that virtually all descriptions of artefacts printed on the hand-press now available, for instance in the COPAC network, offer little more than a transcription of the title-page and some, often inadequate, structural indications.

History is not written by the vanquished and the LOC Fingerprint came near to extinction. Indeed it would have disappeared entirely or been remembered only as a strange and somewhat premature experiment, were it not for another event that took place. The publication in 1981 of the sixth and final volume of the Italian *Indice Generale degli Incunaboli* (IGI), of which the first had appeared in 1943, freed the ICCU in Rome, at the time directed by Angela Vinay, to tackle the problem of the oft-announced and long-awaited census of the country's sixteenth-century books. The obstacles faced by the central Italian bibliographical agency have been enumerated on other occasions, so we can summarise them here as too many books, too many small collections, too few large collections, and too little expertise. An additional problem was represented by the fact that most of the largest holdings of Italian books of the period are not to be found in Italy, especially if we consider the Vatican as another country, where things are done very differently. The wide dispersion of artefacts meant that, unlike the parallel and slightly earlier German project, the

VD16, which concentrated primarily on the holdings of two exceptional collections, Munich and Wolfenbüttel, the Italians were constrained to pay attention to minor libraries, many of them holding rare and sometimes unique items. Just to provide a thumb-nail sketch of the technical situation, it has recently been estimated on the basis of the Pollard and Redgrave STC catalogue that, in a count of sixteenth-century English books, the British Library holds approximately 60% of the total, rising to almost 80% if the Bodleian is also taken into consideration; a similar calculation applied to Italian books in Italy, based on the first two printed volumes of the EDIT16, suggests that the country's two principal collections, the National Central Libraries of Florence and Rome, each hold about 25% of known extant output; combined they reach a little over 40% (according to its *Short-title catalogue of Italian books*, published in 1958 and updated in 1986, the British Library possesses something closer to 35% of the same). Into the bargain, only about fifteen thousand books are recorded as printed in the British Isles in the sixteenth century: a total which is more or less equalled by the first three letters of the Italian census, so the sheer number of items to be dealt with is much, much higher.⁴⁹

Angela Vinay was that rare combination in any field of learning of a visionary endowed with a robust sense of practical matters and the plan she conceived fully expressed her character.⁵⁰ It had two basic parameters: it had to include as many libraries as possible (participation was and still is on a voluntary basis: the initial total was 550, it has now risen to 1350) and it was going to be computerised. What certainly caught Vinay's attention was Jolliffe's plan to conduct the LOC project with staff trained in recording Fingerprints but untrained in everything else. In a preliminary phase of this scheme only Fingerprints would have been taken and matched up with those in the database. Once found, the relevant records were to be compared with the books in question and, once the identity of the editions had been determined, a location could be added to the Fingerprint or a new record created, if necessary. Though, after much planning, the LOC project fell by the wayside, Jolliffe's basic idea was applied to the Italian census, with a series of modifications to take account of the high number of libraries involved. In a preliminary phase, on a letter-by-letter basis, descriptions were extracted from extant published sources and a number of libraries catalogued their holdings of the said letters in order to furnish a skeleton listing. The resulting print-out was posted to all the libraries in the project, who checked their own holdings, marked on the print-out the books they owned,⁵¹ and sent it back to the ICCU. In the larger collections

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items not registered in the print-out were described and sent for insertion in the data base; for smaller ones, without a trained cataloguer *in loco*, alternative solutions were found. If one looks at the cataloguing manual drawn up at the time for the census,⁵² much of the volume is taken up with the instructions relating to the Fingerprint, while in the subsequent published entries the device dominates the description of the physical book, to the extent that, together with the abbreviations for the libraries owning copies, it sometimes seems as if the tail is wagging the dog. Even today, few people seem to realise how courageous, far seeing and far reaching that decision was.⁵³

Over the course of a quarter of a century the EDIT16 – nowadays splendidly directed by Claudia Leoncini, who has been with the project from the beginning – has stuck to its guns. The census, which continues to expand at a steady rate, stands at some 56,000 records, corresponding, if we take account of variant states and issues, to well over 50,000 editions. It is difficult to say how many books this represents, since multiple copies are commonplace in Italian libraries⁵⁴ and the census does not track these, but something in the order of half a million appears a reasonable estimate. The success of the LOC Fingerprint in EDIT16 meant that from the beginning it was also employed in the sister *Libro Antico* project launched by the Servizio Bibliotecario Nazionale (SBN, to some extent the ICCU under another name and also conceived by Angela Vinay). This huge online catalogue includes both Italian and foreign books from the sixteenth up to the nineteenth century (with 1830 given as a rough cut-off date). SBN *Libro Antico* operates on the basis of a complex sharing, swapping, and sometimes squabbling relationship with EDIT16, so far as the two mandates overlap, and scholars are therefore advised to check both sources when seeking information about a specific edition. In 2006 SBN *Libro Antico* comprised some 550,000 records: duplicate entries are commoner than in EDIT16, but this figure corresponds probably to half a million editions and represents some 1,300,000 copies. Virtually all the records in EDIT16 include the LOC Fingerprint (or will have it added as soon as possible), as do the vast majority of those in SBN *Libro Antico*. The positive results enjoyed in these two large-scale national projects means that in the interim the LOC Fingerprint has been employed in numerous local networks, such as the Tuscan *Libri Antichi In Toscana* (LAIT), and in several hundred published catalogues and other forms of scholarship, referring above all to the holdings of minor libraries.⁵⁵ Outside Italy it is now being used in the German VD17 project.

This survey of what is really happening allows us to answer better some of the recurrent objections to the LOC Fingerprint, for instance the frequency with which mistakes are made.⁵⁶ In several of the critical discussions the question of human error has been made to loom large, but in reality it has two distinct aspects. Mistakes do not occur because the basic principles of the Fingerprint are wrongly conceived or are difficult. As Jolliffe was fond of saying, these can be written on a postage stamp and cover well over 90% of instances, so that habitual cataloguers rarely, if ever, need to make reference to the manual.⁵⁷ Mistakes occur, when they occur, because the LOC Fingerprint is an all-purpose device and some early-printed artefacts are extraordinarily intricate. What on the other hand most experienced Italian cataloguers, especially those used to working with EDIT16 and SBN at their fingertips, will readily admit is that Fingerprint errors often prove to be ‘transparent’. In other words, even though a mistake might have been made, it is easy for someone with the book in hand to see what has happened and thus not to be misled. On one occasion, a number of years ago, a rare edition of Petrarch printed in Venice by Lazzaro de’ Soardi in 1511 was checked against an unrecorded copy. The description available in EDIT16 had been provided by a minor collection and, in part due to the awkwardness of the *civilité* typeface, in part due to failure to read the manual properly on the part of the person who drew up the entry, seven of the sixteen characters in the Fingerprint were wrong. Nevertheless there was no doubt that it was the same book and the same settings of type. This first answer partially anticipates the second: the geography and the history of Italian libraries, especially in the EDIT16 project, often mean that there has not been a choice between expert cataloguers and inexpert cataloguers; it has been a choice between inexpert cataloguers or no cataloguers at all. From this point of view a higher percentage of error, than that which would occur in a project concentrated on a small number of collections with expert personnel, as in the STCN catalogue, is an acceptable price to pay. What other participants in CERL have certainly noticed is how in the sphere of the early-printed book, under the aegis of EDIT16 and similar projects, Italy has gone from being a backward province to a world leader.

In March 2000 EDIT16 went online, allowing users to explore the whole archive, even in a very unfinished state. It also meant that it was possible for an external user to exploit the LOC Fingerprint in the electronic setting for which it was originally conceived. Though SBN *Libro Antico* from its inception has allowed Fingerprint searching to be conducted, it

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only provides a single field for this operation, so any hunting for a particular group finds a large amount of clutter. EDIT16 deploys a much cleverer interface, in which searching is conducted on the basis of specific groups, making the instrument more precise. Skilled (or, more simply, like myself, lazy) users swiftly learnt to summon up known books by inserting one or more groups of the Fingerprint and nothing else. For instance, if I type in the first group 'meer', four entries appear, all with this same set of letters in this one group; if however I add the second group '.13.', the only entry to appear is that for the *Morgante* of 1550 (or 1551) described above.⁵⁸

As in all electronic media, searching through the Fingerprint produces a certain amount of 'noise', but useful noise. It can be helpful for a researcher to discover that a series of editions of the same text share the same, or much the same Fingerprint, showing that they were all set on a line-by-line basis. Much criticism of the LOC Fingerprint has nevertheless focused on this fact, without trying to assess the real proportions of the problem. A test was therefore conducted on what I term my personal 'Penelope's web', or the catalogue of books in the library of San Gimignano, so called because every time it is nearly finished we start all over again.⁵⁹ It is a typical, if remarkable, Tuscan hill town with thirteen medieval towers, 7400 inhabitants, millions of tourists, 1600 sixteenth-century books and 32 incunables. It is therefore a reasonable sample of what a cataloguer encounters in a library of this sort. In the autumn of 2005 the Fingerprints in our catalogue were verified against those of EDIT16. The search was conducted with the *first* and the *fourth* groups separately, totalling the number of hits and subsequently comparing the Fingerprint in its entirety. Part of the collection was excluded for one reason or another: foreign books, books with Greek or other characters the search engine does not recognise, short documents such as *bandi*, books not yet in EDIT16 or not yet provided with a Fingerprint, and also, where more than one Fingerprint was included in the description – i.e. for books in two or more parts – only one, usually the first, was tested. The final total was just under a thousand checks (984 to be precise) and, therefore, with respect to the 56,000 records in the data base, something less than 2% of the whole was verified. Obviously a systematic cross-check uncovered discrepancies, obliging us to look at the book in San Gimignano again. In some cases a mistake had been made, which was corrected; in others we became aware of a variant state of the edition; and in others still the check discovered a transparent error in the EDIT16 description, especially for the newer entries in the latter half of the

alphabet, to which the attention of the ICCU was duly drawn. Once the chaff had been winnowed out in this fashion, the outcome was as follows.

NUMBER OF HITS	1	2	3	4	5	6	7	8	9	10	11
1 gr.	146	128	73	72	54	38	39	28	15	29	18
4 gr.	139	126	87	76	66	51	45	32	23	41	24
All	848	99	24	10	2		1				

NUMBER OF HITS	12	13	14	15	16	17	18	19	20	20+
1 gr.	11	14	14	21	12	12	14	12	12	224
4 gr.	25	19	12	15	11	21	7	9	10	146
All										

Like the chessboard of the Chinese emperor, employing a basic character set of some fifty symbols (the search engine, as yet, does not distinguish upper and lower case), a single group of the Fingerprint in theory offers more than six million possible combinations. Obviously these are much reduced by the conventions of language and of spelling, so that certain groupings occur with a greater frequency. In terms of finding a specific target, using the first or fourth group on its own, in 15% of hits the one edition concerned came up; if two groups were used together (typing in a whole Fingerprint for a search is a waste of effort), a single hit was obtained 86% of the time. As far as the problem of recognising ‘texts’ in a typographical setting goes, the significance of this result for anyone contemplating harnessing the LOC Fingerprint to a large-scale cataloguing project hardly requires comment. Especially when allied to a sophisticated interface, such as that provided by EDIT16, in terms of its primary function – that of *finding* – the device is economical, rapid and effective. Since the four groups are autonomous, a miss on one, for whatever reason, simply means that a search can be done with another, something that is an absolute boon for anyone seeking to recognise a damaged or incomplete book, whose identity as a text is not known.

What however about the 137 instances in the above sample of 984 editions, so 14%, in which the fingerprint, even compared in its entirety, produced more than one hit: in 99 cases two; in 24 three, in 10 four, in 2 five, and in 1 seven? Is this, in the words of Douglas Osler, a ‘catastrophic

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failure'? On analysis one can hardly agree, since most prove to be variants. With the necessary proviso that, while considerable efforts have been made to establish the truth about these editions, including checks in libraries holding further copies, some of these entries may conceal as yet unfathomed complexities, the break-down appears as follows.

SAME EDITION	
Change of date on the title page or in the colophon	40
Change of date on the title page or in the colophon and reissue with further variant states ⁶⁰	1
Change in the name of the publisher on the title page or in the colophon	31
Change in the title in course of printing	1
Collective / separate issues	7
Reissue	4
Other variants within the edition	2
<hr/>	
TOTAL	86
<hr/>	
DIFFERENT EDITIONS	
Two editions	32
Two editions with changes in the date or in the name of the publisher	7
Three editions	6
<hr/>	
TOTAL	45
<hr/>	
DUPLICATE ENTRIES	6
<hr/>	
TOTAL	137

In 45 cases therefore the Fingerprint is the same for two or more editions.

If we accept that this is a representative sample of a collection of extant sixteenth-century books, it puts the difficulties posed by line-by-line reprints in this period in a less worrying perspective, since it involves less than 5% of our total sample.⁶¹ As has been noticed, the two other systems evaluated here, the STCN Fingerprint and the Bibliographical Profile, have both been conceived with this problem as their overriding concern. In order to absolve the task of separating look-alike editions, however, these devices sacrifice not only the brevity and speed of the LOC Fingerprint, but also its ability to recognise groups of editions as the same text. Is it so difficult therefore to envisage employing the LOC Fingerprint at a primary level as a sorting device, with the further option, in one case in ten

or twenty, of employing an Earmark at a secondary level in order to distinguish two or more look-alike editions? As has been implied or stated over and over again in this article, and therefore it is useful to state again, the final analysis of different or seemingly different settings of type can only be conducted by direct comparison. No matter how sophisticated a Fingerprint happens to be, at the end of the day it has to be deemed untrustworthy, unless it is backed up by other procedures. We have therefore to learn to use Fingerprints not just wisely, but also well.

Having summoned the spectre of computer friendliness from the deepest abyss, some assessment of the STCN Fingerprint's electronic workability appears only fair and just. Though it has not been possible to carry out a trial on a sample of books as above, two factors do seem to limit its effectiveness, especially when it is compared to the LOC Fingerprint. First, as has been mentioned, there is an element of subjectivity in way readings are taken, whereas computers notoriously dislike variables. Anyone searching for a particular edition on the basis of the Fingerprint may therefore have to try different combinations in order to bring up the desired entry. Second, the individual groups are not of a fixed number of symbols, which again impairs the efficiency of the search mechanism. It quite often occurs that groups are formed of only one character, so that the prospect of searching a large database on this basis is not a gratifying one. At the other extreme, especially where the final signature in a large book is concerned, groups can contain as many as 8–10 symbols (including the dollar sign which marks a space). Again, in the context of geographically-delimited, high-quality bibliographical projects such as STCN and STCV, these difficulties can be kept under control; but they pose a question about the applicability of the STCN Fingerprint in large-scale, more open projects, in which the quality of the work is inevitably going to oscillate.

As a final remark, in matters of computer friendliness, the situation of the Bibliographical Profile can be defined in relatively few words: it ain't, it can't and it won't.

At this juncture a conclusion becomes desirable and, as in the children's game, it is Paper, Scissors, Stone, where none of the three objects prevails over the others. There is no *best* system or, rather, *best* is defined by empirical factors and by the nature of the problem to be tackled. The decision about what Fingerprint should be employed rests on a sliding scale or, if you prefer, it is akin to buying a motor-car. The LOC Fingerprint is an all-terrain vehicle, such as a four-by-four, which will do the

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basic job, which can go just about anywhere, but which has limits at the top end of the scale. The STCN Fingerprint is a high-quality saloon car, which will always get you where you want with precision and comfort, as long as you do not ask it to do things it was not intended to do. The 'Bibliographical Profile' is best compared to an expensive sports car: it performs one task in an exceptional fashion, but otherwise is costly in terms of the daily commuter run. To have all three in the garage would be nice, but perhaps extravagant, so at some point we may have to choose, after a careful comparison of their respective performances and capabilities. Overleaf therefore is a table, extended to include Steele notation, the GW procedure and Earmarks, which travesties the Michelin system by awarding one to five stars (where the criterion is not relevant, no stars are awarded).

What recommendations for the future, if any, can be made on the basis of such a past? If the present paper (and thus the present writer) sits on the fence, at least as far as choosing between systems goes, it is firmly convinced that Fingerprints are here to stay and that they should be consistently adopted in the cataloguing of rare books in libraries. It also wishes to break a lance on the windmill-like snootiness of some unnamed and unnameable early-book specialists in the English-speaking world, who shrug Fingerprints off as a Continental eccentricity. Totalling the various projects described here, the number of hand-press books, counted as editions, to which a Fingerprint has been applied, is over three-quarters of a million and rising steadily. Not to know how to write a Fingerprint in order to communicate information and, worse, not to know how to read a Fingerprint in order to understand information implies therefore serious deficiencies in professional preparation.

History is full of inventions moreover that were developed for one purpose and ended up being used in a slightly different way or in quite a different way altogether. One recent example is the drug Viagra, which was originally developed to improve blood circulation; researchers only discovered its amatory uses when the men, to whom it had been given for clinical trials, asked if they could keep the pills. To some extent this paper is about wanting to keep the pills, since, though Fingerprints were conceived in the eighties by scholars thinking that they could also be deployed to find textual differences, which has happened, but not on the scale anticipated, they have revealed unexpected strengths as sorting mechanisms and as means for navigating through very large data bases. The use

	Steele Notation	Transcription of the 1st line of the 2nd gathering (GW)	LOC	STCN	Bibliographical Profile	Earmark Profile
Brevity (number of characters in the transcription)	***	**	*****	****	**	
Computer friendliness	*	*	*****	***	*	
Number of points checked	**	*	***	**	****	*****
Time required for compilation	***	***	*****	****	***	
Ability to recognise variants in date or in the name of the publisher belonging to the same edition	**	**	****	****/*	*****	*****
Ability to distinguish between two editions reset line-by-line	*	*	**	****	*****	*****
Ability to describe short texts or texts without signings	*****		*****	***	**	****
Ability to find variants in the preliminary gathering	***		****	****	****	
Clarity of basic principles	****	*****	****	****	***	
Absence of subjective factors	****	*****	*****	***	**	
Universality of the application	***	**	*****	***	**	*****
Completeness of the manual and of the instructions	*		****	**	**	

we make of them in the future will have to explore these possibilities in greater depth.

One useful project, that CERL would be the ideal organisation to undertake, would be to revise and bring together the rules regarding both the LOC and the STCN Fingerprints, also with a view to obtaining their formal recognition as international standards on the part of the IFLA and

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other organisations. Serious scholars of bibliography are not going to worry about having more than one Fingerprint standard on hand, as long as it is possible to find out what each one signifies. The availability of texts specifying the rules for the different systems today represents something of a problem: the 1984 English-French-Italian manual for the LOC Fingerprint has long been out of print, while non-Dutch speakers seeking delucidation about the STCN Fingerprint have to look up an article of 1986 (nowadays available on-line). Neither situation can be considered satisfactory. Above all it is necessary to take the whole Fingerprint question out of the limbo to which it has been consigned, at least as far as the critical discussion in the English-speaking world is concerned. We have to accept that, as with Kipling's tribal lays, there can be more than one way of constructing Fingerprints and that a plurality of systems, instead of an embarrassment, could prove to be a richness.*

* From its inception this research owes a considerable debt of gratitude to Brian Hillyard of the National Library of Scotland, who has provided much information about the background of the LOC Fingerprint and alerted me to the existence of earlier prototypes. I am also grateful to Jan Bos, editor of the STCN Catalogue, for his advice and comments. Thanks are also due for information and opinions to Robin Alston, Claudia Leoncini, Paul Needham, Douglas Osler, Nicolas Petit, David Shaw and Marina Venier. I wish to thank for carrying out checks on my behalf: Helen Carron of Emmanuel College Library, Cambridge, Luisa Corsa of the Biblioteca Nazionale Marciana, Martine Lefèvre of the Bibliothèque de l'Arsenal, Anna Manfron of the Biblioteca Comunale dell'Archiginnasio, Stephen Parkin of the British Library, Nicolas Petit of the Bibliothèque Nationale de France, Lucia Sardo of the Biblioteca della Fondazione Cini, and Francesca Tamburlini of the Biblioteca Civica 'Vincenzo Joppi'. For the right to reproduce images I thank the Biblioteca Riccardiana, the Biblioteca Nazionale Centrale di Firenze, the Ministero per i Beni e le Attività Culturali, the Panizzi Library in Reggio Emilia, the Biblioteca Civica 'Vincenzo Joppi' and the STCN Catalogue.

NOTES

1. F. Bowers, 'Purposes of descriptive bibliography, with some remarks on methods', *The Library*, s. v, 8 (1953), pp. 1-22: 10, repr. in F. Bowers, *Essays on bibliography, text and editing*, Charlottesville, 1975, pp. 111-134. See also the discussion in G. T. Tanselle, 'The recording of American books and the British bibliographical tradition' [1985], in G. T. Tanselle, *Literature and artifacts*, Charlottesville, 1998, pp. 157-185: 177.
2. This comparison is not going, however, to treat a number of important Fingerprint-related issues, such as their recognition as international standards. Furthermore, for reasons of space and of personal competence, it is not going

to look at the inclusion and function of Fingerprints in a MARC format, nor at their workings inside the CERL database, where the files not only come from a myriad of different cataloguing sources, but also apply different criteria to Fingerprints, so that, where included, they can be found in half a dozen different fields.

3. Much of this discussion, invariably without any attempt to compare alternative procedures, has centred on the Italian census of sixteenth-century books conducted by the Istituto Centrale per il Catalogo Unico (ICCU) in Rome, of which more is said below. The published version, with the title *Edizioni italiane del XVI secolo* (commonly abbreviated as EDIT16), comprises in the principal sequence five volumes, covering letters A (1985 provisional version, republished 1991), B (1989), Ca–Ch (1993), Ch–Cz (1996), and D (2005). Volumes describing printed music were issued as a separate listing, first in 1994 (A–C) and again, for the whole alphabet, in 1999. The online version, accessible from March 2000 on the site of the Italian Servizio Bibliotecario Nazionale (SBN) site, lists entries in a single sequence with the abbreviation CNCE (Censimento Nazionale Cinquecentine: Edizioni). The launch of the project in the early eighties was celebrated by an international seminar *Libri antichi e catalogazione. Metodologie e esperienze*. Atti del seminario di Roma, 23–25 settembre 1981, a cura di C. Leoncini e R. M. Servello, Roma 1984, which contains a brief paper on the LOC Fingerprint by the French scholar, Edith Bayle (*L'Empreinte et son utilisation*, pp. 84–85). In 2006, twenty-five years of the project were reviewed in a further seminar: *Il libro italiano del XVI secolo: conferme e novità in Edit16*, of which the acts will be published in the not too distant future, including a paper by myself that, among other things, looks at a specific instance of Fingerprint use and abuse (see note 12 below). My own connection with EDIT16 began with a review of the first volume in *The Library* (s. VI, 9, 1987, pp. 181–184), but I have made frequent references to the peculiar character of Italian libraries, as well as to the distribution of early Italian printed books in global terms, in a series of introductions to catalogues. Since these writings, as far as the present essay goes, contain a certain amount of *déjà vu* and *déjà dit*, for the convenience of the reader, I list them as follows: ‘Appunti per una logica del catalogo delle cinquecentine’, in Biblioteca Panizzi, *Le cinquecentine della Biblioteca Panizzi*. Catalogo, a cura di E. Zanzanelli–V. Prattisoli, Reggio Emilia, 1995, pp. xi–xxiv; ‘Appunti per un’esperienza di catalogo’, in *Le cinquecentine della Biblioteca Medicea Laurenziana di Firenze*, a cura di S. Centi, Roma, 2002, pp. xi–xvi; ‘Il cappuccino, la principessa e la botte’, in A. Grassi–G. Laurentini, *Incunaboli e cinquecentine delle biblioteche dei Cappuccini di Toscana*, Firenze, 2003, pp. 7–39; ‘Il vivo Mattia Pascal’, in *Catalogo degli incunaboli e delle cinquecentine della Biblioteca Comunale di San Gimignano*, a cura di N. Harris, San Gimignano, in print, II, pp. 11–27 (an abbreviated version has also appeared in *Biblioteche oggi*, XXIII, n. 2, marzo 2005, pp. 35–43). Significant references to the EDIT16 also appear in: ‘Biblia, ovvero l’ottimismo bibliografico’, *La Bibliofilia*, 103 (2001), pp. 181–200.
4. The use made of the LOC Fingerprint in EDIT16 has been strongly criticised by Enrico Garavelli, many of whose observations on individual cases are

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interesting, but whose approach, as well as betraying a strong bias, contains several contradictions. In particular he writes: ‘Non intendo, ovviamente, pronunciarmi sull’utilità dell’impronta in biblioteca per l’identificazione e la schedatura di un libro, o ai fini della compilazione di un catalogo a stampa o di una bibliografia, questioni che sono già state oggetto in passato di accese discussioni da parte degli specialisti; le domande che mi propongo di affrontare in questo lavoro riguardano semplicemente la possibilità di utilizzare con qualche profitto i dati forniti dall’impronta nel contesto di un’operazione filologica, nell’accezione più vasta del termine’ (‘Appunti sull’«impronta»: catene di edizioni, riproduzioni facsimilari, apografi, *Aevum*, 70, 1996, pp. 625–636: 626). Though claims were certainly made for the Fingerprint as a device capable of uncovering textual variants when it first appeared (but part of this, as I say here, may have consisted in ‘salesmanship’), most scholars nowadays would consider the question outmoded, so much of Garavelli’s reasoning consists, as Italians say, in the *scoperta dell’acqua calda*. On the other hand, if his purpose is to assess the Fingerprint as a textual instrument, one wonders why his examples are drawn extensively and exclusively from the Italian census, which just happens to be a catalogue. Replies to some of Garavelli’s observations have been made by Rosaria Campioni (‘Osservatore da un altro pianeta: Conor Fahy e il censimento delle edizioni italiane del XVI secolo’, in *Bibliografia testuale o filologia dei testi a stampa? Definizioni metodologiche e prospettive future*. Convegno di studi in onore di Conor Fahy. Udine, 24–25–26 febbraio 1997, a cura di N. Harris, Udine, 1999, pp. 205–211) and by myself, first in a web text *Analytical bibliography: an alternative prospectus*, published on the site of the Institut d’histoire du livre in Lyon (<http://ihl.enssib.fr>), which was first issued in 2002 and extensively revised in 2004, as well as in ‘Il cappuccino, la principessa e la botte’. One of the principal promoters of Garavelli’s original article, Edoardo Barbieri, has recently come to his defence, in the introduction to the three-volume *Incunaboli e cinquecentine della Fondazione Biblioteca S. Bernardino di Trento*. Catalogo, a cura di C. Fedele e A. Gonzo, Trento, 2004. Although his remarks contain nothing new from a technical point of view, Barbieri takes the opportunity to launch an attack on Italian cataloguing and Italian librarianship in a wider sense, when he writes that ‘il vero problema della catalogazione, sono i catalogatori: chi abbia qualche esperienza in giro per l’Italia sa quante volte ci si imbatte in bibliotecari, anche generosamente attaccati al patrimonio antico della loro biblioteca, assolutamente impreparati anche solo a rilevare la fascicolatura di un volume. Allora il vero problema è che, anziché preoccuparsi della formazione adeguata di personale adatto alla catalogazione del patrimonio antico, si è preferito percorrere la strada, all’apparenza più facile e meno onerosa, della proposta, come soluzione del problema dell’impronta, una panacea che avrebbe dovuto, sotto l’ombra protettiva delle “magnifiche sorti e progressive” dell’informatica, risolvere tutti i problemi. Ora ci si accorge che non è vero’ (I, p. xxvi). If the ICCU had taken this path, it is certain that the census would never have got off the ground. Barbieri’s strictures constitute, to my mind, a serious misrepresentation of much that has happened in Italy over the past twenty-five years, where the census has acted as a precursor of the

ongoing electronic revolution. While the launch of the EDIT16 was akin to jumping in the deep end without knowing how to swim, today the only legitimate judgement on the project is not only that it is an extraordinary success, but also that it has proved a fundamental learning experience, as is shown by the large number of catalogues to have appeared in recent years as ‘spin-offs’ of the initiative. Apart from the purposeless display of technophobia, few of the other arguments advanced here stand up to serious scrutiny. For instance, while no one will disagree that a collational formula (I presume that this is what is meant by the term ‘fascicolatura’) is an important descriptive element, to ask a cataloguer, working often on the basis of a single copy, to include it is to open a can of worms besides which the Fingerprint pales into insignificance. As Fredson Bowers made crystal clear many years ago, most early printed artefacts are simple to describe, a few are awkward, and a very few are downright impossible (F. Bowers, *Principles of bibliographical description*, Princeton, 1949, p. 38). When such difficulties arise, they invariably involve some complexity in the collational formula and can be resolved only through diligent study of multiple copies in different libraries, as for instance happens to be the case for the first book printed at San Gimignano, the *De cardinalatu* of Paolo Cortesi in 1510, where the physical structure can only be described as nightmarish (see S. Centi-N. Harris, ‘Per il *De cardinalatu* di Paolo Cortesi: la copia “ideale”, gli esemplari e i messaggi occulti’, in *Catalogo degli incunaboli e delle cinquecentine della Biblioteca Comunale di San Gimignano*, II, pp. 29–50). In the presence of line-by-line reprints, collational *formulae* are also of little help in distinguishing between editions, since the reprint almost invariably reproduces the structure and signatures of its model. The list of the editions of the *Morgante* available in the Appendix clearly shows that variations are more common in the Fingerprints than in the collational *formulae*.

5. D. McKitterick, *Print, manuscript and the search for order, 1450–1830*, Cambridge, 2003, p. 189, shows how this situation changed in the eighteenth century, when, for example, proofs were sent from London to the philosopher David Hume, living in Edinburgh. Even if the swiftest postal systems of the age were used, the round journey still required the printing shop to keep the same formes standing for a period measured in days rather than in hours.
6. EDIT16 B-1260, CNCE 5076 (1569); B-1263, CNCE 5079 (1570). The printed version also lists an edition of 1568 (B-1259): this is however a ghost in which a copy of the earlier edition of 1562 (with variants 1563 and 1564) has been retouched in manuscript.
7. See N. Harris, ‘Nicolò Garanta editore a Venezia 1525–1530’, *La Bibliofilia*, 97 (1995), pp. 99–148.
8. See the remarks by S. Bongi, *Annali di Gabriel Giolito de’ Ferrari da Trino di Monferrato stampatore in Venezia*, Roma, 1890–97, II, pp. 204–205; EDIT16 D-1737 to 1740 (original issue), D-1741 to 1743 (reissue); CNCE 17208 (1565), 17209 (1566), 17210 (1567), 17212 (1584), 17213 (1585), 17214 (1586).
9. Bongi, *Annali di Gabriel Giolito*, I, p. 47, does not draw attention to the existence of variant states, but the case is illustrated in Harris, ‘Il cappuccino,

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la principessa e la botte', pp. 31–32, with images of the variant colophons (figg. 13–17). See also EDIT16 B-967 to 969; CNCE 4785, 4786, 4784.

10. See Harris, 'Il cappuccino, la principessa e la botte', pp. 33–34, who also reproduces the six variant title-pages for the first volume of the edition (figg. 5–10); CNCE 3445 ([al segno della Fontana]), 3446 (Zenaro), 3447 (Franceschi), 3448 (Sessa), 3449 (Varisco), 3450 (Giunta).
11. Standing type involved formes that had been set and printed off, but were not immediately distributed, being kept intact for a longer period of time. See the article by W. B. Todd cited below at note 35.
12. Not included in this listing, though there would be ample reason for doing so, are variants created by the folding or the placing of sheets of paper within an edition. Since the hand-press book was always made up of distinct sheets, it often happens that copies are typographically identical but structurally diverse, because the constituent parts have been assembled in a different fashion. When this was due to an error on the part of the binder, no account needs to be taken of the fact in the bibliographical description, apart from a note in the area dedicated to the characteristics of the copy; when however there is a genuine ambiguity in the structure of the book, more than one solution becomes possible. One example is provided by the *De institutione reipublicae libri nouem* by Francesco Patrizi, published in Paris by Galeot Du Pré in 1518: the book is in a folio format and contains in some copies a single leaf with a dedication by Jean Savigny dated 22 November 1518. The placing of this leaf is left to the whim of the binder, but unless a cataloguer is careful about the fact, the LOC Fingerprint can change significantly. Just to give an example, while the Fingerprint for the book, which does not take account of this sheet, reads: n-o, i.ex t.li grEr (3) 1518 (T), placing it, quite reasonably, after the title-page, gives: rii-i.As t.li grEr (3) 1518 (T). Another instance is provided by the *Tractatus de irregularitatibus* by Paolo Borgasio, published in Venice in 1574, which contains 56 unnumbered pages of index, signed a–g⁴. In EDIT16 the Fingerprint is given as: o-um 84o. erne esci (3) and the paging as: [64], 460 p. (EDIT16 B-3225; CNCE 7085); in the SBN *Libro Antico* network, based on a copy in the Biblioteca Nazionale Centrale di Roma, it appears as: o-um tau- erne esci (3) 1574 (R) and the paging as: [8], 460, [56] p. It does not require a special bibliographical genius to understand that the gatherings containing the index in one case have been placed at the beginning of the book and in another at the end. Garavelli, 'Appunti sull'«impronta»', p. 627, cites a further instance described in a book by Marielisa Rossi, involving an edition published at Treviso in 1598, in which a gathering containing the index has a variety of positions, so that the Fingerprint 'genera codici differenti, proponendo come apparentemente diversi due esemplari della medesima edizione'. Again one wonders why this should be taken as a proof of the unreliability of the device, since surely it is performing its appointed task by drawing attention to the presence of an anomaly, but Garavelli's *parti* is very much *pris*. When an edition seems to present numerous variant forms, what can also occur is that expert bibliographical analysis determines that one situation is 'right' and others are

- 'wrong', as is the case, for instance, with the *Vaticinia* of Girolamo Giovannini published in Venice in 1600, where the various copies furnish divergent Fingerprints, of which only one can be deemed correct, see N. Harris, 'L'ammiraglio, il cane e i *Vaticinia*', in *Il libro italiano del XVI secolo*, in print. Without labouring the matter, it should be noted that it took an examination of some ten copies in different libraries, before the key detail – a variant state in a *cancellans* sheet introduced in the preliminaries – was noticed, making it possible to understand what the printer intended to do and thus what the configuration of the 'ideal copy' should be.
13. One interesting example involves the inner forme of sheet A in the *Dialogo contra i poeti* by Francesco Berni in 1526, see Anne Reynolds, 'The earliest editions of *Dialogo contra i poeti* by Francesco Berni (1497–1535)', *Bulletin du bibliophile*, 1996, pp. 341–360, and her critical edition of the same text (New York, 1997). An example can also be found in the 1546–47 edition of the *Orlando Innamorato*, where in the sixth book of the continuation by Nicolò degli Agostini the whole outer forme of gathering y has been reset; cfr. N. Harris, *Bibliografia dell'«Orlando Innamorato»*, Modena, 1988–91, I, p. 173.
 14. B. S. Vamey, 'Luca Pacioli's *Scuola perfetta*: a bibliographical puzzle', *Gutenberg Jahrbuch*, 1974, pp. 110–116; N. Harris, 'Nine reset sheets in the Aldine *Hyperotomachia Poliphili* (1499)', *Gutenberg Jahrbuch*, 2006, pp. 245–275.
 15. One well known example is the Gutenberg Bible, in which the first gatherings exist in two different settings; another is the first edition of the *Divina Commedia* printed at Foligno in 1472, see E. Casamassima, *La prima edizione della Divina Commedia: Foligno 1472*, Milano, 1972, which does not however provide an sufficiently precise analysis of the typographical situation. Another instance is provided by the first volume of the works of Saint Bonaventure printed in Rome in 1588–96, where only the last two gatherings, containing the index and the colophon with date 1596 come from the same setting of type, see Harris, 'Il cappuccino, la principessa e la botte', pp. 36–39. See also the example of the Roman *Catechismus* of 1566 described below in note 42 below.
 16. P. Needham, 'The 1462 Bible of Johann Fust and Peter Schöffer (GW 4204). A survey of its variants', *Gutenberg Jahrbuch*, 2006, pp. 19–49: 42: 'It is a commonplace among bibliographers that any two copies of a given printed book may differ typographically and therefore textually. One might almost, even, define bibliographers as being that set of people who know this is the case, and why?'
 17. An excellent history of optical collators is now available in S. E. Smith, "'The eternal verities verified": Charlton Hinman and the roots of mechanical collation', *Studies in bibliography*, 53 (2000), pp. 129–161; and, "'Armadillos of invention": A census of mechanical collators', *Studies in bibliography*, 55 (2002), pp. 133–170.
 18. The LOC Fingerprint has been employed in a number of purely bibliographic projects, in particular by J.-F. Gilmont, *Bibliographie des éditions de Jean Crespin, 1550–1572*, Verviers, 1981, and by J. Jolliffe, *Draft bibliography of Lausanne and Morges imprints 1550–1600*, Oxford, 1981. While Jolliffe's choice of the technique

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requires no explanation, it is interesting to note that, in recent years, Gilmont has expressed reserves about its utility, writing that 'Après avoir été parmi les premiers à l'utiliser dans la bibliographie de Crespin, je doute aujourd'hui de l'intérêt de l'empreinte. Il aurait fallu que la collaboration tentée par les initiateurs du système suscite plus d'échos. Seule l'élaboration d'une base de données accumulant les empreintes par centaines de milliers aurait pu rendre la technique efficace' (*Le livre & ses secrets*, Genève – Louvain-la-Neuve, 2003, p. 121). This statement implies, however, that the author has not observed the scale of the Fingerprint presence in the Italian EDIT16 and SBN *Libro Antico* catalogues. Some years later the LOC Fingerprint was deployed within my *Bibliografia dell'«Orlando innamorato»*, as well as in successive articles of descriptive bibliography (see, for example, 'Nicolò Garanta', 1995), albeit with an important distinction. For reasons stated above, i.e. a Fingerprint cannot guarantee that it will find all, or even any, of the variant settings in an edition, I do not believe that these devices serve any fundamental purpose where in-depth bibliographical analysis is applied. Their inclusion on the other hand represents an act of courtesy with respect to anybody drawing up a description for other purposes, since it also implies that the readings given by the Fingerprint have been checked against multiple copies. It is a self-evident consequence that, where the Fingerprint is affected by a divergent setting and throws up a variant reading, a bibliographer has the solemn duty not only to record the difference, but also to explain the physical and typographical reasons for the existence of the same.

19. For the concept of 'edition' (and the subordinate concepts of 'issue' and 'state'), the best exposition remains the second chapter in Bowers, *Principles of bibliographical description*, pp. 37–113. Readers familiar with Italian can find an excellent discussion also in C. Fahy, 'Edizione, impressione, emissione, stato', in his, *Saggi di bibliografia testuale*, Padova, 1988, pp. 65–88.
20. F. Madan, 'On method in bibliography', *Transactions of the Bibliographical Society*, 1 (1893), pp. 91–106: 96. On the figure of Madan (1851–1935), see R. J. Roberts in the *Oxford Dictionary of National Biography*, 36, Oxford, 2004, pp. 56–57.
21. This same point is indicated, on the part of an expert and highly practised cataloguer, as one of the most helpful services provided by the LOC Fingerprint, see Z. Zanardi, 'Criteri di compilazione', in *Bibliotheca Franciscana: gli incunaboli e le cinquecentine dei frati minori dell'Emilia-Romagna conservate presso il Convento dell'Osservanza di Bologna*, a cura di Z. Zanardi, Firenze, 1999, p. xxviii.
22. It is just worth pointing out that in the LOC Fingerprint (see below), the second group would come from this very same page: i.e. in a book with this structure and this paging, the four groups required by this device would be taken on pp. 3, 11, 13 and 14.
23. F. Madan, 'Degressive bibliography', *Transactions of the Bibliographical Society*, 9 (1908), pp. 53–65: 59. See also his, 'The duplicity of duplicates', *Transactions*, 12 (1914), pp. 15–20.

24. *Bibliotheca Lindesiana. Vol. V. A bibliography of royal proclamations of the Tudor and Stuart sovereigns and of others published under authority, 1485–1714, with a historical essay on their origin and use*, Oxford, 1910–13, I, pp. xxxiii–xxxiv. Since the placing of the words remains approximate, the method is not wholly effective: for instance nn. 1697–98, recognised as separate editions on the basis of the coat-of-arms, both give the same reading, i.e. ‘attend same departeth’.
25. Recent examples of Italian catalogues, in which the LOC Fingerprint is applied to similar small-scale documents are: G. Bertoli, *Leggi e bandi del periodo mediceo posseduti dalla Biblioteca Nazionale Centrale di Firenze*, Firenze, 1992, and *Bononia manifesta: catalogo dei bandi, editti, costituzioni e provvedimenti diversi, stampati nel XVI secolo per Bologna e il suo territorio*, a cura di Z. Zanardi, Firenze, 1996.
26. For the English *STC*, see: *A short-title catalogue of books printed in England, Scotland & Ireland and of English books printed abroad 1475–1640*, compiled by A. W. Pollard and G. R. Redgrave, London, 1926. The second edition, revised and enlarged, begun by W. A. Jackson and F. S. Ferguson, completed by Katharine F. Pantzer, is in three volumes (1976–91). As the introduction diligently explains: ‘In the entries the Atlantic Ocean is represented by a semicolon. Up to five locations on each side have been listed with a view to geographical distribution. The prime British locations are: L, O, C, D, E; and the American F, HN, HD, N, NY. In *STC* geography Australian and New Zealand libraries appear on the American side’ (2nd ed., vol. 1, p. xlix). The five privileged British symbols stand for the British Library, the Bodleian Library, Cambridge University Library, Trinity College, Dublin, and the National Library of Scotland; the American ones for the Folger Shakespeare Library, the Huntington Library, Harvard University (Houghton Library), the Newberry Library, and New York Public Library. The acronym thus derives from this bibliographical habit, though it appears impenetrable to users not familiar with this marvellous reperatory.
27. As Brian Hillyard explains in a paper in this same volume, Jolliffe experimented at length with different versions of the Fingerprint, while a four-character version was recommended by John Feather, see *Tests on the use of the ‘Fingerprint’ in library catalogues: a report submitted to the British Library Research and Development Department*, Oxford, 1977. The decision in favour of the actual sixteen-symbol grid seems to have been influenced by the input of French researchers, especially Edith Bayle of the Institut de Recherche et Histoire des Textes (IRHT), which forms part of the larger Centre National de la Recherche Scientifique; for an up-to-date French viewpoint, see the entry by Jean-François Maillard, in *Dictionnaire encyclopédique du livre*, II, Paris, 2005, pp. 50–51. In particular the IRHT took upon itself, with the collaboration of the NLS, the publication of the 1984 trilingual manual *Fingerprints, Empreintes, Imprime*, which has proved the main vehicle for the diffusion of knowledge about the LOC Fingerprint and which includes, in the second part, a very useful set of examples illustrating problem cases. A German version appeared in 1992 (*Fingerprints. Regeln und Beispiele*, Berlin, 1992) and the text has also

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- been translated into other languages. A newsletter was issued in two numbers under the aegis of the IRHT: *Nouvelles des empreintes*, nn. 1 (1981), 2 (1985); a third number was added in 1994 by the ICCU in Rome. Information about the Fingerprint can also be found in the newsletter *Il corsivo*, produced by the ICCU to accompany the census: first series, 1–6 (1982–88), second series, 1–3 (1991–99).
28. Since the practice of numbering preliminaries in roman and the main body of the text in arabic crept in towards the end of the sixteenth century, this has the practical consequence of ensuring that in most cases the third/fourth groups are taken from a leaf in the main body of the publication.
 29. This rule ensures that, except where half-sheet imposition is being used, the Fingerprint checks both the inner and outer formes of a determined sheet.
 30. In theory, in the case of a book with a structure A–Z⁸ and paged from the beginning, the Fingerprint would fall on pp. 3, 11, 13, and 14, or A2^r, A6^r, A7^r, and A7^v, but in fact Renaissance books with such a structure are not common. By the time pagination began to substitute cartulation on a large scale in the second half of the sixteenth century, the majority of books were being published with at least one gathering of preliminaries. From this point of view it is worth remembering that Jolliffe was a specialist of French printed books of this same period and, not surprisingly, this is material with which the LOC Fingerprint seems to work particularly well.
 31. Madan, 'Degressive bibliography', p. 59. This remark is cited as 'a very useful suggestion' in D. F. Foxon, *Thoughts on the history and future of bibliographical description*, Los Angeles–Berkeley, 1970, p. 18.
 32. D. F. Foxon, *English verse 1701–1750. A catalogue of separately printed poems with notes on contemporary collected editions*, Cambridge, 1975, p. vii. On the figure of this librarian and bibliographer (1923–2001), see J. McLaverty, 'David Foxon. Humanist bibliographer', *Studies in bibliography*, 54 (2001), pp. 81–113. The Bowers lecture referred to was 'Purposes of descriptive bibliography', 1953. In it Bowers describes how, in the preparation of his bibliography of Restoration drama, he travelled with a library of microfilms, which served as control copies: 'Every copy of every play which I record is compared page by page against my control microfilm by checking its salient typographical features to ensure that the typesetting of each page is the same as in my control and that it is printed from the same imposition. [...] This method of comparison is not only, curiously, faster than the conventional way of comparing copies against one's notes, but it is to the highest degree more accurate. I need hardly say that in this process I have been able to discover reimpositions, partial resettings, new closely reprinted editions, and miscellaneous variants to an astonishing number and to an extent which, according to my experience, would have proved impossible by any other method' (pp. 5–6). In a note he adds: 'As for speed, with practice ones learns quickly to flick one's eye down the page, comparing the copy in one's hand against the film image for identical alignment and composition of headline in relation to the type-page, one or two prominent typographical peculiarities in the type-page itself including alignments, and the

alignment of any signatures. Different impositions are most readily detected by comparing the relation of the running-title or of the headline pagination to the type-page.

33. Foxon, *English verse*, p. xi: 'Apart from what is regularly printed in the catalogue, I recorded three things: the watermark of the paper and the size of any uncut copy, the position of a number of signature letters relative to the last line of the text above them, or press-figures when they were present; and the pages on which printers' comments appeared. [...] The signature positions made it possible to identify concealed editions or to suggest that so-called editions were from the same setting of type as their predecessors. I have come to regret that I have not been able to make this information available so that unknown issues might be readily identifiable when they appear'. One meaningful nod in this passage is to the significance of 'press-figures' or the practice of English compositors of the eighteenth century, but seemingly little known on the Continent, of including a number or a symbol in the forme to identify their own work (see K. Povey, 'A century of press figures', *The Library*, s. v, 14, 1959, pp. 251–273).
34. P. C. A. Vriesema, 'The STCN Fingerprint', *Studies in bibliography*, 39 (1986), pp. 93–100. A brief explanation, accompanied by helpful illustrations and by fuller bibliographical references, can also be found on the STCN website.
35. W. B. Todd, 'A bibliographical account of *The Gentleman's Magazine* 1731–1754', *Studies in bibliography*, 18, 1965, pp. 81–109.
36. D. J. Osler, 'The identification of edition in early printed books', in *Rare law books and the language of catalogues / I libri giuridici antichi ed il linguaggio dei cataloghi*. Proceedings of the Conference at Certosa di Pontignano, Siena, 26–29 October 1997, eds. M. Ascheri–L. Mayali, Siena, 1999, pp. 23–40. The sources cited as inspiring Osler's device do not include Todd, but rather the classic bibliographical manuals of R. B. McKerrow, *An introduction to bibliography for literary students*, Oxford, 1927, p. 181, and P. Gaskell, *A new introduction to bibliography*, Oxford, 1972, p. 313. Writing in an antediluvian epoch before photocopies, McKerrow in particular lists eight different methods that can be applied to distinguish settings of type that cannot be compared visually and, even in our xerox-facile day, these pages are well worth reading (pp. 181–183).
37. *Catalogue of books printed before 1601 in the legal historical section of the Biblioteca di Scienze Sociali dell'Università degli Studi di Firenze*, compiled by D. J. Osler, Firenze, 2005. In this particular example the Bibliographical Profile appears in a limited number of entries as a means of distinguishing a variant setting already known in most cases to the author through his larger project. There has to be a flaw, however, in any thinking that applies a Fingerprint selectively, i.e. only as a way of describing cases that have already been recognised as divergent. Such a limited use excludes one of the device's fundamental purposes, that it should act as a safeguard that is triggered by a discrepancy in another copy. If readings are not provided in blanket fashion for all the books in a collection, what happens in those instances where a variant exists but the

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- cataloguer is not aware of it? How are variant settings to be discovered if the Fingerprint is not part of the standard of description from the very first moment?
38. A fuller description appears in the Appendix. The complete listing of editions and of copies can be found in N. Harris, 'Sopravvivenze e scomparse delle testimonianze del *Morgante* di Luigi Pulci', in *Paladini di carta. Il modello cavalleresco fiorentino*. Atti del convegno (Firenze, 8–9 maggio 2003), a cura di M. Villoresi, Roma, 2006, pp. 89–159. A version will also appear in «Rinascimento», 2006. The survival rate of editions of chivalric romances are examined in N. Harris, 'Statistiche e sopravvivenze di antichi romanzi di cavalleria', in *Il cantare italiano fra folklore e letteratura*. Atti del convegno internazionale, Landesmuseum Zürich, 23–25 giugno 2005, a cura di M. Picone e L. Rubini, in print.
 39. According to Osler's conventions, when the group is taken from the first leaf in a gathering, only the latter is indicated; where another leaf is taken, the actual leaf number is provided. The first group taken from the preliminaries also reveals a small problem in the notation, due to the fact that the first letter of the signing falls in the space between two words. Here the STCN convention of representing a space with an abstract sign (dollar) appears distinctly useful.
 40. O. Castellani Pollidori, 'Sulla data di pubblicazione delle *Prose della volgar lingua*', *Archivio glottologico italiano*, 61 (1976), pp. 101–107, repr. in Castellani Pollidori, *In riva al fiume della lingua. Studi di linguistica e filologia (1961–2002)*, Roma, 2004, pp. 92–96. A good up-to-date summary of the critical discussion, as well as a list of copies of the original and of the counterfeit, can be found in the critical edition of Bembo, *Prose della volgar lingua. L'editio princeps del 1525 riscontrata con l'autografo Vaticano latino 3210*. Edizione critica a cura di C. Vela, Bologna, 2001, pp. lvii–lxiv.
 41. Though the SBN *Libro Antico* catalogue in 2005 showed that it was aware of the distinction between the two editions (albeit without actually going to the next logical step, that of writing distinct entries, which would of course require all the libraries concerned to look at their copies again), the online EDIT16 only distinguished between the original (CNCE 4997) and the counterfeit (CNCE 62770) at the end of the same year, when the content of the present research was made known to the ICCU. The episode illustrates the importance of communicating scholarly research in an intelligible fashion directly to the EDIT16, since, given the vast amounts of data coming every day into the offices there, opportunities to cast an eye over what is happening, even in closely related fields, are relatively few and far between.
 42. Osler, 'Identification of edition', p. 35: 'When recording signature positions to identify edition I have come across many cases where one or two signatures are by chance in almost precisely the same position in line for line resettings, particularly in the case of small formats where there is little room for manoeuvre. The rule has always been safety in numbers. In my opinion, recording only two signatures means introducing an unnecessary element of risk'. An

instructive example from this point of view is provided by the Roman *Catechismus* published in folio by Paolo Manuzio in 1566, with a structure: A² B–2I⁶. The LOC Fingerprint reads: s,a- t.er s.tu opfi, but in some copies the third and fourth groups have ‘s,tu quha’ (in the published EDIT16, C-4031, erroneously given as ‘s.tu quhe’). The STCN Fingerprint reads: 156602 – b1 A2 rnat : b2 2I3 \$Past. The ‘Bibliographical Profile’ gives: A2 Gube/r/natoribus B1 fluctua/nt/es 2HI or/e /meo 2I1 radici/tu/s; but in the same copies with the divergent reading of the LOC Fingerprint, the B gathering reads ‘fluct/ua/ntes’. Due bibliographical analysis shows how gatherings B–H exist in two different settings, so that the most plausible explanation is that printing began from gathering B and went ahead for a good 42 sheets, when it was decided to increase the print-run. This entailed resetting and reprinting the variant gatherings in order to make up the short-fall (what bibliographical analysis still has to establish is which is the original and which is the reset version). As far as doing a *post mortem* on the Fingerprints goes, it should be noted that, though three of the LOC groups fall in reset pages (i.e. ff. B4r and C1r/v, while A2r is the same setting), one of them so to speak fails to ring the alarm; the STCN misses the target entirely, confirming the argument that sometimes two groups are not enough; and the ‘Bibliographical Profile’ only catches one of the reset sheets. Again it would be extremely misleading, in my opinion, to talk about the ‘failure’ of one or more systems. What should be emphasised, if anything, is how once the Fingerprint has drawn attention to the presence of an anomaly, proper bibliographical method has in any case to step in, not just to identify the extent and nature of the variant, but also to explain what caused it.

43. In this respect actual STCN practice differs from that outlined in Vriesema’s 1986 article, where the instructions state: ‘The piece of text appearing above the prescribed signature is recorded, i.e. those characters that fall wholly or virtually wholly within the prescribed limits. (“Virtually wholly” means: where it is impossible to decide whether the character does or does not fall wholly within the limit’ (‘The STCN Fingerprint’, pp. 98–99; see also Osler, ‘The identification of edition’, p. 36). Jan Bos, the present editor of the STCN catalogue, kindly informs me that the above principle generated too great an oscillation in the data, so that it was abandoned in favour of the ‘if in doubt, leave it out’ principle. While the project is obviously in its rights to modify practice in the light of experience, it reinforces the need for an up-to-date, authoritative version of the rules involved.
44. A further connected and likewise insidious problem, which, even if rare, has the potential to cause minor upsets, is that a signature can shift or be shifted in the course of printing. One example is the unsigned and undated edition of the *De uersuum scansione* by Sulpitius, once considered an incunable [IGI V, p. 124; ISTC iso085800], but probably produced in Venice some time around 1505. In a copy in the Biblioteca Comunale at San Gimignano, the ‘A’ of the first signature is under the space between two words (STCN: i[n]\$uo [or i[n]\$uoc]; ‘Bibliographical Profile’: i/ /uocales); in the image available in the IISTC on Cd-Rom, taken from a copy in Lisbon, a gap has opened in the signature, shifting the first letter a good millimetre to the left (STCN:

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Si[n]§uo; ‘Bibliographical Profile’: / i/ uocales), a trivial change perhaps, but enough to sow a doubt in the mind of the beholder.

45. See note 38 above. My original intent was to compare the performance of a poetic text with that of a prose counterpart, such as Boccaccio’s *Decamerone*, over the same period; but reasons of time and opportunity nipped the project in the bud. I hope however to complete the survey in the not too distant future.
46. In the sample descriptions taken from Pulci’s *Morgante* displayed in the Appendix, in the editions of 1530, 1541, 1549 and c. 1560, the ‘Bibliographical Profile’ catches the word ‘commiserabilmente’ for the last group. The question that needs to be raised therefore is whether it is strictly necessary to transcribe the whole word. A more convenient form of transcription might limit the characters to the letters preceding and following the slash marks, i.e. instead of ‘commisera/bi/lmente’, ‘commiserab/i/lmente’, ‘commiserabile/nt/e’, and ‘commiserabilmente/e’, the readings could be distinguished as ‘a/bi/l’, ‘b/i/l’, ‘e/nt/e’, and ‘t/e’.
47. Needham, ‘The 1462 Bible of Johann Fust and Peter Schöffer’, p. 45. Needham employs the term also in a previous article: ‘Concepts of paper study’, in *Puzzles in paper. Concepts in historical watermarks*, eds Daniel W. Mosser, Michael Saffle and Ernest W. Sullivan II, London–New Castle, 2000, pp. 1–36: 16. It is interesting that Vriesema, ‘The STCN Fingerprint’, p. 96, discussing the problem posed by a sequence of look-alike Vondel editions, advises that: ‘To enable the user of the catalogue to compare any copy with the STCN entry to establish its identity, each entry has an additional note giving a textual variant peculiar to that edition’. Since the indication of the ‘textual variant’ involves prior knowledge, to all effects and purposes it is an Earmark.
48. R. Alston and M. J. Jannetta, *Bibliography, machine readable cataloguing and the ESTC*, London, 1978, p. 36. A personal account of the project is available in R. C. Alston, ‘The history of ESTC’, *The age of Johnson*, 2004, pp. 269–329.
49. Harris, ‘Il cappuccino, la principessa e la botte’, pp. 13–15.
50. On the figure of Angela Vinay (1922–90), see the collection of essays *Angela Vinay e le biblioteche: scritti e testimonianze*, Roma, 2000, which contains biographical information and a list of her publications.
51. Each library had its own alphanumeric code, in which the letters designated the *provincia* where the library was to be found (for instance, in Florence FI11 stands for the Biblioteca Riccardiana, FI12 for the Biblioteca Medicea Laurenziana, FI13 for the Biblioteca Nazionale Centrale, and FI17 for the Biblioteca Marucelliana). It should be remembered that in Italy at the time car number-plates employed the same letters, so the code appeared less arcane than it does today.
52. *Censimento delle edizioni italiane del XVI secolo. Manuale per la compilazione della scheda*, Roma, s.d. [1979]; seconda edizione riveduta e ricorretta, 1987. In Italy the rules were published also by L. Baldacchini, *Il libro antico*, Roma, 1982, pp. 147–155.

53. In the early stages of the EDIT16 variants in date or in the name of the printer/publisher introduced on the title-page and/or in the colophon were usually allowed to engender separate entries, since, in the experimental status of the project, this eased the task of bibliographical administration. It meant however that the 'conjoining' function of the Fingerprint was left very much to the understanding of the reader. It should be noted, on the other hand, that both in the online version and in the last volume to be published ('D' in 2005), an increasing number of entries have been brought together on the basis of the edition. If on the one hand this tendency can be attributed to a greater facility in the acquisition of images for the purposes of comparison and analysis, on the other it marks the steady growth in expertise that has been a major feature of the project.
54. The Biblioteca Nazionale Centrale di Firenze, for example, has no less than eight copies of the first edition of Bembo's *Prose*, though it has only a single copy of the counterfeit.
55. This wealth of small and medium-scale catalogues, often applied to libraries owned by Italian cities, which often go hand-in-hand with ambitious electronic networks, is a major feature of Italian library culture, see Harris, 'Appunti per una logica'.
56. Olser, 'The identification of edition', p. 30.
57. From this point of view the ESTC claim (see note 48 above) that inserting the Fingerprint would have required too much time and work does not stand up to examination, since, in my experience, it needs only a minute to take it from an average book, including keyboarding, and a matter of seconds to check it.
58. In fact, since the combination of symbols forming the second group is a much less common one, the quickest way of finding this particular edition is to use the second group on its own, and go straight to the book we are looking for. Of course, with practice, users of the EDIT16 database become adept at spotting which of the four groups in a particular situation presents the least usual grouping of symbols and use it to find the book required.
59. Publication is, optimistically, announced for the end of 2006, see *Catalogo degli incunaboli e delle cinquecentine della Biblioteca Comunale di San Gimignano*, a cura di N. Harris, San Gimignano, in course of publication.
60. This is the already mentioned example of the 1565 Dio Cassius, published by Giolito (see note 8 above), with four variant dates in the original and three in the reissue, that gives a total of seven hits.
61. It is, on the other hand, right to object that in the seventeenth and eighteenth centuries the proportion of such books seems to rise (see Olser, 'Identification of edition', p. 29), though until precise samples are analysed, as here, it is impossible to gauge the scale of the problem.

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APPENDIX

Editions of Luigi Pulci, *Morgante*, 1502–1606¹

- *Venice, Giovanni Battista Sessa, 1502
8°, 1092 [i.e. 192] c.; A–Z⁸ &⁸
Second gathering: [B1r] ‘Dimi al danese caro imbasciatore’
LOC Fingerprint: ioio toto nono egse (3) 1502 (R)
STCN Fingerprint: 150208 - b1 A2 ghie : b2 &4 ebil\$
Bibliographical Profile: A2 beli/ng/hieri B pau/ig/lione Z ilr/e/gno
& go/g/na
Earmark: f. 11 is numbered with a Roman numeral ‘xi’; f. 18 is numbered ‘28’;
the sequence ff. 110–192 is numbered 1010–1092.
Vatican City, Biblioteca Apostolica Vaticana, Ferraioli V.5498
- *Venice, Manfrino Bono da Monteferrato [Manfredo de Bonelli], 20 May
1507
8°, [192] c.; A–Z⁸ &⁸
Second gathering: [B1r] ‘Dimi al danese caro imbasciatore’
LOC Fingerprint: ioio toto toto acac (C) 1507 (R)
STCN Fingerprint: 150708 - b1 A2 inghi : b2 &4 lebil\$c
Bibliographical Profile: A2 bel/in/ghieri B p/au/iglione Z /il/ & /go/gna
Earmark: signing P₃ has an Arab numeral; on f. Q_{4v}, col. b, last line, the
word ‘il’ has slipped into the lower margin; f. Q_{5r}, col. b, last line, space
catches ink ‘| si risco[n]tra’; gatherings Y–Z are signed in lower case.
Florence, Biblioteca Nazionale Centrale di Firenze, Magl. 22.B.8.4
London, British Library, G.10687
- *Venice, Iacopo Penzio, 15 February 1508
4°, [208] c.; a–z⁸ &⁸ [cum]⁸ [rum]⁸
Second gathering: [b1r] ‘Dimi al Danese charo imbasciatore’
LOC Fingerprint: e.te e:ce o.to ilin (C) 1508 (R)
STCN Fingerprint: 150804 - b1 a2 ce\$. : b2 [rum]₄ ti\$ti
Bibliographical Profile: a2 cie/l/ b padi/g/lione [cum] mo/rt/o
[rum] / d/oma
Venice, Biblioteca della Fondazione Cini, Lib. ill. 492 (lacks ff. a3–6, a8, d2–g2,
g8, l1, m1–8, o1–q8)

1. Entries include the place of publication, the name(s) of the printer/publisher, and the date in normalised form, followed by the format, the pagination/cartulation, and the collational formula. The Fingerprints are given in the order LOC, STCN, ‘Bibliographical Profile’, and are followed by the transcription of the first line of the second gathering of the text (as in GW) and by an Earmark, for those editions I have examined in person. Steele notation is not included because the scale of the publication is not suitable to the system concerned. The description is completed by an indication of the copy/copies used.

*[Florence c. 1510–20]

4°, [202] c.; A–2A⁸ 2B¹⁰

Second gathering: [B17] ‘Rispose alle parole grate Orla[n]do’

LOC Fingerprint: o.do dodo toto ioOr (C) 1510 (Q)

STCN Fingerprint: 151004 - b1 A2 con\$lei. : b2 2B5 di\$R

Bibliographical Profile: A2 /c/on B co/r/tese 2A Roncisu/a/lle 2B hercul/e/
Paris, Bibliothèque Nationale de France, Rés.p.Yd.13 (lacks f. 2B10, which may
have had a colophon)

*Venice, Alessandro de Bindoni, 10 March 1515

4°, [208] c.; a–z⁸ &⁸ [cum]⁸ [rum]⁸

Second gathering: [b17] ‘Dimi al danese charo imbasciadore’

LOC Fingerprint: tete ree. o.to ilin (C) 1515 (R)

STCN Fingerprint: 151504 - b1 a2 ice. : b2 [rum]₄ electi

Bibliographical Profile: a2 fe/l/ice b padigl/10/ne [cum]₃ cont/as/si
[rum]₂ liberar/lo/
London, British Library, G.10738 (lacks [rum]₈)

*Venice, Alessandro de Bindoni, 26 March 1517

8°, [200] c.; a–z⁸ &⁸ [cum]⁸

Second gathering: [b17] ‘Dimi al danese charo imbasciadore’

LOC Fingerprint: tete e:e: toto acac (C) 1517 (R)

STCN Fingerprint: 151708 - b1 a2 l\$féli : b2 [cum]₄ \$pulci

Bibliographical Profile: a2 cie/l/ b padi/g/lione [et] n/ō/piāse
[cum] lam/o/glie

Earmark: signing o2 appears as ‘2 o’.

Frankfurt, Staats- und Universitätsbibliothek, IL 1930/590

Roma, Biblioteca Angelica, Z.LVI.31 (lacks ff. b1–6)

*Milan, Giovanni da Castiglione for Giovanni Giacomo da Legnano and
brothers, 27 February 1518

4°, [162] c.; a–t⁸ u¹⁰.

Second gathering: [b17] ‘¶ Et questo mio cōpagno che e gigāte’

LOC Fingerprint: tete rara riri dier (C) 1518 (R)

STCN Fingerprint: 150804 - b1 a2 ta\$pe : b2 u5 do\$l

Bibliographical Profile: a2 scrip/t/a b /m/orte t2 su/a/ u2 /g/li

Florence, Biblioteca Nazionale Centrale di Firenze, Landau Finaly 260

*Venice, Guglielmo da Fontaneto, 20 July 1521

4°, [196] c.; A–2A⁸ 2B⁴

Second gathering: [B17] ‘che non sa quello che beneficio sia,’

LOC Fingerprint: a.a: o.o: a.za MaDa (C) 1521 (R)

STCN Fingerprint: 152104 - b1 A2 e,o\$C : b2 2B2 ta:e\$ic

Bibliographical Profile: A2 dic/e/ B piang/ē/do 2A /p/ene 2B fig/li/

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Earmark: f. G1 is unsigned; at f. T1^r the running title reads 'Vigesimoquarto'; at f. T3^r the running title reads 'Vigesimoquarto'; f. Y4 is signed X4.

Florence, Biblioteca Nazionale Centrale di Firenze, Pal. E.6.5.26

*Venice, Alessandro de Bindoni, 30 April 1522

8°, [200] c.; a-2⁸ &⁸ [cum]⁸

Second gathering: [B1^r] 'Dimi al Danese charo imbasciadore'

LOC Fingerprint: tete rere toto acac (C) 1522 (R)

STCN Fingerprint: 152208 - b1 a2 iel\$fel : b2 [cum]4 de\$pu

Bibliographical Profile: a2 /ci/el b padi/g/lione & n/o /piase [cum] m/og/lie

London, British Library, 11426.b.56

*Venice, Francesco Bindoni and Mapheo Pasini, June 1525

8°, [200] c.; A-2B⁸

Second gathering: [B1^r] 'Dimmi al danese caro imbasciadore'

LOC Fingerprint: tete rere toto acac (C) 1525 (A)

STCN Fingerprint: 152508 - b1 A2 \$felice : b2 2B4 use\$del\$pul

Bibliographical Profile: A2 /f/elice B pa/di/glione 2A /fa/r 2B /la/

Earmark: at f. G2^r the running title reads 'Udecimo'.

Vatican City, Biblioteca Apostolica Vaticana, Capponi V.791

Vicenza, Biblioteca Civica Bertoliana, A.7.1.41

*Venice, Francesco Bindoni and Mapheo Pasini, June 1530

8°, [192] c.; A-2A⁸

Second gathering: [B1^r] 'Dimmi al Danese, caro imbasciadore?'

LOC Fingerprint: tete e, re o.o, vnta (C) 1530 (A)

STCN Fingerprint: 153008 - b1 A2 el\$felice : b2 2A4 fiorita

Bibliographical Profile: A2 ci/el/ B padi/gl/ione Z2 i/l c/orno 2A /t/utto

London, British Library, 686.d.33

*Venice, Nicolo d'Aristotile detto Zoppino, 1530 (colophon: 1531)

8°, 198, [2] c.; A-2B⁸.

Second gathering: [B1^r] 'Quando Morgate vede il suo signore'

LOC Fingerprint: tete i,ni nana Brre (3) 1530 (R)

STCN Fingerprint: 153008 - b1 A2 e\$ve : b2 2B4 [signed 2B2] arti

Bibliographical Profile: A2 /n/e B cerc/a 2A commiserab/i/lmente 2B pi/u/

Earmark: f. 2B4 is signed 2B2.

Paris, Bibliothèque de l'Arsenal, 8°.B.L.6858 (lacks f. 2B8)

*Venice, Giovanni Antonio Nicolini da Sabio and brothers, 1532

4°, [196] c.; A-2A⁸ 2B⁴

Second gathering: [B1^r] 'Che non sa quello che beneficio sia,'

LOC Fingerprint: a,a, o.o, a.a, mada (C) 1532 (R)

STCN Fingerprint: 153204 - b1 A2 red : b2 2B2 a\$ua\$pa

Bibliographical Profile: A2 /cr/ede B /n'/andaua 2A p/en/e 2B /c/orrotta
 Earmark: ff. c3–4 are signed in lower case; at ff. D6^v, F6^v, F8^v the running
 title reads 'cANTO'; at f. L7^r the running title reads 'XVI' instead of 'XVII'
 and at f. M5^r 'XXI' instead of 'XVIII'.

Florence, Biblioteca Nazionale Centrale di Firenze, Magl. 22.B.5.2

*Venice, Guglielmo da Fontaneto, 10 July 1534

8°, CXCVI c.; A–2A⁸ 2B⁺

Second gathering: [B1^r] 'Quādo Morgāte vede il suo signore'

LOC Fingerprint: e.te coe- a.ca L'Ve (3) 1534 (R)

STCN Fingerprint: 153408 - b1 A2 ritta\$P : b2 2B2 \$l'altrasi

Bibliographical Profile: A2 sc/ri/tta B cer/ca/llo 2A com/e /batte 2B m/e/
 Chantilly, Bibliothèque du Musée Condé, VIII.B.49

*Vinegia, s.n. [Francesco Bindoni and Mapheo Pasini?], 1537

8°, 192 c.; A–2A⁸

Second gathering: [B1^r] 'Dimmi al Danese, caro imbasciatore?'

LOC Fingerprint: o.io e.re o.to vnta (C) 1537 (R)

STCN Fingerprint: 153708 - b1 A2 cielsfē : 2A4 l\$ suo\$Mart

Bibliographical Profile: A2 /c/iel B pad/i/glione Z /co/rte
 2A credessi/ /Carlo

Earmark: at f. H4^r, col. B, line 29, a space catches ink 'del nome'; at f. 2A2^v,
 the running title reads 'CAZTO' (i.e. with a turned 'N').

London, British Library, G.10688

*Venice, Domenico Zio and brothers, 1539

4°, [196] c.; A–2A⁸ 2B⁺

Second gathering: [B1^r] 'Che non sa quello che beneficio sia?'

LOC Fingerprint: a,a, o.o, a.a, mada (C) 1539 (R)

STCN Fingerprint: 153904 - b1 A2 e,o\$cre : b2 2B2 a\$sua\$pa

Bibliographical Profile: A2 dic/e,/ B a/n/daua 2A futur/e/ 2B corro/t/ta

Earmark: at ff. B3^r, B4^r, B6^r the running title reads 'IIII' instead of 'IIII',
 at f. O5^r 'XXI' instead of 'XX', and at P8^r 'XXII' instead of 'XXI'.

Florence, Biblioteca Nazionale Centrale di Firenze, Pal. E.6.5.25

*Venice, Agostino Bindoni, 1541

8°, 195, [5] c.; A–Z⁸ &c⁸ [cum]⁸

Second gathering: [B1^r] 'Qua[n]do Morga[n]te vede il suo signore'

LOC Fingerprint: tete nini nana Brre (3) 1541 (R)

STCN Fingerprint: 154108 - b1 A2 on\$ne : b2 [cum]4 \$tore

Bibliographical Profile: A2 n/on/ B cerc/al/lo & commiserà/bi/lmente
 [cum] assa/i /

Earmark: at f. C7^r in the running title 'QVINTO' the 'V' is upside down;
 f. 92 is numbered '91'; f. 96 is numbered '69'; f. 128 is numbered '228'.

Vatican City, Biblioteca Apostolica Vaticana, Capponi V.790

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*Venice, Girolamo Scotto, 1545

4°, 192 [i.e. 202] c.; A–I⁸ K¹⁰ L–2B⁸

Second gathering: [B1r] ‘O ueramente che sotto altro inganno’

LOC Fingerprint: : l-la a.a.; i.ri ChDi (3) 1545 (R)

STCN Fingerprint: 154504 - b1 A2 one\$del : b2 2B4 hebe.

Bibliographical Profile: A2 compassi/on/e B ce/nt/ro 2A2 co/lp/e
2B gr/eg/ge

Earmark: f. D2 is signed D3, f. K4 is signed k3; f. K5 is signed K4; f. V3 is signed V4. The sheet signatures at f. T3r and f. V3r read ‘Mog. mag.’.

Florence, Biblioteca Nazionale Centrale di Firenze, Magl. 3.2.185

*Venice, Comin da Trino di Monferrato [at the sign of the Palm tree], 1546 (colophon: 1545)

4°, [4], CXIX [i.e. CXCIX], [1] c. = 204 c.; *4 A–2B⁸

Second gathering: [B1r] ‘Padiglioni, e trabacche, e pennoncelli’

LOC Fingerprint: uera i.i, o.o. TuDi (3) 1546 (R)

STCN Fingerprint: 154604 - a1 *2 n\$stut - b1 A1 o : b2 2B4 ,s\$e\$fedes\$.

Bibliographical Profile: *2 co/n/ A fr/on/te B Bruno/r/o 2A ricor/se/
2B sogna/ /.

London, British Library, C.19.c.24; 83.e.28

Oxford, Bodleian Library, Mortara 825

*Venice, Bartolomeo detto Imperatore, 1549

8°, [200] c.; A–Z⁸ &⁸ [cum]⁸

Second gathering: [B1r] ‘Quando Morgate vede il suo signore’

LOC Fingerprint: tete nini tete epsi (C) 1549 (R)

STCN Fingerprint: 154908 - b1 A2 \$verr : b2 [cum]4 e\$Dio

Bibliographical Profile: A2 n/e/ B cerca/ll/o & commiserabilment/e/
[cum] /d/egno

Earmark: in gatherings I–Q S–& the signing of the second leaf has a final ‘j’.

Vatican City, Biblioteca Apostolica Vaticana, Rossiana 6355

London, British Library, 11427.b.56 (lacks ff. [cum]7–8)

Oxford, Bodleian Library, Vet.F1.f48 (lacks ff. [cum]7–8)

*Venice, Comin de Trino di Monferrato, 1550 [or 1551] (colophon: 1550)

4°, [16], 197, [1] c.; *–2*⁸ A–2A⁸ 2B⁶

Second gathering: [B1r] ‘Rispose a le parole grate Orlando,’

LOC Fingerprint: meer .i3. e.e, VIgI (3) 1550 (R)

STCN Fingerprint: 155004 - a1 *2 \$8.col : a2 2*4 \$ - b1 A1 e : b2 2B3 e\$parte.

Bibliographical Profile: *2 car./ /8 2*4 car./ 1/26 A fron/te/. B2 co/no/sca
2A2 f/ue/. 2B2 past/o/re

Earmark: ff. E3 and R3 are signed respectively ‘E lij’ and ‘R iji’; at ff. F1r, F3r, G1r, the running title ‘CANTO’ lacks a space between the final letters; ff. 165 and 186 are numbered respectively ‘173’ and ‘178’.

Florence, Biblioteca Nazionale Centrale di Firenze, Magl. 3.2.223 (with date 1550; lacks M2.7); Rin. P.425 (with date 1550; lacks ff. A1, 2B6)

*Venice, Giovanni Padovano, 1552

4°, [196] c.; A-2A⁸ 2B⁺

Second gathering: [B17] 'Che non sia [sic!] quello che beneficio sia,'

LOC Fingerprint: : a.a, moo, a.za mada (C) 1552 (R)

STCN Fingerprint: - b1 A2 ce,o\$: b2 2B2 \$sua\$pa

Bibliographical Profile:

Parma, Biblioteca Palatina, BB.6.26472

Venice, Biblioteca Nazionale Marciana, 89.C.125

*Venice, Alessandro da Vian, s.a. [*c.* 1560]

8°, [196] c.; A-Z⁸ &⁸ [cum]⁺

Second gathering: [B17] 'Quando Morgãte vede il suo signor'

LOC Fingerprint: tete nini tete epsi (C) 1560 (Q)

STCN Fingerprint: 156008 - b1 A2 e\$verr : b2 [cum]² ia\$fed

Bibliographical Profile: A2 n/e/ B cera/ll/o & commiserabile/nt/e

2B /d/egno

Cambridge, Emmanuel College Library, 323.7.92 (lacks ff. T1-8, [cum]⁴)

*Florence, Bartolomeo Sermartelli, 1574

4°: [16], 390, [2] p.; +⁸ A-2A⁸ 2B⁺

Second gathering: [B17] 'Padiglioni, e trabacche, e pennoncelli,'

LOC Fingerprint: e,ta 70Me o.o, EmMo (3) 1574 (R)

STCN Fingerprint: 157404 - a1 +2 suo\$: a2 +4 ista\$ - b1 A1 \$: b2 2B2 \$.

Bibliographical Profile: +2 /s/uo +4 Arpal/i/sta A2 viu/e i/n B Br/u/noro

2A r/om/ore 2B /d/i

Earmark: f. 203 is numbered 103.

Florence, Biblioteca Nazionale Centrale di Firenze, Nencini 2.3.3.15; Nencini

F.7.3.23; Rin. P.429

*Florence, Bartolomeo Sermartelli e fratelli, 1606

4°, [16], 390, [2] p.; *⁸ A-2A⁸ 2B⁺

Second gathering: [B17] 'Padiglioni, trabacche, epennoncelli,'

LOC Fingerprint: e,n- 70Me o.to EmMo (3) 1606 (R)

STCN Fingerprint: 160604 - a1 *2 otti : a2 *4 [signed +4] alista. - b1 A1 \$:

b2 2B2 eo\$.

Bibliographical Profile: *2 /m/otti *4 [signed +4] Arp/a/lista A2 ch/i v/iue

B ciascu/n/ 2A ro/m/ore 2B /R/e

Earmark: ff. *2-3 are signed +; f. G1 is signed C1.

Florence, Biblioteca Nazionale Centrale di Firenze, Magl. 19.4.79; B.29.2.21

The early history of the fingerprint: a view from Edinburgh

BRIAN HILLYARD

When Neil Harris contacted me in July 2005 to ask if I could throw any light on the history of fingerprints, I was able to tell him that indeed I could. I had been introduced to them as part of my training in cataloguing when I joined the National Library of Scotland (hereafter NLS) in April 1977 and subsequently had been heavily involved in their development, at least until the 1984 publication of the standard by NLS and the Institut de Recherche et d'Histoire des Textes (hereafter IRHT) of the Centre National de la Recherche Scientifique, Paris; and I was able to document this and earlier work in the NLS's archives. What follows is not a comprehensive history of the fingerprint's development, but a sketch of how I view it.

Bibliographical fingerprints, as Neil Harris has observed, were the invention of John Jolliffe, then Keeper of Catalogues at the Bodleian Library, Oxford, who devised them as a methodology for what was called Project LOC, L, O and C being the location symbols for the British Library, the Bodleian Library, Oxford, and Cambridge University Library, in *A short-title catalogue of books printed in England, Scotland, & Ireland and of English books printed abroad, 1475-1640*. The essence of his idea was to record four characters from each of four specified pages in a book as part of a computerised catalogue record. Once there was a catalogue database with fingerprints recorded as part of the records, the methodology was to work through a library recording fingerprints alone, and then use those to search the database for matching records. Once found, the records could be extracted and fully matched against the books in question, and the location then added to the record or a new record created if necessary. The first stage, Jolliffe intended, would be carried out by staff trained in recording fingerprints but untrained in cataloguing and would thus represent a considerable saving in labour costs. Occasionally the fingerprint was described

as the equivalent of an ISBN for older books. I fully support Neil Harris's observation that Italian libraries' use of fingerprints illustrates exactly what Jolliffe had in mind.

Jolliffe first described the fingerprint in a talk to the UK Library Association's Cataloguing & Index Group in London in May 1969, though the details were slightly different.¹ But for NLS the key event was a meeting held at the Bodleian Library on 26–27 July 1973 at which an NLS representative, J. R. Seaton, was present. There were eleven participants at the Oxford meeting, a distinguished group including Katherine Pantzer from Harvard and Edith Bayle from the IRHT. In August Jolliffe made a verbal presentation of the proposed standard to a joint session of the Mechanization and the Old and Rare Books Sections at the IFLA meeting in Grenoble, following a paper on the development and use of the fingerprint in Project LOC. In NLS Seaton circulated his own account (dated 30 July 1973) of the Oxford meeting, and there was subsequent correspondence between NLS and Jolliffe. The outcome of all this was the version of the standard printed in Jolliffe's *Computers and Early Books* (1974).² The NLS files hold a later version of the standard headed 'With additions to 14 January 1974', with square brackets around clauses not in the previous version; the origin of these additions is not clear. In February 1976 Edith Bayle, of the IRHT, wrote to NLS saying that they had studied the 14 January 1974 version, and that, accompanied by her colleagues Marie-José Béaud and Jean-François Maillard, she wanted to visit Edinburgh to discuss the automated cataloguing of early books, including fingerprints (the French interest was primarily with sixteenth-century French books, which was also Jolliffe's speciality). The visit took place on 1–4 June 1976, but there is no record of it, only a provisional programme. In the meantime, in March 1975 an internal report found that NLS staff were happy enough with fingerprinting procedures, and a report of August 1977 says that they have been fingerprinting all antiquarian cataloguing for two and a half years and have generated about 6,000 fingerprints. It should be noted that in NLS the imprint date had always been regarded, and recorded, as an integral part of the fingerprint.

Before continuing with the further development of the fingerprint standard, two other events are worth mentioning. One is an evaluation of the fingerprint as part of an evaluation of Project LOC carried out under the auspices of the British Library Research & Development Department, resulting in John Feather's 1977 report.³ Feather, who had considerable discussion with NLS staff, recommended a 4-character fingerprint

The early history of the fingerprint: a view from Edinburgh

comprising the first character of each of the existing groups of four, but the 16-character fingerprint prevailed. More significant was the decision by ESTC not to record fingerprints, described thus by Robin Alston and Mervyn Jannetta in 1978:⁴

The value of the 'fingerprint', devised as a technique for matching records in Project LOC (see further J. W. Jolliffe, *Computers and Early Books*, 1974), has been much debated. After much deliberation it was decided not to employ the fingerprint in the British Library on a comprehensive scale for the following reasons: recording, checking, keyboarding, and proofreading them would have added an unacceptable burden to the staff of ESTC and the financial resources available; to be effective they must be recorded with great precision according to a complex set of rules; they are not widely used as a bibliographical device; no international standard has yet been agreed; and, in cases where a text has been reset literatim, the fingerprint is unable to discriminate. Although the standard being used in France and Scotland derives from the formulas described in the report on Project LOC, there is still much doubt about the standard which should be applied to single sheet material.

Ultimately the ESTC decision was the main reason why NLS abandoned fingerprinting of British books.

With more than 6,000 fingerprints recorded, NLS pressed on. Jolliffe himself visited in July 1978 and discussed further refinement of the rules. I remember the meeting and in particular his saying that the rules could be written on the back of a postage stamp. In essence the rules are simple: in practice, when dealing, for example, with books printed in columns with sidenotes or footnotes or sidenotes wrapping round the bottom of one or more columns, there were difficulties, and single sheets also presented a problem since at that time the standard did not accommodate them. As a result of Jolliffe's visit, NLS worked further on the development of the fingerprint, supported by the IRHT. In June 1979, Bayle, Béaud, and Maillard, spent three days in NLS, and in the course of this visit a revised fingerprint standard was worked out and later written up in both English and French. The French text was published in late 1980,⁵ and then the parallel English and French texts were included in the first issue of a newsletter published in Paris by IRHT in association with NLS in 1981.⁶ There were further meetings with IRHT in June 1983, and the standard was then published in 1984, this time in English, French and Italian,⁷ this last reflecting the growing interest from Italy where *Le edizioni italiane del XVI secolo* began publication in 1985. Further collaboration resulted in a second newsletter, again published by the IRHT in association with NLS,⁸

containing proposals for fingerprinting single sheets and also a detailed report based on a questionnaire that NLS had sent out worldwide. Subsequently the fingerprint standard appeared in Dutch (1986), Catalan (1987), German (1992) and Spanish (1994). These years saw the successful application of the fingerprint in Italy and then the discussions that led to the founding of the Consortium of European Research Libraries. Based on the view that 'the recording of the fingerprint and its use in computer systems were unanimously considered to be of fundamental importance' the decision was taken to re-launch the newsletter, and a third number was published in 1994, this time in Rome, by the Istituto Centrale per il Catalogo Unico in association with NLS.⁹ This included the definitive rules, in Italian, English and French, for recording fingerprints from posters and other single-sheet publications.

In NLS, in the difficult financial climate of the 1980s, the recording of fingerprints became a casualty of looking for ways of reducing the time taken to create a catalogue record. Following an analysis of the findings of the above-mentioned international survey carried out in mid-1984, NLS took a decision to cut back on fingerprinting activities. It was felt that the fingerprint would only really work if there were sufficient fingerprints recorded, and the earlier decision taken by ESTC reduced the advantages of recording fingerprints for British books. However, there was a recognition of the value of fingerprints as a technique, and in order to continue co-operation with the French and in consideration of the Italian interest in this area, it was decided to continue recording fingerprints for pre-1701 foreign books but no others. Since furthermore the majority of its records for early foreign books are converted card catalogue entries created before the invention of fingerprints, today's user of the NLS OPAC will come across relatively few fingerprints.¹⁰

NOTES

1. Abridged transcript in J. W. Jolliffe, 'Fingerprints and Search Codes', *Catalogue & Index*, 15 (July 1969), 4–6, describing an 18-character fingerprint, taking six characters from each of three specified pages: 'We take the first page after the title page, and from it the last two characters at the end of the bottom line, and from two lines up from there, and from two lines up from there again. Then we turn on three rectos and do the same again; and again five more rectos on from there. Bibliographically, this has the advantage of giving us both an inner and an outer forme, even in small formats . . .'

The early history of the fingerprint: a view from Edinburgh

2. J. W. Jolliffe, *Computers and Early Books* (London: Mansell, 1974). Rules for recording fingerprints are given in Appendix B. See also the separate paper, J. W. Jolliffe, 'Project LOC and the Fingerprint', *Libri* 24 (1974), 240–247.
3. J. Feather, *Tests on the Use of the 'Fingerprint' in Library Catalogues: a Report submitted to the British Library Research and Development Department* (Oxford: Bodleian Library, 1977).
4. R. Alston and M. J. Jannetta, *Bibliography, Machine Readable Cataloguing and the ESTC* (London: British Library, 1978), p. 36.
5. E. Bayle, M.-J. Béaud and J. F. Maillard, 'Le système des empreintes', *Bulletin des Bibliothèques de France*, 25 (1980), 461–479. This article also offers a useful account of the early development of the LOC fingerprint from the French perspective.
6. *Nouvelles des Empreintes = Fingerprint Newsletter*, no. 1 (Paris: IRHT in association with NLS, 1981).
7. *Fingerprints = Empreintes = Impronte* (Paris: IRHT in association with NLS, 1984). 2 vols. Vol. 1: *Manual = Guide du releveur = Regole per il rilevamento*. Vol. 2: *Examples = Exemples = Esempi*. This was the standard cited in *Descriptive Cataloguing of Rare Books* (Washington: Library of Congress, 1991).
8. *Nouvelles des Empreintes = Fingerprint Newsletter*, no. 2 (Paris: IRHT in association with NLS, 1985).
9. *Notiziario dell'Impronta = Fingerprint Newsletter*, no. 3 (Roma: ICCU in association with NLS, 1994).
10. At the time of writing, to view fingerprints in those catalogue records that have them it is necessary to go to the MARC display option. When NLS first used the fingerprint as part of a MARC record, it was recorded in a local UK MARC field 529. When the new 'rare books fields' were added to UK MARC in 1992 the fingerprint was one of those fields and was allocated to 756 with a field structure accommodating the NLS-type fingerprint. As a result of MARC harmonisation and also to meet the needs of CERL libraries that had been using UNIMARC field 012 for fingerprints, in 2002 a 'fingerprint identifier' field 026 was introduced into MARC 21, with subfield \$2 for 'Source' (the MARC code list at present shows **fei** [derived from *Fingerprints Empreintes Impronte*] for the LOC fingerprint and **stcnf** for the STCN fingerprint). In NLS, which had converted to US MARC before 1992 and therefore did not benefit from UK MARC 756, at the time of writing fingerprints are still held in 529.

A new resource for the hand printed book: MAR.T.E. – Marche Tipografiche Editoriali Devices of the 17th-century Italian printers, publishers, booksellers

MARINA VENIER

UNA NUOVA RISORSA PER I LIBRI ANTICHI:
MAR.T.E. – MARCHE TIPOGRAFICHE EDITORIALI
MARCHE DEI TIPOGRAFI, EDITORI E LIBRAI ITALIANI DEL 17°
SECOLO

La descrizione dei libri prodotti dalla stampa manuale può essere molto complessa senza adeguati strumenti volti a facilitare la corretta identificazione delle edizioni.

Il progetto MAR.T.E. vuole fornire informazioni e riproduzioni delle marche editoriali e tipografiche italiane, con particolare attenzione ad un secolo, il XVII, in cui la loro originale funzione di ‘marchio di fabbrica’ inizia ad essere sostituita da quella meramente decorativa, creando non poche difficoltà per una corretta attribuzione dell’edizione. Alcuni esempi proposti offrono un’idea dei problemi più frequenti e dell’uso del sistema MAR.T.E.

The concepts of uniformity and standardisation are not easy to apply to hand-press books. It is well-known that the description of an edition should concern an ‘ideally perfect copy of the original issue’ or, more realistically, a copy as complete as possible.¹

This is because each copy of an edition may be checked against this bibliographical description, to identify it and to detect and analyze imperfections or variants. But such a description even though analytical, with the title-page transcribed in full or with a quasi-facsimile transcription, colophon or explicit, complete collational formula, list of contents, fingerprint, etc. might not be sufficient. A full description may not reveal the existence of different editions.

This is the case with the two simultaneous editions of *Regulae aliquot Societatis Iesu*, published in Burgos by Felipe de Junta on 1583 and of the apparent re-issue of the *Discorso miuersale di M. Agostino Ferentilli*, published in Venice by Gabriele Giolito de Ferrari in 1572 and 1573.² Only direct whole checking and comparison of the copies can show the existence of the two editions, created by a complete resetting of the type. The hand-printed book is a very complex object.

If it is possible to have one description for different objects, we should ponder whether in a catalogue of hand-printed books, it is possible to have a truthful description of them. It would surely be better to have linked pictures of the title-page and of other significant pages too,³ but internal variants would not be revealed in this way.

On the other hand, it would be difficult to collate all the existing copies – leaving aside the question of lost copies – and therefore the only possible way is to compare several bibliographical records, whether in printed or in machine-based resources.

This is the reason why a record in a catalogue of hand-printed books, especially a shared catalogue, has to be sufficiently exhaustive and has to include some necessary elements, especially the complete collational formula.

For certain centuries, printed or electronic catalogues are not only few, but, what is more, they are not useful, because their records are too synthetic.

Shared catalogues give the possibility of standardising and normalising the data. Furthermore, as many copies are checked against the same bibliographical description, in the end the description we get is likely to be a complete description of the complete copy. But a good shared catalogue, in particular of older books, survives only thanks to a very strong spirit of cooperation: it is ‘quality of work’ in opposition to ‘cheap and fast’.

MAR.T.E. – Marche Tipografiche Editoriali – was born to fill a void concerning a particular element of the older book: the printers’ and publishers’ devices.⁴ Attention has been particularly focussed on Italian devices of the 17th century, a period when they did not always retain the initial function of effective trademark or brand name, certifying the origin and the quality of the edition. This is the reason why the devices, particularly in this period, pose not only unanswered questions but also interesting conundrums.

It is not by chance that the logo of the database is a device, or, better, a ‘probable’ device – in this case a 16th-century one – that had been

A new resource for the hand-printed book: MAR.T.E.

attributed to the Venetian printer Comin da Trino but is probably the device of the author Marco Guazzo, non-professional publisher of his own works.⁵ Many problems arose in creating MAR.T.E. and making choices that often seemed problematic.

There are many problems connected to wrong identifications. This is the case with the device (Mercury and Pan. Motto 'Fortasse licebit') attributed sometimes to Nicolò Tebaldini from Bologna and sometimes to Nicolò Schiratti from Udine.⁶ In reality, after an analysis of the editions in which it appears, and even those of other printers, it seems to be the device that Fortunio Liceti, a writer of medical, philosophical and erudite works, used to have printed on the title-page of his writings from 1606 on (Fig. 1). Even if it is not properly a device, it has nevertheless been included in MAR.T.E., but the record is not registered with the name of a printer.

The habit of signing co-editions in words and with a device, went on even in the 17th century, but the lack of indexes and studies for this century makes it difficult to be sure about this kind of collaboration.

In the *Isaccio tragedia di Francesco Contarini*, Venezia 1615, for example, the collaboration between Giovan Battista Ciotti, who signs the work, and Antonio Pinelli, the owner of the device, is plausible.

On the other hand, the cooperation suggested by the edition of the *Iusti Lipsii & Iohannis Voelli ... De ratione conscribendi epistolas, utilissimae praeceptiones*, Venezia, 1618, seems unlikely. This edition is signed by Giorgio Valentini and has the device of Comin da Trino (the only one which definitely belonged to him) printed from the same block as the one reported in the edition of Paris De Puteo, *De Syndicatu*, Venezia 1556, 62 years before (Fig. 2). It is obvious that there was not a collaboration between Comino and Giorgio Valentini, but rather a migration of the woodblock, by transfers and assignments, through Giacomo Vidali, Alessandro Griffio and Matteo Valentini, Giorgio's father.⁷ In this case the problem is the meaning to give to this device now: is it still a device or simply a decorative element?

Typographical material, acquired for various reasons by persons other than the original owner, belongs to them. So, we need to evaluate if the decision to utilise that device in that specific position in any way gives it its original legal value. On the other hand, it has been observed that it cannot be considered properly and legally a device, because it does not have the function of indicating where the product comes from, as the business does not exist anymore, but it has only an illustrative function like any other design.⁸



FIGURE 1 Device of the author Fortunio Liceti



FIGURE 2 Sixteenth-century printer's device of Comin da Trino, re-used in 1618

In MAR.T.E., the first interpretation was chosen, obviously with appropriate explanations. In the 1600s, the reutilisation of devices of publishers and printers, mostly of the previous century, was very frequent and had a purely decorative purpose. In this context we can consider the two following examples.

The edition of *I sei libri dell'Architettura di Sebastiano Serlio*, published by Combi & Lanou in Venice, in 1663, with the Minerva device of the two publishers on the title-page has inside 18 devices of more or less well-known Venetian booksellers of the previous century, such as Paolo Manuzio, Melchiorre Sessa or Gabriele Giolito de'Ferrari. These 18 devices are surely decorative elements.⁹

The Venetian publisher Giovanni Giacomo Hertz uses in his edition of the *Opere di Orontio Finesso*, Venezia, 1670, his boat device,¹⁰ on the title-page, and in the text, with a decorative purpose, the devices of Peace, formerly belonging to Francesco Bolzetta and the one of the Star, formerly belonging to Ognibene Ferretti.

These cases of 'surviving material' are also included in MAR.T.E.: the heading under the printer or the publisher and the indication of the place were omitted, but a full explanatory note was added.

Anyway, these kinds of cases help to document the history of the transitions and amalgamations of printing shops or to further illustrate the case of the trade in used typographical material.

I would like to underline two further elements concerning the structure of the database. The first one is the introduction, in the search screen, of the ICONCLASS code, which is a standard for the classification of iconographical documents created by the Professor Henri van de Waal in the 1950s and published for the first time in English in the years 1970/1980. He describes figurative representations through decimal codes. This allows a normalisation of the contents, useful both in the collection of data during cataloguing and in the retrieval of that same data, when searching the database. Furthermore, the alphanumeric descriptors and the multilingual version of the dictionaries and thesauri¹¹ which were consulted render ICONCLASS a classification system independent of language. So, the possibility of searching remote databases, placed in their own national contexts, over language barriers, is growing.¹²

The second element is that MAR.T.E. is a database in progress, whose growth, updating but also improvement is delegated not only to the Biblioteca Nazionale Centrale di Roma but also and especially to the scholarly community of librarians and non-librarians. This cooperation is

A new resource for the hand-printed book: MAR.T.E.

in fact the only instrument we have to fight the endemic decrease of human and financial resources in the field of cultural heritage. The external user, once registered, can also propose the introduction of new devices or the modification of the existing records or give supplementary information on existing studies concerning devices, printers, publishers or booksellers. MAR.T.E. will have the opportunity to become an effective working tool for the scholarly community that wants to learn more about the Italian book trade of the XVIIth century. In the field of cataloguing, it follows all the existing repertories that contribute to the standardisation and uniformity of all the data in the bibliographical descriptions.

NOTES

A special thanks to Alessandra Mariani of the BNC of Rome for the assistance in the translation of the text.

1. F. Bowers, *Principles of bibliographical description*. Princeton, New Jersey, 1949, p. 113. In the Draft of the 2006 Revision of the *ISBD(A): International Standard Bibliographic Description Monographic Publications (Antiquarian)* ([http://www.ifla.org/VII/s13/pubs/ISBD\(A\)_February2006.pdf](http://www.ifla.org/VII/s13/pubs/ISBD(A)_February2006.pdf)), paragraph 0.12, the term ‘ideal copy’ has been deleted, in favour of ‘complete copy’.
2. M. Venier and A. De Pasquale, *Il libro antico in SBN*. Milano, 2002, pp. 453–465.
3. See VD17 (www.VD17.de), EDITI6 (http://editi6.iccu.sbn.it/web_iccu/ihome.htm).
4. Access to the MAR.T.E. database is available through the web site of the Biblioteca Nazionale Centrale of Rome at <http://www.bncrm.librari.beniculturali.it> or via <http://193.206.215.4/marte/>.
5. P. Veneziani, ‘La marca tipografica di Comin da Trino’, in: *Gutenberg-Jahrbuch* 65 (1990), pp. 168, 170.
6. G. Comelli, *L'arte della stampa nel Friuli Venezia Giulia*. [Udine], 1980, pp. 138–139; A. Sorbelli, *Storia della stampa in Bologna*. Bologna, 1929, p. 148.
7. P. Veneziani, ‘La marca tipografica di Comin da Trino’, pp. 171–173.
8. P. Veneziani, ‘Riutilizzo di marche tipografiche’, in: *Quaderni della Biblioteca nazionale centrale di Roma* 8 (2000), pp. 5–11.
9. P. Veneziani, ‘Riutilizzo’, pp. 10–11.
10. F. Barbierato, ‘Giovanni Giacomo Hertz. Editoria e commercio librario a Venezia nel secondo ‘600’, in: *La Bibliofilia* CVII (2005), p. 143.
11. M. Lattanzi, S. Ciofetta, E. Plances (eds), *Iconclass in italiano*, Roma, ICCD, 2000.
12. www.iconclass.nl

Old in the New: The XML Database of the Hungarian Shared Catalogue of Old Books

GÉZA BAKONYI

IL VECCHIO NEL NUOVO: IL DATABASE XML DEL CATALOGO COLLETTIVO UNGHERESE DI LIBRI ANTICHI

Il progetto MOKKA fornisce un sistema nazionale di catalogazione partecipata delle biblioteche ungheresi. Un recente sviluppo (2004) è stato la creazione del MOKKA-R, che mira a fornire un catalogo del materiale a stampa ungherese pubblicato prima del 1850. Un'indagine ha reso noto che ci sono circa un milione di dadi, racchiusi nelle biblioteche ungheresi e in quelle del bacino Carpaziano, per questo periodo. Attualmente sono stati vagliati i dati di 11 biblioteche. Una descrizione è fornita dall'OPAC e dai moduli di catalogazione impiegati in XML. Questo sistema potrà incredibilmente facilitare la registrazione del patrimonio stampato ungherese.

THE HUNGARIAN NATIONAL SHARED CATALOGUE (MOKKA)

The MOKKA project was initiated in 2003 by the fifteen largest Hungarian libraries (the National Library, university libraries, special libraries and the 'Szabó Ervin' Municipal Library) and it became the pillar of the National Document Supply System. For the past years the number of the member libraries has been growing continuously. Presently the records of 9 county libraries are being loaded into the database. Together with these data the central catalogue which, on the one hand, serves shared cataloguing, and on the other, serves as a location database, contains near 2.7 million records. There are also descriptions of old books in the database, nearly 29,000 records. However, the cataloguing rules and the interfaces used are not suitable either for recording precise descriptions of old books, or for meeting the expectations of experts. Therefore, in 2004 as a subproject of the MOKKA project we established the MOKKA-R project, that is, the central catalogue of old Hungarian printed material (which intends to cover every document printed between 1450 and 1850).

OLD BOOKS IN THE CARPATHIAN BASIN

This project makes possible a deep and extended exploration of the older printed material of the Carpathian Basin with the intention of ensuring the preservation of cultural valuables and making a considerable contribution to the development of research.

The scope of inclusion is determined by two factors. One of them is the period itself, that is, the documents printed between 1450 and 1850. The other is the a real approach, that is, every such document which can be found on the territory of the present Hungary or in the Carpathian Basin. The only exception is for facsimile editions because in this case the period cannot be considered as a restricting factor. Consequently, the scope of the project covers not only the old books but all such printed material which was printed between 1450 and 1850 and which is presently located in the Carpathian Basin. This was supplemented by the principle that only those library items can be included in the database which belong to the holdings of member libraries. The scope excludes private collections and libraries that cannot be accessed publicly.

In Hungary and in the Carpathian Basin older printed material is processed in very different ways and to a very different extent. In order to build the database it is necessary to make use of all data files which are suitable for a shared catalogue and which can be loaded into the database. All those institutions which possess a significant collection of older material and have reached a level of automated processing are worth involving in the cooperation. Presently this means 49 libraries, among them the National Library, the Library of the Hungarian Academy of Sciences, and valuable university and ecclesiastical libraries. These libraries are capable of transferring bibliographic records in a digital format to the central database. The difficulty of the data exchange is that these records are stored according to different cataloguing rules and in very heterogeneous structures.

Relatively many libraries have prepared printed catalogues of their own older printed material collections. From among these the catalogue of 16th century books of the National Library and the 'Szabó Ervin' Municipal Library are already part of the system. From this time on, it is worth creating a new electronic record for a printed publication only in such cases where this is unavoidable for processing. Obviously, if an electronic version of the printed form is available, it is much simpler to load that into the database.

The XML Database of the Hungarian Shared Catalogue of Old Books

In December 2003 we conducted a national survey in order to collect information on the present state of the collections in Hungary. According to the information acquired from different sources there are old printed documents in 238 libraries in Hungary. Within these libraries 90% of the old printed books that can be found in the country are concentrated in roughly 20 libraries. Therefore the survey was performed only in the larger institutions.

We sent out questionnaires to 118 institutions and 59 completed ones were sent back. According to the survey there are altogether 921,697 old printed books in these Hungarian libraries. This number can still grow because half of the institutions have not answered the questionnaire and because secondary school libraries were not included in the survey. In order to have information on the quantity of the stock we broke the questionnaire into separate periods: incunables, printed books from the 16th, 17th, 18th centuries, and material printed between 1801 and 1850. From among the 51 libraries which answered this question there are altogether 4,314 incunables in 33 libraries. There are 16th-century printed books in 47 institutions (40,620 items). There is 17th-century printed material in 40 libraries (117,373 items), 18th-century printed material in 45 collections (424,930 items) and, finally, documents printed between 1801 and 1850 in 42 collections (333,835 items).

From the point of view of the history of culture the printed books published before 1850 in the Carpathian Basin constitute a single unit. This explains why it is our intention to extend the project beyond our frontiers. This can be achieved if the libraries and library organisations of each country express their wish to cooperate in this work. As far as is possible, the holdings of all such libraries from the Carpathian Basin should be made available which are historically connected to book publishing in the period between 1450 and 1850. In this way the processing of historically connected collections may become more effective.

THE GOAL OF THE MOKKA-R PROJECT

The Hungarian National Shared Catalogue – Old Printed Books (MOKKA-R) automated project intends to solve a complex set of problems.

a. LOCATION LIST. A basic aim of the project is that it can be used as a national location list for older printed material. We know that, from the perspective of the history of book, it is very important that, in addition to

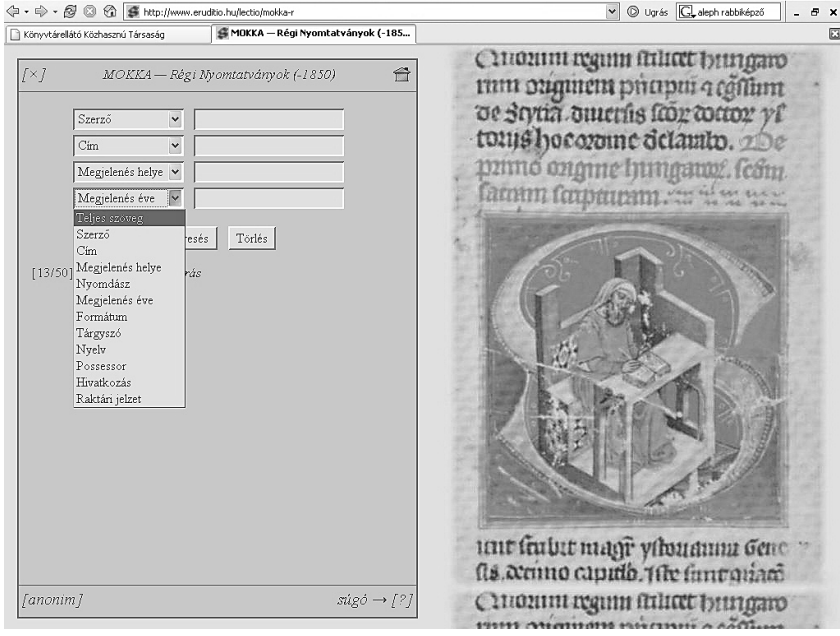


FIGURE 1 The main search screen of the MOKKA-R database

the bibliographic description of books printed before 1850, the individual characteristics of each copy should also be revealed. Presently there is not such a shared catalogue in Hungary that could accomplish this to a proper degree and so it is necessary to create such a database which definitely meets these special demands. This should be realized in such a way that each of the copies of the same edition can be retrieved in a way that beside the location data the individual features of the volume in question also appear.

b. SHARED CATALOGUING. Beside the location data and the individual features, shared cataloguing also has to be implemented because it makes processing faster and more effective. The point is that if the bibliographic data of the document are already included in the database the possibility of downloading the record and of completing it with holdings data and individual characteristics (e.g. possessor, binding, marginal notes, etc.) should be available. With the help of shared cataloguing rules, the records provided by different institutions can easily be uploaded to the database.

The XML Database of the Hungarian Shared Catalogue of Old Books

c. **ACCELERATED PROCESSING.** There are many such collections of old printed material in Hungary and in the Carpathian Basin where the description of the stock is on a very low level or does not exist at all. Therefore it is the job of MOKKA-R to promote the processing of these collections. For this purpose a cataloguing module is required which works via the Internet, or independently of it, and through which records can be loaded to the database directly. This module can be operated with much smaller costs than an integrated library system because the tools that are needed are an average capacity PC, an Internet access faster than that provided by a modem and a browser.

d. **OTHER DATA.** The database structure of the shared catalogue will be created in such a way that it can be connected to and completed by other data as well. On the one hand, image files and URLs can be linked to any element of the description (e.g. author, place of publication, printer, etc.). On the other, full digital versions of documents can be linked to the records (electronic critical edition, complete works stored in image files).

THE SEARCH INTERFACE

The system through which the automated national catalogue of old books is operated is not an integrated library system but uses XML which can more easily be modified. It consists of two main parts: an OPAC module and a cataloguing module. The system operates online, that is, both the OPAC and the cataloguing module are accessible through a TCP/IP network. Apart from this there is also the possibility of offline cataloguing. The search interface is entirely public while the editing part is protected by a password. The passwords control the degree of access to different parts of the database.

The data are stored in XML format in the system but from the point of view of both input and output the system is capable of receiving and supplying data prepared in USMARC and HUNMARC without losses.

a. For the MOKKA-R database we use the multifunction software that operates the services for the Szeged mirror of MOKKA, *Lectio – Sources for History of Reading*, the Szeged University Library Database Portal and that of the Hungarian Dante Society which provides access to Dante's works. The name of the support system is *Bodza*. Its development is supported by the National Széchényi Library and the University Library of Szeged University. The prototype of the databases which, to a certain

are already integrated into the system is available via the URL <http://bodza.bibl.u-szeged.hu>.

b. The software works with texts tagged according to the XML standard. It is therefore able to work with an input of any type of textual objects, should that be a Word text, a MARC21 segmented text, the result of applying SGML/XML, etc. The texts are present as standalone XML texts, therefore their segmentation can be increased at any time, according to needs. Naturally, the transformation of complex texts into input files cannot be automated completely but the software and its environment (free linux auxiliaries) significantly support this process. In other cases (as in the case of MARC21) the process can be automated in full measure.

c. The interface intends to make searching and browsing look like turning the pages of an open book. We can see two pages of this ‘book’ simultaneously: on the right side you can see the current state, while on the left the predecessors are available. As we move on along the links of the hypertext, the pages proceed from right to left.

The screenshot shows a web browser window displaying the MOKKA-R interface. The address bar shows the URL: <http://www.eruditio.hu/lectio/mokka/?serial=1481&item=S&state=RenC,522,0>. The page title is "MOKKA – Régi Nyomatványok (-185...)".

The left pane displays a list of 24 records, sorted by author. The selected record (number 6) is:

6. HORATIUS Flaccus, Quintus: [Opera omnia] Ex fide [fsc]k atque auctoritate decem librorum manuscriptorum, opera Dionysii Lambini. — Venetis, 1566.

The right pane shows the XML view of this record, with the following structure:

```
<apponyi>
  <nz>379.</nz> <dn> <datum>1564.</datum>
  <auth qual="prin">HORATIUS.</auth>.
  <titul>Ars poetica Horatii, et in eam Paraphrasis,
  et <symbol>sparekholai.</symbol>, sive Commentariolum
  Joannis Sambuci Tirmauiensis Pannonii.</titul> ||
  <imp>
    <locus>Antverpiae.</locus>.
    Ex officina <auth qual="typ">Christofori
    Plantini.</auth>.
    <datum>M.D.LXIII.</datum>
  </imp>
  <forma>Svo.</forma>
  188 S., 1 un. Bl. Auf dem Titelblatt die
  Plantinische Vignette. Bl. 1.<sup>b</sup>.</sup> das Kais.
  Privilegium. S. 3 die Widmung <sup>Daniel Rechnitz
  Francisco Gentili Nobili Genuensi S. D.</sup>. Die ersten
  Seiten enthalten einen interessanten Beitrag zur
  Biographie des Sambucus: <sup>Cum ante biennium in illa
  perturbatione gallica, D. Sambucus tertio Italiam
  revisere constituisset, atque Genuae in suavissima
  doctissimi et antiqua virtute atque eruditione insignis
  Stephani Saulii, Oederici Medici, et aliorum
  consuetudine, ante quam Neapolim proficisceretur,
  mensam haesisset; annotavit quaedam in Horatii
  Poeticam, atque paraphrasi illustravit.</sup> Der Horazische
  Text S. 5-20. Die Paraphrase S. 21-62. Dann bis zu Ende
  der Commentar. Auf dem un. Bl. stehen die Druckfehler
  und die Schlusschrift des Druckers. Siehe Ruiliens, S.
  55.
</apponyi>
```

The bottom of the interface shows navigation controls and a search bar with the text "[??" and "xml formában".

FIGURE 2 The XML view of a record in MOKKA-R

THE FORM

The starting point of the search is a form where at least one search string should be formulated. Here there is also a possibility of narrowing, widening or changing the scope of documents (sources) involved in the search.

SET OF HITS

Starting the search from the form we receive a set of hits (or a part of that) in which the hits are listed briefly. This list can be sorted, browsed and, naturally, items can be selected from here.

DETAILED DISPLAY

The selected document will appear with more details on the next page. This is the detailed representation of the hit. Depending on the nature of the source, several such forms of the text may be available and we can select from among them. In certain texts hypertext links indicate semantic connections between the records of the database. Along them we can get to another set of hits or to the detailed display of another document. During browsing, with a single click we can return to the last form we used.

d. Each line of the form formulates a search string. There is a logical AND connection between these lines, therefore the set of hits received is the common part of the hits of the respective search strings; that is, every text received as a result will match *all* of the patterns given. A search string can be broken into three components:

- The search aspect (attribute). It is a detail of the text we are looking for, which is identified by its meaning and which can be literal, e.g. the title of the work in a bibliographic description or a contents generated through deduction like e.g. the Arabic numerals in the case when the date was written in Roman numerals in the original document. The different types of texts can define partly or entirely different sets of attributes, but all of the sources are accessible through at least one (the most general) search aspect and this is the full text search (covering the whole document).
- The type of matching (operation). The matching operation does not appear with a menu on the form: it is the feature of the search pattern. When the sequence of letters we are looking for formally corresponds to a keyword, it starts the process of the classical *keyword search* while in the opposite case the pattern can be considered as a regular expression.

The former can be used very easily, results in a more rigorously defined set of hits and the search can be performed much faster; but its expressiveness is limited (because it is not suitable for the matching of e.g. fragments of words, alternative letters or words located near to each other); in every such case the experienced user makes a great use of the practically universal search patterns formulated by regular expressions.

- The pattern sought. In the most simple case the text pattern we are looking for is a non-empty sequence of alphanumeric signs (letters and numbers). We do not distinguish between small and capital letters. During searching letters with accents lose the diacritical marks (ä → a; í → i; ş → s), with the exception of á, é, ö and ü since in our case these are very important because of the particular usage of the Hungarian language. A space within quotation marks is retained (especially for matching neighbouring words in which case “József Attila” does not find Attila József) but no other punctuation marks (!, ., - + { } @ etc.) can be searchable. The special characters (metacharacters) which appear in the grammar of regular expressions are suitable only for formulating abstract search patterns.

e. **SOURCES** As we have mentioned it is not simply a piece of software but a distributed system. The main goal of the interface is an integrating ability with the help of which several databases with different characteristics (either in the topic, structure, size or method of access) can be shown, searched and edited as a single coherent unit. Bodza basically is a distributed system: it measures the texts in high level abstractions and it does not have to know anything about the details of their behaviour. The data which enter the system and which, according to their semantic roles, belong to each other are grouped in collections. These are the sources from among which we draw the sets of hits with the search strings, a sieve full of holes. There are three ways through which the texts can arrive at these collections:

- they come into being locally as results of editing operations
- they are harvested from external databases via replication (mirroring) at stated intervals
- they are not stored locally because they are downloaded from external databases only for the period of searching

A source is not only a set of related data but an organic unit of a collection of texts behaving similarly and the operations (program) that can be

The XML Database of the Hungarian Shared Catalogue of Old Books

performed on the texts. The character of the operations to be performed is determined by the system: the loading, storing, retrieving, sorting in lists, displaying, converting of texts, etc. The realization of the program is different and specific according to types of texts as indicated by the varied set of possible retrieval, search, sort and display aspects. The sources built in the system take a hierarchical (tree-like) structure: a collection is a set of texts or a set of other collections. Before starting the search we can switch on or off certain individual or grouped sources according to whether we intend them to take part in the operation or not. The search interface holds a separate entrance point (URL) for each source: arriving through this, the form, though only from the aspect of the respective collection, but shows the entire (and, depending on eligibility, public) system.

CATALOGUING INTERFACE

Similarly to integrated library systems the national rare book catalogue also has a cataloguing module. In appearance it means an editable form available through the Internet which actually is a traditional html form. In order to run it, a browser and JAVA support are required. All users see the same interface for any operation (creating a new record, modifying a record, completing a record from external sources). The usage of this facility is necessary only for those libraries which do not possess library software or which do not intend to describe old printed books in their own system.

The interface can be used with two options:

- a. XML editing interface: any text (record) of any source can be edited as a text
- b. records based on MARC21 will be edited with the help of a MARC editor.

Naturally, in order to use any of them the user should have appropriate access permissions.

One of the aims of the project is to promote shared cataloguing. It is therefore possible to download records to the editing module from different databases (such as the Hand Press Book Database, HAB, etc.). This is realized with the help of the Z39.50 standard. In the same way, those libraries which are building their own catalogue can download bibliographic records from our database.

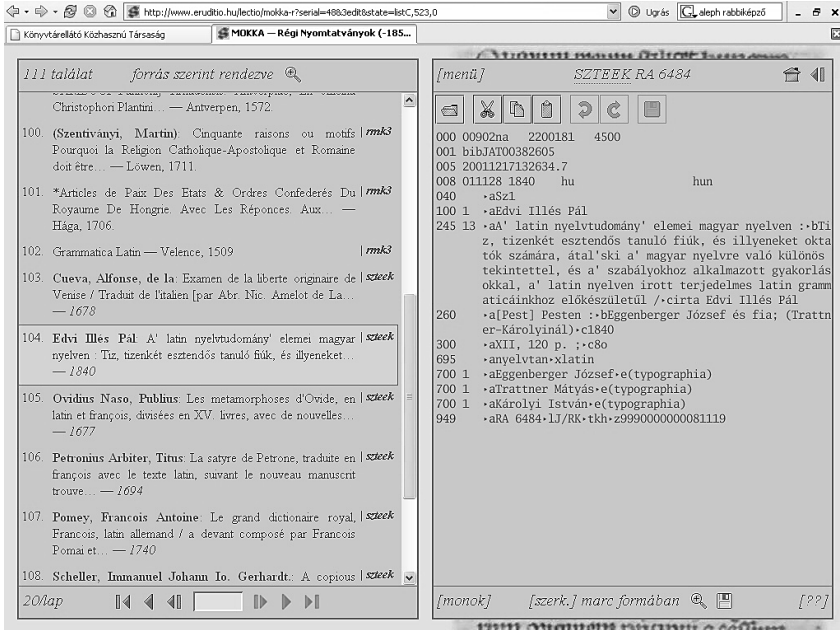


FIGURE 3 The MARC21 view of a record in MOKKA-R

The editing interface works both offline and via an online connection. When preparing a record, the filing data go through an authority control in every case. Presently there is no real authority control in the system; instead, a list operates in which every name that has appeared earlier can be located.

As a conclusion we can state that the central old book database was successfully put into operation. Presently data are included from 11 libraries: 4 university libraries, 2 public libraries, 4 ecclesiastical libraries, the national library, and from the national bibliography. In 2005 the project was strengthened by an order of the Ministry of Culture which declared the compulsory recording of library documents in museums. This recording is achieved by the system discussed above and in this way we are going to create such a shared database system that can include more bibliographic descriptions of old books than it was anticipated.

The Catalogue Collectif de France (CCFr) *Today and Tomorrow*¹

FLORENT PALLUAULT

IL CATALOGO COLLECTIF DE FRANCE (CCFR): OGGI E DOMANI

Il catalogo francese CCFr è un prezioso strumento bibliografico on-line, che consente attraverso una singola ricerca di accedere contemporaneamente a tre dei maggiori cataloghi: ovvero a quello della Bibliothèque nationale de France, il BN-Opale+, a quello inter-universitario, il SUDOC, ed infine alla conversione retrospettiva dei cataloghi di molte biblioteche comunali. Il CCFr possiede attualmente più di 17 milioni di documenti. Sebbene il database non fornisca dettagliate informazioni bibliografiche, soprattutto in relazioni ai dati forniti dalle biblioteche comunali, esso ci consente di conoscere la collocazione di un ampio numero di libri antichi. Sviluppi futuri miglioreranno il metodo di ricerca e consentiranno di eseguire l'indagine tra un maggior numero di cataloghi on-line delle diverse biblioteche regionali.

The French union catalogue (*Catalogue collectif de France*, or CCFr) is one of the most powerful online bibliographic and document research tools in France. Its main purpose is to provide a single search interface for three major catalogues representing over 17 million documents. This paper covers the history and the current structure of the CCFr, describes its search features, analyses the quality of results, and presents our ongoing and future projects. To keep the focus on the Seminar's theme (i.e. the question of shared catalogues of older books) I shall emphasise the use of the CCFr in research on early-printed publications. As will become clear during the presentation, the following description is only valid as of November 2005. From the summer of 2006 the CCFr will undergo many changes and offer new services which I will describe towards the end of my presentation.

HISTORICAL BACKGROUND

Historical context

The CCFr is an offshoot of the 1988 initiative to create a new library, the Bibliothèque de France, where digitised documents and computerised catalogues would have a place of choice. Organising and managing a network of partner libraries and creating a national union catalogue became two of the Bibliothèque de France's primary objectives. The scope of the original project was quite large as it encompassed both municipal libraries, under the responsibility of the Ministry of Culture, and academic libraries, funded by the Ministry of Education.

Project organisation

The CCFr sought to offer free access to a computerised catalogue of all books held by French public libraries. The project's primary objective was to provide researchers and the general public with the greatest possible number of bibliographical records through a single entry-point, to enable these users to locate a document in a specific library and either borrow or reserve that document, or order a reproduction. It was not conceived, therefore, as a depository from which libraries could derive records for their own catalogues.

In 1994, the Bibliothèque de France and the Bibliothèque nationale merged into a single entity, the Bibliothèque nationale de France (BnF). Among the missions assigned to the BnF, the creation of a union catalogue figured prominently. The new establishment held the legal deposit of all books published in France and had the most extensive stock of ancient and contemporary documents in the country. The BnF also possessed experience of computerised catalogues, necessary bibliographic and technical expertise and server capacities. The Ministry of Education provided its own experience of dealing with several networks of shared cataloguing and managing the union catalogue of periodicals.

Bibliographic and technical choices

As with all union catalogue projects the main difficulty was compatibility. The CCFr was to use three main databases which relied on different software, hardware and server technologies; the records even obeyed different bibliographical norms (Intermarc, the norm used by the BnF, and Unimarc used by most other French libraries). Instead of trying to merge all the records into one single database, the BnF chose to create an

The Catalogue Collectif de France (CCFr) Today and Tomorrow

interface that would search through these heterogeneous catalogues. To this end, it pioneered the use of the Z39.50 protocol to create a customised platform, as library software did not yet possess dedicated Z39.50 applications. These initial technological difficulties, together with the early stage of computerisation of bibliographic records by many municipal libraries, explain the project's slow evolution.

Three stages for online services

With the advent of the Internet and the creation of the BnF's website, it was decided that, once constituted, the CCFr would go online. In 1998, the first step was the online publication of the directory of French libraries and documentation centres. In 2001, the catalogue itself went online, with an interlibrary loan service beginning the following year.

CURRENT STRUCTURE OF THE CCFR

The RNBCD (Répertoire national des Bibliothèques et Centres de Documentation)

In its current structure, the CCFr offers two main services: a directory of libraries and the union catalogue itself. The directory of French public libraries and documentation centres currently lists over 4,500 academic and municipal libraries, particularly all public libraries located in towns with populations greater than 10,000 inhabitants. The RNBCD provides practical information (such as address and opening hours), as well as data about collections and catalogues (Fig. 1). More specifically, the directory offers descriptions of approximately 1,500 collections of particular interest, which provides a documentation map of France. These collections either originate from a donor, or were constituted around specific themes, or are based on particular document formats such as microfilms or posters (Fig. 2). Examples include the collection of documents related to the writer Stendhal in Grenoble, and the incunabula collection from Clairvaux abbey in Troyes.

The union catalogue

The CCFr catalogue itself is a combination of three databases (BN-Opale+, SUDOC, and BMR) which enables users to search through over 17 million records, of which over 9.3 million come from BN-Opale+, 5.5 million come from the SUDOC and 2.5 million come from BMR.

CCFR
Catalogue collectif de France

ACCUEIL
REPERTOIRE BIBLIOTHÉCAIRES
PARIS
HISTORIQUE
LOCALISATION DOCUMENTS
AIDE
ACTUALITES
AUTRES SERVICES
A PROPOS DU CCFR

DESCRIPTEUR BIBLIOTHÉCAIRE
— NOUVELLE RECHERCHE — LISTE DES RESULTATS
— IDENTIFICATION — LOCALISATION — HISTORIQUE — ORGANISMES LIÉS
— NOMMES — COLLECTION — SERVICES — INFORMATIONS COMPLÉMENTAIRES

Identification de l'établissement
Bibliothèque municipale de Charleville-Mézières, Ardennes

Nom du responsable : Gérard Martin
Code établissement : BM non classée
Code RCR : 091056201
Objet, activité : Bibliothèque municipale
Nom de l'organisme d'affiliation : VILLE DE CHARLEVILLE-MÉZIERES
Fonds particuliers : Arthur Rimbaud
Fonds ardennais

Localisation de l'établissement

Adresse : 4 Place de l'agriculture
Adresse Postale : 05000
Code Postal : 05000
Commune : Charleville Mézières
Pays : France

Téléphone : 03 24 33 33 53
Télécopie : 03 24 59 09 22
Adresse Web : <http://www.bm-charlevillemezieres.fr>
Adresse Courrier électronique : bibliotheque@bm-charlevillemezieres.fr
Adresse PIB : florence.croisy@bm-charlevillemezieres.fr
Note : Gestionnaire du prêt inter-bibliothèques : Florence Subitassi-Croisy

Historique de l'établissement

Historique de l'établissement : Bibliothèque constituée de 1791 à 1795 par les fonds des abbayes de Mouzon, Novy, Belval, de la Chartreuse du Mont-Dieu, du couvent de Laval-Dieu, des Capucins et des récollets de Charleville, des Minimes de Rethel, par les bibliothèques du marquis de Sy, de Dager et de Romance. Elle devient bibliothèque municipale en 1804 et fut rendue publique en 1866

Morales

Heures d'ouverture : Adultes : mardi, jeudi 10h-12h et 14h-18h, mercredi, samedi 9h30-12h et 14h-18h30, vendredi 14h-18h
jeunes : mardi, jeudi, vendredi : 16h-18h
mercredi, samedi : 9h30-12h

FIGURE 1 The RNBCD record for the Charleville-Mézière public library, with the mention of the collection of documents related to the poet Arthur Rimbaud, who was born in that town

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LOCALISATION DOCUMENTS
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AUTRES SERVICES
A PROPOS DU CCFR

NOTICES DE FONDS
— NOUVELLE RECHERCHE — LISTE DES RESULTATS
— IDENTIFICATION — DESCRIPTION — HISTORIQUE — INSTRUMENTS DE RECHERCHE

Identification du fonds

Nom du fonds : Jacques Renaud
Localisation : [Médiathèque de la communauté d'agglomération Niort Deux-Sèvres](#)
Volume total du fonds : 143 Volumes
Etat d'accroissement : Clos
Note sur l'état d'accroissement :
Type de fonds : fonds régional

Nom du fonds	Nature du lien
Fonds local - Fonds	Fonds
	d'appartenance

Fonds liés :
Note générale : A ces 143 volumes, s'ajoutent 4 cartons de documents
Source de la notice : Notice réalisée par la bibliothèque

Description du contenu

Type de documents	Sous-type	Volume	Volume Quantifié
Texte imprimé	Monographie	105 Volumes	
	Manuscrit	38 Volumes	

Domaine couvert	Volume	Volume quantifié
Littératures des langues romanes (Littérature française, ...)	100 %	

Langues	Groupe de langue	Volume	Volume Quantifié
Français	Français		100 %

Période de publication	Début	Fin	Volume	Volume Quantifié
	1800	1800		100 %

FIGURE 2 The RNBCD detailed record for a collection of documents on 19th-century writers from the Poitou region at the Niort library

The Catalogue Collectif de France (CCFr) Today and Tomorrow

BN-Opale+

BN-Opale+ is the BnF's general catalogue and it includes all printed, audio-visual, microform and digitised documents, both French and foreign, held by the library and obtained through legal deposit, acquisitions, donations or exchanges. This multimedia, multi-format catalogue continues to expand through the gradual integration of special collection catalogues (such as sheet music, maps, and engravings) currently accessible via BN-Opaline. At this time, however, BN-Opale+ does not contain records for most works printed in non-Latin scripts. In addition to these document records, BN-Opale+ offers almost 1.5 million detailed authority records.

The SUDOC (Système Universitaire de Documentation)

Managed by the Higher Education Bibliographic Agency (ABES), the union catalogue of higher education libraries (SUDOC) includes a shared cataloguing interface providing an ever-expanding reference depository from which 130 participating establishments can input and retrieve bibliographical records. In addition, SUDOC includes the French union periodicals catalogue for 2,900 libraries, both academic and non-academic. Only about 120,000 older books are listed in the SUDOC, as the emphasis has been placed so far on 20th-century collections.

BMR (Bibliothèques Municipales Rétroconverties)

BMR is the result of three waves of retrospective conversions, which took place between 1992 and 1996. These conversions involved 50 municipal and 27 academic libraries, with the records from the academic institutions being later transferred into SUDOC. The catalogues chosen for retrospective conversion referred to either sizeable collections of older books (at least 20,000 pre-1811 documents), or to collections organised around a local or specialised theme. These collections were selected for the particular richness or originality of their content. Unlike BN-Opale+ and the SUDOC, BMR is hosted by and can only be accessed via the CCFr. It currently lists the records of 59 establishments, combining the resources of 262 catalogues, which are mostly collections of early printed books held by the major city libraries.

Prêt Inter-Bibliothèques

Attached to the CCFr is an interlibrary loan service, available free of charge to both libraries and individuals. Users can either reserve a book in

the holding library, request its transfer to one of the 170 relay libraries or have a reproduction sent to them. Of the 5,000 requests treated every year 15% originate directly from internet users, while the rest comes through one of the partner libraries.

SEARCHES AND RESULTS

The CCFr search interface

The current search interface offers two possibilities. In the 'simple search' feature, users can look for exact words or dates in any of the following fields: author, title, publisher, publication place and publication date. Alternatively, researchers can browse the authors and title words index. In the 'combined search' feature, users can use Boolean expressions with the same fields as above and with a few more, such as corporate headings and periodical titles.

A third search feature, by type of document, is not yet fully functional. Furthermore, the search by publisher and place of publication only works for BMR and BN-Opale+. We are currently exploring ways of solving these issues, which are caused by slight gaps in compatibility between the catalogues. As with most retrospective conversions, there are neither search by subject nor by access point control.

The number of connections to the CCFr search interface has gradually risen to the current level of 110,000 per month.

Results of searches on the CCFr

The answer to a query depends on the conformity of the databases to Z39.50 simultaneous interrogation protocol and the availability of the database at that precise moment. A maximum of 100 answers can be displayed; therefore the request must be precise and accurate.

Two figures appear on the results page: the number of responses (i.e. the number of titles found) and the number of records (i.e. the number of bibliographical records related to the titles found) (Fig. 3). Where necessary, an application solves any redundancy issues by creating a cluster of records, with the indication of the author, title, place and date of publication (Fig. 4). The detailed bibliographical records can then be accessed by clicking on 'notice détaillée', and one or more locations are given (Fig. 5). Users can get information about the location indicated by clicking on the link and displaying the RNBCD record for that library. The basket feature allows users to stock records which they can then select export in text format.

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The screenshot shows the CCFr interface with the following content:

- CCFR** logo and navigation menu: ACCUEIL, REPERTOIRE BIBLIOTHÈQUES, LOCALISATION DOCUMENTS, PANIER HISTORIQUE, SUIVI DES DEMANDES DE PRÊTS, AIDE ACTUALITÉS, AUTRES SERVICES A PROPOS DU CCFr.
- LOCALISATION DE DOCUMENTS** header with a search bar and a button to modify the search.
- Text: "Catalogue(s) accessible(s) : SUDOC, BNR" and "CLIQUEZ SUR LE LIEN DE LA NOTICE POUR PLUS DE DÉTAILS".
- 75 réponses (06 notices)** section with a sub-section **Recueils factices** containing one checkbox: Descartes, R / Discours de la méthode...
- Monographies** section with a list of checkboxes:
 - Descartes / Bibliothèque classique d'ouvrages philosophiques - Descartes - Discours de la Méthode et première méditation
 - Descartes / Discours de la méthode, par René Descartes
 - Descartes / Discours de la méthode plus la Dioptrique et les météores
 - Descartes / Discours de la méthode, plus la dioptrique et les météores, qui sont des essais de cette méthode (par Descartes)
 - Descartes / Discours de la méthode pour bien conduire sa maison, et chercher la vérité dans les sciences, plus la Dioptrique, les Météores et la Géométrie, qui sont des essais de cette Méthode
 - Descartes / Discours de la méthode pour bien conduire sa raison et chercher la vérité dans les sciences, plus la dioptrique et les météores, par René Descartes
 - Descartes / Discours de la Méthode pour bien conduire Sa Raison et chercher la Vérité dans les Sciences, plus la Dioptrique, les Météores, la Mécanique et la Musique, par René Descartes avec des Remarques et des Eclaircissements
 - Descartes / Discours de la Méthode pour bien conduire Sa Raison et chercher la Vérité dans les Sciences, plus la Dioptrique, les Météores, qui sont des essais de cette méthode, (par René Descartes)
 - Descartes / Discours Sur les Influences des astres Selon les Principes de Descartes
 - Descartes / Il y a Imprimé de Descartes, ou le traité de la lumière et des autres principaux objets des sens, avec un Discours de l'Action des Corps et un autre des fibres, comparez selon les principes du même auteur
 - Descartes, René / Abrégé de la musique, composé en latin par René Descartes - Discours de la méthode...
 - Descartes, René / Discours de la méthode (4)
 - Descartes, René / Discours de la méthode (de Descartes) pour bien conduire sa raison et chercher la vérité dans les sciences, plus la dioptrique et les météores, qui sont des essais de cette méthode (trad. par Descartes)
 - Descartes, René / Discours de la méthode... plus la dioptrique et les météores...
 - Descartes, René / Discours de la méthode... plus la dioptrique, les météores, la mécanique et la musique
 - Descartes, René / Discours de la méthode... plus la dioptrique, les météores, la mécanique et la musique, qui sont des essais de cette méthode
 - Descartes, René / Discours de la méthode, plus la dioptrique, les météores, la mécanique et la musique, qui sont des essais de cette méthode par René Descartes, avec les remarques de P. Pisson

FIGURE 3 Results for a search on copies of Descartes's *Discours de la méthode* published before 1800

The screenshot shows the CCFr interface with the following content:

- CCFR** logo and navigation menu: ACCUEIL, REPERTOIRE BIBLIOTHÈQUES, LOCALISATION DOCUMENTS, PANIER HISTORIQUE, SUIVI DES DEMANDES DE PRÊTS, AIDE ACTUALITÉS, AUTRES SERVICES A PROPOS DU CCFr.
- LOCALISATION DE DOCUMENTS** header with a search bar and buttons to modify the search and list results.
- Text: "CLIQUEZ SUR LE LIEN DE LA NOTICE POUR PLUS DE DÉTAILS".
- Search results:
 - Descartes, René / Discours de la méthode...
 - Cie des libraires, Paris, 1724
 - Notice détaillée (Bibliothèque municipale, Nancy)
 - Compagnie des libraires, Paris, 1724
 - Notice détaillée (Université Rennes 2 - Haute Bretagne, Service commun de la documentation, Rennes)
 - [S. n. ?], Paris, 1724
 - Notice détaillée (Bibliothèque d'Étude et du Patrimoine, Toulouse, Haute-Garonne)
 - Éditeur inconnu,
 - Notice détaillée (Bibliothèque Méjanes, Aix-en-Provence, Bouches-du-Rhône)
- Buttons at the bottom: METTRE DANS LE PANIER and EMPRUNTER LES DOCUMENTS

FIGURE 4 Cluster of results for the 1724 edition: work located in 3 public and 1 university library

Limitations of the CCFr results for research on early printed books

The CCFr is typical of databases constituted from retrospective conversions and does not quite answer the needs of early books specialists. Last year at the Chantilly workshop seminar co-organised by ENSSIB and CERL, Dominique Varry pointed out some of the limitations of the CCFr for the study of older books: first, record descriptions, of fluctuating

The screenshot shows the CCFr website interface. On the left is a vertical navigation menu with the text 'Catalogue collectif de France' and various menu items like 'ACCUEIL', 'REPERTOIRES BIBLIOTHEQUES', 'LOCALISATION DOCUMENTS', 'PANIER', 'HISTORIQUE', 'SUITE DES DEMANDES DE PISTES', 'A PROPOS DU CCFr', 'ACTUALITES', 'AUTRES SERVICES', and 'A PROPOS DU CCFr'. The main content area is titled 'LOCALISATION DE DOCUMENTS' and contains a search filter section with a 'Type de document' dropdown set to 'Monographies'. Below this, there are two document entries, 'Exemplaire 1' and 'Exemplaire 2', each with fields for 'Cote et fonds', 'Communicabilité', and a 'Description' field containing the title 'Discours de la méthode' and other details like 'Paris, Compagnie des libraires : 1724' and '2 vol. - pl. gravées - in-12'.

FIGURE 5 Detailed record for the Rennes University library 1724 edition of Descartes's *Discours de la méthode*

quality, are often not precise enough; second, the search by publisher, which is so useful for early book identification, is sometimes impossible and often yields too many results to be displayed; finally, searches by date of publication are limited to a specific year and do not allow for searches over a range of years.

M. Varry argued that, overall, the CCFr does not reflect the state of current advances in the study of the history of the book. By presenting examples from the 18th century, he concluded that it was difficult to identify precisely the various editions of a particular title only by looking at the CCFr's records.

Missions and constraints of the CCFr

M. Varry's diagnosis was right. But the CCFr does not claim to offer that much detail. The CCFr is primarily a locating tool that allows users to find documents and a library where they are held. Unlike the Hand Press Book Database, for example, the CCFr does not aim to provide detailed information and bibliographic identification of early printed books. The original catalogues which were converted to form BMR, for example, were drawn up in different ways (as registers, printed catalogues, hand-written or typed card indexes) and according to different rules, usually well before the adoption of norms and standards of bibliographical description. While recent records from SUDOC and BN-Opale+ are complete and accurate, BMR's are only as good as the original description. The

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results yielded by a search in the CCFr necessarily reflect this diversity and level of detail.

The catalogue does not seek to harmonise records nor manage access points, so there may often be several forms for the same author's name. The browsing facility makes it possible to see variations of the same name but it may be necessary to search more than once to check whether a document is included or not. As with most catalogues of early printed books, no subject headings are recorded.

An evolving catalogue

On a more positive note, the CCFr is not for ever limited to the current records because the three catalogues that make it are continually being updated. BMR, for example, is regularly improved and increased. Updates are 'manual', in the sense that participating libraries send their records in the ISO-2709 Unimarc format; these records are then modified according to BMR's specific characteristics before being uploaded on to the database. No further bibliographic treatment is undertaken and the records remain the property of their respective libraries. As previously noted, an application solves redundancy issues when the results of a particular search are displayed. However, no redundancy treatment is applied to the BMR records themselves and there is no plan to review systematically all records to improve them and make them more detailed.

ONGOING AND FUTURE PROJECTS

Improving the technology

Many projects for the improvement of the CCFr are currently being implemented. Designed in the early and mid-1990s, the technologies used by the CCFr are now obsolete. In recent years, response time issues and failing search features have prevented users from enjoying the catalogue's full capacities. To remedy this, the CCFr is undergoing a major technological upgrade. The catalogue is in the process of moving on to new servers, with up-to-date database software, which will bring more stability.² Furthermore, a tender is also under way to revamp the CCFr interface. The objective is to prepare the CCFr for a change of scale and to transform it into a portal. The new architecture will be able to host many more databases of heterogeneous content and nature. It will also allow searches both within MARC catalogues via the Z39.50 platform and within XML documents through the Open Archive Initiative protocol (OAI-PMH). In

addition to Unimarc and InterMarc, the new portal will support the MARC21 format, used by the European network of Hebraica and Judaica libraries (REBJH) for its RachelNet catalogue which will be accessible through the CCFr in 2006. The new portal will also comply with SRU, SRW and other information transfer protocols.

Improving the interface

The user interface will be improved to include new features, such as chronological searches on a range of years, or the possibility to restrict the search to a single catalogue. It will be more adapted to multimedia documents which are already listed in SUDOC and BnOpale+, but are not used to their full potential. At the moment, for example, the records of electronic dissertations do not display the URL where they can be found. The interface will also guide users through the databases and direct them towards those more likely to yield interesting results.

Diversifying the offer

The CCFr will diversify its offering through the integration of many more new databases and catalogues. This change of scale and scope, from a union catalogue revolving around three easily identified databases, should occur within the next two years. The three main catalogues will remain at the core of the CCFr. BN-Opale+ and SUDOC will be growing gradually from the retrospective conversion and integration of more catalogues. For example, a new programme of conversions should add about 1.4 million records to SUDOC in the next four years. In its entirety, the CCFr is expected to expand from 17 million records to approximately 24 million, thanks to a fourth programme of retrospective conversion for public libraries. Under the Action Plan for Written Heritage initiative (PAPE : Plan d'Action pour le Patrimoine Écrit) recently launched by the Ministry of Culture, more card catalogues will be computerised. Partially financed by the BnF, these conversions will either be loaded on to BMR or directly accessible in the CCFr through a Z39.50 platform. The libraries of Bordeaux, Carpentras and Douai figure among the 45 establishments which should be included within three years. The CCFr will extend BMR's traditional domain (i.e. major municipal libraries) to include other institutions, such as the libraries of non-profit or religious organisations and private research institutes, provided they are open to the public and hold collections with a certain research interest.

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Furthermore, some libraries, like those of Besançon, Avignon and Versailles, whose pre-1811 books are already catalogued in BMR, are currently computerising the records of their 19th-century collections (up until 1914) which will then be accessible through the CCFr as well.

Several retrospective conversion and cataloguing projects initiated or managed by the BnF will also be accessible through the CCFr. More specifically, three EAD-encoded XML databases will be integrated into the CCFr over the next few years: PALME, the directory of 20th-century French literary manuscripts currently available through the special collections catalogue BN-Opaline; CGM, the retrospective conversion of the 116-volume General Catalogue of Manuscripts held in French public libraries; and finally the BnF's own catalogue of manuscripts which the Manuscripts department is currently converting into XML. These three databases will form the basis of the French union catalogue of manuscripts.

As it seeks to complement its current offering to cover more areas of documentation, and in particular to the collections aimed at the general public, the CCFr will also develop partnerships to be able to search through new catalogues such as the general catalogues of about 60 major municipal libraries, which should significantly boost the interlibrary loan service, as well as catalogues dedicated to documentation of local interest and specialised union catalogues, such as the union catalogue of French museums. The probable addition of the Inventory of Musical Heritage in French Regions (sheet music) currently in preparation will also broaden the scope of the CCFr to include special documents.

RNBCD: improving the French documentation map

To accompany this evolution, the RNBCD directory will evolve to include more establishments (for example, museum and archive centre libraries, and institutions financed by other public bodies than the Ministries of Culture and Education, such as the historical libraries of the French Army and Navy). It will place special emphasis on the BnF's partner libraries ('pôles associés' network), which currently number 51 shared acquisitions partners and 29 legal deposit partners. The qualitative and quantitative analyses of specific collection catalogues prior to their conversion will lead to more detailed descriptions of these collections in the RNBCD. The history of these collections will provide a further tool for book historians. The conversion of the RNBCD database into XML will also permit easier interaction with the various catalogues.

CONCLUSION

At this time early book specialists may find that the CCFr does not quite answer all their needs and that the records are not precise enough. These records are indeed a heritage of past bibliographical methods. Participating libraries continue to amend their catalogues selectively and upload them on to the CCFr. However, these institutions can dedicate little time and effort to the systematic improvement of bibliographical records of older books. The CCFr service at the BnF has chosen to help smaller and medium-size libraries process collections yet to be catalogued, and computerise card catalogues rather than correct current records, which may be done at a later date.

Since 2001, the CCFr has fulfilled its role as an integrated search system and a tool for locating library documents and collections throughout France. While its interface and servers are in the process of being renovated, the CCFr continues to develop partnerships with more institutions and broaden its offering. In the near future, not only will new search features yield more efficient results, but catalogue expansion will mean that almost all sizeable collections of older books will be identified and easily accessible.

NOTES

1. I would like to thank the CCFr team for their help in preparing this contribution, and particularly Véronique Falconnet and Marine Planche. I am also very grateful to Mme Valérie Tesnière for entrusting me with this presentation.
2. Since this paper was given, the CCFr has moved to the following location: <http://ccfr.bnf.fr>.

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ANNEX: LIBRARIES INCLUDED IN THE BMR CATALOGUE
(NOVEMBER 2005)

51 municipal libraries

Aix-en-Provence	Cherbourg	Nevers
Albi	Clermont-Ferrand	Nice
Alençon	Coutances	Nîmes
Amiens	Dijon	Niort
Angers	Dôle	Orléans
Arles	Grenoble	Poitiers
Auxerre	La Rochelle	Rennes
Avignon	Lille	Roanne
Bayeux	Limoges	Rodez
Beaune	Lyon	Rouen
Besançon	Mâcon	Saint-Étienne
Blois	Marseille	Sélestat
Bourg en Bresse	Metz	Strasbourg
Caen	Montauban	Toulouse
Châlons-en Champagne	Montpellier	Troyes
Chalon-sur-Saône	Nancy	Valognes
Chambéry	Nantes	Versailles

8 specialist libraries

Facultés catholiques de Lyon
Centre des sciences de la terre de l'Université de Lyon I
Bibliothèque des Arts graphiques (Paris)
Bibliothèque Marguerite Durand (Paris)
Bibliothèque Forney (Paris)
Bibliothèque des Arts décoratifs (Paris)
Centre d'études supérieures de civilisation médiévale (Poitiers)
Chambre de Commerce et d'Industrie de Marseille

Helping researchers find what they don't know they are looking for: access points in catalogue records at Yale University's Beinecke Rare Book and Manuscript Library

EDWIN SCHROEDER

AIUTARE I RICERCATORI A TROVARE QUELLO CHE NON SANNO DI CERCARE: CHIAVI D'ACCESSO AL CATALOGO BEINECKE RARE BOOK AND MANUSCRIPT DELLA YALE UNIVERSITY

Il catalogo della Yale University Library ha subito notevoli cambiamenti durante i tre secoli di vita della stessa: si è passati, infatti, dal catalogo manoscritto del 1742, attraverso lo schedario del 19° secolo, per approdare infine, alla fine del 20° secolo, al catalogo informatico. La collezione della Beinecke Library, insieme a quelle di altre istituzioni universitarie, conta più di 250.000 libri pubblicati prima del 1830. Il moderno catalogo computerizzato mira ad offrire una completa gamma di punti di accesso per il ricercatore: nome, titolo, soggetto, citazioni bibliografiche ed una vasta scelta di intestazioni per forma e genere. Esempi sono riportati per molte di queste categorie, che hanno lo scopo di essere uno strumento d'accesso mondiale a questa grande risorsa.

This conference's topic – 'Problems and opportunities in creating shared catalogues of older books' – is especially relevant with respect to current work by IFLA 'to promote the development of an international cataloguing code for bibliographic description and access'.¹ As stated in the working document, the goal of this code is 'to increase the ability to share cataloguing information worldwide by promoting standards for the content of bibliographic and authority records used in library catalogues'.² Cataloguers are not the only ones who benefit from uniform standards in bibliographic records. Another reason to promote worldwide standards is to provide sufficient and consistent description and access points to help

researchers find the material that they are looking for, or perhaps, as I have suggested in my title, to find what they did not know they were looking for. This paper discusses how the Yale University Library has tried to meet the needs of its patrons and provide access to its collections over the past three hundred years, with an emphasis on current cataloguing practices and the Beinecke Library in particular.

DEFINITIONS AND CHARACTERISTICS

The two aspects of a catalogue record are description and access. Both are essential in cataloguing, serving different, albeit related, purposes.

Description:

- provides unique information to assist in precise identification of a resource;
- includes transcription (as opposed to normalisation) of basic bibliographic information (usually the title, statement of responsibility, imprint and collation).

Access:

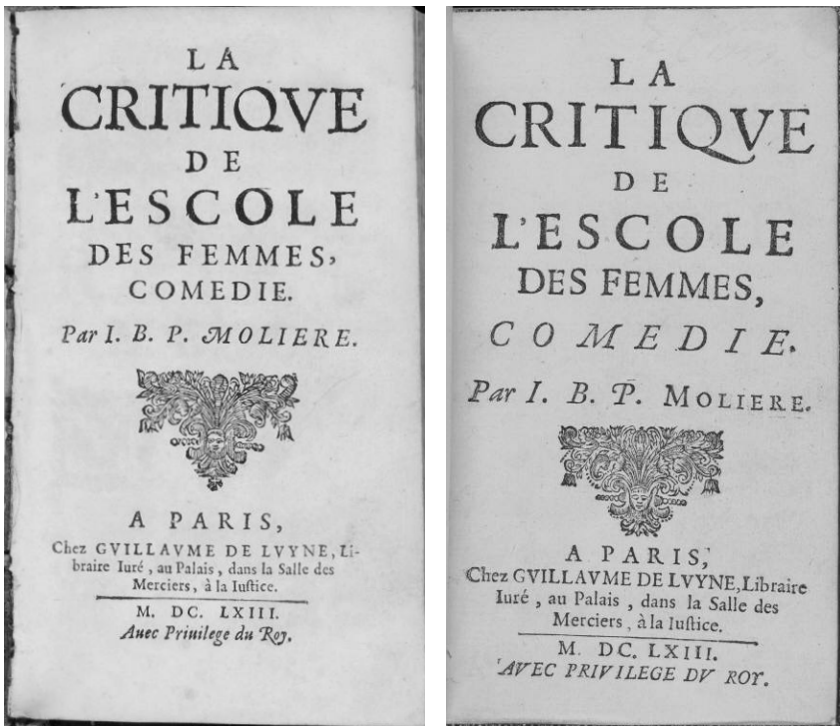
- highlights significant information of bibliographic resources such as subjects, contributors and attributes;
- is controlled ideally through established or authorised forms;
- ties together multiple items by a common access point, yielding collocated or organised results.

The definition of access point used in the United States appears in the Anglo-American Cataloging Rules (AACR₂), which are based on the Paris Principles of 1961. In AACR₂ an access point is defined as ‘a name, term, code, etc., under which a bibliographic record may be searched and identified’.³

It is expected that a catalogue will enable users to find bibliographic resources in a collection using attributes of those resources. Access points for these attributes can be controlled or uncontrolled. Controlled access points are standardised forms based on authorised headings. The number and type of access points depends on the item catalogued and the collection for which it is catalogued.

A recent acquisition at the Beinecke Library at Yale provides an example of the use and importance of access points. In 2000, the Beinecke Library was given a collection of works by and about the French playwright Molière, which included several hundred items from the seventeenth

century. During preliminary processing, a staff member noticed that although two copies of Molière's *La critique de L'escole des femmes* had the same title, collation, and imprint, the typographical evidence clearly indicated that they were by different printers. Upon further examination, she realised that the second copy was probably a pirated edition printed in Grenoble by Philippe Charvys. In the catalogue records the differences between the two editions are highlighted in several ways. These include identification of the real printer and place of publication in the imprint field, a note describing publication history, an added entry for the true printer, and genre headings for false imprints and piracies. A researcher would then be alerted to the existence of a pirated copy by the



FIGURES 1 & 2 Two editions of Molière's *Critique de l'École des Femmes* (1663). Pirate edition on right. Courtesy of the Beinecke Rare Book and Manuscript Library, Yale University

bibliographical record, and could use this information to identify other possible piracies by this printer.

THE LIBRARY CATALOGUE AT YALE: HISTORICAL BACKGROUND

Yale University was founded in 1701 as a school to train ministers, and is one of the oldest universities in the United States. The library grew steadily during its first fifty years through donations by a variety of individuals, and by 1742 it was one of the largest college libraries in the United States. Three of the most significant donations were from Jeremiah Dummer, agent for Connecticut in London, Bishop George Berkeley, and Elihu Yale, for whom the University is named.

Over the past 300 years, Yale University Library has dramatically changed how access is provided to its collections. This is due to changes in technology, in perceptions of user requirements, and in the way the library's collections are viewed.

In 1742, a manuscript catalogue of the library collection was compiled by Yale's fifth rector and first president, Thomas Clap. It was printed in 1743 and served as the guide to the library for students and faculty.⁴ In the 'advertisement' or introduction to the 1755 edition, Clap noted that he 'prepared a catalogue of the Books in the Library under proper Heads that so you may readily know and find any book, upon any particular subject'.⁵ The introduction continues by discussing how the collection was organised. The 2600 titles in the catalogue were arranged by subjects, such as languages, logic, rhetoric, mathematics, philosophy, natural history, science, and religion. These subjects were further subdivided by narrower terms: for example under History there are subheadings for 'General histories', 'of Europe', 'of Asia', 'of England, Scotland, and Ireland', and

'of America'. Books collocated by subject are further organised by size and perhaps date of acquisition. Augmented editions of the catalogue appeared in 1755, 1791, 1808, and 1823,⁶ and were organised in a similar manner.

Beginning in the late 19th century, the library started to follow the practice of other American libraries and created a card catalogue for its collections. Initially the catalogue cards had little more information than that provided in the old printed catalogues. The handwritten cards noted the author (if one existed), a brief portion of the title, and the place and date of publication. At this time, cards for subject headings and access points such as editors, illustrators, translators, or other contributors were rarely made.

Yale University's Beinecke Rare Book and Manuscript Library

Cataloguing for rare books at Yale followed the same standards, although separate card files first in the Rare Book Room and then in the Beinecke Rare Book and Manuscript Library were created for provenance, American imprints, incunabula, and pamphlets. Added entries were occasionally made, usually for well known individuals. For example, an added entry was made for Charles Dickens if he contributed an introduction to a book. Subject headings were relatively few beyond names and broad subjects, and there were never more than three subject headings. Furthermore, in an attempt to save both cataloguers' time and space in the card catalogue, subjects and added entries were made only for the first edition of a work. If the library had multiple editions of Ovid's *Metamorphoses* with commentary by Raffaele Regio, only the first edition would have an added entry for the editor and perhaps the subject heading 'Mythology'. During these years, authority control for names was based on the Yale's local authority file, and subjects were taken from the Library of Congress Subject Headings.

In the 1960s the Library began using Anglo-American Cataloging Rules (AACR), which provided instruction both for description and for access points, resulting in an expanded provision of access points. The Library began cataloguing in the Research Library Group's online union catalogue (RLIN) in the 1980's, while continuing to maintain a card catalogue with the cards printed by RLIN. During the 1990's, authority control went from a locally created and maintained authority file to participation in the Library of Congress' Name Authority Cooperative (NACO) programme.

The Library implemented its first integrated library management system, NOTIS, in 1990. In 2002, the Library migrated to a Voyager library management system, and today we catalogue locally in the Voyager system. Material catalogued in Voyager is then uploaded to RLIN and OCLC as well as to specialised databases such as the English Short Title Catalogue and the Hand Press Book Database. The Beinecke Library converted its catalogue cards to machine-readable records in 1993–1995. The rest of the Library completed its retrospective conversion by 2001 and catalogue cards were not printed after the mid 1990s. The catalogue records created through retrospective conversion are inconsistent as to the number and type of access points. Since 1995, the Beinecke has had to recatalogue hundreds of its pre-1830 titles as part of the retrospective conversion clean-up.

Today the Yale University Library system consists of more than eleven million volumes housed in more than twenty libraries.⁷ Although the

Beinecke Rare Book and Manuscript Library is the primary repository for pre-1830 books at Yale, other libraries house important and rich special collections. These other libraries include the Law Library, Historical Medical Library, Music Library, Lewis Walpole Library, and the Center for British Arts. The Yale University Library holds approximately 270,000 pre-1830 European and American imprints.

The Beinecke Rare Book and Manuscript Library opened in 1963 as one of the largest free-standing libraries in the world devoted entirely to rare books and manuscripts. The collections from the old Rare Book Room, the Yale Collection of German Literature, the Yale Collection of American Literature, and the Yale Collection of Western Americana were transferred to this new facility. Over time, the Beinecke Library has actively added to these collections as well as transferring pre-1800 imprints from other University libraries. As of 2005, the Beinecke Library collection consists of more than 750,000 volumes, of which more than 175,000 are pre-1830 imprints.⁸ Currently the Beinecke Library acquires and catalogues more than one thousand pre-1830 imprints each year.

THE YALE LIBRARY CATALOGUE TODAY

The goal at Yale is to assist researchers, students, staff, and faculty to locate desired material, as well as relevant material that they are not aware exists. Toward this end, the library creates full bibliographic records for its material, rarely using collection level or minimal level records that may be found at other American libraries. Yale provides more access points in its catalogue than in the past, especially for its pre-1800 imprints. Creating bibliographic records in an online environment facilitates more extensive access, since individual cards no longer have to be created for each access point. Online catalog records are intended to provide access for users locally, nationally, or internationally. The Beinecke Library's on-site patrons and other users have come to expect being able to locate material through multiple types of access points.

RARE BOOK CATALOGUING AT YALE IN 2005

As the largest holder and acquirer of pre-1830 imprints at the University, the Beinecke Library is also the primary agency for cataloguing pre-1830 imprints at Yale. The cataloguing is done by the Rare Book Cataloguing Team as follows.⁹

- Description of pre-1800 imprints is according to *Descriptive Cataloging of Rare Books* (DCRB), soon to be *Descriptive of Rare Materials*

Yale University's Beinecke Rare Book and Manuscript Library

(DCRM).¹⁰ Post-1800 imprints are catalogued using either DCRB/DCRM or AACR2;

- All access points are under authority control created according to the appropriate rules. The use of controlled vocabulary allows variant forms of headings (e.g. personal names) to be brought together;
- Access points are provided, with the needs of on-site and remote users, Yale staff at Yale and cataloguers in other institutions in mind.

TYPES OF ACCESS POINTS PROVIDED BY THE BEINECKE LIBRARY

The following access points are routinely supplied for material catalogued for the Beinecke Library: author, added entries, uniform titles, series, bibliographic references, subject headings, form and genre headings, and local subjects.

AUTHOR

The author is supplied and/or created according to AACR2 and NACO standards. The Rare Book Team routinely contributes over three hundred authority records per year to the Library of Congress' Name Authority File, primarily for authors, printers and publishers.

UNIFORM TITLES

Uniform titles are used to collocate different versions, translations, etc., of the same work.

ADDED ENTRIES

Added entries are routinely supplied for individuals or corporate bodies that relate to the item being catalogued, following the same standards as author entries. Added entries may be supplied for:

- editors
- illustrators
- translators
- engravers
- printers, publishers, and booksellers (these access points are provided for all works published through 1800 and selectively for later material)
- dedicatees
- individuals who contributed to a work.

SUBJECT HEADINGS

Subject headings are taken from the *Library of Congress Subject Headings* (LCSH) and usually are chosen to cover the topic of the work as a whole. Depending on the item there may be no subject, one subject or as many as three or more. On occasion, cataloguers will provide more detailed subject analysis for a particular aspect of a work. For example, since the library collects material relating to the history of the western United States, the subject heading ‘West (U.S.) – Description and travel’ may be added to a work that is a travel narrative even though only a portion of the work discusses the West.

STANDARD CITATIONS/REFERENCES

These are citations or references to published bibliographic descriptions of books. In the world of rare books, these are an important tool for precise identification. Although not traditionally thought of as an access point, online catalogues facilitate searching by bibliographic citation. The citation form is taken from the Library of Congress’ *Standard Citation Forms for Rare Book Cataloging*.¹¹ This publication provides a list of commonly used bibliographies, citation forms, and guidelines for citing works not included within Standard Citations. The Rare Book Team has a short list of bibliographies that are always cited. These include:

Incunabula

- Goff – Goff, Frederick. *Incunabula in American libraries*
- Hain – Hain, Ludwig. *Repertorium bibliographicum*
- Copinger – Copinger, Walter Arthur. *Supplement to Hain’s Repertorium. bibliographicum*
- Proctor – Proctor, Robert. *An index to the early printed books in the British Museum*
- ISTC – *Incunable Short-Title Catalogue*
- GW – *Gesamtkatalog der Wiegendrucke*

English imprints

- ESTC – *English Short Title Catalogue*
- STC – Pollard, Alfred William. *A short-title catalogue of books printed in England, Scotland & Ireland and of English books printed abroad 1475–1640*
- Wing – Wing, Donald. *Short-title catalogue of books printed in England, Scotland, Ireland, Wales, and British America, and of English books printed in other countries, 1641–1700*
- Foxon – Foxon, David F. *English verse 1701–1750*

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American imprints

- BAL – Blank, Jacob. *Bibliography of American Literature*
- Evans – Evans, Charles. *American bibliography*
- Howes – Howes, Wright. *U.S.iana (1650–1950): a selective bibliography*
- Wright – Wright, Lyle H. *American fiction*

For a complete list, see the Rare Book Team's documentation at <http://www.library.yale.edu/BeinCatM/bibliographies.htm>

As needed, other bibliographies are cited for authors, printer, or topical subjects. Examples of these include:

- Guibert, A.J. (Albert Jean). *Bibliographie des œuvres de Molière publiées au XVII^e siècle*
- Willems, Alphonse. *Les Elzevier; histoire et annales typographiques*
- Alden, John E. *European Americana*

FORM AND GENRE HEADINGS

The past ten years have seen a dramatic increase in the use of form and genre headings in bibliographic records. The 655 field that is used for these access points is a relatively recent field in MARC, and was approved only in 1980. These headings are used to highlight and provide access to aspects of a resource beyond the 'aboutness' of the work provided through LCSH headings. Rare book cataloguing departs from standard cataloguing practice in its concern for providing description and access that extend 'beyond the text', permitting research and collocation for intellectual and literary forms as well as different aspects of book production and history.

Form and genre headings are selected from published thesauri. Those most frequently used in cataloguing rare materials at Yale are the six created and published by the Bibliographic Standards Committee of the Rare Book & Manuscript Section (RBMS) of the American Library Association. They are:

- Genre terms
- Binding terms
- Provenance evidence
- Printing and publishing evidence
- Type evidence
- Paper terms

Originally published in printed form, they recently became available on the web at

http://rbms.info/committees/bibliographic_standards/controlledvocabularies

The thesauri were an attempt to recreate, in a standardised form, the special card files that many rare book libraries in the United States maintained. Each volume has an alphabetical list and a hierarchical index. The guidelines for application are flexible and allow the option to subdivide headings geographically and/or chronologically.

*Genre terms*¹²

Most of the terms in this thesaurus are literary or historical in nature. Examples include:

- Almanacs
- Banned works
- Directories
- Emblem books
- Festival books
- Volvelles

*Printing and publishing evidence*¹³

This thesaurus provides terms for the retrieval of both printing and publishing evidence. Examples include:

- Cancellation
- False imprints
- Piracies
- Subscription lists
- Vellum printings

*Binding terms*¹⁴

This thesaurus provides terms for the retrieval of examples of binding styles from the common (calf or vellum bindings) to the uncommon (such as a girdle book). The thesaurus also includes terms for different elements of a binding. Examples include:

- Chained bindings
- Cosway bindings
- Clasps
- Folding errors

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- Fore-edge paintings
- Printed waste
- Publisher's cloth bindings

*Provenance evidence*¹⁵

This thesaurus provides terms for the retrieval of the physical evidence of provenance. Examples include:

- Annotations
- Heraldic bookplates
- Shelf marks

Recognising the importance and interest in books that are annotated, the Beinecke Library makes a genre heading for annotations subdivided by the century in which the annotations were made.

*Paper terms*¹⁶

This thesaurus provides terms for features, materials, quantities, and types of paper. (Currently terms from this thesaurus are not used at the Beinecke Library.) Examples include:

- Bark papers
- Bristle marks
- Marbled papers
- Snailing

*Type evidence*¹⁷

This thesaurus provides terms for type impressions as well as actual type. (Currently terms from this thesaurus are not used at the Beinecke Library.) Examples include:

- Brasses
- Linotypes
- Loops
- Tapered serifs

There are other thesauri available, several of whose terms overlap with the RBMS thesauri. These include:

- AAT (*Art and Architecture Thesaurus*) — hosted at the Getty and available through the web at http://www.getty.edu/research/conducting_research/vocabularies/aat/

- TGMII (*Thesaurus for Graphic Materials; Genre and Physical Characteristic Terms*) – A thesaurus developed by the Library of Congress' Prints and Photographs Division with input from other archival image repositories, TGMII is the second edition of *Descriptive Terms for Graphic Materials: Genre and Physical Characteristic Headings* (1986). TGMII is available through the web at <http://www.loc.gov/rr/print/tgm2/>
- TGM1 (*Thesaurus for Graphic Materials: Subject Thesaurus*) – Also developed at the Library of Congress, it is intended to allow the subject indexing of pictorial materials, particularly the large general collections of historical images which are found in many libraries, historical societies, archives, and museums. The thesaurus is available through the web at <http://www.loc.gov/rr/print/tgm1/>

The access points described above are options; the specific access points made depend on the item and the collection to which it belongs. Not every item has the same depth of analysis or breath of access. Time, money, and resources limit the extent to which these are added. The Beinecke Library maintains a list of required form and genre headings that are always cited. The list is available at

<http://www.library.yale.edu/BeinCatM/genre.htm>

This list does not limit cataloguers from using other form and genre headings where appropriate.

LOCAL SUBJECT HEADINGS

The Beinecke Library uses a variety of local subject headings for its rare material. These are headings for information not easily covered by subject headings, form and genre headings, or added entries. Some headings originated as a separate card catalogue file in the old Rare Book Room. If the library's catalogue had begun as an online catalogue, some of these headings probably would not be used since the results can be produced with existing access points. The most commonly used local headings are made for imprints, pamphlets, and previous owners.

ACCESS POINTS FOR NON-PRINT MATERIALS

The Beinecke Library uses many of the same access points for cataloguing its post-1600 single manuscripts or small collections of manuscripts. The cataloging of material that is part of the Beinecke's digital library also follows many of these same guidelines.

FUTURE, ISSUES AND CONCERNS

During the past five years, the library has added an increasing number of access points to its catalogue records in order to assist readers and staff in locating material. However, this has meant that more time is needed to catalogue material, adversely affecting the library's cataloguing backlog. Thus far, the Library has balanced the competing demands of providing full bibliographic records with minimising a large backlog, but that may not always be the case. Another long-term issue is the state of records that were produced through retrospective conversion of the card catalogue. These records are uneven in quality and rarely match the standards that are followed today. In a perfect world, the library would recatalogue this material to our current standards, but this is unrealistic given the constraints of time and resources. These records are updated on an ad-hoc basis, as need arises.

This is a brief introduction to how one institution tries to meet the needs of its patrons – local, national, and international – whether they access the catalogue on-site or remotely. In providing description and access the Library adheres to world-wide standards to help researchers locate not only the material they are looking for, but also to find resources that they did not know existed that may prove to be essential to their work.

NOTES

1. <http://www.ifla.org/VII/s13/annual/sp13.htm> - goal 1
2. http://www.ddb.de/standardisierung/afs/imeicc_index.htm
3. AACR2
4. Yale College. *A catalogue of the Yale-College in New Haven*. N. London: Printed by T. Green, 1743; and Mooney, James E., ed. *Eighteenth-century catalogues of the Yale College Library*. New Haven, Conn.: Yale University, Beinecke Library, 2001.
5. *A catalogue of the Yale-College*, p. [2].
6. Yale College. *A catalogue of books in the library of Yale-College in New Haven*. New-Haven: Printed by James Parker, 1755. Yale College. *Catalogue of books in the library of Yale-College, New Haven*. [New Haven]: Printed by T. & S. Green, 1791. Yale College. *Catalogue of books in the library of Yale-College, New-Haven, January 1808*. New Haven: Printed by O. Steele & Co., 1808. Yale College. *Catalogue of books in the library of Yale College*. New Haven: Printed at the Journal office, 1823.
7. Yale University Library. *Annual Report of the Librarian, 2003–2004*.

8. Parks, Stephen, ed. *The Beinecke Library of Yale University*. New Haven: Beinecke Rare Book & Manuscript Library, 2003, pp. 9–21. Beinecke Rare Book and Manuscript Library. *The Beinecke Rare Book & Manuscript Library: a guide to the collections*. New Haven: Yale University, 1994. pp. 1–3.
9. Yale University Library. Rare Book Team
<http://www.library.yale.edu/cataloging/rarebookteam/>.
Yale University. Beinecke Cataloging manual
<http://www.library.yale.edu/BeinCatM/home.html>
10. *Descriptive Cataloging of Rare Books*. 2nd ed. Washington, D.C.: Cataloging Distribution Service, Library of Congress, 1991.
11. Van Wingen, Peter; Urquiza, Belinda. *Standard citation forms for published bibliographies and catalogs used in rare book cataloging*. 2nd ed. Washington, D.C.: Library of Congress, Cataloging Distribution Service, 1996.
12. *Genre terms: a thesaurus for use in rare book and special collections cataloging*. 2nd ed. Chicago: Association of College and Research Libraries, 1991.
13. *Printing and publishing evidence: thesauri for use in rare book and special collections cataloging*. Chicago: Association of College and Research Libraries, 1986.
14. *Binding terms: a thesaurus for use in rare book and special collections cataloging*. Chicago: Association of College and Research Libraries, 1988.
15. *Provenance evidence: a thesaurus for use in rare book and special collections*. Chicago: Association of College and Research Libraries, 1988.
16. *Paper terms: a thesaurus for use in rare book and special collections cataloging*. Chicago: Association of College and Research Libraries, 1990.
17. *Type evidence: a thesaurus for use in rare book and special collections cataloging*. Chicago: Association of College and Research Libraries, 1990.

List of Contributors

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