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BIBLIOGRAPHY 2.0: A SHORT-LIVED TREND OR AN ESTABLISHED MODEL?

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The article covers perspectives of 2.0 bibliography standards. The necessity of revision of the main principles of bibliography as scientific discipline, its methods and organization connected with the fugacious changes concerning informational technologies and system of scientific disciplines, as well as widespread digitalization of documents have been emphasized. Experience of libraries all over the world is suggested to be spread taking into the consideration attraction of users' knowledge and skills in classification sphere especially by means of labeling (tagging) and adducing the suggestions of characteristics of documents.

Key words: bibliography, catalogue, digitalization of document, labeling (tagging), 2.0 standard.

History of bibliography is counted in centuries. Through these years the discipline has worked out the methodologically sound bibliographical method, which is considered one of the pillars of contemporary book studies. If not for the enthusiasm and persistence of consecutive generations of bibliographers all over the world, our knowledge considering everyday life, learning, art and culture of the times past would be much smaller. It is hardly possible to exaggerate the importance of bibliography, bibliographic arrangement and information organization (which of course are related), especially in our times when overabundance not lack of information has become a problem. Moreover, the information ready at hand is plagued by poor quality. Speed prevails over quality, while comprehension and plausibility are lost in the process. Physicists persuade us that without matter there would be nothing; without energy everything would be static – and may I add: without bibliography everything would become chaos!

In Polish language the term "bibliography" applies to both the theory of bibliography (scientific discipline) as well as the practical activities which lead to bibliographic lists, or on a broader scale: bibliographic information. Neither one or the other is autonomous nor isolated from external influence. The environment in which bibliography functions and develops has distinct influence on the discipline itself as well as on the users of its products. Bibliography also influences its environment. The most characteristic feature of the modern times is rapid change. Bibliography is no exception to that rule. Transformation applies not only to information technology, computer hardware and software (albeit the most conspicuous changes are to be observed in these realms), but also to the system of scientific disciplines and fields which surrounds bibliography, as well as the social, economic and information environment and last but not least to ourselves – our mentality, knowledge and habits. Hence, it will not be an overstatement to say that we are tyrannized by the moment. And, notwithstanding the whole tradition of its history of achievement, bibliography itself to a certain extant must also be subjected to this tyranny of the moment, lest it becomes a museum of days gone by.

Today, in my opinion, is the proper moment to reconsider bibliography as a scientific discipline, its relations to other branches of learning, its practices and its organisation. We need to rethink the bibliographic workshop, the tools we possess and the methodology we use, both in terms of practical application as well as theoretical reflection. Such approach towards bibliography is necessary also in the context of the changes in the library and information environment, in particular the mass digitalisation of information and documents and the raising importance of the network. We must answer the question what need be done in order to benefit from the opportunities and potential of the network technology best, and what should be avoided. We need to consider how to appreciate better the fact that bibliographies exist in various contexts, in different social spaces and retrieval situations. Often discussions on the social significance and functioning of bibliographies are dominated by otherwise very important problems, like standards, formats, completeness of descriptions etc. Nowadays, on the one hand, an increasing number of bibliographies is already either digitalised or digitally born, while on the other the need of integrating various electronic resources are becoming more acute. How are we to encompass all this abundance of data? What are we to do in order to exploit all the open opportunities and avoid the hazards?

In view of these changes bibliography, i. e. bibliographers as its representatives, should identify itself and assume a clear stance. New elements and phenomena, which have entered the bibliographer's sphere of interest, demand that they are named, ordered and included into the theory and into the practice. Our times, contrary to appearances, not only pose no threat to further development of bibliography, but also facilitate (or can facilitate) the increase of its importance and its historical and information significance. The feedback provided by information technology, the relations of bibliography with information science, with communication studies, all necessitate a new look at bibliography, at the competences of the bibliographer and at the responsibilities of the institutions fulfilling important bibliographic tasks. Tempora mutantur sed nos mutamur in illis – or at least we should change with the times. And please don't treat this appeal as a call to follow a fleeting trend, or to go with the tide. What is necessary here is a deeply considered, benefiting for the provider and user adaptation to the needs, requirements and abilities of the contemporary world and the environment in which we are constructing our fragment of history.

Web 2.0, the creating of web contents by users, is a phenomenon which poses a challenge to the bibliographers. Web 2.0 has currently become a widely discussed subject by the milieu of Polish library science specialists and librarians. Many publications have appeared, chiefly on the internet bulletin EBIB[1], as well as on the discussion forum Biblioteka 2.0[2]. Nevertheless, there is no complementary phenomenon, which would be analogically dubbed Bibliography 2.0. Surveys of professional literature, both Polish and foreign, demonstrate that although on a minor scale the idea of Bibliography 2.0 does appear in the field of bibliographic practice using Web 2.0 tools.

Browsing the Internet, apart from "normal" bibliographies and handbooks on constructing bibliographic listings and conducting bibliographic research, one also finds a niche with services jointly prepared by the users. The idea of employing the user's knowledge and creativity is not new. Although sceptics make ironic jokes of the Metcalf rule pointing out that ten people with IQ 40 do not make IQ 400, but one can easily notice the effects of synergy just to mention the showcase service of the 2.0 era – the Wikipedia. The frequently mentioned survey made by the Nature magazine demonstrate that the Wikipedia sites contain less errors than the volumes of a single edition of the Encyclopaedia Britannica; not to mention

[1] Biuletyn EBIB (on-line) // http://www.ebib.info (11 August 2008).
[2] Forum Biblioteka 2.0. // http://forum.biblioteka20.pl/ (11 August 2008).

the fact that they are by far easier in correcting[3]. People nowadays have lots of time and ambitions, which exceed material gain[4]. Thinking of cultural goods as transcending commercial wares and pertaining to human heritage, which is promoted also in Poland among other by the organization Creative Commons, is no new idea. It does then make sense at least to consider whether it is not worth it to take advantage of such attitudes for the benefit of bibliography.

The full Web 2.0 standard, apart from access to editing data form the level of a web browser (the Wiki mechanism), assumes combining in a single service multiple Web 2.0 tools – commentaries, reviews, the possibility of creating an individual profile with ascribed collections, a given interface and functionality of the service[5]. Web 2.0 services are characterised by user-friendliness which results from clear composition of web sites, considerable speed of accessing and repetitive functions. Many libraries around the world use elements which are similar to the second generation Internet; for instance the formulary for new additions to collections. The University of Silesia is a case in point here: their database "Polish scientific and professional electronic journals" is constructed among other by the users, who suggest new titles by means of the Internet. Formularies for submitting notifications of errors or new additions are nevertheless a solution from the times between the first and the second generation of the Internet; they accept a certain degree of user-activity, but still assume full control of such activities and allow for a time span between the activity and the result. Full user access to bibliographic databases without some degree of moderation by the administrator is unacceptable. Organisational results of such free access would also result in problems contrary to the needs of the users – many dispersed services located on servers of various research libraries or other scientific institutions would not be an interesting offer to the user; at least not until the moment when a new leader would emerge. Technological problems concerning the functioning speed of databases which employ the Z.39.50 client – server protocol are yet another issue: this protocol enables only linear data transfer. Is it capable of implementing technology allowing for development of services exceeding simple researching of records[6]? Only the satisfied user, who is emotionally attached to the offer he receives, is capable of cooperating in the creation of the project he uses.

This article is neither aimed at forceful introduction of the term "Bibliography 2.0" into the terminological paradigm of library science and information studies, nor at uncritical promotion of the 2.0 model. It endeavours to register certain phenomena, which operate in a way beyond the direct influence of librarians and bibliographers, and to demonstrate on the instance of a single element in the work of the bibliographer, whether at all and if so, to what degree bibliography can benefit from these phenomena and introduce into its own workshop methods and innovations elaborated by 2.0 procedures. The element selected as the example for discussion is the organisation of information in bibliographic listings. Traditionally this feature is reserved for bibliographers and without doubt is one of the more difficult elements of the bibliographic methodology. A well devised bibliographic system, references and indices are the clue of information retrieval in bibliography. Working these elements out is an art, which requires knowledge and experience. And what is happening before our very eyes – pagans and profanes with their tagging and folksonomies are beginning to trespass on this sacred field reserved for the chosen few.

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[3] Giles J. Internet encyclopedias go head to head // *Nature*. – 2005. – Vol. 438, No. 7070. – S. 900–901.

[4] Bendyk E. Broń masowego tworzenia // *Biblioteki cyfrowe – projekty, realizacje, technologie* / pod red. J. Woźniak-Kasperek i J. Franke. – Warszawa, 2007. – S. 11–20.

[5] Urbanowicz K. Pięć sposobów jak rozpoznać serwis Web 2.0. http://web2cafe.blogspot.com/2007/05/pisposobw-jak-rozpozna-serwis-web-20.html (28 June 2008) a blog entry.

[6] Grabowska M. Bibliografia u progu XXI wieku // Biuletyn EBIB 10:2003 (50) // http://ebib.oss.wroc.pl/2003/50/grabowska.php (28 June 2008).

Dialogue, elasticity, joint constructing and sharing, as it was previously stated, are the basis of Web 2.0. The technologies employed by Web 2.0 are neither new, nor unknown. W3C, HTML, XHTML technologies, or script languages like php, perl were widely applied already in the 1990s. The novelty relates to the mental and social sphere; its key factors being: the introduction of the user into product and services creating, simplicity, user-friendliness, and the triumph of open standards.

Paradoxical as it may seem, the last years in the context of Web 2.0 are in a sense the return to the classical manual indexing by free key words. This indexing is performed by tags – markers in the form of key words or phrases constructed of key words. Tags define the contents and the other features of the characterized documents. They also can, and frequently do, serve as means for commenting on the document by the user.

Tags are used for characterising the contents of the web in a manner that is understandable for the user, who is performing the tagging. This individual approach is very important – it explains already half the success of tagging, although it is the source of numerous problems. Another aspect of tagging is related to the idea of folksonomy (collaborative tagging, social classification, social indexing) and to the phenomenon of upward tagging – their emerging from a "cloud of tags". According to Wikipedia a cloud of tags is "a visual depiction of the content of a Web site in the form of a list of markers, which usually are also links to relative parts of that service. In most cases these markers-links are listed alphabetically, while their font-size and colour indicates their importance or popularity. They enable easy finding of the given category either alphabetically, or in accord to importance."

Tagging brings in certain risks and problems. Every user can create a different description of the same object – not a better or a worse one, but a different one. Moreover, the same person can create different descriptions of the same object in different moments, in accord with the current state of knowledge, needs, state of mind etc. Tags reflect the private and momentary ideas their author harbours with respect to the characterised objects. They just as well can be appropriate only at the moment of the tagging process, and subjectively at that. The meaning of a tag does not necessarily be obvious to everybody, and in many cases they are understandable only to the author. But the power of tagging and folksonomy is not in the singular act and its effect; it lays in quantity which turns into a new quality. Remaining in the light convention of tags and folksonomy, one can say that in their case the old popular wisdom of the crowd knowing better is once again confirmed. Folksonomy is also the measure whether a given site is popular and an indicator of the relation between the subject interesting the user and that site (how many and what kind of tags has it received). But with respect to less popular sites (and languages) tags can lead into error. Their power is in their number – the more tags a site receives, the bigger the probability of appropriate description of its contents. One can say that folksonomy is an assumption for verification of cognition; an example of realisation of a language extremely intentional, performative in a sense specific for itself. Being a form of dialog with an existing system of meanings conducted upwardly, it can also be a tool of actual change in the social space; a legitimisation of knowledge created on the basis of (postmodernist?) criticism of scientism.

Doubtless the indexing activity of users helps in removing numerous information barriers, e.g. the terminological one. Precisely for this reason libraries all over the world, with bigger or (more often) smaller enthusiasm, attempt to encourage their users to cooperate in cataloguing, e.g. by tagging and proposing characteristics of documents. This is what Staatsbibliothek in Berlin, many public libraries in the US, services of the Amazon.com type or Empik.com do: "(...) one cannot fail to notice that Web 2.0 applications are efforts performed on a typical library field: collecting, storing, cataloguing and delivering of infor-

mation. In result (...) during a relatively short period of time there appeared concepts of adapting ideological and technological solutions of the second generation of Internet to library practice"[7].

Tagging seems a chance for enhancing the effectiveness of access to information in library catalogues and bibliographies. The potential advantages in this respect are:

"– enhancing among the active (tagging) users the feeling of community with other users of library holdings;

– encouraging passive users to adopting a more active attitude, helping them to start believing that they can influence the services they are offered;

– encouraging the users to acquaint themselves better with the content of the materials they are describing, to analyse it in various contexts and from the points of view of other users;

– enhancing the process of researching materials (enriching the descriptions already in existence by additional elements and by the potential to find other sources thanks to the descriptions or recommendations of other users);

– enhancement of the effectiveness of using the collections by the users (who can access the materials described by themselves more easily in order to find them more easily when they want to return to them later on);

– finding information concerning the sources, materials or subjects which are interesting or important;

– amusement and satisfaction of the active users"[8].

From the librarian's point of view "folksonomy is an interesting solution in the context of enabling the users to describe books thorough OPAC catalogues. Confronting subject cataloguing performed by a librarian with tags appended by users would certainly be interesting. The use of such tools in internet services provided by libraries is an element of the Library 2.0 concept, which already is implemented since several years. Social tagging tools, from a different point of view, can be a valuable information resource. The Flickr system enables easy finding of graphic files, which can be utilised e.g. in didactics. The del.icio.us system provides links to verified internet sites added by, e.g. school teachers, who use these web pages in their classes."[9]

Folksonomy has little in common with library classification. "If you compare classification to a tree, each document, like a leaf, has its own place on a specific branch. In the case of folksonomy there is no tree to hang the leaves on. Leaves of the same shape are "raked" in one place and of the same colour in another. Simplifying the matter one can say that the functioning of folksonomy consists in enabling the user to characterise the content of a document provided by a service in such a way as to let the other users access such characteristics."[10] By tagging a document the users do not classify it, but describe it by means of markers. Additional applying of classification or categorisation in managing information appeared later and is not a genetic element of folksonomy. Folksonomy is a flat structure, with differentiation between various types of catchwords introduced by font size or colour. Clicking a given word links the user with the description of related documents. In case of libraries this is a good idea for presentation of the most popular subjects or books. Various tags are also a signal what other users recommend. As Michał Zając put it: "The analysis of the tag cloud presented on the web site of the library [Ann Arbor Public Library. – *J. W.-K.*]

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[7] Zając M. Biblioteka dziecięca 2.0 – najnowsze tendencje komunikacyjne i organizacyjne // Zając M., Zybert E. B. (eds.) *Biblioteki w systemie kultury jednoczącej się Europy*. – Warsaw, 2007. – S. 96–97.

[8] Tagowanie i biblioteczne katalogi 2.0 // http://blog.biblioteka20.pl/?p=66 (28 June 2008)

[9] Roszkowski M. Folksonomia jako narzędzie społecznego tagowania // http://www.pedagogiczna.edu.pl/warsztat/2007/4/070404.htm (23 June 2008).

[10] Roszkowski M. Folksonomia jako narzędzie społecznego tagowania...

demonstrates that children are eager to use this informational and retrieving tool and do it frequently"[11].

In my opinion the key question today does not concern the need to open bibliographies to the modification of the users. The problem lies elsewhere. We need to evaluate the ability of librarians and bibliographers to keep track of the rapid increase of written matter, both in the traditional form as in the digital one. We need to consider, whether the opening of bibliographies would bring more benefits or losses. Contemplating the perspective of bibliography in the 2.0 standard we should decide: which parts could be collaboratively created by users, what should such a bibliographic service look like, by which institutions should it be created, and what kind of supervision should it be submitted to?

It may also be so that bibliography will "wait out" the second generation of the Internet with no revolution until Web 3.0, which is already prophesized, becomes reality. The adoption of an active attitude would mean a considerable development of the offer aimed at the user and including in it, with the help of technologies allowing for understanding by the computer systems of the semantic and syntax of the documents, of services related to automatic constructing of subject bibliographies, generating information in accord with the choices previously stated by the user, including services which would provide information on the accessibility of a given book, its reservation etc. This potential transformation, although would change bibliography on the outward, internally would not go too far and probably would not alter the situation of the bibliographer. It seems that scientific bibliography is not capable of further functioning without important changes relative to the organisation of information in the Web 2.0 standard, changes which will bring novelties satisfactory for the users and benefits for bibliography itself.

The situation of popular bibliographies is somewhat different. Let us consider the instance of the service Biblionetka.pl created in 2001, which recommends books. It is constructed in the form of a catalogue, but thanks to the function "recommend books" it already performs tasks appointed to the services of the 3.0 era. Although it is aimed at fiction readers, it displays features of a literary bibliography. The user is limited only by the format of the entered data. Apart from these "intelligent" features it displays all the characteristics of a social service 2.0: clear design, user-friendliness, wide potential for personalisation of the user account, possibility of including reviews, evaluating books, editing the bibliographic data.

It remains only a vision that journal content bibliographies will be constructed socially, without ambitions of completeness, with tagging, evaluation and exchange of records.

In the work of the bibliographer Web 2.0 does not mean anything beyond the task of revising the suggestions sent in by the users. Much bigger changes bring in the Web 2.0 in the social and mental sphere, where the user of bibliographies or libraries can no longer be treated as the passive receiving element. The idea of unavoidable changes in the professional and scientific identity will probably have to be accepted. These changes will follow the direction of dialogue and social documenting of the achievements of learning[12]. Thus there opens an opportunity for building a culture of professionalism, which can become a safety hatch should the era of news, superficiality, loss of values and wrongly comprehended convergence become reality, as the dark visionaries see it.

Finally, one must address one more question: which is better, the classic catalogue or the folksonomic one, or perhaps the web browser? In my opinion this question is wrongly formulated, because it dwells on a false assumption. The three tools in question are simply

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[11] Zając M. Biblioteka dziecięca 2.0 – najnowsze tendencje komunikacyjne i organizacyjne... – S. 104.

[12] Krzysztofek K. Społeczeństwo w dobie internetu: refleksyjne czy algorytmiczne? // *Re: internet – społeczne aspekty medium. Polskie konteksty i interpretacje*. – Warszawa, 2006.

different, they function differently and different results are to be awaited from each one. The mutual relations between folksonomy and the knowledge organisation systems, which are the basis of functioning of nearly all library catalogues and numerous web browsers, can metaphorically be viewed as the contest of feasting with fasting. Both are necessary in proper time and appropriate proportions. One cannot foresee whether the future will belong to intelligent machines capable of reactions comparable with human, or to ontologies based simultaneously on scientific and popular visions of the world. Perhaps, ironically enough, it may also be so that quantity will turn into quality nevertheless. But while we wait with hope (and also some fear) for whatever the future will bring, let us make use of the reality, which is already at our disposition.

БІБЛІОГРАФІЯ 2.0: КОРОТКОТРИВАЛА ТЕНДЕНЦІЯ ЧИ УСТАЛЕНА МОДЕЛЬ?

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У статті розглянуто перспективи бібліографії у стандарті 2.0. Наголошується на необхідності перегляду засадничих принципів бібліографії як наукової дисципліни, її методів та організації у зв'язку зі швидкоплинними змінами, які стосуються інформаційних технологій і системи наукових дисциплін, а також із масовим оцифровуванням документів. Пропонується поширювати досвід бібліотек світу із залучення знань і умінь користувачів у справі каталогізації, зокрема шляхом маркування (тегування) та висування пропозицій характеристики документів.

Ключові слова: бібліографія, каталог, оцифровування документів, маркування (тегування), стандарт 2.0.

БИБЛИОГРАФИЯ 2.0: КРАТКОВРЕМЕННАЯ ТЕНДЕНЦИЯ ИЛИ УСТАНОВИВШАЯСЯ МОДЕЛЬ?

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В статье рассмотрены перспективы библиографии в стандарте 2.0. Подчёркивается необходимость пересмотра базовых принципов библиографии как научной дисциплины, её методов и организации в связи со скоротечными изменениями, касающимися информационных технологий и системы научных дисциплин, а также с массовым оцифровыванием документов. Предлагается распространение опыта библиотек мира по привлечению знаний и умений пользователей в деле каталогизации, в частности путём маркирования (тэгирования) и выдвижения предложений характеристики документов.

Ключевые слова: библиография, каталог, оцифровывание документов, маркирование (тэгирование), стандарт 2.0.