Ethical Values for Knowledge Organization*

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ABSTRACT: The comparison among some lists of ethical values prevalent in various professions related to knowledge organization shows that three of these values (intellectual freedom, professionalism, and social responsibility) could be the core of a general knowledge organization ethics, and that two other values (intellectual property and right to privacy) could be added to them in the future, as they are already among the fundamental values of the library profession.

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1.0 Introduction

In any professional field, we can distinguish between technical means and ethical aims, that is, between the tools (technological, financial, conceptual, cultural, legal, etc.) we need to reach, with the maximum of efficiency and effectiveness possible, the very objectives of the profession and the principles that the profession itself, obviously influenced by the society in which it is immersed, identifies as fundamental objectives to be achieved and as values to be respected. For each of the main professions that, in one way or another, put knowledge organization at the centre of their competencies and of their duties, there is a vast literature about the best technical means available. Besides, there are also (although considerably less) publications about fundamental values and, almost always, also one or more codes of ethics issued by various professional associations in the sector, both nationally and internationally. A code of ethics is a text that formalizes a set of rules to which anyone who works in a particular field should refer in order to identify ethical principles, at the same time both thoughtful and authoritative and reasonably stable and shared, that can guide their professional conduct, beyond the varied and changing technical competencies and in compliance with administrative and legal rules that obviously any profession provides. For an introduction both to the scientific debate and codes of ethics relating to the fundamental values of the different professions, one can see, for example, Preer (2008) for librarians, Danielson (2010) for archivists, Marstine (2011) for museums workers, Mason et al. (1995) for documentalists, Quinn (2012) for information technology professionals, Kennedy (2012) for webmasters, Meyers (2010) for journalists, and Macfarlane (2009) for researchers.

As for the entire object of knowledge organization, there are (as the readers of this journal know well) numerous transversal contributions about the best techniques and methods for the management of information and documents relevant to various types of institutions, professions, disciplines, and contexts, while contributions which are transversal in the same way about the values which should (or, at least, could) be shared by all professional operators of knowledge organization are extremely

rare. It can be presumed, however, that most of those principles are already present among those of at least one of the professions involved and therefore what remains to be done is above all related to collation, comparison, and identification of priorities rather than finding new values. As a small contribution to this work, my talk will compare the most commonly used values in the library field and three recent lists (Bair 2005; Rosenfeld and Morville 2006; Ridi 2010) of possible values for all professionals of information organization, in order to verify the similarities, the differences, and the degree of overlap.

2.0 Librarians' professional values

Librarians' professional associations have always been very active in terms of ethics, so much so that about seventy national codes issued or updated by them in the last two decades have been collected and translated into English in a very recent book (Gebolys and Tomaszczyk 2012). Also IFLA (International Federation of Library Associations and Institutions), i.e., the international association that coordinates them, is very committed to this field, especially through its committee FAIFE (Committee on Freedom of Access to Information and Freedom of Expression), but, until this year, it had never proposed its own code of ethics addressed to all librarians in the world. This lacuna was finally filled on the occasion of IFLA's 78th Conference held in Helsinki from August 11-17, 2012, during which the final version of the international code of ethics (IFLA 2012) was issued. A special working group started developing it in summer 2010 and, since November 2012, it had been subjected, as a provisional draft, to the comments of the international professional community. The code is available in two versions ("a long, comprehensive version, and a shorter version for quick reference"), divided into six principles:

1. Access to information
2. Responsibilities towards individuals and society
3. Privacy, secrecy and transparency
4. Open access and intellectual property
5. Neutrality, personal integrity and professional skills
6. Colleague and employer/employee relationship

These principles can be almost completely overlapped with those that I have singled out in my book (Ridi 2011) published in October 2011, starting from the analysis of national professional codes and of the international scientific literature available at the time:

1. Intellectual freedom
2. Right to privacy
3. Professionalism and neutrality
4. Intellectual property
5. Social responsibility

The main differences, absolutely not substantial, between the two lists of principles (or values) are:

a) While the first value of my list refers to the entire semantic range of intellectual freedom, which includes both a right to the intellectual efforts of others and a right to distribute one's own intellectual efforts (Woodward 1990, 3), IFLA prefers to focus on the aspect of intellectual freedom that is actually unanimously considered to be of greater relevance and importance to libraries, that is, the guarantee of universal access to information for anyone.
b) The various values related to their professionalism that librarians should respect in their relations with users, documents, and colleagues (neutrality, integrity, competence, updating, accuracy, courtesy, loyalty, absence of conflicts of interest, absence of waste, etc.) are summarized in my list in a single principle (the third) and by IFLA in two principles (the fifth and the sixth).
c) Although IFLA numbers its principles and affirms that the first of them represents "the core mission of librarians and other information workers," there is no explicit statement on a possible order of priority in case of conflicts or doubts, whereas the order in which I listed "my" five principles corresponds to the one I thought that the professional community generally tends to place them in.

3.0 Professional values for knowledge organization

In the absence of codes as authoritative as IFLA's and of extensive literature explicitly devoted to identifying the most effectively shared values between all types of professionals of knowledge organization, I chose—as examples of possible shared values—three prescriptive proposals (Bair 2005; Rosenfeld and Morville 2006; Ridi 2010). The most recent of these (Ridi 2010) intended to identify thirteen values (which will be summarized in the next thirteen sub-sections) recommendable both to guide the organization and the dissemination of information and documents made by each of us (especially, but not exclusively, as professionals in the sector) and to assess if and how the information and the documents that we in turn receive are organized in a proper and effective way, with particular attention to their "indexes," that is, to all the structured collections of metadata that serve to find and organize the primary information and documents to which the same metadata refer.

3.1 Accessibility

Rather than a real value, accessibility is a sort of precondition to all the other values for knowledge organization, in the sense that if it is not possible to have physical access to information or to the indexes that lead to it (or, even worse, neither one nor the other), the way—whether more or less rational—information and those indexes are organized becomes irrelevant.

When speaking of accessibility, one immediately thinks of the two areas in which this term is most often met with, that is, buildings (in which it takes the form of the removal of so-called "architectural barriers") and the web (where each site should be visible with any type, brand, and version of browser), which however do not exhaust its scope of application. If we actually want information, documents that contain it, and indexes that make its retrieval easy, that is, within reach, (not only those on the web, but also those available on any other type of media, either analog or digital) should always be readily usable by anyone, including those who suffer—temporarily or permanently—a reduced or absent capability of seeing or hearing.

The accessibility issue also includes aspects that are sometimes paradoxically forgotten precisely because they should be obvious, such as geographical accessibility (that is, a sufficient distribution on the territory of information sources and services, located in places with free parking or reachable by public transport), temporal accessibility (consisting partly of long periods for accessing information services and partly of the conservation and consultability of documents and their indexes produced in the past), technological accessibility (that is, the availability of technical tools, such as computers and the internet, which allow and facilitate access to information), bureaucratic accessibility (obtainable by reducing, for example, the number and complexity of the forms to fill out and forward, and reducing the carts to collect, preserve, and exhibit), psychological accessibility (which requires not to interpose too many doors to be opened, too many people to be required to interact with, too many unusual behaviours to be followed between the users and the information), and finally economic accessibility, consisting of the simple—but fundamental—consideration that those who do not have enough money to pay for the content or for the technical means to use information, are unlikely to access it, or those who do not have enough time, being completely absorbed by work and family cares.

3.2 Competence

In order to communicate something meaningful and useful on any topic, we need to have at least some competence with it. This simple observation about the information content of documents may consist of various dimensions, especially when applied to the organization of the documents themselves and to the preparation of their indexes. First of all, primary data, metadata, and indexes should always be correct and accurate, avoiding errors of fact and formal inaccuracies. Then, as is also required by the value of accessibility, they should be expressed in a language that is clear, concise, and current, avoiding both obscure and unnecessarily complicated forms and spelling or syntax errors.

The competencies required to achieve these results are mainly disciplinary (the knowledge of the subject and the most reliable sources to update, enrich, and verify it), linguistic (being able to read and write well enough in the required languages), and psychological (devoting enough time and attention to study and writing). These are three competencies that are clearly more likely to be encountered among those who have obtained a specific degree, who practice a profession in the field or regularly carry out research or teaching in the sector, rather than among passers-by met by chance at a café or among bloggers or taggers who incidentally express their opinion on all human knowledge.

Not always, however, is it possible and desirable that only professionals in a particular sector produce documents and indexes relating to the same sector. There are, for example, professions devoted to various forms of information intermediation whose operators certainly cannot be personally experienced in all the disciplines to which the documents and the subjects that they publish, review, catalogue, and disseminate belong. In such cases, however, it is part of their specific profession as intermediators to have the experience and techniques to be able to understand and revise in a suitable manner information belonging to disciplines in addition to their own, often basing themselves on internal metadata (prefaces, introductions, tables of contents, abstracts) or external (reviews, charts, bibliographies) to the documents themselves, on other related documents (manuals, encyclopaedias, essays, interviews) or using consultants expert in various issues.

3.3 Thirdness and impartiality

The technical disciplinary competencies in the content of documents and those, technical and formal, on the best ways to index them are necessary to create technically correct indexes, but do not prove to be sufficient to produce indexes that are really reliable for users. To achieve this result, indexers must also be able to produce an important ethical rather than technical feature, summarizable as the concept of information thirdness, based on the one of legal thirdness, proper to the judge who must ensure that he/she is a third party, and therefore impartial, with respect to both the prosecution and the defence.

It should be obvious that the data and the opinions provided by institutions and people directly involved in the issues under discussion or under investigation are an extremely suspect sources of information. And it should be equally evident that, when we read a document or listen to somebody who speaks, we should always ask what benefits the people who provide certain information will receive from the fact that we give credence to them, considering—at least in advance—most reliable those who speak without having any interest, neither economic nor of another type, in what they say or, better yet, those who, at worst, would have an interest in saying the opposite. But if, in spite of this, one often forgets the basic prudent rule of asking *cui prodest* concerning primary data and documents, it is easy to imagine how much more often it is neglected with respect to metadata and indexes, which instead can be deliberately misleading at least as much as the information to which they relate.

In addition to the technical dimension in indexing, there is therefore an ethical dimension, which will become ever more important as the audience of indexers (who are increasingly not technicians belonging to a professional association, but free citizens led only by their own conscience and by their own personal interests) expands. The indexer's thirdness is thus not only an optimization necessary to specialize and save the time of both the reader and the author, but is also a guarantee that those who assign metadata are interested only in doing it in the best technical way and do not directly benefit in any way by users retrieving one information rather than another. Otherwise, the risk is that, as in a trial in which a judge is not sufficiently impartial, one listens to a plea convinced that it is a decision.

3.4 Coherence and continuity

From a strictly technical point of view, coherence is one of the most important features of any index. As a matter of fact, while it can be discussed—also at length—about which is, in a given situation, the most rational, useful and consistent with reality organizational criterion, it is intuitive that using more methods at the same time, mixing them at random, is definitely a bad move. Inversely, even the most bizarre ordering can, however, be learned, used, and be at least minimally effective in terms of availability, provided that it is applied consistently and coherently. The value of coherence imposes that, once a criterion of ordering, or of class subdivision or of highlighting of certain characteristics, is adopted, it is maintained without exception for the whole information field that is being organized, signalling clearly any point at which the field must be considered concluded and a different criterion is adopted.

As for the terminology to be used in the indexes, the two most important principles of coherence are those, mirror-like, of uniformity (things must be always called by the same terms) and of uniqueness (each term should always refer to the same thing) applicable in thousands of situations, from road signs to signage in public and private offices and valid also for non-textual metadata such as graphic symbols and, in certain contexts, colours.

Continuity can be seen, then, as a corollary of coherence. Continuity is the positive characteristic of information systems that do not "abandon" users during their information search, leaving them doubtful about the direction to be taken at a road intersection, at a branching corridor or at a broken link in a site or in a directory, but that accompanies users until they reach the destination, providing constantly along the entire path the same quantity and quality of data and options necessary for orientation.

3.5 Completeness and granularity

It is quite intuitive that an index should consider all information in the field it covers. Less intuitive is understanding what is really meant by "all." If the granularity of a document can be defined as the extent to which it can be subdivided into a series of "information atoms" of smaller dimensions but which maintain sufficient autonomy and significance (like the single entries of an encyclopaedia), then the granularity of indexing can be identified on the one hand by the extent to which the indexes are able to give a full and distinct account of those microdocuments and on the other with the allocation to any document (regardless of its decomposability into microdocuments or its belonging to a macrodocument) of metadata concerning those concepts and terms related not to the entire document but only to its parts or aspects.

Both components of index granularity involve—when the index is being compiled—difficult decisions, because we have to take into account not only the resources available to make the index itself, but also the fact that users' time and attention are precious and limited resources. We should, therefore, strive to balance the need for capillarity in information retrieval with that of the contrast to information pollution, understanding the difference between a certain amount of controlled redundancy, useful for correcting errors or misunderstandings in communication, and the careless superfetation of those who heap information upon information at random, without an overall plan and without ever verifying its coherence and its topicality and reducing its frequency.

If the documentary universe to be indexed is in continuous expansion or otherwise dynamic and if the relative index has the technical ability to keep up with that mutability through subsequent editions or a likewise con-

tinuous updating—typical of the digital environment—the value of completeness involves also the temporal/time dimension, including the frequency, the extension, and the timeliness of the updating itself. Exhaustivity in classification is also a corollary of completeness, consisting in covering completely the entire conceptual horizon as considered by the sum of the classes that are created, leaving no object "orphan" of a class in which it can be placed and without abusing the last overcrowded class "other" (in which to place that which it has not been possible to assign to any of the other classes).

3.6 Usefulness and comprehensibility

In each particular situation, there might be a thousand different ways to organize information, all formally correct, all logically coherent and all quantitatively complete. How can we leave that paralysing symmetry to adopt one in particular? The answer is, at the same time, the North Star and the chimera of any information system, and it consists in favouring the concrete and prevailing interest of the users of the system; that, however, can be difficult to identify and formalize.

Therefore, both in design and in management, the information system needs to maintain as constant reference points, to consider in the evaluation of the results obtained and in the identification of goals and priorities, its own users, their information objectives and the context in which it is expected that the system will be mainly used. These are all notions that can be obtained initially and verified periodically through interviews, questionnaires, tests, and other methods of investigation of the tastes, values, goals, and behaviours of the users of the system, but translating them into a specific method of indexing is still a sort of bet and interpretation the outcomes of which are always uncertain and debatable.

From the value of usefulness derives directly the value of comprehensibility. It would be actually useless to calibrate on the user the scanning of the classes of an index if he/she is not able to distinguish between the classes themselves and to intuit their content because of the cryptic terminology used to name them. Or, inversely, it will be unprofitable to use really current terms to label classes or other information containers which are ordered in a way that does not appear obvious (prior to being useful) to those who would find and use such information. Comprehensibility, at all levels and for the vast majority of reference users, is therefore an essential condition for the actual usefulness of any method of information organization.

The corollary of the inevitable simplification made by any kind of index derives from the necessity of comprehensibility and usefulness. An index, in order to be "manageable," must avoid the Borgesian paradox of the map that cannot be used because it extends as far as the area that it wants to represent. The result is a non-trivial dialectic between the necessity for each index to reflect correctly the documents to which it refers and the very reason for which metadata were born and spread (i.e., the advantages brought by their greater simplicity and standardization with respect to their primary data). Another result is that the same document or document collection not only tolerates, but actually requires being accompanied by a plurality of indexes, each of which highlights a particular aspect of it or is addressed to a particular audience, as it happens with the same territory described by different maps: geographical, political, historical, economic, for children, for cyclotourists, etc.

3.7 Contextualization

Only contextualization allows raw data to enter a circuit of meaning, turning it into really understandable, measurable, and usable information. The same process is repeated at the highest levels of cognitive processing, as separate information becomes richer in meaning and which suggests rational behaviours as it is properly introduced into a broader context where it can connect and interact with other information.

It is therefore very important, both from a technical and from an ethical point of view and both in the sphere of primary data and of metadata, that those people who wish to provide and index information without forcing the opinions of others into one direction rather than in another, place it in the richest and most articulated possible context, which allows users to evaluate it in a conscious and autonomous way. Inversely, users of information systems should strive to understand that it is definitely more relaxing to use index, metadata, and primary data that have been chosen by others, without realizing it and without requiring access to a wider information framework. But it is also—equally definitely—the best way to see one's own information rights constrained and, subsequently, one's political ones as well, because "being able to decide" actually means only "believing to be able to decide," if one lacks a complete picture of the situation.

3.8 Historicization

Some types of contextualization related to the passage of time seem so important and yet—especially in the digital environment—neglected, to suggest their thematisation in a special value-pack, nameable as "historicization" and decomposable into three aspects: dating, conservation, and topicality.

The requirement of dating merely points out that the date in which a particular document was created is an es-

sential metadatum, which should never be missing either inside the document itself nor in the external indexes that refer to that document. Indeed, a single date is often not sufficient to distinguish the document from its other versions and to understand when the various components that constitute it date back to. The best would be indicating more than one date, such as, for example: a) the date of completion of the final version and the date of first publication for an academic paper; b) the date of passing, of publication, and of entry into force for a law; c) the date of creation of the intellectual content, of first uploading online, and of last updating for a web page.

The preservation of documents is a value already included in accessibility, but the value of historicization requires, in addition, that the preserved documents should be maintained accessible at least to the same level at which they were preserved when they were first produced and distributed, but contextualizing them so that they are not liable to cause confusion among users, who should always be able to immediately understand that those are historical documents, often later replaced by more current versions.

To the problem of coexistence of old and new versions of the same information content is also linked the third aspect of historicization, that is the topicality, not to be confused with the value of up-to-dateness, already included in the value of completeness. While updating requires that an index also take promptly into account the new documents that progressively fall within its scope, topicality requires that, when new versions of a document are indexed, that the last one be preferred, the one which is brought out and to which the index refers by default in the absence of the user's different explicit request.

3.9 Sustainability and cooperation

It is useless to design or inaugurate information services ambitiously rich and refined if we are not able to maintain, over time, their levels of quality and quantity or, even worse, even the same basic service, due to a lack of financial, human, technological, or logistic resources.

It will often be unavoidable to deal with reality and reduce one's aspirations, also considering the principles listed here. But, before giving up on even only one of the values in which one believes (supposing that it is a convinced adherence and not just a nominal one), some strategies can be adopted to reduce that possibility, the first and the most important of which is cooperation. Cooperation may mean designing and managing with other subjects an information system or one of its segments in order to share costs and optimize resources, but it can also mean giving up the creation of a new service that duplicates an existing similar one, or reshaping one of the two (or both) so that competitors become complementary.

3.10 Cognitive saving

Users of information systems should not have required of them unnecessarily dispersive cognitive efforts, exposing them to redundant or inapplicable choice options, that are confusing and time-wasting. In the design and management of systems of orientation, navigation, and retrieval, information systems managers should therefore prefer the most rational, economical, and useful choices for users, avoiding vicious circles, unnecessarily long or complex paths, blind alleys, and labyrinths, minimizing the risk that users get lost or do not reach their desired targets.

Cognitive saving is a value of rebalancing with respect to the aspirations of some of the previous values (in particular those of completeness and contextualization), which might produce, if taken literally, an excess of potential information paths compared to those that users can realistically handle, the majority of which will thus remain scarcely used, producing an unnecessary cost, both in terms of information overload for users and from the point of view of management. On the other hand, it is easy to intuit the strong link existing between this value and sustainability, as all that weighs down uselessly the search experience of the users, likewise uselessly weighs down the manager's budget.

3.11 Freedom

Finding a balance between the richness linked to the values of completeness and contextualization and the economy imposed by the values of sustainability and saving is not easy. The value of the user's freedom to choose his/her own information paths constitutes the balance in case of doubt, putting into the right perspective means (information systems) and aims (retrieval of the desired information and documents).

Freedom is a synthesis between the values of completeness and contextualization (which recommend providing the user with all data) and the values of sustainability and cognitive saving (which preach against waste and information pollution and recommend carefully selecting the options that must be made available). But how is it possible to reconcile all this? Data and options must all be there for those who want them, but they must be presented so as not to overwhelm and bewilder the user, thus avoiding replacing one form of cognitive imposition based on information poverty with another, linked instead to information richness. Data and metadata, therefore, should be proposed in a progressively modular and ordered way, so that users can exercise their right to choose their own information paths, avoiding both random choice because their excessive number prevent a well thought-out decision, and

the impossibility of choosing an alternative because it is invisible or nonexistent, and (above all) letting someone else choose due to interest in promoting any particular content, service, or point of view with respect to others.

3.12 Interoperability and standardization

Interoperability is the ability to exchange and profitably reuse data and information both between different systems and organizations, and internally within each of them. The fundamental tool to ensure this is standardization, that is first the creation and dissemination of standards (i.e., of shared rules about how data should be structured and managed) and then their adaptation as widely and as deeply as possible to the *de facto* and *de jure* standards in force in the field.

Only in this way can the inevitable investments required to produce data, information, documents, metadata, and indexes really pay off, avoiding holding them in many separate and isolated silos, feeding instead collectively—with mutual and multiplied benefits—large common containers from which everyone can draw whenever they need to.

3.13 Hypertextuality

Hypertext means, above all multilinearity, that is the ability to read a document not only unilinearly, from the beginning to the end, but also following a plurality of different paths chosen by the user. Hypertextuality is a dimension present in all documents, although to different degrees: ranging from the minimum in novels (where the freedom of choice is limited to the possibility of skipping some very boring passages, to postponing the reading of the introduction and to finding a particular passage by glancing through the volume or using the index) to the maximum in the web (where from any page all others can be reached, following the links in succession through a thousand different paths or relying on a search engine), and passing through scientific papers (full of notes, cross-references, and bibliographic references) and all reference works such as bibliographies, catalogues, directories, and encyclopaedias, intended to be queried and consulted rather than read in full.

Understood in this sense, the value of hypertextuality is strictly linked to the value of freedom, of which it is a precondition; only an information system structured in a strongly hypertextual way can allow a high degree of freedom for the user in the choice of his/her information paths. On the one hand, in fact, all indexes of any type are provided with an intrinsic hypertext structure, due to their very nature of entities decomposable into sub-elements that refer to a plurality of other entities, and on the other hand their indexical function is strengthened as much as they integrate each other, forming rich, complex, and dynamic hypertextual information systems, such as, for example, libraries (especially, but not only, the digital ones) (Ridi 2007, 31-73).

4.0 Comparison of values

4.1 Values for information architecture and cataloguing

The other two texts that I considered (Bair 2005; Rosenfeld and Morville 2006), while addressing explicitly only particular aspects of knowledge organization (that is to say, respectively, library cataloguing and information architecture for the web), address the ethical implications with sufficient generality to be usefully applicable also to other areas. In particular, the fourteenth chapter of the third and, so far, latest edition of the classic manual by Louis Rosenfeld and Peter Morville (2006, 340-344) is mainly based on a book (Bowker and Star 1999) by two scholars of communication sciences dedicated to the social, political, economic, and ethical consequences of the methods of knowledge organization more or less consciously used by people and institutions, to identify six crucial ethical considerations that must be kept in mind in the planning of websites, as well as any other information systems. These six crucial ethical considerations are summarized as follows:

1) *Intellectual access*. One of the fundamental objectives of information architecture is to help people find the information they need in the most efficient and effective way, avoiding frustration and waste of time and money.

2) *Labeling*. In the choice of the terms to be used in information systems, one should find a balance between the terminology used by authors and the terminology preferred by users, trying to get clarity, predictability, and conciseness without offending anyone.

3) *Categories and classification*. Classification schemes and criteria for inclusion in them of the entities to be classified should be designed avoiding any bias.

4) *Granularity*. One should avoid that the excessive granularity of information content makes it incomprehensible or misleading, altering or removing its context.

5) *Physical access*. Universal accessibility and usability are essential in the architecture of physical buildings and in print publishing and in the design of

electronic systems and tools for the handling of digital information content.

6) *Persistence.* Information architecture is not concerned with superficial and ephemeral aesthetic aspects, but with deep and lasting structures that should be designed without haste, feeling responsible not only towards the present contractor but also towards future users.

Bair (2005) analyzes instead the various ethical problems that might arise during the cataloguing procedures that take place in the library, obtaining the proposal for a *Cataloging code of ethics* in ten short points which will be fully transcribed in the next sub-section.

4.2 Decomposition and recomposition of values

Since none of the three lists of values for knowledge organization examined (Bair 2005; Rosenfeld and Morville 2006; Ridi 2010) indicates explicitly an order of priority between the values themselves, I thought it legitimate to decompose and then recompose them differently, grouping them according to the consonance of each of them with one of the five fundamental ethical values of the library profession that emerged in paragraph 2.0 from the comparison between Ridi (2011) and IFLA (2012), rearranging the library principles according to the amount of values for knowledge organization groupable under each of them.

The principle of intellectual freedom, a priority for librarians, would also be confirmed in this experiment as the fundamental principle for all other professionals in the field of knowledge organization, since as many as thirteen out of the twenty-nine values resulting from the "decomposition"—ten proposed by Bair (2005), six by Rosenfeld and Morville (2006) and thirteen by Ridi (2010)—are more or less directly "recomposed" as articulating it. In particular, half of the principles of Rosenfeld and Morville (intellectual access, physical access, granularity) and seven out of thirteen of Ridi (accessibility, completeness and granularity, contextualization, historicization, freedom, interoperability and standardization, hypertextuality) quite clearly refer to the fundamental right of users of any information system to move freely among all of its content and its organizational structures, with no censorship and having all the necessary data to interpret correctly and autonomously the first and the second ones. Along the same lines are also the first three points of Bair's (2005, 23) decalogue:

1. We organize, add value to, and provide and maintain fair, equitable, and uncensored access to information for all local, national, and global library users, putting the information needs of our clients and the human right to freedom of information before our own needs and convenience.
2. To ensure that users find the information they need, catalogers gather and organize information and advise users in their choice of information by providing comprehensive, accurate encoding and access points; knowledgeable application and addition of subject headings and classification schemes; and accurate and complete description and notes.
3. We are vigilant in ensuring that we do not purposely or inadvertently 'censor' or deny access to information by allowing cataloging backlogs or through inaccuracy, misuse, or nonuse of encoding, subject headings, classification schemes, and authority control.

The second position, in order of importance, can be assigned to the value of professionalism and neutrality, under whose aegis fall ten principles, one of which is proposed by Rosenfeld and Morville (absence of bias in categories and classification), three by Ridi (competence, thirdness and impartiality, coherence and continuity) and six by Bair (2005, 23-24):

4. We are honest and truthful in the representation of resources in regards to its subject area, the identity of those responsible for the intellectual content, and its accurate description.
…
6. We contribute to the creation, development, reform, and fair, unbiased application of cataloging rules, standards, classifications, and information storage and retrieval systems. We avoid and work to reform cultural biases in standards for subject headings, classification schemes, and name authority control.
7. We provide accurate, full-level records to the shared databases, following the highest standards and rules for encoding, subject analysis, description, and classification.
8. We are careful not to contribute to the misuse or distortion of information through inaccurate, careless, or minimal cataloging and resist all internal and external pressures to do so. We report and correct errors in the shared cooperative databases.
9. We do not blindly contribute original cataloging for resources for which we have no language or subject knowledge, but instead seek assistance. We carefully review copy-cataloging for errors before adding them to the local database.
10. We commit ourselves to lifelong continuing education for the sake of the profession, our em-

> ployers and clients, and the society we serve. We provide and seek to promote pre-job and on-the-job training and staff development opportunities for catalogers in languages, subject expertise, special formats and technical skills, and we work for required, comprehensive cataloging education in library schools.

Social responsibility—consisting basically in attention to the values, interests, priorities, and culture of the users of information systems—eventually gathers the six remaining principles, that is labeling and persistence (Rosenfeld and Morville 2006), cognitive saving, usefulness and comprehensibility, sustainability and cooperation (Ridi 2010), and the fifth point of Bair (2005, 23), which could, however, have been placed among those relating to neutrality:

> 5. We keep authority files up to date, accurately reflecting the intellectual efforts of authors. We avoid cultural bias and preserve cultural specificity in name headings.

Such an order would remain unchanged—while reducing the distance between the relative importance of intellectual freedom, professional neutrality, and social responsibility—even if one moved from the first to the third of the aggregations thus created (or if one counted in both aggregations) two principles that give cues that they could be interpreted differently depending on the weight given to the different values that each of them convey. The second principle of Bair (2005) can, in fact, be read both as recalling the professional duty of accuracy in cataloguing work and as a recommendation for ensuring that users are always able to retrieve the desired information. Similarly, interoperability and standardization as advocated by Ridi (2010) can be seen both as an extension of the information paths made available to users and as an opportunity to reduce duplication and waste, reducing the cost of knowledge organization for society.

4.3 Copyright and privacy

Not even one of the twenty-nine principles resulting from the decomposition carried out in the previous subparagraph seemed to me to refer to the values of intellectual property and the right to privacy, which, on the contrary, are extremely important for librarians. I believe that this result, which frankly surprised me, can be explained in two different ways, between which, at present, I cannot decide.

On the one hand, it is possible that the values of intellectual freedom, accessibility, professionalism, neutrality, and social responsibility exhaust between them the core of those ethical principles really fundamental for any profession active in the field of knowledge organization, allowing each of them to add to that common substratum other more specific values, such as privacy for librarians and archivists or copyright for librarians and publishers.

On the other hand, it is also possible that, despite the presence of the text of Rosenfeld and Morville (2006) among the ones taken into consideration, the approach of the normative proposals examined herein (which, in any case, should be extended in future studies to ensure greater coverage with respect to the many facets of the activities related to knowledge organization) is still too closely tied to more traditional indexing practices. For thousands of years, in fact, indexers (meaning by this term any producers of maps, catalogues, lists, directories, or classifications useful for finding and organizing information) have been working to improve the accessibility and usability of primary documents that were, in some way, already available to users even in the absence of the "indexes" produced by them and kept up to date. And, for millennia, those indexes were not very interactive, leaving to users only the opposing options to use them or not to use them, but without being able to modify them significantly, other than through private notes for personal use. Today, however, increasing importance and social impact are gained by situations in which indexing can mean giving enormous visibility to digital content otherwise almost impossible to find and where an increasing number of online indexes automatically record a wide range of data about their users, turning them into "advice," more or less interesting, addressed to the entire audience of users. In such a scenario, it would probably be desirable that the issues of copyright and privacy were rapidly metabolized by all professionals of knowledge organization, giving them more importance from an ethical point of view.

5.0 Conclusion

The decomposition of the three lists (Bair 2005; Rosenfeld and Morville 2006; Ridi 2010) of values for knowledge organization and their recomposition according to the grid of values prevailing in the library profession (Ridi 2011, IFLA 2012) were carried out "without remainder." Not a single one of the twnty-nine values resulting from the decomposition could easily be replaced in the scope of at least one of the five fundamental values of librarians. This suggests, albeit within the limitations of a quantitatively restricted survey, that three of these values (intellectual freedom, professional competence and neutrality, social responsibility) could be the core of a general ethics of knowledge organization, to which then each profession could add other more specific principles, such as those related to intellectual property and protection of privacy, very important for librarians but absent from the twenty-

nine values decomposed and recomposed here. It is indeed possible that the digital environment, highly interactive, in which more and more frequently information is generated, organized, searched, and used, is propitious for a greater centrality of the issues concerning copyright and privacy in all the professions related to knowledge organization.

In any case, if those who work in knowledge organization want to be considered reliable and socially relevant professionals as much as doctors, lawyers, or engineers are, they must—like them—prepare, adopt, and publicize codes of ethics that assure citizens that their technical competencies will be used only to facilitate the retrieval, evaluation, understanding, and critical use of information and not to deceive and manipulate the users of information systems, directing them fraudulently to the options most useful for the contractors and leaders of the profession themselves.

In order to extend and study the research topic outlined here in depth, one can consider, together with the previously cited texts by Bair (2005) and Ridi (2011, 130-131) for the ethics of cataloguing and by Rosenfeld and Morville (2006, 344) for the ethics of the design of information technologies, also the proceedings of two recent conferences dedicated to the ethical issues involved in information organization (Lee 2009; Olson 2012) and the ample bibliography found in the essay of Milani and Guimarães (2011) about the risks associated with the inevitable presence of choices and points of view in any activity related to knowledge representation and organization.

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