THE POLISH LIBRARIANS' ASSOCIATION

przegląd biblioteczny

THE LIBRARY REVIEW

Founded in 1927

The Oldest Polish Research Journal in Library and Information Science

The Special Issue on the 90th Anniversary of the Library Review and IFLA Congress and 83rd General Conference in Wrocław

Warsaw 2017

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Special issue of The Library Review - task funded under Agreement no. 729/P-DUN/2017 by the Minister of Science and Higher Education for research dissemination activities.

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INTRODUCTION

Przegląd Biblioteczny [*The Library Review*] is the oldest Polish research journal dedicated to library and information science and to modern librarianship. It was founded in 1927 as a review for the research of the Polish Librarians' Union, known since 1953 as the Polish Librarians' Association (PLA). This quarterly journal is also one of the best Polish research periodicals in library science, much appreciated by the librarians' community and professionals working for cultural heritage organisations, as well as by university teachers and students of faculties dedicated to these fields. With English-language articles by internationally acknowledged authors – both Polish and foreign – its contents have become available to readers abroad, who share their observations and comments, encouraging others to publish their work in this journal.

The Library Review is included in the ERIH PLUS European Reference Index, with its contents being indexed in the following databases: The Central European Journal of Social Sciences and Humanities, Pol-Index, and the Polish Bibliological Bibliography (PBB). The texts published in issues from 1927 to 2015 have been made available in full by the PLA Digital Archives (www.sbp.pl/archiwumcyfrowe) and the multi-media archive (Medioteka) of the Faculty of Journalism, Information and Book Studies of the University of Warsaw (http://bbc.uw.edu.pl/dlibra).

Eminent Polish librarians and experts in library science have worked with *The Library Review*, including: Stefan Demby, the first director of the National Library of Poland; Edward Kuntze, its first editor-in-chief and director of the Jagiellonian Library, who edited the *The Library Review* in the years 1927-1939 and 1945-1948; Aleksander Birkenmajer, one of the most notable figures in Polish library science during the inter-war period and founder of the library science school at the University of Warsaw after the war. Józef Grycz, director of the Kórnik Library, organizer and promoter of modern library science in Poland, became its editorial secretary. The subsequent editors-in-chief were Bohdan Horodyski (1949-1965), Zbigniew Daszkowski (1966-1968), Maria Dembowska (1969-1977), Barbara Sordylowa (1978-2003), Maria Lenartowicz (2004), Barbara Sosińska-Kalata (2005-2013)¹ and, since issue no. 4 of 2013, Elżbieta B. Zybert.

"In the interwar period, *The Library Review* was published for 13 years by the Jagiellonian Library in Cracow." After the war, its publication was resumed, first as a yearbook, and since 1946 as a quarterly once again. Until

¹B. Sosińska-Kalata (2007). Od Redakcji: Osiemdziesiąt lat "Przeglądu Bibliotecznego". [From the editors: eighty years of The Library Review]. Przegląd Biblioteczny, vol. 75, issue 1, pp. 5-6.

1948, the journal was printed in Cracow, but in 1949 its editorial team moved to Warsaw. In the years 1946-1953, it was the official research review of the Union of Polish Librarians and Archivists, later to be taken over by the new-ly established Polish Librarians' Association in 1954, which publishes it to this day. From 1972 to 2003, it was published jointly by the PLA and the Central Library of the Polish Academy of Sciences; in 2005, PLA became its sole editor once again.² Since its first issue of 2015, it has been co-edited by the Institute of Information Science and Book Studies, which as of 1 September 2016, after several organisational transformations, became the Faculty of Journalism, Information and Book Studies of the University of Warsaw.

The articles published in *The Library Review* discuss issues related to modern librarianship as well as library and information science, showing the role books, libraries and information play in our society in various aspects, as seen from theoretical and practical, multi-disciplinary and international perspectives. The contents now published in *The Library Review* are divided into several sections: *Articles*, presenting original research papers; *From Research Workshops*, with reports on current research; *Reports*, an important section discussing major domestic and international research conferences; *Critiques and Reviews*; *PLA News*, with insights into the activities of the Association and its local units; and finally, *The Chronicle*, which informs readers about the latest professional and research events.

2017 is a very important year for *The Library Review* because, as the main body of the Polish Librarians' Association, we are participating in the jubilee celebrations commemorating the 100th anniversary of this organisation, the first in Poland to bring together librarians, bibliographers and book lovers. Also this year, Poland has the honour of organising the IFLA Congress and 83rd General Conference on 19-25 August 2017, in Wrocław. This year's theme is: *Libraries. Solidarity. Society*. This will be the third IFLA conference in Poland, the previous ones having been held in 1936 and 1959. Let us remember that, in 1928 (officially), Poland was one of the first countries to join and contribute to the development of the International Library and Bibliographical Committee, known since 1929 as the International Federation of Library Associations and Institutions. The Library Review has been publishing reports from the IFLA conferences for decades, which has allowed the Polish librarians' community to follow the issues discussed at subsequent meetings on a continuous basis.

As institutional members of the Poland National Committee, the National Library of Poland and the Polish Librarians' Association, through the journals they publish (*The Library Review* and *Polish Libraries* [in English]), actively contribute to disseminating information on Polish librarianship and to sharing Poland's achievements in this field with other IFLA members,

²Ibidem.

as well as discussing daily problems librarians face and taking action in order to adapt Polish librarianship to the challenges and social expectations of the 21st century.

Polish Libraries (vol. 2, 2014, pp. 6-132) features an extensive article entitled "Libraries in Poland as of 2012" (B. Budyńska, M. Jezierska, G. Lewandowicz-Nosal, G. Walczewska-Klimczak) which introduces the structure of libraries in Poland. It presents the network of public libraries, school libraries, pedagogical libraries, scientific libraries and libraries without a uniform network (specialised libraries and libraries of scientific, technical and economic information centres, as well as libraries of scientific societies).

This special issue of *The Library Review* contains articles discussing the situation of Polish librarianship, focusing on specific issues, by authors representing major Polish scientific libraries (National Library, Jagiellonian Library, University of Warsaw Library, University Library in Toruń) and academic institutions. These articles are:

The Polish Librarians' Association in IFLA. Origins of collaboration (Andrzej Mężyński);

– Library users, offerings and types of services in Poland (Małgorzata Fedorowicz-Kruszewska, Tomasz Kruszewski, Nicolaus Copernicus University in Toruń);

- *The role of public libraries in promoting readership in Poland* (Dorota Grabowska, University of Warsaw);

– *Polish digital libraries and repositories. Origins, operation and usage* (Bożena Bednarek-Michalska, University Library in Toruń);

- Changing the paradigm of collecting and cataloguing in Polish scientific libraries. The impact of new information technologies (Krystyna Sanetra, Jagiellonian Library);

– The Warsaw School of Paper Conservation (Bogdan F. Zerek, National Library of Poland).

– *New library buildings in Poland. The last 25 years (1990-2015)* (Ewa Kobierska-Maciuszko, University of Warsaw Library).

This overview of the problems faced by Polish librarians is additionally complemented by a special issue of *The Library Review* of 2012 to celebrate the journal's 85th anniversary. It includes the following articles:

– The Library Review in the past and in the years 2005-2012: an introduction (Barbara Sosińska-Kalata);

- The library's added value (Jacek Wojciechowski);

Research libraries in Poland in search of identity (Andrzej Mężyński);

- The potential of online library catalogues for supporting opportunistic acquisition of information pertaining to scholarly literature (Remigiusz Sapa);

- *The use of outsourcing in Polish higher education libraries in the light of survey research* (Artur Jazdon);

- Old and new paths of literacy (Jadwiga Kołodziejska);

– On the contemporary research status of book, library and information sciences (Krzysztof Migoń);

– Photographs in the digital collection. Issues with the descriptive and subject cataloguing on the basis of the Digital Library of the Warsaw University of Technology (Maria Miller, Małgorzata Wornbard).

In this way, the contents of both special issues – those of *The Library Review* and those of *Polish Libraries* – provide a comprehensive, although abridged, overview of what is happening in Polish librarianship today.

The IFLA congress and conference in Wrocław will be an excellent opportunity to discover the dynamically evolving libraries of this beautiful old city. Additionally, the organisers have scheduled visits to libraries outside of Wrocław, for example in Oława, Jelenia Góra, Polkowice and Bolesławiec (where visitors can see the Bolesławiec Live Museum of Pottery, with an opportunity to learn about the world-famous pottery from Bolesławiec), Opole, Katowice, Cieszyn, Bielsko-Biała and Cracow. I am firmly convinced that each of the participants will discover at least one special and inspiring library that brings the history of the book and of libraries closer to home.

I hope this volume, dedicated to Polish librarianship, contributes to spreading knowledge about Polish library science and its achievements ...and that the 83rd IFLA General Conference will be a memorable event for its participants, encouraging them to revisit our country and to get to know its libraries in other regions too.

Elżbieta Barbara Zybert (Editor-in-Chief)

THE POLISH LIBRARIANS' ASSOCIATION IN IFLA. ORIGINS OF COLLABORATION



Andrzej Mężyński, *Doctor Habilitatus* of historical studies (habilitation in Poznań, 1989), worked in the years 1961-2003 at research libraries such as the Kórnik Library of the Polish Academy of Sciences (1961-1980), the University of Warsaw Library, and later as the Director of the Sejm Library. In 2003-2009 he was professor at the Institute of Library and Information Science at the University of Wrocław. Co-founder (1988) and Vice-President of the Polish Bibliological Society, he is the author of nine books on library science, the history of the Polish book in the 19th and 20th centuries, and the history of Polish libraries during World War II, the most recent one being *Biblioteki Warszawy w latach 1939-1945* [Warsaw Libraries 1939-1945], published in Warsaw in 2010.

KEYWORDS: Polish Librarians' Association 1928-1939. IFLA 1928-1939.

ABSTRACT: **Thesis/purpose of the article** – The article recalls the historical circumstances in which the Polish Librarians' Union joined the IFLA in 1928. It describes the contribution of Polish librarians to the work of this organisation, especially to its annual sessions and also to the work of its subcommittees. **Methodology** – the primary source used is IFLA's main publication, *Actes du Comité international des Bibliothèques*. Polish sources and documentary materials were also used. **Results/conclusions** – Poland joined the IFLA at an early stage, which allowed our country to follow global tendencies in library practice, and to implement some of them domestically. Poland's contribution to IFLA's work was not very significant, as at that time the Polish librarians' community was in its formative stage, following the period of the country's partition, and its intellectual centres had not developed yet.

In October 2017, Polish librarians will celebrate the 100th anniversary of their professional association, brought into existence as the Polish Librarians' Union (ZBP)¹. This summer, on 19-25 August, the 83rd General Conference of the International Federation of Library Associations (IFLA), the third event of its kind to be hosted in Poland, will be held in Wrocław². Therefore, let us recall the circumstances in which the Polish Librarians' Union began its co-

¹The inaugural meeting of the Polish Librarians' Union was held in Warsaw on 21 October 1917. A recent monograph dedicated to its works, edited by Jadwiga Konieczna, is due to come out in 2017.

² The first IFLA session held in Poland took place on 31 May – 2 June 1936 in Warsaw. The second IFLA conference, also in Warsaw, took place on 14-17 September 1959 (25th Session).

operation with this organisation back in the 1920s, and outline their mutual contacts in that period. Back then both organisations were relatively young. ZBP was established later than its peers in Western Europe and in the U.S. The world's first librarians' association, the American Library Association (ALA), was launched in the U.S. in 1876, one year before the British Library Association (LA). They were followed by unions of librarians in Austria (1890), Germany (1900) and France (1906). In all these countries, librarians working for large and wealthy libraries found themselves in a situation where collaborating with libraries in other countries was becoming indispensable, at the very least to jointly take control of what was even back then a skyrocketing increase in the amount of information being provided by research literature.

In Poland, at that time a nation partitioned amongst three countries, the situation was different. There were virtually no large scientific libraries, which were initiating such joint projects in other countries. Only Galicia had two relatively independent Polish universities with their respective libraries: the Jagiellonian Library in Cracow and the Lviv University Library. Nevertheless, educational library networks had been operating in all three partitions, established by social activists who were bringing "enlightenment" to the people while also fostering their national identity. The first librarians' association in our country was founded in the territory of the Russian partition, which had no Polish university libraries whatsoever – despite this, the educational library network there was more developed than anywhere else. Educational activists were supported by the Warsaw intelligentsia: the city's historians, its dynamic bibliophile community, and other book lovers.

At first, the Union's activities were limited due to constraints caused by turbulent political events, and during the 1920 Polish–Soviet War it had to suspend its activities. It was revived after 1926 under Edward Kuntze, director of the Jagiellonian Library. Kuntze strongly supported the idea of Polish librarians cooperating with their peers worldwide. This was anything but easy, as after World War I librarians worldwide were still looking for the most convenient ways to collaborate. In the beginning, all integration initiatives were coming from bibliophile circles. In 1923, the International Congress of Librarians and Bibliophiles was held in Paris, followed by other similar events in interwar Europe: in Prague in 1926, in Rome in 1929, and in Madrid and Barcelona in 1935³. Polish librarians and bibliophiles took part and presented papers in all these congresses (Więckowska, 1973, pp. 197-226)⁴.

³The conferences in Rome (1929) and in Madrid/Barcelona (1935) were known as the "Library and Bibliography Congresses". These events (including the ones in Paris in 1923 and in Prague in 1926), with their impressive scale and attendance level, are sometimes referred to in literature as IFLA conferences even though the first two were held before this organisation was instituted, and were inspired not only by librarians, but also by book lovers in general, especially bibliophiles, bibliographers, writers, book sellers and editors.

⁴The contribution of Polish librarians to the activities of the international librarians' movement has been most extensively discussed by Helena Więckowska (1973).

Of particular importance for librarians was the congress held in Prague, known as the "International Congress of Librarians and Booklovers at Prague". It was attended by 78 representatives from Poland, who gave 18 lectures. One of the congress sections was dedicated to problems of international cooperation among libraries and the need for an organisation that would bring librarians together. French librarian Gabriel Henriot, president of the French association of librarians (Association des Bibliothécaires Français), authorised by the Prague Congress, outlined a project for such an international organisation of librarians at a conference of the American Library Association, held in October 1926 to celebrate ALA's 50th anniversary. The Americans were supportive of this European idea and sent out a survey to library associations worldwide with questions about the scope of activities such a prospective organisation should conduct, asking whether those associations would be interested in joining its ranks⁵.

Nine countries, including Poland, replied positively. The response was most likely signed by Edward Kuntze, head of the Polish Librarians' Union since 1926. The results of the survey were announced one year later (1927) in Edinburgh, at a conference celebrating the 50th anniversary of the British Library Association. At this conference (on 30 September), the International Library and Bibliographical Committee was brought into existence. 15 countries signed their declarations of accession; however, the Polish delegation was absent in Edinburgh. The first session of the Committee was held in 1928 in Rome.

ZBP joined the Committee on 28 April 1928, when its Assembly of Regional Delegates signed the so-called Edinburgh Resolution⁶. IFLA decided that each association could delegate one representative with the right to vote, with an unlimited number of librarians able to participate in its sessions. ZBP appointed Jan Muszkowski as its chief delegate. He first took part in the work of the Committee at its 2nd session, held as part of the Library and Bibliography Congress in Italy on 15-30 June 1929. As a result of this session, the Committee had its name changed to "International Federation of Library Associations and Institutions" (IFLA). Muszkowski submitted a request to launch the IFLA Subcommittee on Statistics, of which he became chairman. Appointing a Polish librarian to the position of a subcommittee chairman was a great distinction at that time, as the librarians' community from our country remained virtually unknown internationally. It must have been Muszkowski's personal charisma that made his election possible, not to mention the fact that he spoke several languages.

IFLA met on an annual basis: in Stockholm (1930), Cheltenham (England, 1931), Bern (1932), Chicago and Avignon (1933), Madrid (1934), Madrid and

⁵ The survey was sent out by the ALA President William Bishop.

⁶Since then, ZBP has paid an annual membership fee amounting to 0,60 Polish zloty per member of the Union in exchange for 5 copies of each IFLA publication.

Tédération Internationale des associations de bibliothécaires.

INTERNATIONAL FEDERATION OF LIBRARY ASSOCIATIONS

STATUTES.

Sec. 1. The name of this organisation shall be the International Federation of Library Associations.

Sec. 2. The object of the Federation shall be to promote international library cooperation.

Sec. 3. Members of the Federation shall be those Library Associations of national (or wider) scope which approve these resolutions and which comply with such other provisions as are adopted from time to time.

Sec. 4. The affairs of the Federation shall be administred by the International Library Committee; this committee shall consist of representatives selected by associations which are members of the Federation. There shall be from each country only one designated member or substitute with the right to vote. But with him may be associated delegates. Delegates are elected for a period not exceeding 5 years but are ligible for reelection

Sec. 5. The duties of the Committee shall be to select the time and place for international library conferences and with the cooperation of local committees to prepare programs for such conferences; and to make investigations and recommendations concerning international relations between libraries, organizations of librarians and bibliographers and other agencies.

Sec. 6. International library conferences shall be held at least once in five years. Plenary sessions of the Committee must be held in connection with each international library conference. Other sessions may be held at the call of the Chairman and must be held when requested by one third of the Committee.

Sec. 7. The Committee shall have power to appoint sub-committees from its own membership or from the membership of any of the cooperating library associations.

Sec. 8. The officers of the Federation and of the Committee shall be a President, two Vice Presidents and a Secretary. These officers shall constitute the executive board and shall be elected by the committee for a term to expire not later than twelve months after the close of each congress. The Secretary may be, but need not be, a member of the Committee designated by some national association. He shall have the right to vote.

Vacancies on the Executive Committee shall be filled by the Committee."

Sec. 9. Annual dues for each member Association shall be fixed at a rate between 25 and fifty centimes (Swiss) for each member of that association or on a basis of 5 or 10° , of the receipts from membership dues of the associations, but shall not be more than 2.500 france (Swiss) for any association. Dues shall be payable to the Secretary on or before March 1 for each calendar year.

The amount of the dues will form the budget of the Association.

Sec. 10. Any association may withdraw from the Federation if its dues for that year have been paid. Sec. 11. By-laws may be adopted by the Committee.

Sec. 12. Resolutions adopted by the Committee or by any Congress held under its auspices shall not be binding on any member association until ratified by that association.

Florence, 25 June 1929. Venice 19

Photo 1. The first IFLA statutes adopted in Venice on 29 June 1929 [source: http://www.ifla.org/files/ assets/hq/history/1929_statutes.pdf]. Barcelona (1935), Warsaw (1936), Paris (1937), Brussels (1938), and The Hague and Amsterdam (1939). Muszkowski represented Poland at the IFLA sessions until 1936⁷. He presented reports on the activities of Polish libraries in the years 1930-1932, published by IFLA in *Actes du Comité international des bibliothèques*. In Chicago (1933), he gave a lecture on Polish libraries, discussing their current condition and achievements as well as the problems they faced. All throughout this session, shared between Chicago and Avignon, Muszkowski was exceptionally active. At the second meeting of the Avignon session, he presented a paper on inter-library loans in Poland, and published the results of work carried out by the subcommittee responsible for coordinating the international rules on print statistics in *Actes*. At the same time, he spearheaded the launching of the ZBP International Section and was appointed its head.

It was also due to Muszkowski's efforts that Warsaw was selected to organise the 9th IFLA session from 31 May to 2 June 1936. He put forward Poland's candidacy at the Madrid session on 20-30 May 1935, where, following a discussion, his proposal was approved. The IFLA session in Warsaw was a great organisational success. However, not all Polish librarians were happy that these meetings were held in Poland. Opponents argued that the Polish librarians' community was still in its formative stage, and could not yet afford grandiose international events which would bring no tangible benefit. Nevertheless, the voices of librarians such as Kuntze and Muszkowski prevailed, as they were aware that isolating the Polish librarianship from the rest of the world would be a strategic error. Thus the session eventually took place. with 34 delegates arriving from 17 countries and 3 continents. They were received at the Royal Castle in Warsaw by the Polish president, Ignacy Mościcki, and at the town hall by the city mayor, Stefan Starzyński. At Muszkowski's initiative, the IFLA session was combined with the 4th Congress of Polish Librarians, with Muszkowski chairing the organisational committees of both. Muszkowski's idea was well aimed, as it gave the IFLA Committee members a chance to learn first-hand about the conditions and organisation of the Polish librarians' community. The 4th Congress was particularly well attended, with 519 participants, and the conference papers were printed beforehand in an extensive volume (IV Zjazd Bibliotekarzy Polskich w Warszawie, Referaty [4th Congress of Polish Librarians in Warsaw. Conference Papers], 1936) — this rare organisational achievement did not go unnoticed by the foreign guests. Once the session finished, its participants visited Cracow, Wieliczka, and Zakopane. In Cracow, they admired the new building of the Jagiellonian Library. However, in Poland itself the fact that our country had organised an IFLA session went largely unnoticed. Even in specialised journals, only a few press reports ap-

⁷ Excluding 1934, when he did not go to Madrid.



Photo 2. Participants of the inaugural meeting of the 9th IFLA Session at Staszic Palace in Warsaw, 31 May 1936 [source: *Actes du Comité International des Bibliothèques: 9me Session*. Varsovie, 31 Mai-2 Juin 1936, Fédération Intern. des Assoc. de Bibliothécaires].

peared. Nevertheless, an extensive account of the Congress was provided as a report in two volumes dedicated to the 4th Congress of Librarians (*IV Zjazd Bibliotekarzy Polskich w Warszawie. Protokoły* [4th Congress of Polish Librarians in Warsaw. Protocols], 1936).

The IFLA session in Warsaw was the last one to be attended by Muszkowski. Entailer Edward Krasiński dismissed him from the office of the Krasiński Library Director, which made him feel depressed and provoked his withdrawal from all library activities, including his role in IFLA⁸. IFLA President Marcel Godet accepted Muszkowski's resignation with regret, which he expressed at the 10th Session in Paris in August 1937. Another reason for his resignation might have been the poor results of his efforts as head of the Subcommittee on Statistics. Over the years, he failed to coordinate even the most basic rules on preparing such statistics; for that matter, his successor, German librarian Heinrich Uhlendal, did not manage to achieve this challenging goal either.

His successor in the IFLA Committee was Józef Grycz, as delegated by ZBP. In the years 1930-1939, the latter worked at the Science Department of

⁸Muszkowski also withdrew from the Committee of Experts in Library Materials.

the Ministry of Religious Denominations and Public Education, supervising public scientific libraries in Poland. Grycz took part in the 10th IFLA Session in Paris, in 1937, where he delivered a lecture on the condition of Polish libraries (Grycz, 1937, pp. 163-165). The ZBP delegate at the following, 11th IFLA Session in Brussels was Aleksander Birkenmajer, at that time head of the Manuscript Department of the Jagiellonian Library. During this session, Grycz accompanied him (without the right to vote) as a member of the Sub-Committee on Normalization in the Field of Books and Libraries (Birkenmajer & Grycz, 1938, pp. 162-164)⁹. Grycz was the second Pole in the interwar period (after Muszkowski) to become a member of an IFLA subcommittee. Grycz's appointment to this team was well-advised, as together with Adam Łysakowski he was the strongest Polish advocate of normalisation in library procedures, which they believed should start with setting common cataloguing standards for specific categories of library holdings. Grycz also promoted initiatives to introduce common international standards, which represented one of IFLA's main objectives. Grycz was a practising librarian, particularly well prepared to transpose the latest IFLA regulations in Poland, following his experience and participation in IFLA's work. He also prompted ZBP to set up its Normalisation Committee on Library Science, Books and Journals (on 12 November 1937). Unfortunately, this committee did not manage to begin its activity before the war. IFLA paid much attention to the accurate regulation of international inter-library loans. This issue was of much interest to Polish libraries, whose readers frequently requested foreign materials, including manuscripts and old prints. In line with IFLA directives, on 11 January 1939 the Polish Ministry of Religious Denominations and Public Education published the Ordinance on International Inter-library Loans, edited by Grycz and accompanied by the Regulations on International Loans of Library *Holdings*, a translation of the respective IFLA regulations.

Another IFLA initiative drew attention to the growing role of documentation in libraries. In organisational terms, Polish libraries were not ready to perform such functions. However, Józef Grycz tried to open a discussion on the need to develop documentation centres at libraries in Poland, which unfortunately failed to deliver any tangible results. He proposed that the ZBP Council put forward an initiative to establish an IFLA International Centre for Library Documentation, which he thought could be located at the League of Nations Library in Geneva.

The Poles did not attend the last IFLA session before World War II (in The Hague and Amsterdam, 1939). As World War II broke out, they lost all contact with IFLA. In occupied Poland, all professional associations were abolished, including the Polish Librarians' Union. Its Chair, Adam Łysakowski, sent a letter to IFLA's Swiss president, Marcel Godet; however, its contents

⁹Both librarians jointly drew up a report on the activities of Polish libraries in the years 1937-1938.

remain unknown. Godet replied on 9 March 1940, expressing his sympathy and a will to "collect and send something"¹⁰. After that, all contact between the two organisations were severed.

The Polish contribution to the work of IFLA was the main way by which our country's librarians cooperated with their peers around the world. However, other contacts also existed. Librarians, along with the well-organised Polish bibliophiles, expressed a spontaneous need for networking with the Western community of book lovers even before IFLA was created. This led them to take part actively and in considerable numbers in subsequent congresses of bibliophiles and librarians. One example of this is their participation in the Prague event in 1926. Other, less numerous Polish delegations attended all the above-mentioned congresses for librarians, bibliophiles and bibliographers. Following in their footsteps, other Polish communities organised their own sessions. The first two, held in Cracow in 1925 and in Warsaw in 1926, were organised by the Book Lovers' Society, a bibliophile organisation with important contributions from librarians, who often happened to be eminent bibliophiles too (such as Kazimierz Piekarski). The next two meetings of bibliophiles and librarians were held separately, even though close in time and space: in Lviv in 1928 and in Poznań in 1929.

Polish librarians also became involved in the works of the Library Experts Committee (Comité d'Experts de Bibliothèques) operating within the League of Nations. It was composed of seven members representing the European elite in library studies (including IFLA presidents Isak Collijn and Marcel Godet). During his 1930-1935 term, Jan Muszkowski was a member of this exclusive circle. The Committee discussed critical issues, with the League of Nations supporting and approving some of its resolutions. Unfortunately, the possibilities of their practical implementation were limited, even while IFLA took over some of the work it initiated to further develop and apply their results. Nonetheless, the Committee promoted several important initiatives, such as the *Index Bibliographicus*, registering journals dedicated to bibliography or with thematic bibliographic sections. Librarians from the Jagiellonian Library submitted data from Poland for this publication.

Undoubtedly, the intention of Polish elite librarians to cooperate with their Western European counterparts was natural, as it was in the West that the consolidating Polish librarians' community could find models and standards

¹⁰ Bibliotekarstwo polskie 1925-1951 w świetle korespondencji jego współtwórców [The Polish librarians' community in the years 1925-1951 as portrayed in the correspondence of its co-founders]. Selection of texts and edition: Maria Dembowska, p. 262. Łysakowski advised Marian Łodyński of this letter: "Vom Herrn Godet habe ich die Antwort vom 5 März bekommen. Er hat mein Schreiben "Avec la plus vive sympathie" zur Kenntnis genommen und dessen Kopie an die Mitglieder versandt. Er hofft, dass is ihm gelangen wird was zu sammeln und uns zu senden".

to follow after years of the country's partition. The question was, however, to what extent Poland would be a consumer of existing European achievements and to what it would be able to make its own contribution. It was clear at that time that Polish librarians had not developed any of their own theoretical or practical concepts that could support global library studies vet - it was still too early. Kuntze, one of the advocates of bringing Poland closer to Europe, discussed this issue with calm: "Our participation in international cooperation is rather passive," he concluded, "the entire collaboration resting on just a few individuals" (Kuntze, 1932, p. 115). When saving this, Kuntze certainly referred to Muszkowski, later to Birkenmajer, and possibly also to himself, as he also participated in the international librarians' movement. "Our own contribution is modest," Kuntze continued, "perhaps apart from editorial statistics, which have become a specifically Polish domain, thanks to the efforts of certain individuals. However, Muszkowski cannot act alone; we need to select a small number of specialty areas in which to invest our efforts"¹¹.

These calls had virtually no effect, since the Polish librarians' elite was too small and too overloaded with work to dedicate their time exclusively to international issues. Yet a fruit of these efforts has unquestionably been the fact that we are now present on several international fora, which enables us to follow global development trends and to try to keep up with them.

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11 Ibidem.

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LIBRARY USERS, OFFERINGS AND TYPES OF SERVICES IN POLAND



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Keywords: Public libraries. Academic libraries. Library users. Library services. Information services.

Thesis/purpose of the article – The purpose of this article is to provide an overview of modern library and information services for users of Polish public and academic libraries. These have emerged due to the transformations resulting from technological progress, new document formats, innovative ways in which information circulates, evolving environments, and user needs, as well as social phenomena such as fragmentation of society, population ageing and a very low level of readership in Poland. **Research methodology** – Analysis and critical review of literature as well as content-related assessment of web services were performed. **Major outputs/conclusions** – The outline of library services offered by Polish public and academic libraries provided in this article is not exhaustive. However, it can reasonably lead to the conclusion that the library offerings in Poland in the 2nd decade of the 21st century is incomparably more extensive than even a dozen years back. The social and political transformations following 1989, Poland's membership in European structures, the evolution of information and communication technologies, changing user needs and social metamorphoses as well as solutions developed in other countries being implemented have all largely shaped the current approach to the role of libraries. Libraries extend their fields of activity, entering areas previously set aside for cultural institutions. By offering a wider range of services for very diverse groups of recipients, they are becoming increasingly rooted in the public space.

INTRODUCTION

The tasks and roles of each library result from the adopted perspective. If libraries are seen as intermediaries in social communication, what matters most are their tasks or functions described by Jacek Wojciechowski through the following keywords: information, educational support, intellectual and aesthetic tasks, entertainment, substitution and integration (Wojciechowski, 2010, pp. 149-186). This leads to a series of questions such as: how do modern libraries perform their role? Are all their functions treated equally? Have any innovative ways to fulfil them emerged? This article provides an overview of the services provided by modern-day libraries with respect to the above tasks.

At the close of the second decade of the 21st century, we can find libraries at two stages of their organisational development in Poland¹. The first group testify to a coarse and ascetic past. They are caught in stagnation, more often than not attributable to their managers, and represent a warning to those librarians who have based their survival strategies on passive approaches. For it cannot be assumed that waiting inactively will pay off and that, all in all, "things will work out somehow". Probably not. In an age of ubiquitous and fierce competition, even in the field of culture and education, such a passive attitude may have disastrous consequences and eventually cause the library to close down. Such disasters do occur, but also positive, pro-active attitudes among librarians are resulting in increasingly creative contributions to the evolution of libraries, transforming them into centres capable of competing with other leisure activity providers. The recent years have shown that such libraries in the second stage of their development are increasingly numerous. Today, they are the ones shaping the conditions of Polish public librarianship. Academic libraries have cre-

¹In 2014, the Polish Central Statistical Office (GUS) registered 9,812 libraries in Poland, including 8,094 public libraries, 1,043 scientific libraries, 269 pedagogical libraries, 326 professional libraries, 58 professional and literary libraries, 22 of Scientific, Technical and Economic Information Centres (INTE) and 14 libraries of research societies (National Library of Poland, 2016).

ated an even more attractive universe, experiencing what is probably the most splendid period of prosperity in their entire history. Numerous investments in new buildings, digitisation, and transformation into hybrid libraries indicate that academic libraries are enjoying a true renaissance in their development.

Due to the large variety of works resulting from the multitude of different library types, managing bodies and end users, this article can provide no more than a summary overview of certain symptomatic phenomena and good practices. However, its purpose is to explain the condition of today's Polish libraries in general. The main indicators analysed were characteristics related to the users of Polish libraries, the new types of services and offerings provided, and information services offered. We have focused on both public libraries, which are very numerous and open to everyone, and academic ones, which drive the development of Polish librarianship, especially in terms of technology and approaches to information. This article omits the largest category of libraries, namely school libraries². These are closely linked to the schools in which they operate, their activities being mostly limited to a specific school community. Furthermore, any evolution in school libraries is virtually a consequence of the schools' development, which means they have little control over their own condition. We have not discussed professional, scientific (except for academic and public ones), pedagogical and other libraries included in the GUS statistics, which are rather sparsely scattered over the social space of Poland and undoubtedly play a secondary role when it comes to inspiring change and progress in technology and services.

LIBRARY USERS

A library user is anyone who uses the resources and services offered by a library, not necessarily through borrowing books (Czapnik, Gruszka & Tadeusiewicz, 2011, p. 351; Reitz, 2014). We must not forget that the social reach of libraries naturally extends far beyond making library materials available for external loans. In Poland, the most frequent reasons for visiting libraries are, among others: consulting the press, borrowing and returning books for family members, sessions and events held at the library, using a computer connected to the Internet, being able to study in suitable conditions, and borrowing required reading for school classes, whether or not such books are going to be read (Michalak, Koryś & Kopeć, 2016, pp. 4, 47-48).

Various typologies of library users exist, resulting from adopted classification criteria such as age, place of residence, profession, corporate rank

²In the 2013/2014 school year, 21,529 schools in Poland had their own libraries.

etc. (Reitz, 2014). If we consider socio-professional groups, as revealed by the most recent published data for 2015, Polish libraries are most frequently used by school and university students, followed by specialised professionals and, finally, white-collar workers. These are called intensive readers, reading seven or more books annually. More women than men use libraries, library users being usually people with a tertiary education and residing in the biggest cities – those with a population exceeding 500,000, resulting in both a higher population density and a more developed and diverse library network. Public libraries are less frequently used by those who are economically disadvantaged, with lower educational attainment, and with no home book collection. Among the reasons why they do not use libraries, they mention factors such as the lack of need given the amount of information available online, being able to cope without libraries, the lack of a public library in their neighbourhood, and finally the insufficient number of recent publications available in libraries (Michalak, Koryś & Kopeć, 2016, pp. 49-54).

Despite the evident changes in what public libraries have to offer, Poles still believe their primary function is to lend books that readers could not have afforded otherwise or that are no longer available in bookshops. Another advantage of libraries often cited is the librarians' assistance in finding information needed and in recommending specific titles. The third most frequently listed feature of libraries is the accessibility and "friendliness" of their premises. Far more rarely, Poles appreciate the opportunity to consult the press, use a computer connected to the Internet, take part in sessions and workshops, or borrow multi-media materials (Michalak, Koryś & Kopeć, 2016, pp. 55-56).

As emphasised above, Poles still mainly go to the library to borrow books. To attract new readers, an offering is required that would go beyond this primary function, creating new needs to which the library would respond. Such potential needs are, for instance, building communities based on common interests and creating so-called *third places* (Kruszewski, 2012, pp. 189, 424-426). As the level of readership in Poland overall is on the decline, such plans should also be inclusive of people who are outside the reach of written culture (Michalak, Koryś & Kopeć, 2016, p. 86). It seems that many recommendations based on readership surveys conducted in Poland are already being implemented in a substantial number of Polish libraries, as described in more detail below.

Let us point out that, apart from the groups of most frequent library users listed above, people at risk of social and digital exclusion are no strangers to libraries. This includes the unemployed, solitary, elderly, disabled, people living in rural areas, those with low education levels, delinquents, the economically disadvantaged, foreigners, and immigrants as well as members of national and ethnic minorities (Panek & Czapiński, 2015, p. 426; Szarfenberg, 2014). Not everyone uses libraries to the same extent, nor do libraries target their services equally at everyone. For instance, analyses of their offerings have shown that in recent years the needs of the disabled and the elderly have been given special consideration. This is a positive phenomenon, since as anticipated by demographers their numbers will grow in the future.

LIBRARY SERVICES AND OFFERING

The activity of libraries is defined through services which can be generally grouped into three categories: making holdings available, providing information, and working with the reader (Wojciechowski, 2001, p. 46). Naturally, these are being constantly transformed by technological progress, new forms of documents, the evolution of the way information circulates, and finally by the changing environment and user needs. Among the numerous emerging services in library offerings, the ones that deserve particular attention are on the one hand those resulting from the development of information and communication technologies (mostly information services), and the related information overload, and on the other, those that are a consequence of diagnosed social phenomena such as social fragmentation, the resulting social and digital exclusion, population ageing, and the very low level of readership in Poland.

Considering the catastrophic condition of readership in Poland – as compared to other European countries – and the declining number of people borrowing books from libraries³, promoting books has become a natural role of these institutions. For years now, they have encouraged reading through traditional means of user outreach, such as exhibitions of the latest editions, meetings with authors, contests for readers, or Book Discussion Clubs. However, new types of activities have also emerged. Some libraries have started to promote reading as a leisure activity and to highlight its benefits while working with families of newborn babies. One example is the "Off to a Good Start" programme run by the Municipal Public Library in Wrocław since 2010. It aims at encouraging readership from a very early age. At first, layettes consisting of a book for children, a handbook for parents, and a brochure on activities offered by the public library were distributed in selected maternity hospitals and library branches in the city. Today, such "reading packs" are given out to users under the age of 5 at the library branches. The library also edited and published a booklet entitled Na dobry początek [Off to a Good Start] with book recommendations for young readers, suggested handbooks for parents, guidelines on how to play with children using books, and finally an invitation to take part in family events

³37% of Poles declared having read at least one book in 2015, with at least 17% of readers borrowing books from public libraries, and 5% from school libraries (Michalak, Koryś & Kopeć, 2016, pp. 4, 47-48).

organised by the library branches in Wrocław (Municipal Public Library in Wrocław, 2016).

Some initiatives have become nationwide, such as the one pursued by the Centre for Children's Literature (CLD) at the Municipal Public Library in Oświęcim. Not only has the Centre been building up a collection of children's literature in order to lend artistically and thematically diverse publications, but it also works to influence publishers and foster interest in a variety of publications by seeking to acquire books through many different channels. Awarding the Kornel Makuszyński Literary Prize is particularly helpful in this respect, as it drives other promotional activities related to the dissemination of books among children (see Krawczyk, 2015, pp. 140-146).

Given the growing availability of e-texts, including e-books and other reading matter available online, as well as the increasing selection of e-text media, there is an emerging need (also noted by many librarians) for training related to the use of the latest information and communication technologies. Another issue in this context is promoting the e-books made available by libraries (Kisilowska, Paul & Zajac, 2016, p. 7). It is equally important to improve information competencies, especially in relation to searching for, analysing, and selecting information, which is of immense importance in the context of the current dramatic rise in the amount of information available. As librarians undertake such tasks, the offerings of libraries are incorporating training sessions and workshops on using modern technologies, searching for information online (mainly in academic libraries), and the promotion of electronic resources available in libraries. For instance, the Municipal Public Library in Piekary Śląskie ran a project called "Senior Readers in the Library", where participants could learn how to use tablets, VR headsets, 3D printers, 3D pens, and iPads. The same library runs workshops on robotics for young users, as well as coding sessions and workshops for various age groups (Municipal Public Library...). Another notable initiative aimed at promoting e-books is the lending of e-book readers, for example within the Arteteka project of the Regional Public Library in Cracow (Regional Public Library in Cracow, 2015a), as well as making Czytak audio-book readers available to visually impaired users, arranged by public libraries in cooperation with the *Larix* Association of Assistance to the Disabled (*Stowarzyszenie*...).

Another socially significant role of Polish libraries is to offer services targeted at those sectors of the society that run the risk of social exclusion or discrimination, along with promoting desirable attitudes – especially given the current context – such as tolerance and openness towards people of other cultures, beliefs, or religions. Such initiatives fall into the category of social participation activities held in libraries (Zybert, 2015). Certain groups at risk of social exclusion are targeted by public libraries which, as public institutions open to everyone, undertake initiatives aimed at fostering social integration and fighting exclusion and stigmatisation. Many actions are addressed to third-age users, specifically digital, internet, and multi-media literacy workshops, activation sessions (for example supporting people with depression), special events, Book Discussion Clubs, bibliotherapy sessions (e.g. using reminiscence therapy), lectures and talks on preventive healthcare and safety, working with Senior Citizen Clubs, promoting users' own work, language courses (mostly English), inter-generational integration (e.g. young library users teaching seniors how to use new technologies), reading out loud, or getting senior citizens involved in volunteering. For the unemployed, training sessions are held on how to prepare job applications (CVs, cover letters etc.), along with digital literacy courses, meetings with employment counsellors or employment agency officers, workshops with psychologists or make-up artists, as well as opening centres of information on the local labour markets, in cooperation with employment agencies.

Polish libraries also offer services dedicated to foreigners and national or ethnic minorities; however, because of the country's social structure these are far fewer⁴. The offerings for this group, however limited, typically consists of acquiring texts in their native languages, Polish language courses, and integration sessions, as well as promoting the culture and language of the respective minority.

Some libraries offer permanent services for the disabled, sometimes outside of the library building. Ordering books over the telephone is a well-established practice for delivering library materials directly to people with reduced mobility or to the disabled, as well as to nursing homes, occupational therapy workshops and hospitals. Such activities are carried out both in big cities and in smaller localities. One example is the option to order books over the phone at the Public Library of the Śródmieście District in Warsaw (Public Library of the Śródmieście District...), another is the Library on Wheels of the Municipal Public Library in Gruta (Municipal Public Library...). Other initiatives aimed at supporting users with disabilities include individual and group sessions concerning the use of library materials, integration meetings, and competitions or training sessions dedicated to the latest information and communication technologies.

Numerous library activities for groups running the risk of social and digital exclusion have been implemented within projects of the Information Society Development Foundation (FRSI), such as *RozPRACUJ to z biblioteką* [WORK this out with the Library], *Praca Enter*. *Biblioteka jako miejsce informacji o rynku pracy* [New Job. Enter. The Library as a Centre of Labour

⁴According to recent statistics, foreigners granted a permanent or temporary residence permit represent only 0.65% of the country's population (excluding visa holders), national minorities – 0.67%, and ethnic minorities – 0.074% (Ministry of the Interior and Administration, 2016; Polish Office for Foreigners (UDSC), 2016).

Market Information], or *Biblioteka miejscem spotkań wielu kultur* [The Library Where Cultures Meet]. The Library Development Program, implemented jointly by the Polish-American Freedom Foundation (PAFF) and the Bill and Melinda Gates Foundation within the Global Libraries initiative, played a key role in enabling public libraries in Poland to take on the above tasks. The programme was implemented in the years 2009-2015 by the Information Society Development Foundation (FRSI) established by the Polish-American Freedom Foundation. Its main objective was to support public libraries in Poland in becoming local centres of social activity. It involved nearly 4,000 public libraries, especially in smaller towns and in rural areas. The programme helped libraries to acquire computer equipment and to train employees, promoted their modernisation, and fostered their cooperation with other institutions and organisations that could support them in a number of ways. As a result, public libraries broadened their offerings by introducing countless attractive services responding to the needs of the local communities. With new forms of library promotion, they became centres of social life and leisure. Lastly, many people were trained in using modern technologies, and the opening hours of many libraries were extended (FRSI, 2016).

The number of initiatives undertaken by public libraries, as reported in the monthly editions of the newsletter *Biblioteka*. *Tu się dzieje*! [Library on the Move] published by the FRSI, shows how important a milestone this programme was,. For example, in its September 2016 issue, the magazine announced that a project of foreign language courses had been launched by the FRSI in cooperation with the Funmedia company to provide users of public libraries with free access to language courses. Additionally, over a hundred institutions are to participate in the second edition of a programme entitled Link do przyszłości. Zaprogramuj swoją karierę [Link to the Future. Program your Career], supporting young people in their professional and pre-professional decisions. Also, webinars are hosted by FRSI partner portals, such as labib.pl. In September 2016, the latter launched its monthly cycle entitled Od potrzeby do uczestnictwa, czyli jak zaangażować *młodzież do działania* [From need to participation. How to involve the youth in action]. The Rozmawiajmy o uchodźcach [Let's talk about refugees] project teaches tolerance as well as pro-active and pro-social attitudes. Such examples showcase not only the increased activity of public libraries in their role as community centres, but also their ability to work with other institutions and non-profit organisations. To exchange experiences, a congress of public libraries entitled I Am the Library! was launched, held in November 2016 in Łódź (Library...).

Services for those at risk of social and digital exclusion mostly aim at fighting those phenomena, but also portray the library as an open and appealing place of leisure activity where everyone can have a good time, either by themselves or with others. Whether we call it the destination library, the third place, or the library supermarket (Grygrowski, 2015, pp. 11, 15; Oldenburg, 1999, pp. 21, 32), the idea is to create a friendly space favouring leisure, play, entertainment, and social life on the one hand, and on the other to offer places where readers can focus on reading or studying. More and more, Polish libraries are taking on the challenge of becoming a research, cultural, and leisure centre, such as the Manhattan Library in the Manhattan Shopping Centre in Gdańsk, which apart from various activities for children, young people, and adults, offers a diverse collection (including audio books, films, comic strips and CDs) as well as game consoles and musical instruments (Regional and Municipal Public Library in Gdańsk, 2015). Another case in point is the comprehensive, extensive offerings of the Regional Public Library in Cracow, which includes: art exhibitions; volunteer training; educational workshops on diverse topics for all age groups; participation in European programmes promoting social integration, tolerance, inter-cultural and inter-generational dialogue; literary soirées; workshops for children during their winter and summer holidays; board game sessions; literary games; reading together; digital literacy education for senior citizens; foreign language courses; reviews of various art forms delivered by the disabled; and many more (Regional Public Library in Cracow, 2015b). Such highly diverse activities as are now offered by Polish libraries foster the role of the library as a public space, as well as that of an institution that "educates for culture" (Kisilowska, 2015).

INFORMATION SERVICES

Even though providing information is one of the library's services, it deserves to be discussed separately, specifically because it has been developing incomparably faster than any other type of activity pursued by libraries. Information services offered by libraries extend from making their holdings available within their premises, through individual and inter-library loans, to providing access to digital resources. A crucial element in this catalogue of tasks is also providing information about libraries' offerings and activities with the intention of promoting library services, which is necessary considering the fierce competition they face from other cultural institutions and sources of information. Additionally, university libraries are providing information about their own published output by preparing bibliometric databases and providing thematically grouped (bibliographic and factual), patent, normalisation, regional, business-related and European information (Tokarska, 2013, pp. 484-490). Due to the formal structure of the information, it is distributed by the library on a remote basis, which leads to a specific use being given to its service space. The library thus begins to extend beyond the walls of its own building. For years now, it has been present in the households of people with disabilities or reduced mobility thanks to home delivery services, and now it has also become available in the virtual environment, directly on the computers and smartphones of its clients.

At present, many services are delivered by means of electronic platforms (e-services). Libraries provide remote access to e-resources, electronic orders and loan extensions, and a large variety of librarian-user communication platforms. They have introduced an increasing number of such new services: for instance, since 2012 the Poznań University Library has been offering automated services such as *libsmart copy* (ordering copies of library items) and *libsmart payment* (remote payment of outstanding fees), along with *libsmart reminder* and its internal modules (e-notifications on order status, returns and e-reminders) (Theus, 2015, p. 430). E-book loan services made available by libraries have also gained in popularity, especially through electronic book platforms such as IBUK Libra (mainly in academic and pedagogical libraries) and Legimi (mostly in public libraries).

The information services offered by modern libraries are also being transformed due to the evolving role of the Internet user, who has now become an active and creative co-author of content rather than a passive recipient. The Web 2.0, and soon probably also Web 3.0 technologies – characterised among other things by the use of popular tags – empower users to comment on the information distributed online in qualitative aspects. Therefore, issues such as information services with the use of the social web features have already been discussed in Polish research literature for about 10 years now by authors such as Agnieszka Koszowska, Bożena Jaskowska, and Grzegorz Gmiterek (Jaskowska, 2008; Koszowska, 2008; Gmiterek, 2012).

The manual for librarians by Anna Tokarska singles out several aspects of organising access to information, for example: information technologies, media in the library, library systems, and the process of searching for information online in a broader sense (Tokarska, 2013, p. 403). Web 2.0 technology, i.e. the second generation of the Internet, is one of the tools integrating these partially divergent activities. Research by Marta Tyszkowska on the use of the tools and functions offered by the second-generation Internet has shown that Polish university libraries use features such as social media, Wiki mechanisms, blogs, folksonomies, RSS channels, discussion lists and forums, podcasts and videocasts, social library catalogues, and geolocation (Tyszkowska, 2015). Their usefulness may vary, as it is subject not only to the objective needs of the libraries, but also to subjective factors, such as temporary fads for particular communication channels. In this sense, in recent years academic libraries (at universities of both the humanities and technology) have shown a tendency to focus on the following services: suggestions for books and other reading matter worth acquiring, interactive maps, social media profiles, online instant messaging services and - more rarely - personalised user interfaces or videos (Tyszkowska, 2015, p. 148;

A. Sidorczuk, A. Gogiel-Kuźmicka, 2012). Meanwhile, RSS channels providing news about the library and information on the latest publications do not seem to spark much interest among users, as revealed by Tyszkowska (Tyszkowska, 2015, p. 111). Trends related to specific virtual products are probably what impedes using them to their full potential.

Online crowdsourcing is another new tool enabling users to participate in building up library-related information. According to its definition, online crowdsourcing is "the activity of homogeneous virtual communities engaging their knowledge, skills or assets in order to perform tasks online (either for a consideration or free of charge) characterised by a certain complexity, assigned following an open call for proposals issued by a natural person, organisation, non-profit institution or a company, under their supervision" (Kowalska 2015, p. 145). Online crowdsourcing is sometimes also used by libraries, even though in Poland it has not become widespread yet. LibraryThink is one example of a solution implemented typically by smaller libraries which are not in a position to purchase an integrated library system or have no record database of their own. Since 2013, the Library of the Institute of Polish Studies at the University of Wrocław, followed by the Library of the Institute of English Studies at the University of Warsaw, have been using tags and book recommendations proposed by users (Kowalska, 2015, p. 256). Another interesting example of cooperation between librarians and users is the involvement of volunteers through social digitisation workshops at the Silesian Library (since 2007) and the Municipal Public Library in Słupsk (since 2009). Such contributors upload digitised library materials to local digital libraries from private collections or from institutions that have no technical facilities to handle them (Kowalska, 2015, pp. 252-253).

In the context of modern information services provided by libraries, their gradual adaptation to mobile devices such as mobile phones, smartphones, and tablets is an important development. The Rzeszów University Library launched a responsive website back in 2001. A small supplementary survey conducted in 2014 revealed that now 12% of Polish libraries that provide online information services also offer such versions of their websites. The information made available via mobile websites usually consists of the latest news (Marzec, 2016, p. 128), which indicates a certain trend in the way libraries operate, namely supporting local initiatives and openness to alternative ways of working at the library.

Libraries increasingly take into account the needs of people with disabilities when publishing information. This might mean on the one hand collecting documents in alternative formats (such as audio books, large-print books, typhlographics, or films with audio description/subtitles for the deaf and hard of hearing) and making them available. This is most successfully done by public libraries which collect such documents either in their specialised or local branches. Some examples are: the Nicolaus Copernicus Regional Public Library and its Readership Centre for the Sick and Disabled in Toruń, the Service Department for the Disabled of the Municipal and County Library in Wąbrzeźno, and the Audiobook and Multimedia Library of the Praga Południe District Library in Warsaw. Accessibility is also facilitated through purchasing assistive technologies, such as devices and software making it possible or easier to independently access information. Electronic magnifiers, screen readers, braille monitors, braille printers, and many other devices and pieces of software are now offered by modern academic libraries and, less frequently, by public libraries (Fedorowicz-Kruszewska & Cyrklaff, 2016). Examples of the former are the University of Warsaw Library, the Gdańsk University Library and the Casimir the Great University Library in Bydgoszcz.

Another means of increasing information accessibility are electronic full-text resources and bibliographies, along with digital libraries and repositories. Regional and institutional digital libraries launched by public, academic, and scientific libraries are well known; they can also be accessed through the Digital Library Federation service which collects, processes and shares online information about the holdings of Polish cultural and research institutions. Due to technical issues, not all the above resources are accessible to the disabled. Therefore, a few digital libraries have emerged to make their holdings available in assistive technology readable formats. Examples of such solutions are: the Academic Digital Library (ABC), which makes its holdings available exclusively to people with a certificate of either moderate or severe visual impairment, or other disabilities which make it impossible to read standard printed publications; the Digital Library of Zielona Góra for the Blind (ZBCN); and the online library of the Division of Collections for the Blind (DZdN) of the Central Library of Labour and Social Security (GBPiZS) - all specifically oriented towards people with visual impairment (Fedorowicz-Kruszewska, 2015).

CONCLUSION

The above types of library services are not exhaustive and do not cover all the activities taken on by modern Polish libraries, but should rather be seen as an example of their contributions, and as symptomatic of the cultural and social changes taking place at the turn of the centuries. Providing an exhaustive account of all their activities is impossible not only due to the limited size of this article, but also because library offerings in the second decade of the 21st century are incomparably larger in number to the ones existing even a dozen years back. First of all, the social and political changes after 1989 played a key role in this shift in attitudes towards the role of libraries, and then later so did Poland's accession to European structures. Besides this, developing information and communication technologies, evolving user needs, the adoption of solutions developed in other countries, and the post-modern implications of this social shift are factors that are currently shaping the role of libraries. Undoubtedly, libraries are expanding their fields of activity. This is what they need to do. Whether they want it or not, they have become part of a field of competitors trying to obtain customers, who, however, are still commonly referred to as 'users' in the librarians' professional literature and language. It is a fact that in Poland most library services are free of charge, which may create the impression that libraries have users, not clients. However, considering the marketing or PR activities pursued by librarians and their similarity to parallel actions in business areas, it is logical to discover analogies, which intensifies the impression that the needs of users must be addressed by libraries as carefully and meticulously as businesses care for their clients. As a result, libraries have started to offer a wider range of services for very diverse groups of recipients, becoming increasingly rooted in the public space. Forms of work that even in the 20th century represented the core of library activities have now lost their leading role, traditional books becoming nothing but a modest complement of the library offering. Does this mean that *libra*- should be removed from the term *library*? Certainly not. On the contrary, the activities described in this article show how intensely libraries work for their users/clients, how they respond to their current cultural, social, educational and information needs, and how irreplaceable they are in this activity.

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THE ROLE OF PUBLIC LIBRARIES IN PROMOTING READERSHIP IN POLAND



Dorota Grabowska, PhD, works at the Department for the Study of Libraries and Other Cultural Heritage Institutions of the Faculty of Journalism, Information and Book Studies of the University of Warsaw. As a researcher, she is interested in the organisation and activity of public and school libraries, and especially in the forms and methods of working with users at libraries. She has been Secretary of *Przegląd Biblioteczny* [*The Library Review*] since 2013, and of *Poradnik Bibliotekarza* [*Librarian's Guidebook*] since 2003, while also forming part of the editorial board of the *Biblioteczka Poradnika Bibliotekarza* [*Librarian's Guidebook Essential Library*] series. She has published the following papers, among others: *Projekt jako metoda godna polecenia dla bibliotekarzy* [Pro-

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KEYWORDS: Readership in Poland. Readership promotion. Public library.

ABSTRACT: **Purpose/thesis of the article** – The purpose of this article is to discuss the role of public libraries in promoting readership in Poland. **Methodology** – Available surveys showing the level of readership in Poland have been analysed. Documents that highlight the role of libraries in the promotion of reading as well as the social expectation that they undertake such activities have been summarised. To provide examples of good practices articles from the 2016 issue of *Poradnik Bibliotekarza (Librarian's Guidebook*) have also been

analysed discussing the libraries' activities aiming to promote readership. **Results/conclusions** – The level of readership in Poland is unsatisfactory. Action is being taken in order to remedy this situation. Public libraries join international and national actions as well as run their own campaigns to promote readership. The condition of readership in Poland is not satisfactory, as revealed by available readership surveys.

OVERVIEW OF READERSHIP IN POLAND BASED ON SELECTED RESEARCH

Surveys of the National Library of Poland

The decline in book readership is a consolidating trend in Poland, as revealed by surveys regularly conducted by the National Library. Before 2008, the proportion of readers as compared to non-readers oscillated around 3:5; today, this number has changed dramatically, reaching 2:5 (Stan czytelnictwa w Polsce w 2015 r. [The Level of Readership in Poland in 2015], p. 12). The number of intensive readers (reading more than 12 books a year) has fallen by half. The National Library surveys are regularly conducted on nationwide samples of people over the age of 15. In 2015, the research sample consisted of 3,049 people. 37% of respondents reported having read at least one book (Stan czytelnictwa w Polsce w 2015 r., p. 4). The determining factors for reading are educational attainment and gender. People with a tertiary education read more, and women read more than men. The novel is the most popular genre, especially romantic, thriller, and fantasy fiction, the most read author being Henryk Sienkiewicz (as in the previous surveys). It is remarkable that reading practices tend to go together. For example, reading newspapers is usually accompanied by reading books, and those who read paper-based texts tend to read online ones as well. Family background is decisive for the formation of reading competencies. Parents who read bring up their children so that they read too. This is a broader phenomenon, as readers not only bring up new readers, but also socialise with other readers. Naturally though, the lack of family support can be compensated for. Other factors shaping reading competencies (apart from the family) include: the availability of libraries, influence of teachers, scrupulous adherence to required reading by schoolchildren, reading for pleasure and the development of reading habits (the more one reads, the more one enjoys reading). The books chosen by readers usually come from home collections, are borrowed from friends or are bought. Libraries also represent a significant source of books, used mostly by those who read 7 or more books a year. While libraries are also occasionally used by non-readers, the scale of this phenomenon is rather negligible (Stan czytelnictwa..., p. 6). The main reasons for visiting libraries are: access to books which are difficult to find otherwise, librarians' assistance in finding the right book, the atmosphere at the library, activities organised, and the fact that the services are free of charge. Those respondents who do not use libraries explain that they have no need to do so as they can look up all the information they require online. They also tend to complain that library book collections are outdated, and dread overdue fines. According to available research, 2 in 3 Poles over the age of 15 use the Internet (*Stan czytelnictwa....*, p. 7). The respondents typically do so to look for practical tips and guidance as well as for information related to their job or studies, to check the press and the latest news, and to use online encyclopaedias.

The National Library surveys have clearly revealed a significant decline in book reading. 14% of respondents do not read any longer texts, nor do they use the Internet or even sporadically open a book, newspaper, or magazine. They openly admit to not reading books. Still, 22% of respondents declared practising all types of reading (*Stan czytelnictwa...*, p. 26).

This is not the only study showing that the level of readership in Poland is unsatisfactory.

Surveys of the Polish Chamber of Books

In the surveys carried out by the Polish Chamber of Books, readership was construed very broadly as any contact with written texts. The concept of text diet was introduced (Książki w codziennym życiu Polaków [Books in the Everyday Life of Poles], p. 15). Readership was not discussed exclusively in the context of leisure time, since reading was understood as one of the basic daily activities. Another factor considered was the accessibility of electronic devices providing access to distinct types of text. 94.8% of respondents declared they had access to such devices. These were usually mobile phones (67%), laptop computers (51.5%) and cable TV (49.6%). Only 5.2% of respondents said they had no access to any such devices altogether (Książki w codziennym życiu..., p. 23). Those who did use electronic devices providing access to diverse types of text were also Internet users (68.2%). The most frequent ways of using the Internet were: browsing websites (91.8%), sending and receiving emails (86.5%), listening to music (58.5%), and shopping online (49.3%) (Książki w codziennym życiu..., p. 28). When asked about what they had done the previous day, the respondents listed: watching TV (66%), spending time with their family (54.2%), having meals together (47.2%), making phone calls (42.5%), and using the Internet (40.9%). The most time-consuming activities were: professional work (23%), spending time with family (14.2%), and watching TV (12.3%) (Książki w codziennym życiu..., p. 48). The respondents were also asked about reading texts irrespective of their daily activities. 43.8% replied they had no contact with the printed word whatsoever. 20% read text messages and social network notifications, 18.2% read printed press, and 14.8% checked short news stories online (Książki w codziennym życiu..., p. 49). 8.6% had had contact with books in some format (printed, e-books, audio books) the previous day. On the whole, the respondents stated they considered reading to be a pleasurable leisure activity (81.5%). The researchers understood readership as reading (either in whole or in part) or even just looking through any book (in printed, electronic, or audio format). 37.2% of respondents reported reading books in accordance with the above definition. The survev confirmed that educational attainment and gender were the determining factors for reading books. Reading is more widespread among people with a higher level of education and among women. The majority of readers are those who read less than 6 texts annually. The percentage of e-book and audio book readers was 4.2% and 1.6%, respectively. The factor that impeded reading was predominately the lack of time. However, 26% of respondents admitted they did not read even though they had time to do so. Actual readers typically read for pleasure, out of interest in a particular topic, or saw reading as their hobby. They selected texts according to their personal liking and the opinions of friends. A typical reader would read general, romance, thriller and fantasy fiction. Among non-literary texts, handbooks and biographies prevailed (*Ksiażki w codziennym życiu...*, p. 63). 35% of respondents declared they acquired books through buying or through receiving them as gifts. 33% read books from their home collections, while 30.2% got them from libraries.

Electronic reading

The Report on Book and E-book Readers (Raport z badania czytelników książek *ie-booków*, the '*Report*') investigated electronic reading as compared to reading traditional print. It cannot be considered representative even though the survey was conducted on a sample of 5,000 people, as it only included well-educated Internet users from big cities. It seems certain that, indeed, these people do read a great deal. 67.6% read over 15 books a year, 13% between 10 and 15, 8.9% between 7 and 10, and 4.5% between 6 and 7. Therefore, 94% of respondents can be considered actual readers. LEGIMI,¹ the company responsible for this survey, had intended to study the popularity of e-books. It confirmed that electronic books were predominately read by those who also read traditional books. 78% of respondents did read e-books, but 80% preferred paper books mainly for sentimental reasons (they preferred the contact with paper and appreciated its "smell", "touch" and "texture"), and 60% because they found it easier to focus on the text if it was printed on paper, they already had an ample collection of paper books at home, or had no device enabling them to read e-books.

¹An e-book distributor.

E-books were mostly chosen due to their convenience (69%), accessibility (54%), and availability for purchase "without leaving home" (50%). The respondents read mostly fantasy, criminal, thriller, and horror fiction. 47% of respondents admitted they illegally downloaded e-books from the Internet. As the report concluded, "According to the readers, the end of the paper era is still far in the future, as paper editions are still regarded as a better investment" (*Report*, p. 4).

A research project known as "Shifts in the reading culture due to the emergence of e-texts and the devices providing access to them" ("Zmiany kultur czytelniczej w kontekście wprowadzenia e-tekstów i urządzeń pozwalających z nich korzystać") was aimed at capturing the experience of reading in the digital environment (Kisilowska, Paul & Zajac, 2016, p. 182). The increasing popularity of e-texts has been partially confirmed. It was highlighted that contact with such texts was patchy, happening at short intervals, and usually concerned with short, non-literary texts. Readers looked through them in their "spare moments", something that had been made possible by electronic devices. Books and narrative texts were mostly read in paper format. What drew the researchers' attention was that the readers were rather reluctant to share information or comment on the texts they had read in social media. The popularity of e-books depended on the variety of available titles and their quality as well as on the level of skills required to use them. In conclusion, the researchers stated that "paper print has ceased to be the dominant means of accessing text contents. The informed choice made between paper and e-text, as well as between various text types and genres (depending among other things on their length, quality, the level of concentration required and the purpose of reading) is made on the basis of certain external circumstances, such as economic standing, lifestyle, the amount of leisure time, the space available, the time of day, individual preferences and intensity of reading" (Kisilowska, Paul & Zając, 2016, pp. 185-186).

The reasons behind the unsatisfactory level of readership are diverse and do not always depend on the activity of public libraries. However, the latter can significantly influence some of them. Readership promotion is a case in point. One of the key tasks of public libraries specified in international guidelines is to "inform and develop reading habits among children from a very early age" (*Działalność bibliotek publicznych* [The Activity of Public Libraries], 2002, p. 100). Let us look at some examples of how public libraries in Poland explore this area.

READERSHIP PROMOTION AND LIBRARIES

Among the services provided to users by public libraries, the IFLA/UN-ESCO guidelines mention promoting reading and writing skills as well as readership (*Działalność bibliotek publicznych*, 2002, p. 49). Reading is considered an indispensable skill for active members of the society, as well as necessary for the use of modern communication systems. The Law on Public Libraries stipulates that "Public libraries shall respond to the educational, cultural and information needs of the society in general, as well as contribute to the dissemination of knowledge and culture" (Polish Act on Libraries of 27 June 1997, Art. 18.1). Hence, in the context of library activity, readership promotion shall be understood as encouraging the local community to participate in cultural life – which includes reading – and consequently to use libraries. Let us remember that the activity of public libraries brings tangible economic benefits to the society. "Thanks to the efforts of libraries, children develop their language skills in their leisure time, which helps them achieve better educational outcomes and get a better job in the future. With this, they consume and spend more, which increases the GDP. Therefore, the library is not just a cost, but a very good social investment" (Tubylewicz & Diduszko-Zyglewska (eds.) 2015, p. 56).

The role of libraries in promoting readership has been acknowledged in the National Programme for Readership Promotion (Resolution no. 180/2015). In 2015, the Council of Ministers adopted Resolution no. 180/2015 on establishing the multiannual "National Programme for Readership Promotion". The purpose of the programme is to improve the level of readership in Poland, with the general objective to "strengthen the reading activity within the Polish society and support the development of libraries in Poland". It stipulates that the role of public, school and pedagogical libraries shall be enhanced, so that they become local centres of community life, providing access to culture and knowledge. Three priorities have been set within the Programme: (1) purchasing new publications for public libraries, (2) improving the library infrastructure, and finally (3) promoting and supporting readership among children and teenagers in order to develop their interests. The Minister responsible for culture and national heritage conservation oversees the first two, with the National Library (Priority 1) and The Book Institute (Priority 2) acting on his/her behalf, while the Minister in charge of educational and pedagogical matters is responsible for Priority 3. The programme is to be implemented in the years 2016-2020. When defining its groundwork and objectives, special attention was paid to the fact that in order to stimulate readership, library book collections need to be constantly supplemented by the latest editions, sought after by the readers, and that major literary and research publications need to be presented and exhibited in libraries. It was emphasised that the problem was not the quantity, but the quality and structure of library holdings. Appealing collections are believed to make readership promotion easier.

Public libraries shall specialise in such promotion, understood as "a way to communicate with potential product recipients in order to make them purchase it" (*Aktywna biblioteka* [Active Library], 2010, p. 12).

Promotion of reading in public libraries in a nutshell

Even though public libraries are not-for-profit institutions, they use marketing tools such as the marketing mix (Kamińska, 2007, pp. 11-15). In the context of readership, this notably includes library products (holdings), i.e. what the library has to offer, as well as its services. Naturally, this is not the only meaningful element of the marketing mix. In fact, all its components are interconnected. Library promotion includes activities and tools enabling it to inform the society about its collections and services. This is a factor shaping the users' needs, stimulating and modelling demand (Sójka, 1994, pp. 62-63). The promotion of library collections is intended to show their diversity, usefulness, and appeal in order to stimulate interest (Kubów 2006, p. 11). This is of paramount importance in the present context, since "today it is no longer enough to have 'the only copy in town'... as perhaps soon no one will ask for it any more" (Radwański, 2007, p. 7). Readership promotion means influencing library users (current and potential) in such a way that they adopt behaviours that increase the level of readership. This can be done through information, showing benefits, encouragement, and persuasion. Such theoretical assumptions are translated into specific forms of works in public libraries that invite their users to have more contact with books.

Selected examples of readership promotion in Polish libraries

Many library activities aim to promote readership within the local community. In doing so, libraries have been joining international and national initiatives as well as launching their own projects.

Bookstart is an international program implemented by Polish libraries in many ways. It was first launched in Birmingham in 1992, and today is being taken up in 20 countries worldwide, such as Japan, Canada, New Zealand and South Korea. Each of these implements it in a slightly different way, depending on their capacities and specific circumstances (Zając, p. 134). In Poland, the Municipal Public Library in Wrocław has been implementing its Bookstart project since 2010, known as *Na dobry początek* [Off to a Good Start]. In June 2016, its 6th edition was launched, co-financed by the Ministry of Culture and National Heritage (within the Accessible Culture programme), in collaboration with the Wrocław Puppet Theatre, the National Forum of Music, and the City Social Assistance Centre (*Na dobry początek*) [Off to a good start]). In the library, starter packs can be collected, consisting of a book and educational materials for parents of children up to the age of 2 (a brochure with literary suggestions for this age group and guidelines on how to play with children using books). This is a reading layette, accompanied by the toddler's first library card. With this project, Poland became one of the countries implementing programs inspired by *Bookstart*. A very similar social action has been run by the ABC XXI Foundation "All Poland Reads to Kids". Its title is "My Baby's First Book" (*Pierwsza książka mojego dziecka*). In December 2014, the Foundation distributed 82,000 free packs (including a book for parents with articles and poems to read to the child, and a DVD with an educational film and lullabies) to new mothers in over 90% of maternity hospitals in Poland.

Libraries also encourage book crossing, an idea initiated in the U.S. in 2001 by Ron Hornbaker, a software developer (*Bookcrossing* b). Its participants leave books they have read in public places, sometimes specifically designed for this purpose (bookcrossing shelves). Those interested can take the books and read them, then later pass them on again. In Poland, this idea first appeared in 2003. A bookcrossing shelf has been active in the Municipal Public Library in Jasło since 15 May 2010 (*Akcja* [Action]), which also celebrates the National Free Books Day each year. Such an action is also promoted by the Municipal Library of Kędzierzyn-Koźle (*Bookcrossing* a), and many others.

In 2012, the President of the Republic of Poland launched the National Reading Action, a nationwide series of sessions dedicated to public readings of Polish literary classics (Narodowe Czytanie [National Reading]). It started with Master Thaddeus by Adam Mickiewicz, in 2013 works by Aleksander Fredro were read, followed by the Trilogy by Henryk Sienkiewicz (2014), The Doll by Bolesław Prus (2015) and Quo Vadis by Henryk Sienkiewicz (2016). Libraries also joined this nationwide action. In the Municipal Library of Bytów, Quo Vadis was read in the Portrait Hall of the town's castle, decorated for the occasion, with librarians dressed up in costumes reminiscent of Ancient Rome, where the novel was set. People were invited to join the event at the Bytów central square, and everyone could take part in the public reading. The volunteers included the town's vice-mayor, the editor-in-chief of a local weekly, the director of the local museum, and the director of the town's library (Pradzyński). The Municipal and County Library in Rybnik also held a public reading of Quo Vadis at the town's central square (Doliba, 2016, p. 29). The novel was read by Marcin Troński, the town mayor, the deputy mayors, the mayor's assistant, a parish priest, the Silesian Voivode, the library director and volunteers from the public who had gathered at the town square. The reading was accompanied by a Q&A session with the guests. The participants could also get a stamp for the occasion on their own copy of *Quo Vadis*. The Municipal Public Library in Brzeg similarly held a public reading session at Plac Polonii Amerykańskiej, in town centre. Librarians, staff of the Brzeg Cultural Centre, and local government representatives read to the public (Swietlicka, 2016, p. 17). The participants could listen to the pieces read as well as take part in games and activities or buy second-hand books at the book market.

Book Discussion Clubs are another notable initiative launched by The Book Institute and the British Council (*Dyskusyjne Kluby Książki* [Book Discussion Clubs]). In 2012, the number of official book clubs reached 1,027. Among them, 721 were for adults. They have over 7,000 members (Fabisińska, 2015, p. 208) who gather to select books according to their interest, read them, discuss and exchange their opinions. The clubs also organise literary soirées. In 2011, 914 such events were held (Fabisińska, 2015, p. 208). For its members, they are something "important" or even "very important", sometimes providing a unique opportunity to meet an author (Niedziela & Kieżun, 2013, p. 2).

Since 2001, libraries from all over the country have been taking part in the "All Poland Reads to Kids" action of the ABC XXI Foundation. Some are organised by regional coordinators, as for example in Kuyavian-Pomeranian, Łódź, Lesser Poland, Masovian, Subcarpathian, Silesian and Greater Poland Voivodeships, while others act as local leaders and coordinators (*Cała Polska czyta dzieciom* [All Poland Reads to Kids]). The Municipal Public Library in Lubaczów, located in Basznia Dolna, began implementing a program entitled "All Municipality Reads" in 2017, in cooperation with the ABC XXI Foundation.

More and more libraries are joining the nationwide Library Night initiative. It has been held since 2015, when 600 libraries participated. One year later, their number grew to a thousand (*Noc Bibliotek 2017* [Library Night 2017]). The Municipal Library in Kluczbork held its Crime Fiction Night on 4 June 2016 (Gruszczyńska, 2016, p. 33). Participants had the opportunity to meet a forensic officer from the County Police Headquarters in Kluczbork, and to solve criminal cases in the library basement. Children could visit the Lasse and Maja Detective Agency, solve crime puzzles, and watch a film. A music band performed, and the participants could buy criminal books and vote for their favourite criminal fiction author, book, film, and TV show.

The Municipal Public Library in Dąbrowa Tarnowska joined the 1st Edition of the Social Action "Reading Polish Books", a competition initiated by the Ravelo.pl bookshop and the Foundation of the Polish Academy of Sciences. This action was aimed at promoting Polish literature and its authors (Kusior, 2016).

Libraries are encouraged to participate in such activities by the Polish Librarians' Association through a competition entitled "Master of Readership Promotion". It has been held since 2009 (Gwadera, p. 550). In 2016, its 9th edition took place (candidates could submit their applications by 17 March 2017) (*Mistrz* [Master]). In 2015, the 1st prize went to the Municipal Public Library known as *Biblioteka pod Atlantami* in Wałbrzych, which organised over 1,380 events with about 24,000 participants. The jury substantiated their decision by emphasising that the library had not only "actively participated in nationwide events promoting readership" (National

Reading, Book Discussion Club), but also had numerous original ideas for promoting readership. Among them was the "Magic of Reading" project addressed to various groups of users. It consisted of 139 events, such as: "The Fantasy Bench" – reading to children in outdoor spaces, parks and gardens; "In Trzeszczydłów, or Reading Crackling Rhymes in Wałbrzych", a reading marathon; "Reading Fairy Tales in Chełmiec", an inter-generational outdoor event; "A Night with the Legends of Wałbrzych"; competitions such as "Polish Poets Write for Children", "Book Fashion", and "Master of Beautiful Reading"; the 1st Review of Literary Works by Children and Teenagers of Wałbrzych; regular actions such as "Booktalking" or "Reading Out Loud on the Carpet" (monthly meetings fostering readership among children as well as promoting new releases); and a series of literary sessions for middle school students entitled "Literary Mornings at the Library. The Life and Work of Authors from the School Reading List". Adults could take part in sessions such as "Multi-cultural Wałbrzych" or "A Life More Colourful than a Novel. The Story of my Family". The Master of Readership Promotion award is granted not only for joining nationwide initiatives, but also for organising local activities responding to specific needs of the community where the library operates.

Local initiatives aimed at promoting reading include the Lesser Poland Reading Aloud Contest organised by the Provincial Public Library in Cracow and the Cracow Division of the Association of Polish Schools' Teachers-Librarians (Będkowska). The purpose of the contest is to "improve reading aloud skills, and develop reading culture, creative talents and interest in the region as well as the students' knowledge of the region's literary culture" (10. *Małopolski Konkurs Pięknego Czytania – Regulamin* [Regulations of the 10th Lesser Poland Reading Aloud Contest]). In 2017, the 10th edition was held, engaging students of primary, middle and secondary schools as well as those from the Special Educational Centre for Blind and Visually Impaired Children in Cracow.

The Book Gallery Library in Oświęcim ran a project known as "A Tailor-made Legend. The 21st Century Legend of Oświęcim" (Dejko, 2016, p. 39). Its purpose was to show over 800 years of Oświęcim's history to young people. A walking tour was organised along with a film session, local legends were analysed and a contemporary one created. Based on the latter, the participants came up with a film scenario and shot a video. The library set up its own Writers' Alley to commemorate eminent living authors, who personally participate in inaugurating their memorial plaques with their autographs and fragments of their works. In 2016, *New Wave* poet Ryszard Krynicki was honoured in this way (*Dziewiąta odstona*... [The 9th chapter...], 2016, p. 27).

The Silesian Library in Katowice followed with its *Book Coolture* project (Kapustka-Olejniczak, 2016). It held a literary picnic with the participation

of children's authors such as Marcin Pałasz, Wojciech Widłak and Joanna Olech. The young participants were divided into editorial teams charged with creating a magazine with columns such as: Latest News, Opinions & Comments, Interviews, or Books and New Releases. A new ending was added to a short story by Marcin Pałasz, Wojciech Widłak was interviewed, and a news story covering the event was written, while author Joanna Olech supervised the visual side of the magazine.

CONCLUSION

It seems nearly impossible to list all the initiatives pursued by public libraries in Poland to promote readership. This article is limited to those shared by librarians in the review *Poradnik Bibliotekarza* [Librarian's Guidebook] in 2016. Public libraries take part in international and national programs as well as initiating local activities. Each of them operates in a specific environment, forming a part of the local public space. This means that they must take into consideration the needs of the local community and provide favourable conditions for those needs to be met, as well as stimulating demand and, if possible, setting new trends. As Jacek Wojciechowski accurately remarked, "The repertoire of library activities needs to be constantly developed. Whoever fails to do this will, I am afraid, fail to survive" (Wojciechowski, 2014, p. 188).

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POLISH DIGITAL LIBRARIES AND REPOSITORIES. ORIGINS, OPERATION AND USAGE



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KEYWORDS: Digital libraries. Research repositories. Digitisation. Copyright protection in libraries. Library technologies.

ABSTRACT: **Thesis/purpose of the article** – The author, an active participant of many projects aimed at building a network of digital libraries and research repositories in Poland, recalls certain facts and opinions not only from a historical perspective, but also as an attempt to provide a picture of what has been achieved in this area to date. **Methodology** – The article discusses numerous problems and dilemmas faced not only by librarians, but also by IT specialists, researchers, museum workers and documentalists. **Results/conclusions** – Not all relevant developmental stages or statistics have been mentioned, but we have tried to outline those considered important, while others are quoted as references to the literature for further information.

INTRODUCTION

Although Poland might not be the most advanced country as far as digitisation is concerned, it has an immense potential and has been catching up at a fast pace. Significant gaps exist, especially in the dissemination and publication of digital data by public agencies. According to available reports, Poland lags behind most other European countries in this respect (being low on the list at 24th), since public information is not as openly accessible as it should be following applicable laws adopted for this purpose years ago. Entrepreneurs, researchers and NGOs campaign for public information to be freely available in open formats, since they need it to develop their social activities, businesses or scientific research. This situation has been analysed in a report issued by the Polityka Insight Centre for Policy Analysis entitled "*Czas na przyspieszenie* — *cyfryzacja gospodarki Polski*" [Time to Accelerate – The Digitisation of the Polish Economy]¹.

Among general reports or analyses concerning the entire country, the development of digital libraries (DL) and research repositories (RR) deserves a special mention, since despite certain problems and gaps in this area the overall picture is widely positive.

This article discusses separately the processes of building cultural and scientific digital resources due to both their distinctive character and the purposes for which they were created. The resources of digital libraries, which appeared in Poland much earlier (2002) than research repositories (2008), are predominately intended to digitise cultural artefacts and to disseminate their images online. This is done not only to preserve them for the future, but also to promote them within the society, fostering knowledge and education. Research repositories came into existence to spread contemporary research and educational literature, raw research data, conference proceedings, research reports, and other materials, in order to promote research, accelerate innovation, exchange scientific information internationally, and better educate students.

THE ORIGINS OF POLISH DIGITAL LIBRARY (DL) RESOURCES

In the early days, many ideas emerged on how to develop digital resources in Poland, some of them dating back to the beginning of the new millennium (2000). They came from various institutions, both governmental and civil society; however, most of them failed to survive in their original form. Let us recall some of the planned initiatives:

– The Ministry of National Education and Sport planned to launch a National Online Library.

– The Scientific Research Committee (KBN) announced they would build a Polish Virtual Library within the ePolska programme.

– The Polish Librarians' Association planned to launch the Polish Information Resources.

Only the Ministry managed to accomplish their plan in 2002, creating the Polish Online Library,² a government-led project initiated by the Scientific Re-

¹Raport "*Czas na przyspieszenie – cyfryzacja gospodarki Polski"* [Report: Time to Accelerate – The Digitisation of the Polish Economy]. Polityka Insight Centre for Policy Analysis, Warsaw 2016. [online]. [accessed: 20.10.2016]. Available in WWW: https://mc.gov.pl/files/innowacyjna_cyfryzacja_0.pdf>.

² E. Dobrzyńska-Lankosz (2003). *Polska Biblioteka Internetowa* [The Polish Online Library], *Biuletyn EBIB* [Electronic Library Newsletter] [online], issue 7(47); [accessed: 22.10.2016]. Available in WWW: <http://www.ebib.pl/2003/47/lankosz.php>.

search Committee (KBN), which unfortunately failed to survive. However, bottom-up initiatives began to emerge, such as:

Interklasa Zasoby Edukacyjne Polski [Interklasa. Polish Educational Resources] (http://www.interklasa.pl/portal/index/strony).

– *AGH* – *Skrypty* [Textbooks of the AGH University of Science and Technology in Krakow] (http://vtls.cyf-kr.edu.pl/).

- *Wolontariusze* - *Biblioteka Sieciowa* [Volunteers - a Web Library] (http://literat.ug.edu.pl/books.htm).

 – Wydawcy – Wirtualny Wszechświat [Editors. A Virtual Universe] (http:// www.wiw.pl/).

Nevertheless, these projects failed to meet the requirements already established in Europe by that time.

Although Polish politicians declared that digitisation projects were of key importance for the country, this idea was not followed by coherent, professional action leading to a durable project that would comply with international standards. The attempt to build the Polish Online Library (PBI) in 2002 was probably the most notorious example³ (www.pbi.edu.pl)⁴. The way this project was implemented failed to meet the required standards, resulting in a database which not only lacked accurate bibliographic descriptions, but even viable files. The library cost about 2m PLN, a significant budgetary expense at that time, but the results of this investment turned out to be unstable and generated further costs, as they required the adjustment and transfer of certain files to new software. According to the latest information made available at the National Library website (http://www.bn.org.pl/zasoby-cyfrowe-i-linki/ polska-biblioteka-internetowa): "In 2012, an IT tool was developed to support resource transfer from the Polish Online Library to the information system of the National Digital Library POLONA, and a resource assessment was performed to facilitate the migration of digital files. The process of file migration from the PBI to the National Digital Library POLONA was completed in 2016. The useful part of its resources, after in-depth copyright inquiries and metadata correction, was transferred to the National Digital Library POLONA, [...] available online at polona.pl"5.

An achievement of foremost importance which hugely contributed to the foundation of professional digital libraries in Poland was the Polish dLibra soft-

³B. Bednarek-Michalska (2003). *Polska Biblioteka Internetowa: losy projektu rządowego z punktu widzenia bibliotekarza*. [The Polish Online Library. History of the Government Project from a Librarian's Perspective]. *Notes Wydawniczy* [Editorial Notebook] 4, issue 12, pp. 28-31.

⁴ The website no longer exists, and its digital objects were taken over by the National Library of Poland in 2008 following an order from the Ministry, which was meant to act as the curator of the collection.

⁵National Library of Poland, *Polska Biblioteka Internetowa* [The Polish Online Library] [online]. [accessed: 02.12.2016]. Available in WWW: http://www.bn.org.pl/zasoby-cyfrowe-i-linki/polska-biblioteka-internetowa.

ware, which – together with the support provided by IT experts from Poznań – encouraged more academic institutions to launch their own initiatives. In 2003, the Poznań Supercomputing and Networking Centre (PCSS) presented its project to the librarian community in response to the new digital means of collecting research materials and making them available. The first model resource to use this software was the Digital Library of Wielkopolska (WBC) (http://www. wbc.poznan.pl/dlibra). It was built slowly but professionally, in compliance with up-to-date international standards and practices. The library was a joint initiative of the Poznań academic community, with contributions from both scientific and public libraries of this city.

The rules regarding its creation and operation were clearly set out and made publicly available: "WBC is an organisational and technological platform for sharing digital didactic and scientific sources of information. Its hardware and software resources functionally form an integral part of specific scientific and public libraries of Poznań. The software and hardware used by the WBC are jointly overseen by the Poznań Scientific Library Foundation (PFBN) and the Poznań Supercomputing and Networking Centre (PCSS). The Foundation manages the way resources are collected and prepared for sharing. The WBC Programme Board makes decisions as to the profile of the WBC resources and its development directions. The materials shared by WBC can be published in either printed or digital form. At the request of the publishing rights owner, access to the materials made available by the WBC can be restricted by a password or IP number. Any royalties and licence fees payable to authors or publishers are subject to separate agreements. The storage period, form of presentation and arrangements for modifying the contents shared by the WBC are also subject to separate agreements with the publisher or the author. The bibliographic description of the publications made available by the WBC follows the rules established for the Dublin Core and MARC 21 international formats as well as the Polish cataloguing guidelines. WBC operates in accordance with Polish copyright and publishing law"⁶.

The development of this first bug-free model and its introduction to the librarian community at conferences and sessions triggered a flurry of similar projects which has lasted to this day. New digital libraries started to emerge, along with digital archives and collections of museums and NGOs, building up a large network brought together by the Digital Library Federation (http://fbc.pionier.net.pl/), also managed by the PSSC. The first of these to be completed were:

1. Digital Library of Wielkopolska, Poznań Scientific Library Foundation, Poznań, 01.10.2002.

2. Lower Silesian Digital Library, Wrocław University of Technology, Wrocław 01.11.2004.

⁶This fragment of the WBC regulations was available on its website back in 2003, later to be changed. Compare: WBC, About the Project: http://www.wbc.poznan.pl/.

3. The Kujawy–Pomerania Digital Library, Central Library of the Nicolaus Copernicus University, Toruń, 01.09.2005.

4. Digital Library of Zielona Góra, Zielona Góra University Library, Zielona Góra, 01.10.2005.

5. Wrocław University Digital Library, Wrocław University Library, Wrocław, 01.12.2005.

6. Lesser Poland Digital Library, Regional Public Library in Cracow, Cracow, 01.01.2006.

7. Digital Library of the Warsaw University of Technology, Central Library of the Warsaw University of Technology, Warsaw, 01.05.2006.

8. Pedagogical Digital Library, Main Library of the Pedagogical University, Cracow, 01.05.2006.

9. Silesian Digital Library, Silesian Library, Katowice, 01.08.2006.

10. FIDES Digital Library, Federation of the Church Libraries "FIDES", Wrocław 11.08.2006.

11. Digital Library of Jelenia Góra, Centre for Information and Education of Jelenia Góra, Jelenia Góra, 01.09.2006.

12. National Digital Library POLONA, National Library of Poland, Warsaw, 01.10.2006.

13. Podlaska Digital Library, University Library in Białystok, Białystok, 01.11.2006.

Today, the holdings of 127 Polish cultural institutions that have been made available by the Federation of Digital Libraries consist of 4.2 m objects (according to data available for December 2016), which illustrates the scale of this network. Most of them, with some exceptions, use the software developed by the PCSS. The Federation is also the largest Polish provider of data sent to Europeana (which holds over 54 m objects from all over Europe).

After Poland joined the European Union in 2004, many initiatives gained momentum. Funds became available, along with recommendations to jointly create common European digital resources. Since 2005, the Ministry of Culture and National Heritage significantly intensified its efforts in order to foster the creation of digital resources for Poland, acting through the National Heritage Department. These operations were moving in the right direction, as they were based on cooperation with experts. On 24 April 2006, the Minister of Culture and National Heritage appointed the Digitisation Team as its auxiliary body. The Team was responsible for:

1. developing a unified digitisation strategy for cultural heritage objects and research papers in Poland, irrespective of their legal status and place of storage;

2. preparation of uniform requirements for libraries, archives, and museums regarding the process of digitisation, sharing, and storage of digital materials;

3. integration of activities undertaken by libraries, museums, and archives in order to digitise national heritage objects.

The team was active for several years and, in consultation with librarians, documentalists, museum officers, and IT specialists, gradually achieved its goals to solve any problems that were arising. It developed the fundamentals of the national digitalisation strategy and provided opinions⁷ and expert reports as necessary to ensure coherence with the European policy in this area and to obtain the required funding. In these proposals, digitisation was understood in a broader sense, as building up digital resources, including repositories, and archiving internet materials from the PL domain⁸.

PROBLEMS RELATED TO THE BIRTH OF DIGITAL LIBRARY RESOURCES IN POLAND

The main problems encountered while creating the first digital library resources in Poland were:

- lack of government funding in the initial phase;

 gaps in knowledge and in the availability of experts able to professionally explain the rules and standards of building digital libraries; and

insufficient coordination.

The communities of researchers, IT specialists, and librarians were perfectly aware of these problems and spoke out in order to minimise their impact. The knowledge gap was the easiest problem to solve. The first publications on digital libraries became available in Poland back in the 1990s. An informal team of librarians, supported by the National Ossoliński Institute, was issuing the Electronic Library Newsletter (Biuletym EBIB), and in December 1998 it released the first issue of a journal dedicated to digital libraries, which later systematically published articles on this topic. Other professional journals for librarians also started to discuss this issue. Numerous conferences were held to debate what kinds of digital libraries should be set up in Poland and how. With access to specialised literature, global databases, and international conferences and workshops, a large community of experts developed in our country, able to support others today.

One of the first conferences on creating digital resources was a session entitled "The Internet in Libraries II – Connectivity, Cooperation, Digitisation", organised in Wrocław on 23-26 September 2003 (http://www.ebib.

⁷B. Bednarek-Michalska, B. Szczepańska (2005). *Biblioteki Cyfrowe. Opinia i komentarz dla MNil do dokumentu i2010 Digital Libraries COM (2005) 465* [Digital Libraries. Opinion and comments on the i2010 Digital Libraries COM (2005) 465 document issued for the Ministry of Science and Higher Education], Brussels 30.09.2005. *Biuletyn EBIB* [Electronic Library Newsletter] [online], issue 9(70); [accessed: 02.12.2016]. Available in WWW: <http://ebib.pl/2005/70/bednarek-michalska_szczepanska.php>. ISSN 1507-7187.

⁸B. Bednarek-Michalska (2007). *Biblioteki cyfrowe w Polsce. Stan z roku 2006* [Digital Libraries in Poland. State of Play in 2006] [preprint] [online], [accessed: 02.12.2016]. Available in WWW: http://kpbc.umk.pl/dlibra/docmetadata?id=25657>.

pl/publikacje/matkonf/iwb2/index.php) by the Polish Librarians' Association, the Committee on Electronic Editions, and the Library of the Wrocław University of Technology, co-funded by the Wrocław City Mayor⁹. Subsequent conferences were held at short intervals, even several times a year. Their organisers were: the Polish Librarians' Association, the National Library of Poland, the Poznań Supercomputing and Networking Centre, and other research centres.

Unlike acquiring knowledge, acquiring the necessary funds to build infrastructures - as well as to scan, process, and catalogue the files and documents – proved to be difficult. The first Polish digital libraries financed their digital resources from their own funds. This was done mostly by academic centres which had the required IT infrastructure and a better educated staff. In 2006, several large digital libraries in Poland founded by academic institutions (Adam Mickiewicz University in Poznań (UAM), Nicolaus Copernicus University in Toruń (UMK), Wrocław University of Technology, University of Zielona Góra, and University of Wrocław), which made their statistics and metadata transparently available, had a collection made up of 40,100 objects, accessed 6,717,960 times since June 2004, which is to say slightly over 3m times annually in two years. The institutions emphasised they received little public funding for this purpose¹⁰. This number indicated the extent of public demand for electronic resources. With more funding and dynamic promotional efforts, these numbers could be increased, which would also reinvigorate and improve the condition of research and education in Poland. However, the only funds available back then were EU funds, which were relatively hard to obtain. One of the first digital libraries that came into existence with support from foreign funds (from the Integrated Operational Programme of Regional Development) was the Kujawy–Pomerania Digital Library. The project was very successful and widely discussed in the literature¹¹, with information about it openly shared with the public, along with subsidy applications, so that other libraries could follow in its footsteps.

⁹ International conference "Internet in Libraries II. Connectivity, Cooperation, Digitisation", Wrocław, 23-26 September 2003. [online], [accessed: 28.12.2016]. Available in WWW: http://www.ebib.pl/publikacje/matkonf/iwb2/index.php>. ISBN: 83-915689-5-4>.

¹⁰ B. Bednarek-Michalska, *Biblioteki cyfrowe w Polsce. Stan z roku 2006*. [Digital Libraries in Poland. State of Play in 2006]. [online], [accessed: 20.10.2016]. Available in WWW: <http://kpbc.ukw.edu.pl/dlibra/doccontent?id=25657>.

¹¹ B. Bednarek-Michalska (2005). *KPBC — projekt 2003-2006*. [Kujawy-Pomerania Digital Library. The 2003-2006 Project]. In: *Materiały konferencji Infobazy 2005, bazy danych dla nauki*. [Infobazy 2005 Conference Proceedings. Databases for Science]. Gdańsk: Gdańsk University of Technology, TASK, pp. 77-84; and B. Bednarek-Michalska (2006). *Kujawsko-Pomorska Biblioteka Cyfrowa — pragmatyka tworzenia biblioteki cyfrowej*. [Kujawy–Pomerania Digital Library. The Pragmatics of Building a Digital Library]. *Biuletyn EBIB* [Electronic Library Newsletter] [online], issue 7 (77); [accessed: 20.10.2016]. Available in WWW: <http://ebib.pl/publikacje/matkonf/iwb3/artykul.php?b>.

It was not until 2010 that the Polish government allocated more significant public funds to digitisation and established specific agencies to manage them: The National Audiovisual Institute (NInA), the National Institute for Museums and Public Collections (NIMOZ) and the National Digital Archive (NAC), which considerably accelerated the development of digital collections. Multi-annual government programmes such as Kultura+ and Biblioteka+ were implemented, so that an increasing number of cultural institutions could equip their digitisation workshops and proceed to scanning their holdings¹². Librarians, museum professionals, and documentalists were also working on improving their skills, which enabled them to submit successful applications and implement their projects, which was not an easy task, as back then such skills were in short supply. This resulted in a surge of digital libraries, archives, and museum portals. Many of them are very modern and compatible with European projects.

Although in its initial stage the emergence of digital libraries was completely uncoordinated, this gap was relatively quickly noticed, which led to several regional platforms being set up, such as the Lower Silesian Digital Library or the Kujawy–Pomerania Digital Library. It seemed that the idea to coordinate digitisation efforts at the regional level was a positive step towards building a coherent, nationwide system. Unfortunately, soon the particular interests of specific institutions started to prevail, dispersing the digitisation initiatives. This was especially evident in Warsaw, where many digital libraries appeared, each digitising nothing but its own holdings. Coordination became a necessity to avoid duplication and to disseminate objects more effectively. Librarians realised that fragmentation was a highly negative and costly problem. At their request, IT experts from the PCSS developed a tool for the dLibra system to scan it for duplicates and prevent their occurrence. Further discussions among digital library professionals led to establishing the Digital Library Consortium in order to coordinate certain steps and highlight emerging problems, for example with metadata.

At the initiative of the Poznań Scientific Library Foundation, on 28 May 2008 at the Research Centre of the Polish Academy of Sciences in Poznań, a session was held gathering representatives of all regional digital libraries in Poland, who undertook to sign a cooperation agreement. Under this agreement, the Polish Digital Libraries (PBC) consortium was set up, with the main purpose of coordinating the efforts related to developing domestic digital resources¹³.

¹² See: National Audiovisual Institute. *Baza projektów digitalizacyjnych*. [Digitisation Project Database]. [online], [accessed: 02.01.2017]. Available in WWW: https://baza.nina.gov.pl/.

¹³ Poznań Scientific Library Foundation (2008). *Polskie Biblioteki Cyfrowe* [Polish Digital Libraries][online], [accessed: 20.10.2016]. Available in WWW: http://www.pfsl.poznan.pl/polskie-biblioteki-cyfrowe>.

PROBLEMS WITH THE OPERATION OF DIGITAL LIBRARIES

While problems with the operation of digital libraries are different today from those faced at earlier stages, some of the latter have not been resolved yet. Coordination is one of them. Not all entities producing digital resources in Poland joined the 2008 consortium, which additionally had no government support and was nothing but a bottom-up initiative from the academic community. At that time, public administration was not ready for such challenges yet, neither was the National Library.

In 2009, the government began to set up Competence Centres to coordinate digitisation efforts in specific sectors. However, some of these failed to accomplish their tasks, which is one of the major problems highlighted by professionals, especially librarians. Competence Centres formed part of the Programme for the digitisation of cultural assets and the collection, conservation and sharing of digital objects in Poland for the years 2009-2020. Their main responsibilities have been defined as follows:

implementing technological developments in digitisation and storage of digital data;

coordinating the collection and storage of digital resources;

– educating the personnel of cultural institutions responsible for digitisation;

- sharing digitised materials and the promotion of digital resources.

The programme, launched by the Ministry of Culture and National Heritage, included the establishment of Competence Centres at the following institutions:

- National Digital Archive,

National Audiovisual Institute,

National Library of Poland,

National Heritage Board of Poland,

- National Institute for Museums and Public Collections¹⁴.

The Competence Centre at the National Library of Poland leaves much to be desired¹⁵, as in practical terms it is the PCSS that fulfils its tasks, such as launching the Digital Library Federation (FBC), developing the required technological tools, organising training sessions, and sending data to Europeana.

Long-term storage and the protection of resources is a major challenge for librarians responsible for digital collections. Poland is not properly prepared for such tasks, and the role of the Competence Centres is very limited in this respect.

¹⁴National Digital Archive. *Centrum Kompetencji* [Competence Centre] [online], [accessed: 22.10.2016]. Available in WWW: http://www.nac.gov.pl/archiwum-cyfrowe/digitalizacja/centrum-kompetencji/.

¹⁵ National Library of Poland. *Centrum Kompetencji* [Competence Centre] [online], [accessed: 20.10. 2016]. Available in WWW: http://www.bn.org.pl/programy-i-uslugi/centrum-kompetencji.

"The number of digital documents increases every year. These are either products of digitisation or born-digital files. Therefore, the issue of long-term digital data storage is gaining in importance every year, becoming key to the accessibility of digital materials in the future. [...] Nation-wide initiatives are implemented in order to preserve and protect data. A case in point is the E-Museums project or the NIMOZ proposal for introducing a system of durable identifiers for cultural heritage objects. The Poznań Supercomputing and Networking Centre [...] also actively campaigns for long-term archiving through the development of the dArceo software and R&D work in this area"¹⁶.

Librarians, archivists and museum professionals urgently need training, so that they can learn about digitisation procedures to start planned actions in this area. Some institutions, such as the Nicolaus Copernicus University in Toruń, use the National Data Storage service provided by the PIONIER research network, but remain unsure whether it will be continued in the future. National Data Storage was designed to respond to the needs of protecting and archiving substantial amounts of data produced by public institutions, to offer backup and archiving services, and to provide a virtual file system. Unfortunately, the project has stalled, which hampers the institutions' work.

The National Library of Poland runs the National Library Electronic Document Repository "to store publications distributed by publishers in Poland solely in electronic format. To comply with the statutory requirement stipulated in the Law on Mandatory Legal Deposits, the publishers provide the Repository with documents in PDF format, such as electronic books and periodicals as well as audio-visual records (mp3). Additionally, publications released in hard copy are transferred to the Repository in order to ensure their safe archiving. As most documents stored in the Repository are copyright protected, they are made available exclusively from terminals located in the National Library building"¹⁷. The Repository is not, however, responsible for collecting and protecting all the resources of digital libraries operating in Poland. This causes a major problem which can lead to dire consequences.

Copyright regulations in their current form represent a clear obstacle for the National Library, hampering many digitisation projects. It was relatively late that copyright protection problems similar to those encountered worldwide arose in Poland. These resulted from gaps in the understanding of existing serious limitations relating to the dissemination of creative work. Everyone knew it was safer to digitise and share older materials, but ignored legal de-

¹⁶ T. Parkoła (2014). *Długoterminowe przechowywanie cyfrowego dziedzictwa kulturowego*. [Long-term Storage of Digital Cultural Heritage]. *Biuletyn EBIB* [Electronic Library Newsletter] [online], issue 9 (154), *Gromadzenie i zabezpieczanie danych cyfrowych* [Collection and Protection of Digital Data]; [accessed: 20.12.2016]. Available in WWW: http://open.ebib.pl/ojs/index.php/ebib/article/view/303>.

¹⁷ National Library of Poland, Electronic Document Repository [online], [accessed: 28.12.2016]. Available in WWW: http://www.bn.org.pl/programy-i-uslugi/centrum-kompetencji/udostepnianie-zbiorow-cyfrowych/repozytorium-dokumentow-elektronicznych>.

tails related to the types of digitised objects or to copyright time limits. No one was familiar with the concepts of public domain or piracy. No one was aware of the legal issues arising out of the mere digitisation process itself, without even necessarily being followed by dissemination.

It was not until 2008 that librarians, museum professionals, and documentalists began to seriously debate these issues, as the Open Education Coalition¹⁸ began to hold copyright conferences. This discussion also reached nationwide media, whose numbers had increased at the beginning of the new century. As electronic media emerged, the respective legal issues became more and more evident. Debates and protests escalated in the wake of the Google Books controversy. Publishers and authors demanded copyright to be respected and forbade scanning their works.

Debates at the European level, often organised by the European Commission as well as by the Commission's subsidy programs, shaped the new legal regulations to a significant extent. It took many years to develop copyright rules that today help to disseminate works, including orphan works. The Poles actively contributed to this discussion; however, some problems remain unsolved. All in all, each digital object is different and has a unique legal history which the librarian or documentalist should assess. Some objects are easy to check while for others no viable decision can be made. The only universally adopted solution is to elaborate handbooks and guidelines and to provide specific examples so that analogies can be found and selected models of dissemination applied.

In this respect, Centrum Cyfrowe Projekt: Polska (a member of KOED) stands out, as on its website it provides extensive and useful guidelines, opinions, and expert reports on disseminating digitised works¹⁹. The Prawokultury.pl educational service also offers interesting information: "The website provides information in an intelligible and reliable way about any matters related to the subject of copyright. It has been created as part of the Future of Copyright project financed by the Trust for Civil Society in Central and Eastern Europe. The Modern Poland Foundation does its best to make this website a source of information on vital developments related to copyright reform. It provides the latest news, opinions and reports as well as the positions of the Foundation resulting from public consultations on copyright issues"²⁰.

Some Competence Centres also compile similar literature. For instance, the National Institute for Museums and Public Collections is very active in this

¹⁸ Publications of the Open Education Coalition (KOED) on open access. KOED Warsaw [online], [accessed: 24.10.2016]. Available in WWW: http://koed.org.pl/pl/materialy/publikacje-koed-o-otwartosci/.

¹⁹Centrum Cyfrowe. Czytelnia [Reading Room] [online], [accessed: 24.10.2016]. Available in WWW: https://centrum.cyfrowe.pl/czytelnia/.

²⁰ Modern Poland Foundation. Prawokultury.pl. About us [online], [accessed: 14.11.2016]. Available in WWW: http://prawokultury.pl/.

area. On its website, (http://digitalizacja.nimoz.pl/) it provides handbooks, guidelines, legal regulations, dates for training courses, recommendations etc. In a nutshell, all a digitisation professional needs to know.

PROBLEMS RELATED TO THE USE OF DIGITAL LIBRARY RESOURCES

Polish digital resources are relatively widely used, with millions of views of particular web pages annually. Users report their problems directly to the service providers. Problems with the DjVu file format, selected years ago due to its compression capacity, are among the most frequent. To view such files, users often have to install special plug-ins on their computers; however, certain browsers do not accept them. Consequently, many institutions have opted for creating PDF files, even though these can sometimes get very large, which represents another challenge. On the websites, librarians and IT specialists provide instructions on how to view DjVu files. An example of this is the PCSS handbook²¹, or the one available from the Maria Curie-Skłodowska University in Lublin (UMCS) website: "The UMCS Digital Library has introduced a test mechanism to view objects in DjVu format without installing any additional plug-ins. To check whether it works correctly, select any object in DjVu format and choose 'DJVU — HTML5' from the list of viewing options"²².

The dLibra software also causes numerous technical issues, as indicated by constant consultations regarding this topic on the Federation's discussion websites (http://fbc.pionier.net.pl/qa/index.php/questions). IT specialists from the PCSS try to respond to queries on an on-going basis, without, however, always achieving a 100% success rate.

Some of the most frequently reported problems concern resource browsing, as the current features do not always provide optimum support to users, search bots, or librarians. Since the Polish library network does not develop any common model records or thesauruses, each institution uses its own key words, which creates incoherence at the Federation level. This problem was spotted at a relatively early stage²³ and discussed on multiple occasions; however, no funds have yet been obtained to solve it.

²¹ Poznań Supercomputing and Networking Centre. Digital Library Federation. Instructions on how to view DjVu files. [online], [accessed: 24.10.2016]. Available in WWW: https://confluence.man. poznan.pl/community/pages/viewpage.action?pageId=47024412>.

²² UMCS Digital Library. News. View DjVu files without installing any plug-ins! [online], [accessed: 24.10.2016]. Available in WWW: http://dlibra.umcs.lublin.pl/dlibra/news?news=full#5d8a42f8-cbbf-4b8b-8fbb-d1fbd4268686>.

²³ A. Seidel-Grzesińska; K. Stanicka-Brzezicka (2009). *Tezaurus dziedzictwa kulturowego. Prezentacja narzędzia wspomagającego tworzenie i wykorzystanie baz danych* [National Heritage Thesaurus. Demonstration of a tool to support the creation and use of databases][online]. Presentation from the "Polskie Biblioteki Cyfrowe" [Polish Digital Libraries] Conference. [accessed: 24.10.2016]. Available in WWW: <http://lib.psnc.pl/dlibra/docmetadata?id=219>.

Another issue is the standardisation of bibliographic descriptions for electronic documents. Despite using the common Dublin Core Schema to describe electronic documents in nearly all centres, in practice the description methodology in particular metadata fields is far from uniform. The contents of description fields vary greatly. One example of this is the variety of entries found in the RIGHTS fields. Each institution fills these fields with different contents. These are sample descriptions of contemporary copyright protected objects from KPBC, POLONA and WBC:

KPBC:

Rights: *All rights reserved.* Copyright owner: *Górski, Wacław.* Licence: *UMK licence.* Access rights: Everyone, within the limits of permitted use.

Polona:

Rights: Publication made available with publisher's consent. None of its parts can be processed or used for commercial purposes.

WBC

Rights to the publication: *Library of the Poznań University of Technology* Copyright owner: Library of the Poznań University of Technology

Not only do such discrepancies make browsing harder, but they also hinder scientific research. Based on FBC metadata, the Nicolaus Copernicus University in Toruń carried out a study within the project of the National Science Centre (NCN) entitled "Information Visualization methods in digital knowledge structure and dynamics study". The project was managed by Veslawa Osińska, PhD, and analysed the development of the humanities and social science in Poland using the visualization methodology (http://www.wizualizacjanauki.umk.pl/pl/#o_projekcie). Unfortunately, the authors were obliged to discuss issues resulting from such arbitrariness and lack of coherence in bibliographic descriptions, which they subsequently analysed²⁴.

²⁴ V. Osińska; P. Malak; B. Bednarek-Michalska: Badanie struktury i dynamiki zasobów cyfrowej wiedzy przy pomocy metod wizualizacji – projekt realizowany na UMK [Information Visualization methods in digital knowledge structure and dynamics study. A Project of the Nicolaus Copernicus University in Toruń]. In: Humanistyka Cyfrowa. Badanie tekstów, obrazów i dźwięku. Lublin e-naukowiec.eu 2016. [Digital Humanities. Studies on Text, Image and Sound. Lublin e-naukowiec. eu 2016.] Radosław Bomba, Andrzej Radomski, Ewa Solska (eds.) [online], pp. 8-18 [accessed: 24.10.2016]. Available in WWW: http://e-naukowiec.eu/wp-content/uploads/2016/05/Humanisty-ka_cyfrowa.pdf>.

POLISH RESEARCH REPOSITORIES (RR) AND EVOLUTION DYNAMICS

The process of creating Polish research repositories evolved in a slightly different manner than that of digital libraries. It was closely connected with the Open Access Movement in research, first discussed in the Polish specialised press in 2005²⁵, right after the Budapest Open Access Initiative was signed²⁶. However, the history of this movement in Poland dates back to as early as the 1990s (http://uwolnijnauke.pl/ kalendarium-oa-w-polsce/), when researchers launched the first Polish journals available online. These were bottom-up initiatives stemming strictly from the needs of the researchers' community, uncoordinated and lacking government funding. As a result of such initiatives, in 2004, 13 Polish open access journals were listed in the Directory of Open Access Journals (DOAJ), and the Central Library of the Nicolaus Copernicus University in Toruń began to cooperate with DOAJ. Librarians from Toruń verified Polish open access journals and promoted the OA movement in our country. That very year, Poland became one of the 34 countries to sign the OECD Declaration on Access to Research Data from Public Funding (http://www.oecd.org/science/ sci-tech/sciencetechnologyandinnovationforthe21stcenturymeetingoftheoecdcommitteeforscientificandtechnologicalpolicyatministeriallevel29-30january2004-finalcommunique.htm). However, this did not mean that the government took any legal, organisational or political action. This did not happen until years later.

At the beginning of the present century, there was virtually no information available about open science in Poland. It took years for this idea to reach the scientific community. This was largely due to the efforts of prof. Marek Niezgódka from the Interdisciplinary Centre for Mathematical and Computational Modelling at the University of Warsaw (ICM UW), who has been successfully promoting open access both within the scientific community and in public administration circles²⁷. In 2003, ICM UW formally signed the Berlin Declaration (https://openaccess.mpg.de/ Berlin-Declaration).

²⁵ *Biuletyn EBIB* [Electronic Library Newsletter] [online], issue 2 (63); [accessed: 24.10.2016]. Available online: http://www.ebib.pl/2005/63/index.php. ISSN 1507-7187>.

²⁶ *The Budapest Open Access Initiative* [online], [accessed: 10.01.2005]. Available online: http://www.soros.org/openaccess/.

²⁷ M. Niezgódka (2007). *Projekt DIR jako przykład praktycznej realizacji idei Open Access*. [The DIR Project: An Example of Practical Implementation of the Open Access Idea]. In: *IV Ogólnopolska Konferencja EBIB Internet w bibliotekach Open Access*. [The 6th Polish EBIB Conference on the Internet in Open Access Libraries]. *Toruń, 7-8.12.2007. EBIB Materiały konferencyjne* [EBIB Conference Proceedings] [on-line], issue 18, [accessed: 02.01.2017]. Available in WWW: http://ebib.pl/publikacje/matkonf/mat18/niezgodka.php.

Academic librarians were the first to find out about the Open Access Movement and started to regularly discuss the idea²⁸: "The Open Access tradition takes its origin from the experience of building the first ever open archives of electronic documents (e-prints) called Open Archives. They were to accelerate the flow of information between scientists, especially in the fields of mathematics, physics, IT, medicine and chemistry. Their main objective was to provide open, free of charge and, most importantly, quick access to knowledge. Such archives started to dynamically develop in the U.S. and in Western Europe. Today, the Open Archives idea is pursued by an initiative officially known as Open Access (OA). Its main purpose is to create electronic archives, to publish research outcomes more economically and to make them freely available online. Finally, it also aims to develop and promote public awareness in this field"²⁹.

In the years 2006 and 2007, librarians organised the first open access seminar (in Poznań)³⁰ and conference (in Toruń) in Poland; one year later, as a result of these sessions, the Open Education Coalition was formed (http://koed.org.pl/pl/) (2008). This influential organisation brings together communities interested in the open access idea, not only in the sciences, but also in culture and education. This greatly expedited the promotion of the open science idea. Its sessions brought together people who were ready to take the time to promote open access models, among other things by studying foreign literature and working with institutions from other countries.

Up to approximately 2015, the main goal of the movement was to create open repositories of scientific papers; then, its priorities shifted towards open research data. Research repositories started to emerge in Poland in 2006. The first one was the PCSS Institutional Repository, followed by the first international ECNIS repository, established in 2007 within the 6th EU Framework Programme by the Scientific Library of the Occupational Medicine Institute in Łódź, and by the Adam Mickiewicz University Repository (AMUR), set up by librarians of this university. This is the list of the earliest Polish repositories collecting the research papers of university academics and openly disseminating them:

²⁸ See: *Biuletyn EBIB* [Electronic Library Newsletter] (2005) issue 73 on open access [online], [accessed: 02.01.2017]. Available in WWW: http://www.ebib.pl/2005/63/>.

²⁹B. Bednarek-Michalska, *Wolny dostęp do informacji i wiedzy czy wykluczenie edukacyjne*? [Free access to information and knowledge or educational exclusion?] *Biuletyn EBIB* [Electronic Library News-letter] [online], issue 2 (63); [accessed: 02.01.2017]. Available in WWW: http://www.ebib.pl/2005/63/michalska.php.

³⁰ The first open access workshop in Poland: *eIFL Open Access Workshop 21 September 2006,* Poznań. Organised by: Poznań Scientific Library Foundation, Poznań University of Technology, EIFL. (Jan Nikisch). [online], [accessed: 02.01.2017]. Available in WWW: http://www.pfsl.poznan.pl/oa/>.

- 1. PCSS Poznań Supercomputing and Networking Centre 2006
- 2. ECNIS Occupational Medicine Institute in Łódź 2007
- 3. ENY Wrocław University of Technology 2008
- 4. AMUR Adam Mickiewicz University, Poznań 2010
- 5. CEON ICM Repository of the Centre for Open Science 2011
- 6. RUMAK Nicolaus Copernicus University in Toruń 2012
- 7. RUW University of Warsaw 2012

ICM UW became the coordinator of research repositories for the entire country. Up to this day, they have been running the CEON aggregator (http://agregator.ceon.pl/), a tool for browsing 19 Polish repositories (data as of December 2016). However, not all Polish institutions have joined this network.

The Open Education Coalition reported in its open science portal "Uwolnij Naukę" [Free the Science] that in 2016, 31 repositories were active in Poland (http://uwolnijnauke.pl/baza-wiedzy/). The repositories are visible in FBC and can be browsed along with digital libraries from a sole location (http://fbc.pionier.net.pl/pro/zrodla/#listsheader).

2010 was the most dynamic year in terms of the number of open access initiatives, not only in Poland, but also globally. This was due not only to the impressive efforts of hundreds of Open Access Movement activists who established respectable and influential organisations, but also to leading decisions by the U.S. government which encouraged others to step up their efforts. In 2010, the number of events and debates held in Poland testified to the maturity and informed development of this scientific communication system. The Open Education Coalition coordinated a host of events, inspired further initiatives, and influenced the decisions of ministries for whom they prepared expert opinions. This successfully translated into tangible results such as new guidelines, centres, seminars, workshops, journals, repositories, debates, opinions etc.

The last five years (2011-2016) have seen the further involvement of hundreds of people in Poland, with regular serial events, as well as the engagement of research institutions which officially work in this area through initiatives such as the Open Education Coalition³¹ (37 organisations), or through working groups cooperating with the Ministry of Science and Higher Education. The OA Calendar in Poland, made available by the Coalition³², provides information on all relevant events in this area. Hence, Poland is well positioned to make progress, but works in this area have not been completed yet, and the process of publishing the latest research outcomes is by no means easy.

³¹Open Education Coalition. Members [online]. [accessed: 29.11.2016]. Available in WWW: http://koed.org.pl/pl/o-koalicji/czlonkowie/.

³² *Uwolnij Naukę*. [Free The Science]. *Kalendarium OA w Polsce* [OA Calendar in Poland] [online]. [accessed: 29.11.2016]. Available in WWW: http://uwolnijnauke.pl/kalendarium-oa-w-polsce.

PROBLEMS WITH THE CREATION OF RESEARCH REPOSITORIES (RR) IN POLAND

The problems related to building open research repositories have differed from the ones faced by digital libraries. The main obstacles for their creation were not standards or technologies, since these existed and were well established in many foreign institutions, but mostly the awareness among the Polish scientific community of how important it was to openly spread research outcomes. Academics were not convinced of the benefits of such dissemination, often creating barriers. On top of that, back in 2006 there were no systemic incentives from the public administration, nor were there any respective national strategies. All the actual initiatives came either from IT specialists from institutions such as PCSS or ICM, or from academic librarians, who having utilised the resources of global research archives such as arXiv in Los Alamos, U.S.A., were aware of their value and knew they represented the future of research communication. They also studied the methodology of creating such resources.

At an early stage of designing research repositories, the relevant copyright issues were defined too. However, these differed from the ones faced by digital libraries, since they concerned contemporary work diffused by the authors themselves; therefore, new publication models, acceptable for the authors, needed to be defined, along with technologies to support such processes. The Open Access Movement soon commonly adopted the free Creative Commons licences developed by Lawrence Lessing³³, together with the rules for their transposition into national laws. In Poland, the major problems were gaps in knowledge about these licences as well as the inability to influence legislation. It took the librarians many years to learn about copyright regulations and alternative licences, so that they could subsequently share this knowledge with academics, so as to launch the repositories with all legal safeguards in place. Since 2005, the Creative Commons Polska NGO, managed by Alek Tarkowski, PhD, and Justyna Hofmokl, PhD, has been providing support in this area.

The open repositories had never been receiving suitable funding, as they were set up by the respective universities which covered their operating costs, with some exceptions such as the RCIN repository of the Polish Academy of Sciences (PAN), which was financed from EU funds right from the start. However, the very concept of this repository differed greatly from the ones created elsewhere in the world, since it shared scans of older journals and research papers from various PAN institutes rather than creating fully open resources. Today, the Ministry of Science and Higher Education offers fund-

³³ L. Lessig (2004). *Free Culture: How Big Media Uses Technology and the Law to Lock Down Culture and Control Creativity.* New York: The Penguin Press.

ing from the "Dissemination of Science" funding strand, but applying for it is not always effective. Irrespective of any financial issues, there is no doubt that all this funding comes from the Polish taxpayers, though through diverse channels. However, maintaining a repository is inexpensive, especially if it is based on freely available open source technologies. Therefore, numerous universities have decided to establish their own RRs by their own means.

At its early stage, the worldwide repository network proved highly controversial among scientific publishers. Such concerns were also raised in Poland. The publishers believed open publications would completely ruin their business. Therefore, they offered strong resistance and lobbied against the open access idea, with major publishing houses such as Elsevier, Emerald, Wiley, Springer and others in the lead. However, as unrelenting economic analyses shed light on their monopolistic practices towards universities³⁴, the academic institutions, unable to freely negotiate their terms, revolted against them. With the unvielding attitude of prominent researchers, including Nobel Prize winners³⁵, as well as open science advocates such as SPARC or Welcome Trust, publishers relaxed their approach over time and decided to give such new and innovative models a chance. To date, many of them have come up with their own free publishing options. Furthermore, the Open Access Scholarly Publishers Association (OASPA) was launched to bring together major institutions offering alternative models of scientific publishing.

PROBLEMS WITH THE OPERATION OF RRS

Poland has had its official open access policy since 2015³⁶. Its implementation depends on autonomous authorities at each university, which seems to slow down the process; however, it is adhered to and supports librarians, who now have the backing of an official government document. Very few academic institutions in Poland have defined their internal open access policies, which is an important practice at some of the American³⁷ and

³⁴ Wellcome Trust (2003). *Economic Analysis of Scientific Research Publishing:* A Report Commissioned by the Wellcome Trust. Histon, Cambridgeshire: SQW Limited [online]. January, [accessed: 02.01.2017]. Available in WWW: https://wellcome.ac.uk/sites/default/files/wtd003182_0.pdf>.

³⁵ The U.S. House of Representatives Subcommittee on Investigations and Oversight conducted a hearing on the topic "Examining Public Access and Scholarly Publication Interests." An Open Letter to the U.S. Congress Signed by 52 Nobel Prize Winners [online], p. 138. [accessed: 02.01.2017]. Available in WWW: https://www.gpo.gov/fdsys/pkg/CHRG-112hhrg73607/pdf/CHRG-112hhrg73607.pdf>.

³⁶ Kierunki rozwoju otwartego dostępu do treści naukowych w Polsce [Development Directions of Open Access Research Contents in Poland] (2015) [online], [accessed: 02.01.2017]. Available in WWW: <http://www.nauka.gov.pl/konsultacje/konsultacje-projektu-kierunkow-rozwoju-otwartego-do-stepu-do-tresci-naukowych-w-polsce.html>.

³⁷ Harvard University. Open Access Policies [online], [accessed: 02.01.2017]. Available in WWW: https://osc.hul.harvard.edu/policies/>.

Western European universities. The Registry of Open Access Repository Mandates and Policies (ROARMAP) contains 587 drafts of such policies submitted by research institutions (http://roarmap.eprints.org/). An internal policy approved by the university senate would impose certain obligations on members of the staff and clarify the rules on creating such resources. Due to this gap, organisational issues relating to the operation of repositories abound.

At present, the maintenance of a repository should not pose any problems. It is usually performed by librarians and IT specialists in very much the same way as they used to perform the maintenance of bibliographic databases listing publications of university academics in the past. Today, this task also involves adding metadata to digital files, with the consent of authors and sometimes also of publishers. On top of that, an increasing number of CRIS tools (current research information systems) are developed in Poland, mainly by the Universities of Technology in Warsaw (OMEGA PSIR)³⁸, Wrocław (e-science)³⁹, and Gdańsk (MOST), which also include storage mechanisms adapted to several types of scientific data, both publications and raw research data. From the technological point of view, these may be solutions that will find applications in the nearest future due to the research management features they offer. Many librarians are already testing such platforms.

Issues with publishers have not been fully resolved yet, especially in Poland⁴⁰, even though publishing companies are aware that building digital archives at universities is unavoidable, and that the economic models from the past need to be changed.

PROBLEMS RELATED TO THE USE OF RESEARCH REPOSITORY RESOURCES

A major issue related to the use of all resources stored by the Polish repositories is that there is no single location where such resources could be browsed or where the actual number of Polish repositories could be verified. Even though ICM has developed its aggregator, it does not list all the

³⁸ O. Giwer; M. Lewandowska-Tranda; M. Miller-Jankowska (2014). *Baza Wiedzy Politechniki Warszawskiej. Współudział Biblioteki Głównej w tworzeniu repozytorium uczelni.* [Knowledge Base of the Warsaw University of Technology. Contribution of the Central Library to the University Repository]. Gdańsk, *Konferencja Infobazy* [Infobazy Conference] [online]. [accessed: 04.01.2017]. Available in WWW: <http://www.infobazy.gda.pl/2014/?ns=program>.

³⁹ U. Małecka (2016). *Platforma e-science.pl — dedykowana polskim naukowcom*. [The e-science.pl platform dedicated to Polish researchers]. *Biuletyn EBIB* [Electronic Library Newsletter] [online] issue 8 (170); [accessed: 02.01.2017]. Available in WWW: http://open.ebib.pl/ojs/index.php/ebib/article/view/493. ISSN 1507-7187>.

⁴⁰ *Stanowisko PIK ws. OD – Polska Izba Książki* [Position of the Polish Chamber of Books on Open Access][online]. [accessed: 02.01.2017]. Available in WWW: <pik.org.pl/upload/files/MniSW_stanowisko_PIK_ws_OD.pdf>.

repositories; while FBC covers all of them, it fails to show statistics for each and every repository. On top of that, more and more platforms with information on publications emerge, such as the POL-on government system, which includes the Polish Scholarly Bibliography (https://pbn.nauka.gov. pl/), or the Infona portal (https://www.infona.pl/). This negatively affects the integration of research information and undermines the prestige of repositories among the researchers' community.

The Polish research repositories fail to provide a comprehensive spectrum of contemporary scientific publications, sharing only a limited part of these, as authors, who are not obliged to archive and disseminate their papers, often fail to do so. Therefore, the percentage of all Polish publications is small (no statistical information in this respect is available)⁴¹.

The quality of the metadata and files is also an issue, as they are uploaded by the authors themselves. Librarians use their best efforts to ensure proper quality of the objects, but on their servers they often receive objects unprofessionally scanned by their authors, which hinders further processing. Therefore, they often leave the scans with the same quality they were deposited with.

Another problem is that many Polish repositories upload bare metadata without the corresponding digital files, because librarians tend to export them to the repositories from bibliographies and only gradually start adding the files as they obtain the required copyright consents. In such repositories, the files are often available, but only at the premises of the respective institutions. Both cases are manifestly contrary to the principles of building open repositories.

Yet another problem is government policy and the discretionary character of archiving research outcomes in full-text versions. There is nothing beyond some recommendations and regulations that only add complexity to this picture, like the Regulation of the Minister of Science and Higher Education on the availability of PhD dissertations⁴² (§ 7.3. In the notifications and in the announcement, the storage place of the PhD dissertation shall also be provided, so that any interested person can consult it, along with a notice on the publication of the dissertation abstract and its reviews on the website of the academic institution or the organisational unit where the PhD title was obtained.) Neither the POL-on system of information on higher education nor institutional repositories are mentioned in the Regulation as places where PhD theses shall be deposited.

⁴¹ Some data can be found on the FBC list [online], [accessed: 02.01.2017]. Available in WWW: http://fbc.pionier.net.pl/pro/zrodla/#listsheader>.

⁴² Regulation of 26 September 2016 on the specific procedure and conditions for pursuing doctoral dissertations, the habilitation procedure and the conferment of the academic title of professor. [online]. [accessed: 02.01.2017]. Available in WWW: http://www.bip.nauka.gov.pl/g2/oryginal/2016_10/0753f-fa1b4c82186d82bc85eb6b59661.pdf>.

CONCLUSION

Due to the limited size of this article, we have had to omit many problems which may have provided vital insights into the area of digital libraries and research repositories, and which were dealt with by librarians, IT specialists, and researchers who took on the task of creating digital resources for Poland. The topics mentioned here could not be discussed in full either, as the histories of many projects were often complicated, long, and largely unsuccessful... whether the issue was to pursue lobbying activities at the government level, to promote digital resources within Polish society, or to persuade IT specialists that librarians required complex technologies and not just simple databases. Even though some projects were unsuccessful, the overall result is largely positive. Poland has now attained well-known and abundant digital library and research repository networks. Important digitisation projects have also been pursued outside of these projects (by archives, museums, private collections, and within initiatives such as Fonoteka or Ninateka). The number of digitised objects has reached millions, not thousands, which means Poland is no longer a digitisation "wasteland", even though it is not a leader in this area either.

Poland is reproducing what leading European and American institutions did in the past, implementing organisational models developed elsewhere rather than developing original solutions. This, however, does not have to be a negative thing, as it can be seen as an advantage and a cost optimisation effort. Nevertheless, our country badly needs strong institutions which would provide models to be followed by smaller digitisation centres, contribute to the development of technologies and standards for Europe, participate in major projects, suggest innovations and build top-level professional networks. Since all this is still to come, let us hope the next generation will be bolder and more creative than ours. This is a future which seems to be the only optimum solution for Poland.

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CHANGING THE PARADIGM OF ACQUISITION AND CATALOGING IN POLISH RESEARCH LIBRARIES. THE IMPACT OF NEW INFORMATION TECHNOLOGY



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KEYWORDS: Information technologies. Building collections. Cataloguing collections. Computerization of libraries. Collection management. Access to databases. Hybrid library. Shared cataloguing. Cooperation of libraries.

ABSTRACT: **Thesis/purpose of the article** – the purpose of this article is to present the impact of new information technologies on building and cataloguing library resources, and the ways modern research libraries have been functioning in the last 25 years. **Methods** – the analysis presented in the article is based on a thorough review of the literature, including conference proceedings, reports documenting the activities of research libraries, a study of statistical data illustrating changes in library holdings as well the author's own knowledge and expertise acquired in the course of her work at the Jagiellonian Library and in cooperation with other libraries. **Results / conclusions** – the dissemination and implementation of new information technology has resulted in libraries

starting to work in a hybrid model. Using modern tools they support both analogue and digital data as well metadata. Librarians, analysing the use of resources offered to users, favour to an increasing extent an access library model. The creation and development of this hybrid information environment has resulted in a wide cooperation of librarians that seems to facilitate meeting the coming challenges and changes in the way libraries will function in 21st century, where an important part will most likely be played by the further development of information technology.

INTRODUCTION

The rapid pace in the development of information technology, serving mainly the modern processing of information, demonstrates the great value that lies in information in the contemporary world – its acquisition, collection, processing, storage, protection, management, presentation and communication to stakeholders. The term "information technology" covers a whole array of technical means (computer hardware, telecommunication networks, software) as well as tools and methods for data processing. Its intensive development resulted, among other things, firstly from the dissemination of microcomputers in the late 1980s and 1990s, and then from the development of the Internet. For Poland, November 20, 1990 – the date of the first email sent there – is regarded as the beginning of the Internet era (Malik, 2011).

These phenomena changed the world not only for information specialists or for a general public, but also, and to a great extent, for the libraries. The computerisation of library processes is considered to mark a new era in libraries. As Karwasiński states, "the year 1992, or the date of implementation of the first VTLS integrated library system, is argued to be the beginning of the computerisation of research libraries in Poland, consisting of automating routine operations and services" (2015, p. 160). It meant that libraries were faced with a great many new possibilities, a new information space to be developed, a new bibliographic space to be worked out. It is emphasized by a number authors, including Nahotko, that the use of computers and wide area networks "changed almost everything: the format of information, the speed of its creation, delivery and distribution, as well as the needs and expectations of users" (2010, p. 165). The intensity of these processes gradually led to the transformation of the library operation model to a hybrid one, especially evident in the case of academic, big research, and public libraries. In the new model, there is a coexistence and cooperation of data, metadata, information, traditional and electronic tools. For a library of the 21st century it is crucial to integrate its physical space with the virtual world.

HYBRID COLLECTION AND MANAGEMENT

Stock building has been one of the primary roles of any library, next to organising collections and lending them. Libraries have always been valued and evaluated based on the collections they hold (Schmidt, 2004). One of the objectives has been to collect a large number of publications, while also collecting several copies of the same publication ("multi-copies"), both when it comes to monographs and to sets of journals (Dabrowicz, 2015, p. 133). Now however, in the era of intensive information technology use, it should rather be said that one of the most important concerns of any library is the proper management of its collections - in a broad sense of the word. It should be, thus, assumed that properly organised collections or – to put it in more adequate and contemporary terms -properly organised access to the collections will be a decisive factor of a functional library (Dabrowicz, 2015, p. 129). Clearly, that has changed the model of development for library holdings – from the one used so far, the not-quite-economical "just-in-case" model, to a "just-in-time" model using the latest technologies to provide the user with access to a desired publication (Piotrowicz, 2006, p. 252). That brings subscription databases into the picture. Managing a subscribed collection includes testing the interest in a database that one is planning to buy, and monitoring the use of a database by users, which has a significant impact on the continuation or discontinuation of its subscription.

Today, the building of library resources is done in both analogue and digital environments, with libraries becoming consequently more and more hybrid in character. In such libraries there are analogue resources as well as resources and metadata in electronic form coexisting, and additionally there are databases available that are located on remote platforms. Although printed types of resources still prevail among holdings acquired by a library, the number of electronic resources is constantly increasing. This includes electronic materials on physical carriers (CD-ROM, DVD, memory stick), as well as resources born digital, obtained from publishers in the form of files. This trend can be clearly observed in the numbers of electronic documents acquired by the National Library (Biblioteka Narodowa – BN) in the framework of the legal deposit¹. In 2010 there were 32,432 electronic documents acquired, and in 2015 almost twice as many (50,243), while the number of documents at the end

¹According to the Regulation of the Minister of Culture and Arts of March 6, 1997 on the list of libraries entitled to receive legal deposit copies of individual types of publications and the rules of their submission (OJ 1997 No. 29, item. 161), the right to legal deposit of audiovisual and electronic documents in Poland is held by two libraries: the Jagiellonian Library and the National Library.

of 2015 amounted to a total of 236,144 items (Sprawozdanie BN, 2010; 2015). In the Jagiellonian Library (Biblioteka Jagielońska – BJ), a collection of monographs and serials born digital included, at the end of 2016, 10,360 items, while the number of inventoried electronic documents amounted altogether to 24,192 items.

The hybrid character of the library holdings was also influenced by the possibility of a modern use of collections acquired earlier. A number of libraries who possess primary, often unique, source materials are now taking advantage of the possibility of their digitalisation, acquiring their digital copies and, of course, broadly sharing them (Schmidt, 2004). The portal of the Digital Libraries Federation (Federacja Bibliotek Cyfrowych – FBC) – an internet service whose aim is to collect, process and share information about the holdings of Polish digital libraries available online – lists activities of 129 digital libraries (as of 13.01.2017), developed mostly by libraries. The total number of digital items collected and available through this portal is over 4.3 million, including 3.2 million via open access (FBC, 2017).

ACCESS LIBRARY MODEL

The intensive development of information technology at the end of the last century, new publication formats (electronic journals and books, multimedia, databases), and political changes in Poland led to, among other things, an increase in Polish publishing of traditional books, an intensive development of the press market, and a lack of difficulty (apart from financial) in accessing foreign literature. Consequently, librarians realised that Polish libraries must leave the model of the "resource" library and implement the model of the "access" library, as well as introduce a strategic method for preselection and selection processes (Dabrowicz, 2015, p. 133). Consequently, libraries have experienced two clear changes. First of all there was a clear shift of focus from having large holdings of their own to organising access to remote resources. Modern technologies enable connections with remote data sources, so that a library does not have to rely only its own holdings (Grygorowicz, 2005). Second, a shift from a printed form to an electronic version occurred. Both changes can be well illustrated by the case of subscriptions to foreign journals. It has been a common action among academic libraries to limit the number of printed foreign journals and instead offer access to e-journals. This started with a move away from subscribing to printed journals, at first only from those that had parallel e-versions, but gradually towards primarily acquiring journals available online. In 2000 there were 833 printed titles of foreign journals in the Jagiellonian Library, six years later only 621 titles; in 2007, 330 titles; in 210, 320 titles; in 2015, 227; and finally, in 2016, only 160 titles. The opposite trend can be observed in the case of subscriptions to databases. The Jagiellonian Library acquired its first database on a CD-ROM (Humanities Index) in May 1992, and in 1994 it already offered eight databases to users. The first database available online via telnet through the Jagiellonian Library was SwetsScan in 1995. As the years passed by, subsequent subscribed databases were added to the library's information environment: full-text, factographic, bibliographic and abstract databases, all located on remote platforms to which access was provided by the Jagiellonian Library within the domain of the Jagiellonian University (UJ) and via extranet. In 2004, the Jagiellonian Library had already subscribed to 17 databases, and in 2016 there were 81 databases available in the UJ domain (which facilitated access to 186,356 e-books and 59,685 e-journals, while 908,402 user sessions and 1,216,707 downloads were registered) (OGR, 2016).

A similar tendency can be observed in other libraries. For example, in the University Library in Toruń (BUMK) there were 731 printed titles of foreign journals in 2004, but in 2007 only 298, in 2010, 165, and in 2015, 223. Parallel to this, 69 subscribed databases made 38,392 titles available online (Sprawozdania, 2004, 2007, 2010, 2015). In the University Library in Poznan (BUAM) there were 725 printed foreign journals subscribed to in 2004, in 2005 there were only 682, and in 2015, 365 – at the same time the Library provided access to 240,798 e-journals via subscribed databases and open access (Jazdon, 2004, 2005, 2015).

Access to the databases is possible 24/7, from a user's computer at home or wherever else, after proper authorization. A great advantage of this kind of data source is the facility of search and selection of obtained information, the ease of downloading data, and the possibility of checking the number of quotations or the value of the Hirsch index. The University of Warsaw Library (BUW) has one of the richest offerings of databases among academic libraries, complementing the traditional resources offered on the spot in the library building – 146 subscribed databases making 203,373 e-books and 155,657 e-journals available (Biblioteka Uniwersytecka, 2015, p. 22).

PRESELECTION AND SELECTION OF MATERIALS

As mentioned above, libraries nowadays must engage in a process of careful preselection and selection of resources to be added to their holdings. Actions connected with the preselection of materials to be introduced into library holdings, as well as selections of resources already inventoried, have been undertaken in every library, even in the National Library and the Jagiellonian Library, which are legally obliged to collect and archive all Polish publishing production. It has to be admitted, however, that now it is done on a broader and more decisive scale. The preselection process in the BJ and the BN is mainly concerned with quantity, specifying which publications are to be stored in only one copy, and which should be stored in more copies. In other libraries that obtain legal deposit copies, preselection is conducted according mainly to quality criteria. For example, in 2015 in the BUAM the preselection of legal deposit copies was quite strict, with only 31.37% of copies being entered into registration (in 2014 it was 30.63%, in 2013, 29,9%). It has to be emphasized, however, that in terms of numbers, legal deposit copies were the most important source of acquisition (96%) – other sources include purchases, which encompass a large collection of e-books (Jazdon, 2015). The rules governing these actions are specified in the rules of acquisition and completion of holdings – now also often available online (BJ, Biblioteka Medyczna UJ CM, BN).

Selection of materials already registered into a library's holdings is conducted in all libraries. Even the BJ, which had never before withdrawn resources already registered in the inventory, had to formulate rules on the selection of resources and has appointed a selection committee (Zarządzenie nr 3, 2013). In the BUMK in 2015, there was a selection conducted in the multi-copy book collection: 107 titles were checked and 608 volumes were withdrawn from the inventory (Sprawozdanie za rok 2015). In the BGUAM in 2015, a large selection process was begun, mostly regarding journals that are archived in an electronic version, as well as publications not belonging to the library's profile and not used in practice due to, for example, the language of the publication (Jazdon, 2015). In general, the following crucial criteria used to decide on the withdrawal of documents from a library are termed: "over-read", outdated, more copies than needed, not compatible with a library's process, or in bad physical state (Gębołyś, 2012, p. 24).

THE RELATION BETWEEN ANALOGUE AND ELECTRONIC RESOURCES

In the past, the ratio of books to serials in a library collection was an indicator used to evaluate a library. However, as collecting and organising access to electronic holdings began in Polish libraries at the end of the 20th century, and as the trend has continued also into the 21st century, it would be more proper to analyse the ratio of the number of printed materials to e-materials, as proposed by Schmidt (2004, p. 376). The Jagiellonian Digital Library, at the end of 2016, provided access to 306,552 items of digitalised materials. If 246,041 items of licensed e-holdings purchased by the BJ, and 24,192 items of e-holdings inventoried were added, then the number which would made up 10.14% of the total number of both volumes and items acquired and traditional holdings (5,685,057 volumes and items). One can also make a comparison between the ongoing influx of traditional and electronic materials. The increase in the number of traditional resources in the Jagiellonian Library in 2016 amounted to 127,739 volumes and items, while the number of electronic resources (both stored and available through remote access) was raised by 39,870 items, thus constituting 31.2% of the traditional resources' increase (Zbiory biblioteczne UJ, 2016). Comparisons for other selected libraries is presented in Table 1.

Table 1

Library	Online databases	Books availa- ble in online databases % traditional holdings	Printed books	Titles of journals available in online databases	Titles of printed journals collected continuously % online
Jagiellonian Library	86	189 315 7,2%	2 620 534	58 036	9236 15,9 %
University of Warsaw Library	146	203 373 9,8 %	2 068 743	155 657	5966 3,8 %
Library of the University of Gdansk	12	3 083 655 287,9 %	1 070 884	142 597	2 636 1,8%
Poznań University Library	30	142 795 8,4 %	1 693 512	240 798	2955 1,2 %
University Library in Toruń	69	166 228 12,3 %	1.344.297	38 392	8838 23,02 %
Main Library of Warsaw University of Technology	149	159 702 18,3 %	871 469	8 357	1117 13,3 %
Library of the Zielona Góra University	54	37 799 7,5 %	501 098	7147	1299 18,1 %

Printed and electronic resources in selected libraries

Source: author's compilation based on annual reports for 2015 available on library websites.

METHODOLOGY AND TOOLS OF ACQUISITION

The development of new technologies has also changed the methodologies and tools for acquiring resources. One of the signs of the impact of computerisation on the processes of collection development is the replacement of printed sources of information about a book by electronic resources available online. The BJ withdrew expensive reference publications, usually obtained as gifts from peer Western libraries (e.g. ISBN Directory, Ulrich's, Verzeichniss Lieferbarer Bücher), from the reference collection to the stack rooms (Dąbrowska, 2014). It is now publishers' catalogues available on the Internet or disseminated by e-mail, as well as their homepages, bookstores, or book wholesalers that facilitate purchasing books via the Internet. Moreover, the web directories of national libraries, union catalogues (NU-KAT, KaRo, KVK, WorldCat, the British Library, the Library of Congress, COPAC), newsletters offered by publishers' portals and bookshops, bookstores and publishers websites are commonly used to obtain information on new publications. The Bibliographic Guide – Poland's national bibliography registering monographs based on the legal deposits acquired by the National Library, and the main source of information about Polish publications – has been offered since 2009 as a PDF file (with 52 volumes a year); it is also made available in an updated bibliographic database. This does not, however, mean that libraries are no longer browsing offers of wholesalers who supply books to them, or visiting bookstores, who are after all in constant contact via e-mail and are sending offers of new books available. It has to be stressed that the traditional and modern tools of librarians are perfectly complementary. When making a decision regarding a purchase, physical, tactile contact with a book, which can be leafed through, is not to be underestimated when compared with reading descriptions and viewing a publication on a monitor screen (Bosacka, 2010, p. 96).

The changes described above also required establishing a new position in the library. The position of specialist in managing database subscription, whose role is to deal with electronic collections, their management, the proper selection and organization of access to electronic databases, monitoring compliance with licenses and agreements, cooperating with suppliers, and promoting and monitoring the use of resources bases (Dąbrowska, 2014).

To obtain more favourable contract terms and negotiate lower prices, libraries tend to cooperate and group themselves into consortia so that they can negotiate consortium licenses with suppliers, the purchase of which is supported by grants from the state budget. The state budget provides funds for purchasing national licenses that allow making scientific databases available, including those with collections of electronic journals. In 2017, all national licenses existing thus far will remain valid and available to all academic institutions in the country; this includes licenses for such databases as Elsevier, Wiley, Science, Nature, Springer, Scopus, Web of Science, and the EBSCO database (WBN, 2016). As noted by Dąbrowska (2014, p. 180), building traditional stock is based mainly on a library's own resources, whereas in the case of online resources the state's influence on the organization of access is visible: almost from the beginning, funding for the subscription of e-resources has come from external sources, either from state budget grants or earmarked subsidies from the budget of some other entity that had been providing additional funds for the subscription of databases.

Consequently, librarians have at their disposal information technology with tools that facilitate the conscious building of library holdings responding to the needs of users. Studying the use of resources has never been so easy For printed stocks, computer catalogues offer information about the most borrowed books, about books with long reservation lists, and about publications damaged or lost. That information informs decisions about purchasing new copies or subscribing to a database. Analysis of statistics on the usage of databases can be helpful in making decisions about what is collected, although usually this is not a decisive factor, as it could happen that a rarely used database is still subscribed to on account of the quality and uniqueness of its data (Cieraszewska, 2015). A library's portal has also become an important tool for building stock – it is where lists of new books, of items sought by the library, of duplicates for exchange, or of publications to be given out are published; it is also where users can find forms enabling them to suggest new purchases.

The very process of building stock was computerized using a variety of programmes, often before the implementation of integrated library systems. Surveys done by Dąbrowska in 25 academic libraries show that, while on the one hand, in 2013 18 libraries were using an acquisition module, two had such a plan, and only five did not intend to undertake this type of action, on the other hand, libraries were also using additional programs and databases for support, and sometimes traditional inventories as well. In 15 libraries there were no organisational changes, while in 10 libraries changes consisted in merging departments of collection development with collection processing, or separating out departments collecting journals and merging them with processing departments (Dąbrowska, 2014).

CHANGING THE PRACTICE OF CATALOGUING – FROM CARD CATALOGUE TO RELATIONAL DATABASE

The computerisation of large academic and research libraries was launched with the implementation of the main module of the integrated library system – a cataloguing module supported by authority files. Computer catalogues supported by integrated library software, , such as VTLS (now Virtua), Horizon, Aleph, and INNOPAC, were created to be modular and with parameterized functionalities. Although various libraries chose different library systems, for data recording, luckily, the same format – MARC 21 – was adopted. With the development of automated catalogues, librarians had to become familiar not only with new tools (computer, software, database), but also with the new structure of the catalogue, the concept of a bibliographic record, the notion of authority files, the concept of the data entry format – basically with a whole new philosophy of cataloguing.

This new philosophy of cataloguing means that the act of cataloguing is not only about preparing a bibliographic description, it is also about selecting an appropriate type of bibliographic record, introducing a part of the information in the form of codes, and indicating the relationship of a new bibliographic record with an authority file and other bibliographic records by copying appropriate access points. In other words, librarians have begun to create catalogue databases.

Computer catalogues or databases, though modelled on a card catalogue, have, however, a different data structure. While in a card catalogue a separate card is created usually for each copy of a book, in a catalogue database a bibliographic record becomes its basic element. They are a conceptual whole, which contains bibliographic information at a level sufficient to unambiguously identify a document being catalogued, together with its access points, allowing it to be located in a given database, as well as numbers and codes necessary for data processing. The data in a bibliographic record is so versatile that it represents the edition of a document and serves to identify all copies of that edition. Such versatility of the bibliographic record has enabled the downloading of ready descriptions from catalogues of other libraries, an option eagerly used by librarians. The individual features of a copy (number, location, etc.) are included in item records connected to a bibliographic record; the number of item records connected to a bibliographic record illustrates the number of copies of a given document in the possession of the library.

The era of card catalogues, created separately for each category of a document together with separate alphabetical and subject catalogues, came to an end. Now, in one catalogue database, supported by one authority file, bibliographic records are created containing the bibliographic descriptions and subject characteristics of all library resources. Descriptions in the catalogue include various types of documents – books, journals, sound recordings, sheet music, videos, cartography, iconography, documents of social life, old prints. In this period of hybridisation of library holdings, cataloguers have had to learn how to create bibliographic records for electronic materials that inherently contain different types of documents, databases, and other materials online, with limited and unlimited access. The cataloguer must decide how to select an appropriate description. In some cases one bibliographic record represents both a printed book and its electronic version one-to-one, or a digital copy of a book made in the library and placed in a digital library. A special note is added to the bibliographic record in such a case, and if the digital object is accessed remotely, an electronic address is also given. It could be said that one bibliographic record is drawn up for a hybrid resource, giving the bibliographic record a new versatile dimension. The data in the bibliographic record serves at the same time to provide information on the printed resource of the library, and to refer to the electronic version or the digital copy of the resource in the digital library, repository, or the Internet.

What is now being catalogued is both current new documents acquired by the library as well as old materials received by the library before the era of computerisation (re-cataloguing). The retrospective processing of materials is vital, as users generally believe that documents not listed in the computer catalogue are not available in the library's holdings. Furthermore, analogue materials are catalogued in the computer catalogue for digitalisation purposes; in such a situation a MARC 21 bibliographic record is converted to the Dublin Core format in a digital library with relevant data added. Librarians also draw up, in a variety of formats, metadata necessary to support an institutional repository. In the process of cataloguing, batch data processing is also quite crucial (e.g. nightly automatic uploading and processing of files in a local database, with new and corrected bibliographic and authority records, as well as developing and running scripts controlling the database).

THE AUTHORITY FILE

While headings on catalogue cards were unified only for a given library's holdings and its catalogue, building the authority file in a computer catalogue – defining unified forms of access points and matching the relationship between an authority heading and formats that have been rejected, thus enriching the search capabilities of the computer catalogue – meant an absolutely new quality to the library environment. Obviously, it meant also a challenge for the librarians, who needed to understand that the authority file is an extremely important element in constructing a catalogue database, conditioning access to bibliographic data, database consistency, efficient searching, and the exchange of bibliographic records.

Developing rules on creating authority files and norms concerning the form of headings, as well as the need to familiarise themselves with the format of the authority file and the computer creation of files has fundamentally changed the cataloguer's work. Nowadays, the process of cataloguing a new item starts with the preparation of a missing unified heading in the authority file, needed for the access point, and then the new heading is copied to a new bibliographic record. Authority headings, which define the unified version of an entry and its variants, are both versatile and reusable – the same unified heading can be an access point in various bibliographic records, in one or in a number of catalogue databases, and for different categories of materials.

In Poland in the mid-1990s there was no central authority file. Bearing in mind that introducing authority headings into one database and sharing it with other libraries eliminates unnecessary duplication of work (Paluszkiewicz 2008, p. 43), in 1993 four academic libraries using a common VTLS software (the Jagiellonian Library, the Main Library of the University of Gdansk (BGUG), the Main Library of the Academy of Mining and Metallurgy and the University of Warsaw Library (BUW)) established a joint authority file, transformed in 1996 into the Central Authority File (CKHW). It was located on a server belonging to the BUW, and for over half a year, because of the lack of full network connectivity, personal, corporate and subject heading records were transferred and uploaded from tapes.

In the early 1990s, VTLS libraries undertook a joint effort to create a new language for subject headings tailored to the requirements and possibilities of a computer catalogue. It was assumed that the diversity and detail of KABA² vocabulary, allowing detailed subject cataloguing, would be presented in the form of an authority file. "The development of the authority file for subject headings and linking it into a logical whole with the authority file for bibliographic description was a pioneering project on the scale of Polish librarianship" (Głowacka 1997, p. 7). The KABA language is compatible with LCSH³ and Rameau⁴ languages, and Polish-language headings have equivalents in French and English taken from these languages. With this solution, there is a possibility of "computer-aided translation of subject descriptions created for the documents in the catalogue and bibliographic systems that use LCSH and Rameau languages" (e. g. OCLC, BN-OPALE) (Głowacka 1997, p. 8). The next phase in developing a modern library started in 1995 with building a common database – the Central Journal Catalog (CKTCz) - on the BGUG's server (first with VTLS libraries involved, later joined by libraries using other systems).

UNION CATALOG

The extraordinary opportunity given by the joint work and network connectivity brought with it the concept of a union catalogue. This was built using a bottom-up approach in 1998, thanks to the initiative of academic

² KABA = Katalog Automatyczny Bibliotek Akademickich [Automatic Catalogue of Academic Libraries].

³LCSH = Library of Congress Subject Headings

⁴RAMEAU = Répertoire d'autorité-matière encyclopédique et alphabétique unifié

and research libraries gathered in groups according to the library system used - VTLS/Virtua or Horizon, and INNOPAC. At the beginning of the 21st century, in July 2002, the process of building a union catalogue, NUKAT, was started. It was based on a method of co-cataloguing created sources of prepared bibliographic and authority records. Thus, there was a qualitative difference between building an information system based on the holdings of Polish libraries available through the Internet (Burchard, 2005, p. 183), located throughout the whole of Poland, or even based in Rome or Paris. Earlier, CKHW (721,425 authority records) had been migrated to NUKAT, and in September 2002 bibliographic records from the CKTCz database (21,943 records) were uploaded. Thus, NUKAT also took over the functions of CKHW and CKTCz (Paluszkiewicz, 2008, p. 49). Data collected in NUKAT had been growing very rapidly – in 2008 there were already one million bibliographic descriptions, in 2011 more than 2 million, and in January 2015 already 3 million bibliographic records. Currently (01.12.2017), the NUKAT database contains 3,528,152 bibliographic records and 5,505,790 authority records. In the third year of its operation there were already 49 libraries engaged in its development; today NUKAT is co-created by more than 150 cooperating libraries and approximately 1,400 librarians.

NUKAT is now developed by libraries with different sets of profiles: university libraries, polytechnic libraries, libraries in fine arts academies, academies of music, and of physical education, as well as medical colleges, military colleges, institutes of the Polish Academy of Sciences, church institutions, public libraries, and many more. These libraries use different software (Aleph, EOS, Expertus, Horizon, INNOPAC, Koha, Mateusz, Patron, Prolib, Sowa, Symphony, Virtua). NUKAT bibliographic records include the names of libraries having a given document in its holdings, which are registered as hyperlinks directing a user to an appropriate local catalogue. One can then use the desired publication in a given library, or order it via the interlibrary loan. Publications available free of charge online can be reached by clicking on an appropriate link in the description in the NUKAT catalogue. Links to paid resources, subscribed to by the library (e-books, e-journals), can be found in local directories. Of course, in addition to bibliographic descriptions in NUKAT, CKHW is still co-created, ensuring the accuracy and uniformity of terms used in the descriptions of documents. In the descriptions of the NUKAT catalogue there are three languages used for subject headings – KABA⁵, JHP BN⁶, and a Polish language version of MeSH⁷.

⁵KABA Subject Headings.

⁶Subject Headings of the National Library.

⁷Medical Subject Headings.

The NUKAT catalogue contains an almost complete body of information about Polish publishing production since its inception. However, there are descriptions of documents issued before 2002 constantly being added as time saved, thanks to cooperative cataloguing, can be spent on retrospective cataloguing. In addition, in 2009-2013 the EU project "NUKAT – Digital Information Highway" was implemented, one of whose tasks was to merge local catalogues with a central one. Thanks to this operation, NUKAT was enriched by nearly 300,000 new records for publications issued before 2002.

Databases can be evaluated by two quantitative criteria: the number of bibliographic records and the number of locations, i.e. places where there are physical copies held by libraries (Jacquesson, 1999, p. 166). NUKAT now includes more than 3.5 million unique bibliographic records, and 14 million locations have been reported so far (from the copying of bibliographic records) – therefore, it could be roughly estimated that up to now at least 10,500,000 duplications of cataloguing operations were avoided. I say "at least" because in the local catalogues of individual libraries, one bibliographic record taken from NUKAT can cover more than one copy of a given document. One description serves on average four locations – saving, as a result, time needed to perform three cataloguing operations per one description entered. Descriptions of the latest materials, materials most frequently appearing in libraries, are reproduced in local catalogues repeatedly (30 times and more). It has to be emphasized that that cooperation with the union catalogue brings libraries noticeable monetary savings.

The statistics do not present data on copying authority records because a record copied once supports a given heading in all bibliographic records in which they are applied. The benefits of cooperative cataloguing has contributed, on the one hand, to the dynamic development of local catalogues, forcing libraries to change their method of organising their cataloguing work, while, on the other hand, it has led to breaking up libraries' isolation. "Every day about 1000 modified records and 250 authority records in files with modifications are transferred from NUKAT to local databases. Such work would not be possible for any team of any library working on its own" (Praczyk, 2015, p. 233). Moreover, in 2015 users performed a total of 32 395 431 searches in NUKAT – an average of 2,807,973 searches per month (Centrum NUKAT, 2015, p. 4).

GLOBALISATION OF CATALOGUE DATA

One common practice is to create one catalogue for all libraries belonging to a library and information system of a given university (e.g. an online catalogue of the University of Warsaw libraries, an online library catalogue of the Adam Mickiewicz University in Poznan, the Main Catalogue of Wrocław University of Technology Library). The Computer Catalogue of Jagiellonian University Libraries is a catalogue database of the Jagiellonian Library, Medical Library, and 46 libraries of the University network. The Jagiellonian Library, while managing the central university catalogue is also in charge of cooperation with the NUKAT central database.

It is important also to remember that libraries cooperating within the framework of NUKAT have, since 2006, contributed to building global information on the collections of libraries of the world thanks to its cooperation with global databases. The most important of these is the WorldCat union catalogue. Since 2011, cooperation with the WorlCat includes reloading the entire NUKAT database (bibliographic records) with the collective symbol for the NUKAT database added and sending updates about new and deleted records on a monthly basis (Centrum NUKAT, 2015, p. 10). In the WorldCat catalogue there are currently (as of January 17, 2016) more than 3,199,161 bibliographic records with the NUKAT symbol. It is worth mentioning here that authority records from the NUCAT database are also transferred to a virtual international authority file called the VIAF. In 2015, preparatory work and tests aimed at supplementing CKHW records with VIAF numbers started (field 024 of the authority record). This will enable the correlation of CKHW records with their counterparts in a semantic network, and will increase the presence of the information collected in CKHW databases using data bindings based on standardized numbers, as for example with Wikipedia. The VIAF is an open access database what will facilitate dissemination of data collected in NUKAT in a wider information environment than a purely library-based one. Also, since 2015, NUKAT data on old prints has also been submitted to the CERL Consortium (Centrum NUKAT, 2015, p. 11).

UNIFIED CATALOGUING RULES

"Changing the form of catalogue from card to automated ones not only does not free librarians from the application of the principles of the catalogue; quite the contrary, it requires even more rigorous compliance and development of common solutions" (Padziński, 2000, p. 8). In order to make it possible and to ensure high quality bibliographic records, it was indispensable to develop uniform rules for cataloguing, as the initial work on the creation of local computer catalogues was based on each library's own methods, used for years in the construction of card catalogues with local solutions and habits. Mandatory use of the NUKAT manual of cataloguing, prepared in line with the Polish Standard of Bibliographic Description based on the ISBD, and harmonized rules, regulations, and procedures spread to local catalogues, resulting in the alignment of their quality. Ongoing collaboration within NUKAT regarding the building of CKHW led to the employment of uniform headings and to using KABA itself for subject processing

of documents. Standardisation of catalogue data allows for easy search using search engines (e.g. KaRo), with users receiving faster and more precise information on a sought document. At the moment, in Poland new rules for cataloguing - Resource Description and Access (RDA) - are being discussed. RDA is a standard designed for the digital environment, associated with the FRBR and FRAD conceptual models, which is to function in the network and ensure the interoperability of library data with data from other sources (Śnieżko, 2015, pp. 75, 78, 80). RDA Principles are universal and recommend a new approach to the organization of data in a catalogue database - it is not a bibliographic record that is most important, but the bibliographic entities with their corresponding attributes and relationships that occur between them which have become the basic cataloguing element. With the authority record it is important to standardise the access point, but also to provide attributes and relationships that more accurately describe, for example, what may affect linking one person with other people in the network (Śnieżko, 2015, pp. 78-79). Both the BN and NUKAT (and cooperating libraries) have implemented only a few changes inspired by the RDA standard (e.g. abolition of the rule of three, replacing abbreviations with full terms, new fields to specify the type of content, media type). As a result, a hybrid structure was created with some elements of the RDA standard introduced into the bibliographic record in MARC 21 format based on ISBD.

CATALOGUER'S WORKSHOP

The process of cataloguing today is not just the creation of the metadata in the appropriate standard, it is also data management and processing. Therefore, cataloguers have to familiarise themselves on a regular basis with new versions of software, their new functionalities, new scripts / tools for handling, or data conversion. The NUKAT Centre provides help with its online "Workshop" that offers cataloguing formats, instructions, procedures, materials, findings, and other information necessary for daily work. Moreover, it conducts courses, trainings and discussions (webinars) online. Although a series, "File Formats" (22 volumes), with instructions on formats for different types of documents and different issues related to formal, subject, and authority cataloguing is still available in a print version, an e-version is provided by NUKAT on its website, together with information on current arrangements, procedures, discussion results, and recordings of meetings and conferences. Each cataloguer can also build his or her own workshop, creating bookmarks to databases and catalogues on the Internet, not to mention daily usage of the e-mail account to communicate with other cataloguers. It is also worth mentioning an interesting phenomenon of blogs dedicated to standards, publications, research work, and implementations associated with cataloguing in its broad sense (e.g. "The Order of Things" – a blog of the Workroom of Theory and Bibliography Organisation of BN, or "Lost in Translation" – a blog of the Descriptors' Workroom of BN).

CONCLUSIONS

The computerisation of library processes and network connectivity has resulted in a substantial change in the practice of both collecting and developing library resources. Information technology has provided tools for effective information processing, automated many processes, and has enabled the integration of information resources of libraries, the building of common catalogue databases, and the arranging of access to databases on remote platforms. But above all it has led to the cooperation of librarians, within a given institution and between libraries. A well-verified idea of cooperation in the creation and development of the hybrid information environment suggests that libraries will be able to meet coming challenges (e.g. implementation of RDA, FRBR, BIBFRAME, Semantic Web) so that changes in catalogues and search tools are consistent with the needs of users who "more and more are changing from local users to remote users" (Bianchini, 2015, p. 343). Here, new technologies will no doubt continue to have a significant impact on the direction of changes in the way libraries will function in the $2\overline{1}^{st}$ century.

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THE WARSAW SCHOOL OF PAPER CONSERVATION



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KEYWORDS: Conservation of paper. Books and graphics. Academy of Fine Arts in Warsaw. National Library of Poland. Deacidification. Bleaching. Disinfection. Microbiology. History of conservation

ABSTRACT: The paper presents the history and development of conservation of books, graphics and paper objects in Warsaw Poland, both in practical approach as well as in the process of teaching at the Academy of Fine Arts. The theoretical assumptions are followed by a review of chemical methods used today, but also abandoned ones. There were two turning points in the history of conservation in Warsaw: beginning co-operation with professional chemists at the Academy and developing the system of microbiological controls at the National Library. A short description of the most important conservation projects is included: *Acid Paper* and *Energy Efficiency of Museums and Libraries*.

INTRODUCTION

In Poland, "paper conservator" is a common term referring to a graduate of the Department for Conservation and Restoration of Old Prints and Manuscripts (the "Department") of the Faculty of Conservation and Restoration of Works of Art at the Academy of Fine Arts in Warsaw (ASP), or of the Department of Paper and Leather Conservation of the Institute of Studies on Historic Monuments and Conservation of the Faculty of Fine Arts at the Nicolaus Copernicus University in Toruń (UMK). The main purpose of this simplification is to highlight the specialisation of those conservators and to distinguish them from others (also as understood by laymen), specialising for example in painting, sculpture, weaving etc.

If we analyse the diversity of objects processed by paper conservators, we will realise that the existing name of this department fails to reflect the full extent of their works; however, should we try to extend it, the list would become never-ending.

The Polish paper conservators are graduates of these two schools. Based on the educational profile as well as the curriculum requirements for students, who later become graduates and conservators, we can distinguish two distinct schools, one from Warsaw and the other one from Toruń. This said, it should also be borne in mind that irrespective of their university or the major completed, each conservator is bound by the regulations of the *Act on the Protection and Guardianship of Historic Artefacts*, the *Code of Ethics for Conservators and Restorers* and of the *Conservator's Documentation Scheme*.

Hence, despite certain discrepancies in the conservator's practical approach to the objects which result from his or her educational background, the limits established by the above legal acts must always be observed. Additionally, in museums, archives, and libraries the current preservation policy also needs to be respected.

In this context, the "Warsaw School of Paper Conservation" can be defined as the art of conservation and restoration of (technologically) defined objects pursued by the Department as well as by numerous museums, archives, and libraries in Warsaw or elsewhere by graduates of the Department. As most directors of conservation workshops at Warsaw institutions are graduates of the Warsaw ASP, the "Warsaw School" can be seen as largely uniform, at least as far as the fundamentals of conservation are concerned, despite the pronounced presence of UMK graduates in the Polish capital too. Also, one must not forget that conservation is a highly individual and creative process — this is the reason why graduates of the ASP Faculty of Conservation and Restoration of Works of Art are granted the Master of Arts title. For it is not by chance that the term "conservation art" has been devised.

DEPARTMENT FOR CONSERVATION AND RESTORATION OF OLD PRINTS AND MANUSCRIPTS OF THE FACULTY OF CONSERVATION AND RESTORATION OF WORKS OF ART AT THE ACADEMY OF FINE ARTS IN WARSAW (ASP)

Professor Marzenna Ciechańska of the Warsaw Academy of Fine Arts, the current Dean of the Faculty of Conservation, states:

"The history of our Department dates back to 1947, when the Conservation Workshop for Books and Engravings was established as part of the Artwork Conservation Studio. The workshop was set up by the eminent artist and professor Bonawentura Lenart [founder of the National Library Conservation Studio (1929) and its head until 1939 – author's note], together with its subsequent head and professor, Tadeusz Tuszewski. Since 1983, the Department was managed by assistant professor Zofia Pieniążek, followed by Józef Charytoniuk, MA, in the years 1990-1998. Today, its director is Wojciech Chrościcki, MA.

Our curriculum is based on a programme perfected and verified for many years by prof. Tuszewski; however, over time and with new methods and means of conservation emerging, it became necessary to modernise it. In 1991, the curricula for the 3rd, 4rth and 5th years of studies were extended, and in 1995 the curricula for the 1st and 2nd years were radically changed to form a block for the preliminary introduction to conservation. The programme is constantly adjusted in search of the optimum model.

(...)

The studies last 6 years and are divided into 3 stages [preliminary conservation studies – 2 years, practical conservation studies – 3 years, Master's project – 1 year – author's note], *finished with the defence of the Master's project*. (...)

Special focus is put on ethics and perfection in all conservation procedures as well as on the ability to work independently^{"1}.

Since the time this article was published, the Department, previously consisting of 3 workshops:

1. the Workshop for Conservation and Restoration of Old Prints and Manuscripts,

2. the Workshop for Conservation and Restoration of Engravings and Drawings,

3. the Workshop for the Techniques and Technologies of Book Binding, has been expanded to include the Workshop for Conservation and Restoration of Photography and Decorative Arts.

Changes in the educational process are evident if we have a look at the list of items subject of conservation within the master's projects completed by students of the Department (according to the list available from the Faculty website for the years 1950–2013, https://wkirds.asp.waw.pl/konserwacja-i-restauracja-ksiazki-grafiki-i-skory-zabytkowej/, accessed: January 2016).

¹ M. Ciechańska, Program nauczania w Katedrze Konserwacji i Restauracji Starych Druków i Grafiki Wydziału Konserwacji i Restauracji Dzieł Sztuki ASP w Warszawie [Teaching Curriculum at the Department for Conservation and Restoration of Old Prints and Engravings of the Faculty of Conservation and Restoration of Works of Art at the Academy of Fine Arts in Warsaw], Notes Konserwatorski [Conservator's Notebook], issue 3, Warsaw 1999). pp. 187-193

		Codices		(Single) sheets		Others		
year	students	prints	manu- scripts	prints/ engravings	manu- scripts	paintings	other	
Up to 1968	3	2		1		1 watercolour painting		
1968	2	2		2				
1970	1	1		1				
1971	1	1		1				
1972	1	1		1				
1974	2	2		2				
1975	1	1		1				
1977	2	2		2				
1978	2	2		2				
1979	5	4	1	4		1 watercolour painting		
1980	4	3	1	2	1			
1981	2	2		2				
1982	5	3	2	5				
1983	5	3	2	4				
1984	3	2	1		1	2 (pastel paintings)		
1985	6	4	2	4		2		
1986	1		1	1				
1988	2	1	2			1		
1990	5	4	1	1		3		
1992	2		2	2				
1993	8	6	2	5	3			
1995	4	2	1	2		1 oil painting		
1996	2	2						
1997	3		3	1			1 handheld fan	
1998	1	1						
2000	4	3		1				
2001	5	1	3				1 tableau vivant	
2002	1				1 papyrus			
2003	5	2	2				1 terrestrial globe	

2004	1			7 engravings				
2005	3	2				1 pastel painting		
2006	3	1				1 pastel paint- ing	1 painting/ silkwork	
2007	1			1				
2009	7			1	1	1+1 collage	1 photo- graphic album 1 handheld fan	
2010	4			1 poster	1		1 terres- trial globe 1 piece of wall upholstery	
2011	1						2 photographic objects	
2012	2			1			1 oriental photographic album	
2013	1		1					
Total	114	60	26	58	8	14	11	
	students	prints	manu- scripts	prints/ en- gravings	manu- scripts	paintings	other	
		Codices		(Single) sheets		Others		

Two clear tendencies relating to those master's projects can be observed: an ever smaller number of students opt for the conservation of an object consisting of a codex and a single sheet (manuscript or engraving, usually with a water-sensitive painting layer), and a tendency to perform conservation of a single object. At the same time, there are added theoretical (or both theoretical and practical) works on conservation rather than bibliology, iconography, and art history, unlike the period up to the late 1990s.

CHEMICAL CONSERVATION TREATMENT AT THE DEPARTMENT UNTIL THE APPOINTMENT OF WŁADYSŁAW SOBUCKI AS ITS HEAD (1979) AND DURING HIS TERM OF OFFICE (UNTIL 1980)

Up to 1979 (review of the master's projects available in the Department's archive)

The advanced level of conservation in terms of artistic and manual skill was not always accompanied by an optimal use of chemical substances in paper conservation. However, this did not significantly differ from worldwide tendencies in paper conservation. From the very beginning, the standard procedure was to determine the objects' pH with the contact method prior to conservation in order to decide whether deacidification was required. Domestically produced pH-metres, electrodes and standard solutions were used.

Wet treatment usually started with (generally) warm water baths at a temperature between 35 and 40°C, occasionally reaching 50°C. The order of treatment procedures — water baths, bleaching, deacidification — has remained unchanged to this day.

The following two methods of deacidification (also called "neutralisation") were employed (with modifications as regards the exposure time and method, i.e. bath or use of a tampon, or exposure of the verso side only):

• a saturated $Ca(OH)_2$ solution (ca. 0.2%) and a 0.2% $Ca(HCO_3)_2$ solution (in fact a $Ca^{2+} + 2HCO_3^{-}$ aqueous solution) applied sequentially, e.g. a 20' bath in the first one and a 20' bath in the second.

• a buffer mixture of two solutions: 1.4546ml of distilled water and 54.3g of H₃BO₃ (boric acid), and 2.454ml of distilled water and 8.5g of Na₂B₄O₇ (borax).

Another frequent type of treatment was bleaching both in whole – through a bath – and locally; following such local bleaching the remaining stains were duplicated in a bath to achieve a unifying effect. The following substances were applied:

• 2-3% H₂0₂ solution,

• 0.5%-6% chloramine-T aqueous solution,

• chloramine-T aqueous solution in an acidic medium obtained through a bath or by using a tampon with a citric acid solution (1%-6%),

• sporadically, sodium hypochlorite bleaching was applied (using a tampon with 0.5% aqueous solution of NaOCl),

1% chloramine-T in 45% ethanol was used once only (through a tampon),

• sporadically, rust and ink stains were removed with thioglycolic acid.

Typically enough, despite long flow-through baths, bleaching was rarely followed by application of an "anti-chlorine agent", i.e. a compound neutralising the remains of chlorine (hypochlorite) in paper, in this case a 1.8% aqueous solution of sodium thiosulphate Na₂S₂O₃, occurring only twice in the documented seventeen cases of chloramine bleaching.

The solutions and baths were prepared with distilled water; adhesives (starch clusters or gelatine) were prepared with distilled water with NaF added (5g per 1 litre; a 0.5% solution) to increase resistance to microbiological threats. Paper was sized after conservation with aqueous gelatine (1-4.5%) solutions. 5% gelatine was also applied to protect manuscript pieces before the bath.

Leather bindings were cleaned with beef bile solutions in ethanol, the only recorded proportions being 1:2. A less frequent type of treatment was to improve the leather quality by rubbing a solution of lanolin in hexane into it (this substance was described once only, as a 5% solution). One case

of "neutralisation" of acidified leather was recorded, with a 20% aqueous solution of potassium lactate (with pH=10.7) applied twice on the hypodermis side.

Aside from gelatine solutions, water-sensitive parts were protected with:

- acetone and polyamide 1:20,
- toluene with synthetic resin 1:15,
- Winoflex in toluene (proportions unknown),

• Movital (polyvinyl butyral) made by Hornbaker – two solutions: 5% and 15% Movital solutions in ethyl alcohol.

Chemical conservation treatment under Władysław Sobucki (after 1980)

In 1980 (the date of the first master's project listing Władysław Sobucki as the chemical test supervisor), Władysław Sobucki, a paper chemist who graduated from the Gdańsk University of Technology in 1969, started to work with the Department. In practice, this cooperation lasts to this day and has resulted in two book publications:

• *Konserwacja papieru. Zagadnienia chemiczne* [Paper Conservation. Chemical Issues] (Warsaw, National Library of Poland, 2013)

• *Wiedza o papierze dla konserwatorów zbiorów* [Paper Conservation for Conservators and Restorers] (with co-author Elżbieta Jeżewska), (Warsaw, National Library of Poland, 2015)

Konserwacja papieru. Zagadnienia chemiczne [Paper Conservation. Chemical Issues] was a breakthrough publication (the first and only such work in Polish) defining the approach to chemistry and chemical treatment in paper conservation in a broader sense. Its contents correspond to the conservation chemistry curriculum for 2nd and 3rd-year students of the "Paper Conservation" Department. In general terms, this approach can be summarised as follows:

 chemical treatment is a means of implementing the principles of conservation;

any alterations of the object must be reduced to the necessary minimum;

 – only indispensable treatment shall be performed (to eliminate, stop or slow down the object's deterioration);

- restoration (i.e. bleaching) shall be used with caution and as a last resort;

 deacidification (if necessary) is the most important type of conservation treatment;

– ideally, conservation treatment shall be reversible and removable (which is not the case with Filmoplast or cellulose acetate treatment, since although the repair itself can be reversed, the adhesive cannot be fully removed from the paper).

The book discusses the types of chemical treatment currently applied in the Department as well as historical ones – this is important to understand for the secondary damages brought about by discontinued methods such as chloramine bleaching without neutralising the residues of chlorine compounds. The curriculum includes several types of treatment for didactic purposes, with a special focus on the limitations of each method and due justification of their use. The graduates shall be familiar with a broad range of conservation treatment methods and the details of their implementation, as well as know when they should be applied and, more importantly, when they should not.

Microbiological control (microbiological tests, disinfection)

Starting from the very first master's projects at the Department, disinfection is mentioned in their documentation, however rarely. This includes microbiological tests (in 1968, during the conservation of the Tacitus Opera (block of prints, Venice, 1497) and Scriptores Historiae Augustae (Venice, 1490) incunables, microbiological tests were performed by prof. Jerzy Ważny from the Faculty of Forestry of the Warsaw University of Life Sciences, who isolated and identified the following fungi species: Aspergillus pulverulentus, Aspergillus ochraceus and Trichotecium roseum). Disinfection with Rotanox gas (a mixture of ethylene oxide and carbon dioxide in a 1:9 proportion by weight) was carried out in a fumigation chamber located most likely at the Faculty of Forestry of the Warsaw University of Life Sciences; however, the tests and disinfection treatments lacked the conservation approach currently applied at the National Library. Likewise, the descriptions of disinfection included in the documentation are laconic: "a 60-70mmHg vacuum was produced", then the gas was introduced at atmospheric pressure. Exposure time varied from 4 to 6 hours; such 6-hour exposures were sometimes repeated. Occasionally, the object could be disinfected for as long as 24 hours. There is no mention of any post-fumigation ventilation of the objects or any tests to determine how efficient the disinfection was; however, the following quote from the conservation documentation of Dvinkerk's Map, a coloured copper engraving (belonging to a private owner), seems significant: (1980, Monika Feorczyk, supervisor: Tadeusz Tuszewski) "The disinfection failed to bring the expected results, as visual inspections of the object carried out within several months led to questioning its viability. The object was disinfected again, this time with absorbent paper impregnated with a 10% p-chloro-m-cresol alcohol solution. The object was placed in it for 7 days at 20°C."

Both the "methodology" of effectiveness assessment and the first ever case of employing p-chloro-m-cresol (PCMC) may cause surprise. This compound was to be used at the ASP for the next 15 years, until this method was ultimately abolished. At the National Library, the last documented case of disinfection with this method was performed in 1999. In total, in the years 1988-1992, the National Library disinfected or ordered disinfection of 9,816 objects (data from the order notebook of the Department of Conservation of Library Collections; as the type of disinfection remains unknown, the use of PCMC cannot be excluded; also, probably some of the objects were not owned by the National Library). However, PCMC disinfection in the years 1993-1999 is well documented (see table below).

PCMC disinfection of objects at the National Library of Poland, 1993-1999

Disinfection was mostly carried out using the interleaf method, by means of filter paper moistened with a 10% PCMC solution in 70% ethanol (with an approx. 2-week exposure). It is estimated that no more than 5% of the recorded numbers correspond to disinfection through applying a 1-2% PCMC solution in 70% ethanol. At this stage, the PCMC disinfection method was not divided into the interleaf and rubbing variants.

	Na	ational Li	nal Library organisational unit or type of objects (number of disinfected objects)						
year	old <i>prints</i>	Manu- scripts	Icono- graphy	Carto- graphy	OMB*	Music documents	Others	total	
1993	24	4	10	-	-	-	-	38	
1994	64	8	9	17	7	5	2	112	
1995	111	-	64	10	-	2	-	187	
1996	117	7	2	9	-	5	-	140	
1997	36	2	30	19	6	5	1	99	
1998	67	10	1	4	1	5	2	90	
1999	-	-	1	-	-	7	-	8	
total	419	31	117	59	14	29	5	674	

*- Library Storerooms Unit.

When microbiological workshops were developed at the Central Laboratory of Archive Conservation (CLKA) of the Central Archives of Historical Records in Warsaw and at the National Library Department of Conservation of Library Collections, our ASP paper conservation department began working together with these institutions in the areas of microbiological control and ethylene oxide fumigation, using a chamber belonging to CLKA.

Both laboratories use the microbiological test method where a sterile filter paper is imprinted onto the object and then placed in a dish with microbiological medium.

After the tragic "flood of the millennium" in 1997, the National Library developed a programme to save flooded collections, and purchased a freeze-dryer and an ethylene oxide disinfection chamber for this purpose. The chamber was put in service in April 2000. The 12 years of its opera-

tion have been summarised in a paper by Bogdan Zerek entitled: *The ethyl-ene oxide disinfection system of the National Library of Poland – summary of over 12 years of activity* presented at the *Men and Books: From Microorganisms to Megaorganisms* conference (St. Pölten 28/04 – 01/05/2014).

In 2007, Bogdan Filip Zerek, a graduate of the "Paper Conservation" Department of the Warsaw ASP and of the Faculty of Biology of the University of Warsaw, was appointed head of the Section of Microbiological Control and Conservation of Atypical Collections at the Department-Laboratory of Conservation of Library Collections (the microbiological workshop with its disinfection chamber continued its over 20-year activity within this unit). In 2008, the National Library microbiological control instructions were newly drafted from scratch, and in 2010 the new manual for microbiological air control within the National Library premises was drawn up.

Today, the work of the Department-Laboratory of Conservation of Library Collections is based on the fundamental principle that disinfection is a type of conservation treatment; therefore, it is the chief conservator or the supervisor of conservation works for the specific object who shall make any decisions regarding disinfection. Such decisions shall be based on microbiological analysis carried out on the object before and after any such disinfection, the entire process being documented by the Object Microbiological Test Sheet.

The scope of the microbiological tests currently performed at the National Library includes:

- impress contact sampling (on the objects),
- sampling with (dry) swabs,
- ATP detection tests, and
- tests in the impact method (applied to the air).

In 2015, at the 13th IADA Congress in Berlin, Bogdan Zerek presented the results of studies comparing the efficiency of microbiological sampling of library objects made of paper using the above contact sampling methods and the procedure of using ATP tests to detect units developing mould fungi colonies on library and archive objects [http://www.iada-home.org/fileadmin/01-Redaktion/uploads/Concept_Program_Berlin.pdf, accessed: 01/2017].

In the academic year 2014/2015, the curriculum of all majors offered by the Faculty of Conservation and Restoration of Works of Art was extended to include microbiology, taught by Bogdan Zerek.

RESEARCH WORK

The beginning of research on conservation techniques and methods coincides with the period in which Władysław Sobucki started working at the Department. In a master's project documentation of 1980 (Dvinkerk's Map, as mentioned above), whiteness measurement of the object's paper

was mentioned for the first time as a method of verifying the effectiveness of conservation treatment (whiteness measurement based on a freshly prepared magnesium oxide standard model with a Carl Zeiss leucometer). At the same time, the negative impact Mowital had on the whiteness of paper was discovered following ageing tests, despite the previous positive opinion concerning this agent. This opinion, however, was issued on the sole basis of naked-eye visual inspection of aged samples. As Władysław Sobucki worked with both the ASP Department and the National Library Department of Conservation of Library Collections, the equipment base of the former was gradually expanded, acquiring devices for testing both the mechanical (tear, break and bending resistance) and optical (colour, also expressed as whiteness and yellowness) properties of paper. Today, both institutions have ageing chambers (ageing agents being temperature and relative air humidity); additionally, the National Library possesses a Xenotest device (ageing through exposure to light). An example of such tests is found in Ocena możliwości zastosowania Lichenicidy 246 do dezynfekcji papierów zabytkowych [Evaluation of the possibilities of using Lichenicide 246 for disinfecting of antique papers $|^2$. The purpose of research in materials science is to check the impact of conservation methods and materials on paper (and its graphic layer), both directly after use and following artificial ageing. The results of such works were published in general professional journals such as Ochrona Zabytków [Heritage Protection], Przegląd Papierniczy [Papermaking Review], and Biuletyn Informacyjny Konserwatorów Dzieł Sztuki [Information Newsletter for Conservators of Works of Artl, as well as in *Notes* Konserwatorski [Conservator's Notebook], a review dedicated exclusively to the protection of library and archive holdings (as well as paper and parchment museum artefacts) published since 1998 by the National Library. With this new periodical (issued on average once a year), the number of research papers on paper conservation has significantly risen. Making descriptions of the full conservation process available to the public, including detailed accounts of the methods and materials employed, is in line with the Polish Code of Ethics for Conservators and Restorers.

Conservation and conservation research work have also become the subject of doctoral dissertations. So far, four academics from the Department have obtained their PhD titles:

• Weronika Liszewska, Japońskie techniki dublowania – możliwości zastosowania i modyfikacji w konserwacji zabytkowych malowideł na jedwabiu i tkanin jedwabnych [Japanese doubling techniques. Possibilities of application and modification in the conservation of paintings on silk and silk fabrics], Faculty of Conservation and Restoration of Works of Art at the Academy of Fine Arts in Warsaw, 2002

²W. Sobucki, D. Jarmińska Przegląd Papierniczy [Papermaking Review], 1998, year 54, issue 1, pp. 32-34.

• Marzenna Ciechańska, *Rekonstrukcja komputerowa. Wprowadzenie techniki komputerowej do konserwacji dzieł sztuki na podłożu papierowym* [Computer reconstruction. Introducing the computer technique of conservation of paper-based works of art], Faculty of Conservation and Restoration of Works of Art at the Academy of Fine Arts in Warsaw, 2003

• Jacek Tomaszewski, *Oprawa książkowa w Polsce 1450-1600. Studium tegumentologiczno-ikonograficzne* [Bookbinding in Poland 1450–1600: Bibliographical-iconographical study], 2007, Institute of Art of the Polish Academy of Sciences.

• Izabela Zając, *Historia zabytkowych albumów do fotografii* [The history of vintage photographic albums], 2011, Institute of Art of the Polish Academy of Sciences.

At the moment, a further four doctoral dissertations are underway.

Two habilitations have been awarded based on the following book publications:

• Marzenna Ciechańska, *Papierowe obicia ścienne w pałacu w Wilanowie – studium portretowe* [Paper wall upholstery in the Wilanów Palace. A study of portraits], The Wilanów Palace Museum, Wilanów, 2010

• Weronika Liszewska, *Konserwacja zabytkowych pergaminów. Nowe metody uzupełniania ubytków z użyciem włókien pergaminowych* [Conservation of historical parchments. New methods of leafcasting with the use of parchment fibres], Academy of Fine Arts in Warsaw, 2012.

CONSERVATION AT THE NATIONAL LIBRARY OF POLAND IN WARSAW

The first Conservation Studio at the National Library of Poland was launched in 1929 by Bonawentura Lenart, and resumed its activity after WWII in 1954. For microbiological tests, documentation is available since 1990. This unit underwent numerous organisational transformations; however, irrespective of having its name changed on several occasions, it has always kept its essential subsections (divisions, workshops) in charge of: manuscript conservation, print conservation, conservation of engravings and drawings, documentation, and the laboratory (of chemistry, later also of microbiology and disinfection).

The Long-term Government Programme "Acidic Paper" and the rise of mass conservation based on mass deacidification methods marked a breakthrough moment. Restructuring began in 2007, when the Section for Mass Conservation of Sheets was launched (based on the Neschen C-900 system); then, after the Bookkeeper installation was put into service, the Mass Conservation Department was divided into the Department of Conservation of Library Collections and the Department-Laboratory of Conservation of Library Collections. Because of its most recent reorganisation, the Institute for Conservation of Library Collections was set up, composed of the following workshops:

- Workshop for Conservation of Library Collections
- Workshop for Mass Conservation of Sheets
- Workshop for Mass Conservation of Books
- Laboratory of Conservation of Library Collections
- Specialised Bindery

[http://www.bn.org.pl/o-bn/struktura/instytuty/instytut-konserwacji-zbiorow-bibliotecznych, accessed: 01/2017].

The results of their work are published in specialised conservation journals. An account of their ongoing activities is also provided in the National Library annual report [http://www.bn.org.pl/o-bn/sprawozdanie-bn, accessed: 01/2017]. The Institute currently employs 48 people, including 10 certified conservators of works of art (graduates of both the Academy of Fine Arts in Warsaw and the Nicolaus Copernicus University in Toruń), as well as biologists, chemists, renovators and bookbinders.

CONSERVATION AT THE CENTRAL ARCHIVES OF HISTORICAL RECORDS IN WARSAW (AGAD), THE ARCHIVE OF NEW FILES IN WARSAW (AAN) AND IN OTHER POLISH ARCHIVES

It is a peculiarity of the Polish heritage conservation system that while the National Library cannot directly influence the conservation policies of other libraries, all state archives are governed by the Head Office of the State Archives, and all their conservation workshops are bound to follow the guidelines of the Central Laboratory of Archive Conservation (CLKA) of the Central Archives of Historical Records in Warsaw. CLKA currently employs 9 people, its head being Anna Czajka (who graduated from the ASP Department in 1988). CLKA is a traditional conservation workshop, like its counterpart at the Archive of New Files (AAN) (headed by Magdalena Wiercińska, a 2003 graduate of the Department). AAN also has a mass conservation workshop operating in parallel (based on the Neschen C-900 system), launched within the "Acidic Paper" Programme. Both workshops closely cooperate with mass and traditional conservation workshops all over the country (Katowice, Gdańsk, Bydgoszcz, Cracow, Lublin, Łódź, Olsztyn, Poznań, Przemyśl, Suwałki, Szczecin, Toruń, Wrocław, Zielona Góra).

CONSERVATION AT OTHER INSTITUTIONS IN WARSAW

As the country's capital, Warsaw is home to numerous cultural institutions collecting national heritage objects as well as works of art and historical artefacts. Most of these have their own conservation workshops or closely cooperate with conservators both on an inter-institutional basis and within private assignments performed by conservators as part of their individual professional practice. Conservation workshops often employ professionals from various backgrounds and are not necessarily divided into subsections responsible for specific types of work. Below, I present a list of conservation workshops operating at Warsaw institutions, with a special mention of paper conservation:

• National Museum: 7 conservation workshops, including the Paper-based Object Conservation Workshop and Laboratory

• The Royal Castle Museum: 4 conservation workshops, including the Furniture, Gilt and Paper Conservation Workshop

- Warsaw Uprising Museum: Conservation Department
- University of Warsaw Library: Preservation and Conservation Department
- Jewish Historical Institute: Conservation Workshop

• Institute of National Remembrance (IPN) (Warsaw Office): Section for Conservation and Preservation of Archive Resources of the Office for Archiving and Sharing IPN Documents.

• Museum of Warsaw: Conservation Department, Paper Conservation Workshop

• Ethnographic Museum: Conservation Department, with the position of Conservator of Paper-based Historical Objects

• Asia and Pacific Museum: Workshop for Collections Conservation.

LONG-TERM GOVERNMENT PROGRAMME "ACIDIC PAPER"

The Long-term Government Programme "Acidic Paper" was unique on a worldwide scale. The programme, entitled "Acidic Paper. Saving Endangered Library and Archival Collections (19th and 20th centuries) by Mass-treatments", was conceived in 1998-1999, to be implemented in 2000– 2008. Its principal objective was "to gather thorough information on mass conservation methods and to conduct preliminary research in this field. It also projected launching the first installations for mass deacidification of library collections in Poland" [source: http://www.bn.org.pl/inne/wpr/ kwasny.html, accessed: 01/2017].

In 2000-2006, the following objectives were successfully accomplished:

• assessment of the state of preservation of book collections in four libraries and three archives;

- assessment of the degree of paper deterioration in holdings according to regions;
- stock-taking of threats to holdings in libraries and archives;

• complete assessment of the degree of biological deterioration (caused by insects and fungi) in 19th and 20th century library and archive holdings. [Papers presenting the methodologies and results of these works are available from the National Library website: http://www.bn.org.pl/inne/wpr/stan00.htm accessed: 01/2017]; • adapting the conservation and microbiological protection methods to the specificity of 19th and 20th-century holdings, including the specificity of deacidified items; researching the possibility of limiting microbiological and entomological threats by providing conditions of exceptional cleanliness, with stable temperature and humidity;

• durability assessment of the types of paper currently used in document copies, and developing the respective guidelines and standards for libraries and archives;

[quoted from: http://www.bn.org.pl/inne/wpr/aktlprog3.pdf; tasks not strictly related to conservation have been omitted, accessed: 01/2017]

in 2007-2008, further tasks were completed:

• building rooms as well as purchasing and setting up installations for deacidification/strengthening of sheet objects [Neschen C-900 – author's note] and books [Bookkeeper – author's note] at the National Library, together with the preliminary equipment;

• mass conservation of holdings using the equipment installed at the National Library;

• building rooms as well as purchasing and setting up installations for deacidification/strengthening of archive documents [Neschen C-900 at AAN – author's note];

• mass conservation of archive documents in state archives

[quoted from: http://www.bn.org.pl/inne/wpr/aktlprog4.pdf; tasks not strictly related to conservation have been omitted, accessed: 01/2017].

Today, Poland has two operative deacidification installations for books using the Bookkeeper technology: at the Jagiellonian Library (since 2005) and at the National Library (since 2007), along with 6 Neschen C-900 devices for sheet deacidification: at the Jagiellonian Library (since 2003), the National Library (since 2005), the Archive of New Records in Warsaw (since 2006), the State Archives in Gdańsk (Office in Gdynia, since 2007), the State Archives in Katowice (since 2007) and in the Central Laboratory of Archive Conservation (CLKA), Workshop in Milanówek.

Together with introducing the mass deacidification technology, mass conservation was adopted. This referred to a set of procedures aimed at protecting the objects before and after deacidification, applying traditional conservation methods adapted to the needs of mass processes. The difference between mass conservation and traditional methods is that the former avoids techniques using humidity which require the object to be dried and pressed; instead, local repairs (also through cauterisation with Filmoplast) and Filmoplast lamination (as a last resort) are performed. The characteristic feature of the C-900 process developed in Warsaw is the brief (2-day) pressing of the sheets between cardboard sheets under load. In its original version (implemented in Germany), the objects were dried exclusively in the drier of the C-900 device, which caused their physical volume to expand (they were not straightened afterwards). Applying such an intense circulation of cardboard sheets required the use of a cardboard drier to dry them for the next day's work.

NEW CHALLENGES

The "Acidic Paper" Programme revealed the scale of the workload required to handle the consequences of a technology which revolutionised paper making: the invention of typing paper. An overview of master's projects completed at the Department shows that the rise of new techniques, especially in photography, has entailed certain conservation issues. It is already known that preserving 20th century polychrome photography will be a major conservation challenge in the future. The mass print and digital print technologies may pose conservation problems comparable to those with watercolour and pastel paintings, or any other water-sensitive objects. Another difficulty will be the lack of full information regarding the technologies applied by commercial vendors. We are also witnessing a digital revolution which, with its unquestionable advantages in improving access to objects, has created the following challenges:

• it offers a "digital image of the object" (and never its "digital copy"), of a quality usually incomparably lower than that of the original (excluding highly specialised (and extremely expensive) documentation techniques of limited application);

• it overshadows the analogue original, which may decrease interest in its proper preservation for the future.

While teaching a course on *Identification and Protection of Photographs at* the Library, I have regrettably noticed that knowledge of classic analogue photography is on the decline. For it was only twenty years ago that I was spending hours and hours in a darkroom as an ASP student. The National Library still employs graduates of the Technical Secondary School of Photography with experience in producing gelatin silver glass plate negatives, while today over half of this school's curriculum is dedicated to (broadly understood) digital techniques. Even though progress cannot be stopped, we must bear in mind how it affects cultural heritage. In 2017, the National Library is launching its *Patrimonium* project of digitisation on a massive scale. It will also involve the inspection of objects (specifically those from special collections) in terms of their state of preservation, to ensure additional conservation work is performed prior to scanning (cleaning to improve legibility, straightening, ad-hoc repairs, securing their structure). It is worth asking the question how such reviews compare to full conservation treatment, and when the latter will cease to be necessary or to be considered necessary.

On the other hand, the development of (especially digital) technologies provides conservators with tools we did not even dream of 25 years ago, not only in terms of specialised test equipment. One example is the *Energy Efficiency of Museums and Libraries* (Heriverde) project joined by the National Library. Its goals are to develop software for qualitative risk assessment for objects that are sensitive to climate parameter fluctuations as well as a specialised module of the WUFI[®] Plus software for more precise micro-climate modelling and programming of energy consumption in museums, libraries, and archives. [http://heriverde.nimoz.pl/o-projekcie/, accessed: 01.2017].

CONCLUSION

A graduate of "Paper Conservation" – who as a student may have performed the full conservation treatment of 6-8 objects – may be overwhelmed by the massive scale of conservation issues in libraries, archives, and museums. On the one hand, documentation becomes simplified, but on the other his or her professional life turns into a series of deadlines much closer than the end of the semester. Academy only partly prepares one for work at institutions where small (sometimes even single-person) conservation teams may also have to contribute to drafting the institutional heritage protection policies, or even take full responsibility for them. In this context, it seems to be a positive thing that institutions with conservation workshops are concentrated in the same city as the conservator's school. Conservators often come back to their alma mater as part-time lecturers. Employment in two institutions seems to be a positive solution. All of this creates a community which avoids isolation and excessive focus on local problems, facilitating the exchange of experience (and not only at conferences). It has become a widespread practice to temporarily hire equipment and devices owned by other institutions, which makes research and conservation projects easier. This is also beneficial for students, as visiting institutional workshops and summer training placements form an integral part of the curriculum. As a result, academic knowledge is combined with practical solutions applied by libraries, archives, and museums. My current students have had a chance to learn how to oversee, from the conservator's perspective, the operation of moving 500,000 iconographic objects from the Palace of the Commonwealth to the main building of the National Library (2010-2012) and the replacement of windows at the Palace without removing the collections... as well as how to practically control microbiological cleanliness in 70 storerooms with 10,000,000 items. In the future, I will also be telling my prospective students about moving 40,000 manuscripts and 160,000 old prints to a new location.

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NEW LIBRARY BUILDINGS IN POLAND. THE LAST 25 YEARS (1990-2015)¹



Ewa Kobierska-Maciuszko, senior certified curator, has been working at the University of Warsaw Library (BUW) since 1982. She was its Vice-director in the years 1995-2002, Director in 2003-2013, and has been the Head of the NUKAT Centre since 2014. Co-author of the technological and functional design of the new BUW building in the Warsaw neighbourhood of Powiśle. Areas of research: management of scientific libraries in the process of technological transformation, development and implementation of changes in public institutions, library architecture.

Major publications: Les bibliothèques en Pologne, In: Les bibliothèques en Europe : organisation, projets, perspectives, sous la direction de Frédéric Blin, (2013); Jadwiga Ćwiekowa (1920-2014). In: Organizatorzy, bibliografowie i dydaktycy [Organisers, Bibliographers and Didacticians], ed. E. Dudzińska (2015); Selfie-generation a biblioteki, czyli o tym, czy mamy jeszcze dla kogo pracować? (na marginesie corocznego kongresu OCLC dla regionu EMEA, Madryt, 1-2 marca 2016) [The selfie generation and libraries, or whether we still have people to work for (in the margins of the annual OCLC Congress for the EMEA region, Madrid, 1-2 March 2016); In: Tytuł Ujednolicony: wokół katalogu centralnego NUKAT [The uniform title. About the NUKAT Union Catalogue]; Koszykowa – nowy gmach, stara biblioteka – czy to się uda? [The Library on Koszykowa Street in Warsaw. New building, old library. Will it work?], Bibliotekarz [The Librarian], 2015/11.

KEYWORDS: Libraries in Poland. Library buildings. Library technology.

ABSTRACT: **Thesis/purpose of the article** – The purpose of this article is to review the major investments in library buildings in Poland over the last 25 years. The description includes the buildings' architecture in connection with their functional purpose and the rapidly changing library technology. **Methodology** – The method of comparative analysis (along with autopsy) of library investments was applied. **Results/conclusions** – In the history of Polish libraries, the last 25 years were a time of exceptionally profuse investment and large

¹I have discussed (independently or as a co-author) the topic of new library buildings in Poland as well as the technological and international context of their construction on several occasions over the last twenty years (see items 1-8 of the attached bibliography).

financial output due to the free market, Polish membership in the EU, and access to modern information and communication technologies.

THE LEGACY OF COMMUNIST POLAND (1945-1989)

The years 1945–1989, the forty-four years of communism in Poland, can hardly be called a time of large-scale investment in libraries, as public expenditure tended to focus on industry. Poland's growth was supposed to be powered by mines, steel mills and shipyards; libraries were seen rather as institutions that would survive driven by the mere power of tradition and good will rather than by money and investment. However, to do justice to this era, let us not forget that the post-war decades were first and foremost marked by the reconstruction of the library network against the backdrop of an educational "boom", fostered by propaganda slogans on eradicating illiteracy and increasing access to public education. Also of great importance was the restructuring of scientific libraries under the new regime and within the country's new borders - on the one hand, direct access to the collections of Polish libraries in Vilnius and Lviv had been lost, and on the other, the difficult process of integrating the German ones from Silesia and Pomerania into the Polish library and scientific circulation had begun.

Therefore, construction efforts were neither intense nor state-of-the-art. Two notable exceptions were: the construction of the Nicolaus Copernicus University Library in Toruń (BUMK), built to commemorate the 500th anniversary of the astronomer's birth in 1973, with significant help from the military, and that of the National Library (BN) in Warsaw, which started in the late 1960s, survived the communist regime and was successfully completed in the 1990s, almost at the same time that its enlargement was needed [photo 1].

It was also in the communist era that the legal environment governing libraries in Poland to this day was codified. Their activity is subject to the regulations of as many as three different ministries:

• the Ministry of Culture and National Heritage with respect to the National Library and the public library network;

• the Ministry of Science and Higher Education with respect to academic libraries;

• the Ministry of Education with respect to school libraries.

Other ministries also run their "own" specialised libraries, often affiliated with their research institutes. The Polish Academy of Sciences also has a dozen scientific libraries.

This diversity in legal subordination, although backed by a long tradition, has hindered complex reforms of the methodologies and technologies of library operation on numerous occasions, and has led to a lack of uniform library policy on a national scale up to now.

Despite this legal complexity, the last 25 years, following the profound political and economic transformation initiated in 1989, have also brought Polish librarianship several spectacular achievements. Among the most important being of these were the introduction of ICT to academic libraries as of 1992, thanks to a grant from The Andrew W. Mellon Foundation, which in the long term helped establish The Union Catalogue of Polish Research Library Collection (NUKAT); At the same time and, as far as construction investments are concerned, the construction of the University of Warsaw Library (BUW) which set new standards in the structure and organisation of modern academic libraries in this part of Europe, even as early as at its design stages (1993-1995).

SCIENTIFIC AND ACADEMIC LIBRARIES. SPATIAL EVOLUTION AND TECHNOLOGICAL REVOLUTION

The turn of the centuries was a time of dynamic changes for scientific libraries in Poland, as shown by quantitative indicators. In the early 1990s, 1,209 scientific libraries were operating in Poland, including 981 belonging to higher education institutions². 20 years later (2012), their number had fallen to 1,087; however, the capacity of their reading rooms had increased by over 1,200,000³. In 1999, 600 scientific libraries, i.e. half of their total number, had collections of over 10,000 volumes at their disposal, with 217 libraries having over 50,000 volumes⁴.

This dominant position of academic libraries is no coincidence, nor is their supremacy solely based on numbers. In fact, in the 1990s Polish university libraries became the avant-garde of library practice in many aspects. It was in the libraries of renowned universities of the humanities and technology that idea emerged to collaborate with others in selecting and implementing integrated library systems and in building central and local catalogues, as well as to coordinate cooperation on building digital libraries. While at a later stage these positive models were increasingly taken on by public and specialist libraries, which have now managed to

² According to: *Sieć bibliotek w Polsce, zbiory biblioteczne oraz czytelnictwo w latach dziewięćdziesiątych* [The library network, library holdings and readership in Poland in the 1990s]/ Małgorzata Dziubińska-Michalewicz, Andrzej Kojder. (Information of the Expert Report Office of the Polish Parliament; issue 797).

³ According to: B. Budyńska, M. Jezierska, G. Lewandowicz-Nosal, G. Walczewska-Klimczak: *Libraries in Poland as of 2012*. In: Polish Libraries / National Library of Poland; [ed. Tomasz Makowski], Warsaw, 2014, pp. 69-85.

⁴According to: *Sieć bibliotek w Polsce, zbiory biblioteczne oraz czytelnictwo w latach dziewięćdziesiątych* [The library network, library holdings and readership in Poland in the 1990s], op. cit.

catch up with or even surpass the academic ones, setting technological and organisational standards in Polish library practice has remained the domain of academic libraries. Thus, it is no wonder that most of the construction investments in the 1990s discussed in this article consisted of building new academic libraries or in upgrading and radically expanding their old buildings. One of the few exceptions is the construction of the Silesian Library (BS) in Katowice, begun in 1989. This scientific – rather than academic – library was historically the first library of the Silesian Parliament, aspiring to the status of a local "national library". Its designers⁵ took inspiration from similar solutions applied in the 1980s in French and British libraries, and drew on experiences in multiple areas (including logistics and transport) for the purposes of automated storage technologies [photo 2]. The distinguishing feature of the building is the centrally located block of the automated storage room, rising up to the highest storeys where both the sequence of the containers (transport units) and that of the books are a random result of the current readers' orders and returns, recorded by a computer. It is only on the lower storeys that compact and permanent storerooms can be found, while the lowest floors: (±0) and (-1), form a chain of reading rooms and workshops. Due to this pronounced hierarchy – first the book storeroom as a treasury reaching to the highest levels, then traditional storerooms inaccessible to readers, and even lower the reading rooms, located near the entrance, but with poor access to daylight and a limited free-access collection - the building has been considered monumental in conceptual terms and technologically impressive, while nothing but correct as far as functional features are concerned. The solution applied at the Silesian Library was not replicated by any other library designer or investor in Poland in the following decade.

The design of the Silesian Library is one of the last examples of the 19th century three-piece model, where the library building consists of distinct segments for the books (storerooms), the readers (reading rooms) and the librarians (workshops). Storerooms unavailable to readers represented 2/3–3/4 of the building's volume, workshops for librarians grew larger as more space was needed for computers and an increasing number of materials to work on, while the working area for readers regrettably shrank, limited to a reading room with a small free-access collection and OPAC terminals stuck in the corner of the corridor. Unfortunately, this was the reality of many Polish libraries in the late 20th and early 21st centuries.

However, for Polish libraries, the years following 1989 saw the construction of a dozen new buildings for major scientific libraries, as well as the

⁵ The Silesian Library building was designed by: Marek Gierlatka, Jurand Jarecki and Stanisław Kwaśniewski (the ARAR Group).

successful upgrading and revitalisation of others, along with innumerable smaller, but also significant projects on a local scale.

An investment that set standards for planning and designing modern library buildings in this part of Europe was the construction of the new University of Warsaw Library (BUW). The history of this investment perfectly reflects the political, economic, and library-related transformations in Poland throughout the last 25 years. Disregarded by the communist authorities as being a hotbed of political opposition and for its intellectual background, the largest Polish university had to wait for years for its new library building despite its 19th century edifice becoming paralysingly overcrowded and worn out. It was not until the first "Solidarity" government with Tadeusz Mazowiecki as Prime Minister that funds were allocated for the design and construction of the new University of Warsaw Library. This was back in 1990. However, the modest state budget, struggling to recover from the economic crisis of late communist Poland, adopted the economic reforms included in the Balcerowicz Plan⁶. The design and construction of the new library were to be financed by renting out the building of the Central Committee of the former PUWP for commercial purposes⁷; it became, for example, the home of the newly born Warsaw Stock Exchange. Thus, the very idea of building a new University of Warsaw Library contrasted with the previous era, first in symbolical terms, reminding us that the seat of the communist party had been financed from voluntary contributions ("building blocks"), and second in financial terms, by transforming one of the symbols of communist Poland into an efficient financial and investment mechanism making it possible for this 4-year (1995-1999) construction project, worth 80m USD, to maintain financial liquidity, and further financing it in the technical and organisational start-up phases.

The success of the new University of Warsaw Library in cultural, media, social and, finally, library practice terms – intensely discussed in the reference literature over the last 8 years – was due to several factors⁸. The first of these was the political and economic boom of the late 1990s, which made it possible for this project to be implemented fully

⁶Leszek Balcerowicz, Minister of Finance in Tadeusz Mazowiecki's government, was author of a package of financial and economic reforms aimed at stopping the country from falling into an ever-deeper economic crisis and helping it transition to a free market economy.

⁷Polish United Workers' Party (PZPR).

⁸See i.a. 1) H. Hollender, E. Kobierska-Maciuszko, *Nowy gmach Biblioteki Uniwersyteckiej w Warszawie* [The new building of the University of Warsaw Library], Rocznik BN [National Library Yearbook], Vol. XXXII: pp.195-214; 2) 10 lat nowej Biblioteki Uniwersyteckiej w Warszawie. Debata: Marek Budzyński, Henryk Hollender, Ewa Kobierska-Maciuszko, Tomasz Kruszewski, Piotr Matywiecki, Anna Wołodko [10 years of the new University of Warsaw Library. Debate: Marek Budzyński, Henryk Hollender, Ewa Kobierska-Maciuszko, Tomasz Kruszewski, Piotr Matywiecki and Anna Wołodko] (eds. Tomasz Kruszewski and Anna Wołodko), "Przegląd Biblioteczny" [Library Review] 2010, issue 2, pp. 155-156.

in line with the ambitions and vision of its authors⁹; the second was its architecture, monumental postmodernism with strong symbolical features [photo 3]; and third, its functionality, which allowed users to directly access items that were most recent and most frequently used in academic didactics. Among Eastern European libraries, the University of Warsaw Library building was the first to implement the 10 commandments of Harry Faulkner-Brown¹⁰ in such a full and coherent manner, especially those recommending that the library be flexible and compact in its structure, with an open-planned building design allowing for rearrangements and unrestricted access to the holdings [photo 4] - all of which should be arranged systematically, leading the reader from general to detailed information in a suggestive way without limiting individual choices. This, together with the value of the collections, allows the BUW librarians to compete on relatively equal terms with the flurry of information available online in terms of educational effectiveness, usefulness for research purposes, and social appeal.

The new University of Warsaw Library soon began to set the standards for several further buildings designed for large academic libraries; this is especially visible in the Wrocław, Gdańsk, and Łódź university library designs.

The design of the Wrocław University Library (BUWr) was authored by designers previously working on the BUW building¹¹. The edifice, comparable to the University of Warsaw Library as far as its size and capacity are concerned¹², is located on the boulevards along the Oder river in Wrocław [photo 5]. It was designed as two compact blocks: the main part of the library, where service desks and storerooms for general holdings are located, along with free access books and departments for the cataloguing of new acquisitions, and a second part for reading rooms, storerooms and special collections workshops. The two parts are connected by a walkway with the main entrance to the library. The functional solutions applied make it possible to flexibly rearrange the building structure in the future if need be, also by transforming closed storeroom spaces into working areas for readers.

⁹ The building was designed by Warsaw-based architects Marek Budzyński and Zbyszek Badowski; the authors of the library technology design were BUW librarians Zdzisław Piszczek, PhD, and Ewa Kobierska-Maciuszko; for the full list of members of the design team see: *Magazyn Budowlany* [The Construction Magazine] 7/1999.

¹⁰ Harry Faulkner-Brown, British architect, designer of numerous libraries, author of the "10 Commandments" to which library buildings should adhere; see also: Faulkner-Brown H.: *Factors affecting the planning and design of academic libraries: speaker's notes for the British Council Seminar*, in: *Library planning and design.* – *Newcastle upon Tyne*, 11–24 Sept. 1994.

¹¹ The building was designed in 1999. Its chief designer was Jacek Rzyski, student of Marek Budzyński; Henryk Hollender was responsible for the library technology design.

¹² Surface area (excluding service and commercial areas): BUWr: 37,000 m², BUW: 36,000 m², capacity of both buildings: ca. 4 m book volumes.

Another successful design was implemented by the Gdańsk University Library (BUGd)¹³. Its architectural form subtly uses marine themes and makes its up-to-date didactic and scientific collections fully available on site (no closed storerooms), providing outstanding results, for medium-sized university standards, in terms of efficiency and aesthetics [photo 6]. The building is located in the very centre of the university campus and has a usable surface area of 15,000 m². Ever since it was opened to the public in 2006, it has been gaining in popularity and getting more and more interest from the public.

All three projects used spatial and organisational solutions commonly applied in Western European and American Libraries – sometimes, however, with excessive caution, succumbing to pressures to modify and adjust these ideas to "Polish conditions". Nevertheless, in this part of Europe they were truly avant-garde projects which took into consideration the rise of new, mainly digital technologies of storage, cataloguing and sharing information on the one hand, and fostering the noble idea of freeing the reader from numbered tables at the reading room, making his or her work at the library more independent and with free access to ever larger parts of the printed holdings as well as online resources, along with a variety of other services.

The Łódź University Library (BUŁ), one of the largest Polish academic libraries, used to be located in a building dating back to the early 1960s; at the beginning of the 2006/2007 academic year, a new segment, integrated with the old one, was put into service [photo 7]. As a result, the library's surface area nearly doubled, which was crucial considering its overloaded storerooms. However, it was equally important that at an early stage a decision was made to change the arrangement of holdings and service areas in the projected new part of the building. Over its several floors, the Library provides an area with freely accessible collections organised systematically in accordance with the Library of Congress Classification (like in BUW), connected with the old storeroom area with a Telelift transport system. Its terminals reach the service desks of librarians on the entire floor, which allows users to work with both new and older materials.

The libraries of several smaller universities were also designed in a similar way, namely the Białystok University Library, opened to the public in 2004, the University Library of the University of Warmia and Mazury in Olsztyn (launched in autumn 2007), and the libraries of the University of Silesia and the University of Economics in Katowice (not to be confused with the Silesian Library, discussed above). These last two are linked in terms of space and organisation within one of the most impressive Polish library

¹³ The building was designed in 2001. The chief designer was Konrad Tanasiewicz; Ewa Kobierska-Maciuszko was responsible for the library technology design.

buildings of the 21st century, namely the Scientific Information Centre and Academic Library (CINiBA), located in the heart of Katowice and opened to the public in 2011 [photo 8]¹⁴.

The Jagiellonian Library in Cracow opted for a different path. There were plans for its building to be upgraded as far back as in the original pre-war project by Wacław Krzyżanowski, and it was first expanded in the 1960s. The current design by Romuald Loegler has been methodically inspired by both previous stages¹⁵. The Jagiellonian Library was able to avoid the common investment issue many large libraries face when they operate in their historical locations, in old academic and urban centres where space is tight - namely insufficient land available for spatial extension and upgrading owing to the building's urban planning, luckily projected already in the original design¹⁶. It was enlarged by a new segment with a surface area of 15,000 m² and a capacity of 1.5 m book volumes [photo 9]. Hence, the usable area and storeroom capacity was doubled to provide space for new holdings for the next 20 years, assuming a business-as-usual scenario as far as the influx of printed materials is concerned¹⁷. The area available to the public was expanded by a set of new thematically divided reading rooms: for science, modern languages and multimedia. Waiting time has been reduced as much as possible given the capacity of the Telelift transport system, which provides books from storerooms unavailable to the public. This description alone indicates that the traditional arrangement has been kept for the storerooms (which are not available to the reader) and loans (in special, thematic reading rooms): This, in the author's opinion, ignores completely the experiences of modern library practice in terms of intra-library spatial arrangement and its role as a stimulating factor for the reader's individual research and the development of their own working methodology.

As far as investments in spatial infrastructure are concerned, academic and scientific libraries were ahead of public ones all throughout the democratic period in Poland (1989-2004). This is significant considering that at these libraries as many as 66.2% of registered users are readers of academic libraries (students and academics), and that accessing holdings on site is more than twice as frequent as external loans¹⁸.

¹⁴ The authors of the project were Dariusz Herman and Piotr Śmierzewski (HS99), see also http://projekt.ciniba.edu.pl/

¹⁵ The new building of the Jagiellonian Library was built in 1931-39, chief architect: Wacław Krzyżanowski; 1961-1963: 1st extension, chief architect: Jerzy Wierzbicki; 1996-2001: 2nd extension, 1999-2002, chief architect: Romuald Loegler.

¹⁶ The Jagiellonian Library building follows a T-shaped layout. An undeveloped plot was left to allow for future extensions that would transform the building's layout into an H-shape.

¹⁷ Typically, large academic libraries in Poland receive an annual influx of 30,000-40,000 volumes.

¹⁸According to: *Analiza Funkcjonowania Bibliotek Naukowych. Wskaźniki efektywności i dane statystyczne* [Functional Analysis of Scientific Libraries. Efficiency Indicators and Statistical Data]. [online: http:// afb.sbp.pl/afbn/pl].

PUBLIC LIBRARIES. SPATIAL CHANGES AND THEIR FIGHT FOR SURVIVAL IN THE AGE OF CULTURE DOMINATED WITH IMAGES

According to the most cautious estimates, ca. 70% of all public library buildings in Poland required upgrading and enlargement at the beginning of the 21st century. After Poland joined the European Union (2004), large and comprehensive support programmes for libraries were launched¹⁹. It was only a question of agility on the part of local governments and librarians whether they could be utilised for the libraries' benefit. Dozens of local (municipal, school and county) library buildings and premises were upgraded. Some of them were aesthetically impressive and practically implemented the concept of the Third Place (supplementing home and workplace), providing the reader with access to library services on their way to and from school or work - at railway stations, in supermarkets or beside sports centres - and attracting much attention from the public and the media as well as from readers. This brought about an unprecedented success in terms of turnout rates and media coverage. Such libraries operate for example in the small towns of Chrzanów, Oświecim and Legionowo as well as in many other localities: the library located at the Rumia railway station was awarded the 1st prize in the Library Interior Design Awards international competition²⁰ [photo 10]²¹.

From among the worthwhile revitalisations of large public libraries, let us have a closer look at two: the recently completed (1st stage) radical transformation of the Warsaw Public Library and the subtle but functional upgrade of the Raczyński Library in Poznań, located in a historic building.

The building of the Warsaw Public Library, which is also the Central Library of the Masovian Voivodeship, was funded by the Warsaw Kierbedź family in 1905, and soon after opened to the public. Even back then, it was located in the very heart of the old Warsaw city centre. World War II destroyed the main collection of the library, its building was also partially burnt out and completely ruined. In the 1950s and 60s, it was reconstructed and its book collection rebuilt, which was followed by a rapid increase in readership and usage for all the library services and functionalities. Rather than being rebuilt, the Kierbedź library was ex-

¹⁹ Such programmes were run, among others, by The Book Institute (within the KULTURA+ Multiannual Programme LIBRARY+ PRIORITY – LIBRARY INFRASTRUCTURE) and by the Information Society Development Foundation (Library Development Program).

²⁰ More about this competition at: http://www.iida.org/content.cfm/ala-library-interiors

²¹ All such new and upgraded libraries have been documented in professional media, for example at: http://lustrobiblioteki.pl/category/nowe-biblioteki/

tended on several occasions to include the new buildings nearby²², as well as smaller outbuildings and annexes added to it on an ad hoc basis.

Architects Andrzej Bulanda and Włodzimierz Mucha, awarded the 1st prize in the 2006 competition of the Association of Polish Architects, faced a challenging task given, on the one hand, the complex urban planning and technical conditions of the confined space available within the city centre, and on the other, the functional requirements of a large library where it is never easy to switch from traditional procedures to new features and topographical principles. They suggested that the makeshift structure from the 1960s be replaced with a compact building illuminated top-down with daylight through a glass roof, softly adjoining the internal façade of the Kierbedź building to the south, and filling the entire space between the multi-storey "storehouse" building and the external residential and office buildings of the Warsaw city centre that surround it from all the other sides. The entrance through the "Mermaid" gate leads readers to a large stone patio from where several routes can take them to various reading rooms at different levels.

The ground floor is the central part of the new building, where readers gather and are directed to other areas. Spacious courtyards covered with glass roofs, apart from housing the reception, registration, and information desks, have also become an area of recreation and informal meetings.

The ground floor of the new building is mostly occupied by the Faustyn Czerwijowski Reading Room²³ [photo 11], with considerably larger free-access collections than the ones that used to be available in the "old" reading room, being enhanced by items previously kept in the storerooms, and ensuring the possibility of further expansion of the collections through adding contemporary information publications as well as research and popular science literature from all domains. The reading room is a friendly and comfortable place of work²⁴ for school and university students, the main target group of the Library²⁵, freeing up in this way the main reading room of the Kierbedź building, oriented rather towards sharing historical holdings from the collections kept in storerooms.

²² The most important stages of the enlargement were the construction of the 7-storey "storeroom house" during the years 1949-1954, and that of the 5-storey "seal" building with reading rooms for free-access book and press collections in 1968-1973.

²³ Faustyn Czerwijowski, director of the Library in the years 1912-1937.

²⁴ This offers much convenience, together with the large working surface of the desks for readers: every reader's desk in the Library, like in the University of Warsaw Library, is above standard size: 100x70 cm (Polish standard: 90x60cm), and is equipped with an individual lamp with adjustable brightness and access to power supply.

²⁵According to the Library's loan statistics of 2012, 70% of those who visited it were students under the age of 25 [as per: *Sprawozdanie z działalności merytorycznej Biblioteki Publicznej m.st. Warszawy – Biblioteki Głównej Woj. Mazowieckiego za 2012 rok*] [Report on the main activities of the Warsaw Public Library and the Main Library of Mazovia Province of 2012], [typescript copy].

On the ground floor there is a separate area for the Children's Book Museum, with a spacious reading and workshop room; the Museum also holds numerous cultural events in the Library courtyards.

The Newspaper and Periodical Reading Room is located on the 1st floor, with an abundant collection of current issues (ca. 300 titles). Next to it, there is the Varsaviana Reading Room with a collection of around 12,000 volumes, freely accessible in its entirety. The large Arts, Crafts, and Cartography Reading Room is located on the 2nd floor, with its extensive and attractive free-access collection.

The spatial arrangement of this fully modernised area complies with the requirements of the usability programme stipulated by the competition rules. Now, the library faces a new challenge: planning the 2nd stage of its upgrade, which involves revitalisation of the "seal" and "storehouse" buildings. Both are covered by a single competition project and even by one building permit, but require verification due to the lapse of time, both in terms of technical solutions and library-related features²⁶.

The extension of the Raczyński Library in Poznań²⁷ did not affect the historic architecture and interior design of its monumental building to such a great extent as in Warsaw. The architectural design by the JEMS Architekci architectural office extended the historic part of the building by 11,000 m², while fully respecting the urban planning and architectural fundamentals of the existing structure, gracefully combining both modules [photo 12]. The new section houses public reading rooms with free-access collections, compact storerooms, and workshops.

The above examples are by no means exhaustive. This article calls attention to no more than a few most symptomatic and high-impact projects. The above investments alone, completed in the last 25 years, increased the available library surface by ca. 180,000 m² and provided ca. 12,000 new seats

for readers. This reflects an unprecedented boom, contrary to stereotypical opinions that libraries are underfunded and neglected by political leaders and decision-makers.

New library investments in the last 25 years have made it possible for Polish libraries to catch up with the rest of Europe after the harsh commu-

²⁶More details on the enlargement of the Library on Koszykowa Street as well as my reflections from the years 2012-2015, when I worked with the Library Managing Team as a Library Redevelopment Consultant, can be found in my commemorative article (Kobierska-Maciuszko, 2015, pp. 4-9)

²⁷ The Raczyński Library was founded by Edward Raczyński, a Greater Poland magnate, art and science sponsor, book author, journalist and editor who had the building erected especially for the Library (opened to the public in 1829). See also: http://www.bracz.edu.pl//index.php?option=com_content&task=view&id=256&Itemid=104.

nist period, although Poland, like other Eastern European countries, missed out on the library construction boom of the 1960s and 70s which strongly marked Western Europe and the U.S. Today, we are facing the same dilemmas as the rest of the world: how do we design new library buildings at a time when it is more and more frequently assumed that the only problem related to paper-based resources is their dense storage? To what extent will digitisation change the role and work style of a scientific library? How about its spatial arrangements? Will it still need any physical space at all? Are even the most visionary projects capable of reversing the decline in readership in Poland? On the other hand, after moving into new locations, each of the above libraries recorded a massive increase in interest in all their services, whether it was in numbers of readers, loans, website views, fulltext downloads or other forms... as if the quality of their physical premises influenced interest in their information services, irrespective of whether these are provided in hard copy or in digital form. The number of around 3,000 users visiting the University of Warsaw Library every day is the best proof of this²⁸. Therefore, the Library, despite having its virtual locations too, has remained a primarily physical space of intellectual and social interaction for readers and librarians. Let us hope this kind of social activity, this free but organised access to various resources and information media, is maintained in the new library locations for good, for the benefit of further generations of users.

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²⁸ Yearly average, according to: *Sprawozdanie BUW i bibliotek wydziałowych UW za rok 2012* [Annual report of the University of Warsaw Library and faculty libraries for 2012], Warsaw 2013

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Photo 1. National Library of Poland, 1981, main entrance, glacial erratics in the foreground [photo by Grzegorz Mazurowski, National Library of Poland]



Photo 2. The Silesian Library, the tower part contains automated stacks, Katowice, 1992 [photo by Joanna Rzepka, The Silesian Library]



Photo 3. The University of Warsaw Library, 1999, the front, so-called "culture" elevation – displaying quotes from various texts of culture and science [photo by Jadwiga Antoniak, The University of Warsaw Library]



Photo 4. The University of Warsaw Library, main hall holding the Library catalogs, surrounded with open stacks collections [photo by Jadwiga Antoniak, The University of Warsaw Library]



Photo 5. Wrocław University Library, 2005 [photo by Justyna Żaczek, Wrocław University Library]



Photo 6. Gdansk University Library, 2006 [source: http://www.bg.ug.edu.pl/o-bibliotece/prezentacja-biblioteki]



Photo 7. Łódź University Library, 2006, side by side with the former Library premises (visible in the right upper corner) [photo from the Library collections]



Photo 8. The Center of Scientific Information and the Academic Library (CINiBA), Katowice, 2011 [photo by CINiBA, source: http://projekt.ciniba.edu.pl/index.php?option=com_content&view= article&id=217&Itemid=88]



Photo 9. The Jagiellonian Library, a new building with the former premises and the passage joining both buildings in the background, Kraków, 2001 [photo by Ludwik Węgiel, the Jagiellonian Library]



Photo 10. "Culture Station" – Municipal Library in Rumia (Pomorskie region) situated at the railway station (before and after refurbishment) [source: http://stacjakulturarumia.pl/]



Photo 11. "Koszykowa" – Main Library of the City of Warsaw, Faustyn Czerwijowski new reading room, 2015 [source: http://www.koszykowa.pl/biblioteka/rozbudowa/aktualnosci]



Photo 12. The Raczynski Library, the old building with a new extension, Poznań, 2013 [source: http://www.bracz.edu.pl/]

