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THE UX SPECIALIST IN POLISH LIBRARIES – TASKS, COMPETENCIES, CHALLENGES



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Flexibility of Academic Libraries in a Vuca Reality: the Example of the Functioning of Libraries During the Covid-19 Epidemic” in *Przeгляд Biblioteczny* (2020, Special Issue, pp. 70-93); „Problematyka zarządzania bibliotekami w świetle analizy zawartości wybranych czasopism naukowych z lat 2015-2020” co-authored with Magdalena B. Król in *Annales Universitatis Paedagogicae Cracoviensis. Studia ad Bibliothecarum Scientiam Pertinentia* (2021, Vol. 19, pp. 709-727); and „Lustrzany świat sportowców – user experience platformy treningowej Zwift w świetle badań” in *Annales Universitatis Paedagogicae Cracoviensis. Studia ad Bibliothecarum Scientiam Pertinentia* (2022, Vol. 20, pp. 691-714).

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ABSTRACT: Thesis/objective – The aim of the article is to attempt to characterize a new, user experience-oriented specialization in the librarian profession in Poland, as well as to indicate the competencies necessary to work as a UX specialist in a library. Based on in-depth interviews, the awareness of and approach to user research with regard to UX on the part of academic library management

is characterized, as well as experiences and reflections on this topic. The scope of duties and competencies of a UX designer on the commercial market is characterized and an attempt is made to relate them to work in a library. An analysis of educational curricula in library science studies in Poland is made in terms of UX.

Methods – The method of literature analysis was used to characterize the UX librarian profession, while diagnostic survey, in-depth interview technique and case study were used to learn about UX activities in selected Polish academic libraries, as well as the comparative method in the analysis of library education programs.

Conclusions – The UX librarian can play a significant role in improving the quality of library services by designing the user experience in traditional and digital spaces. The need to get to know the library user in-depth and to conduct research is deeply rooted in the awareness of the management staff of Polish libraries, and various needs and satisfaction surveys are conducted, but the methodology typical for UX is rarely used. The UX librarian's competencies relate to designing, conducting research and building UX awareness in the organization using appropriate tools and programs, and also include a number of soft skills. Curricula of academic library studies include the subject of UX to a minimal extent.

Formulated by D. Norman in the 1990s, the term “user experience”, referring to the experience of the user of a given product or service, is now widely used in many fields of knowledge and practical activity. Interaction and digital environment design, service design, psychology and behavioral aspects of use, architecture, marketing and market research, and for over 20 years now also librarianship – wherever there is a need to understand, plan and improve the interaction between the user and the system, product or service, the term “user experience” appears. The definition of UX by the International Standard for Human-System Interaction Ergonomics, ISO 9241-210, as “a person's perceptions and responses that result from the use or anticipated use of a product, system or service” (*ISO 9241-210. Ergonomics of human-system interaction – Part 210: Human-centred design for interactive systems*, 2019) reflects the versatility and multidirectional nature of this thematic area. UX, therefore, is all the user's emotions, beliefs, preferences, perceptions, physical and psychological reactions, as well as behaviors and achievements that take place before, during and after using the product. In the context of designing and delivering services that take into account UX, we mainly talk about: processes based on a thorough understanding of the needs, behaviors, habits and contexts of the user, engaging the user at the early design stages, creating a sense of co-ownership of the product / service for the user, and referring to the overall experience of the user. At the same time, an in-depth understanding of the user's needs and emotions is achieved through qualitative and quantitative research, analysis, and interpretation of the data obtained, modeling the results in various ways, thanks to which solutions based on facts, not

designers' intuitions, can be implemented. UX practice also includes the preparation of prototypes and mock-ups, and may also include designing interfaces, writing texts understandable to users, and even managing a project team.

The purpose of this article is to characterize a new specialization in the librarian profession, focused on building and designing positive user experiences, with particular emphasis on Polish academic librarianship. Referring to the work of a UX designer on the commercial market, as well as analyzing the experience of American librarians in the field of UX implementation, the tasks and competencies of a UX librarian on a national basis are presented here. Using the diagnostic survey method and in-depth interview technique, the experience of selected academic libraries in the field of user research is presented. Based on the literature on the subject, and the author's own research and personal experience, the competencies of a UX librarian are characterized and compared with the education system in library science studies.

THE PROFESSION OF A SPECIALIST / DESIGNER / UX ANALYST IN POLAND

In the UX industry, there are experts dealing with both a narrow thematic scope, as well as specialists whose task is a comprehensive approach to designing user experiences and impressions. The first group includes, among others: UI designers, interaction designers, copywriters, information architects or researchers – these usually work in interactive agencies and software houses specializing in designing digital products. A UI Designer (*User Interface Designer*) designs user interfaces, including layout, typography, colors, icons, and other visual elements, focusing on aesthetics, readability, and consistency of the interface. A UX Researcher is responsible for researching users in order to understand their needs, preferences and behaviors; A Usability Specialist assesses the usability of interfaces, conducts audits and recommends changes to ensure a better user experience. The Interaction Designer's tasks include designing user-system interactions, prototyping interfaces, and defining user paths. The Information Architect takes care of the clear and logical structure of information on the website, while the UX writer focuses on creating clear, legible and understandable content and messages. In the case of large and advanced projects, specialists responsible for individual UX branches form teams, but sometimes these duties rest on one person dealing comprehensively with user experience as a UX Designer or UX Specialist. In such a case, this person's task is to integrate various aspects of user-oriented design: planning, research and testing in order to offer users a product that is useful, attractive and provides positive emotions.

Market observation and analysis of industry portals, training offers and thematic discussion groups allow us to conclude that the UX industry in Poland has been developing dynamically for nearly a decade. According to the data presented in the *User Experience and Product Design in Poland 2021 Report*, the average length of experience in the UX profession is 5 years, and every third respondent has more than 6 years of experience. In Poland, people employed in the positions of UX designer (this has been the most popular job title for years) perform tasks in three basic areas: design, research, and proselytization. Therefore, the most frequently performed duties include: designing mock-ups, usability studies, interaction design, building UX awareness, needs research / discovery, visual design, workshops with businesses, providing consultations, expert audits, and workshop facilitation. The report also shows that UX designers are employed primarily in: product and service companies (22% and 17% of responses), software houses (14%) as well as interactive agencies and the e-commerce industry (11% of responses each), and the preferred work system they use is a mixed mode, i.e. a hybrid one, consisting in alternating remote work with stationary work in various proportions (Mościchowska et al., 2021).

It is worth adding that such a picture of the UX industry in Poland is not reflected in the *Classification of Professions and Specialties for the needs of the labor market* developed by the Ministry of Family and Social Policy. In this Classification, as of January 31, 2023, there is only one item related to UX, and it is *User experience analyst* - code 251104 - belonging to the group of computer systems analysts, and therefore strictly anchored in the technological division. According to the characteristics published on the Ministry's website, "the user experience analyst analyzes the behavior, attitudes and emotions of users regarding the use of a given IT product, IT system or IT service in order to increase the satisfaction of customers using a given IT solution by improving its functionality and usability. The UX analyst also suggests ways to improve the user interface and usability of web products, systems or services; designs prototypes of products, ensuring that the tool is intuitive and pleasant to use" ("User experience analyst", 2023). Referring in turn to the most popular job advertisement website in Poland, Pracuj.pl, which was visited by 4.4 million users in 2021 (*Grupa Pracuj.pl - information about the company, April 2022*, 2022), searches on job descriptions related to user experiences yielded only the description of the profession called UX specialist. According to Pracuj.pl, the UX Specialist (placed in the "internet / e-commerce" category) is responsible for "creating functionalities dedicated to specific users, such as websites, web and mobile applications or interfaces in accordance with applicable guidelines; in addition, they prepare prototypes or mock-ups of solutions and examine the needs of users, and after implementation, conduct usa-

bility tests of new solutions” (“Specialist UX – profile of the profession”, 2023).

As you can see, a UX specialist is mainly identified with a person responsible for building useful and friendly digital products and services. Is there a place for one also in the library environment?

UX SPECIALIST IN THE LIBRARY

In library science and librarianship, the subject of UX has been of concern for over 20 years, although the essential problem related to the in-depth knowledge of the needs and expectations of users has been analyzed much earlier (Jaskowska, 2023). An analysis of the literature on the subject indicates that the first librarian employed as a *User Experience Librarian* was Brian Mathews and it took place in 2007 at the Georgia Tech Library (MacDonald, 2015). The person in question described his new responsibilities at the time as follows: “Basically my job now consists of user research and making recommendations to management and department heads. I will also work with others to develop targeted communication and branding strategies. The biggest challenge will be convincing all departments to trust me – just say the word ‘evaluation’ and people go crazy” (Mathews, 2007). Over the years, the scope of duties of a UX specialist in a library changes and develops, but it always remains in close relationship with the specificity of the library, it is the structure and organizational culture as well as the type of user. It is also clear that this position is not exclusively related to the design of digital services, as is the case in a commercial environment. The UX specialist in the library is tasked with designing and implementing user-oriented solutions that apply to both the library’s virtual and traditional space.

In 2015, C. MacDonald conducted an interesting study on the profile of the UX librarian in American institutions. The data was collected using the technique of a structured in-depth interview, which was conducted with 16 librarians identifying themselves with the UX area (respondents were searched for by appropriate phrases in Google, as well as on LinkedIn, Twitter, and by analyzing the hashtags used in social media). MacDonald’s analysis shows that people dealing with UX in libraries look at their profession very differently, but most often they list the following features when characterizing their duties and UX librarianship:

- user-centric thinking,
- activities strictly based on research (qualitative and quantitative),
- activities covering both the digital environment and the real library space,
- processes that are more about usability testing than product/service design (MacDonald, 2015).

Undoubtedly, the specific tasks performed by the UX librarian depend on the specificity and size of the library, its organizational structure and the managerial and cultural context. Therefore, it is difficult to indicate one universal scope of duties of a UX specialist / librarian. However, based on the literature on the subject (Dorney, 2009; Fox & Doshi, 2011; MacDonald, 2017; Dagan, 2018), the dominant areas of the UX librarian's activities can be identified as follows:

- designing and conducting research with users using methods and techniques typical of the UX approach,
- usability testing of digital library services,
- modeling and reporting research results to the management and the entire library team, as well as (in the case of services from external providers) to other entities in order to introduce changes,
- identification and coordination of activities related to the assessment of the quality of library services,
- designing the library website and other digital library services,
- analysis of the library space in terms of user-friendliness and designing way-finding navigation signs,
- proposing changes resulting from the obtained research data; participation in the team implementing changes,
- activities aimed at ensuring digital accessibility of library services,
- being the "advocate" for users in contacts with the library,
- cooperation with other library agencies, IT department, marketing, etc. with clear support from the management.

As can be seen from the presented tasks, the UX librarian views library services comprehensively (digital and traditional) – designing, researching, analyzing and organizing various processes taking into account the user's impressions and experiences.

THE UX SPECIALIST IN THE POLISH ACADEMIC LIBRARY – OUTLINE OF THE SUBJECT BASED ON THE AUTHOR'S OWN RESEARCH

Is there a place in Polish libraries to carry out tasks focused on designing and implementing positive user experiences? How, in the opinion of the management staff, should these processes be implemented and organized? Do academic library managers see a place for a librarian / UX specialist in their organization? These questions, among others, were an impulse to conduct my own research on the presence of UX topics in academic libraries in Poland¹.

¹ The research presented here was described in the article entitled "UX librarian – a new specialization in the profession?" *Przegląd Biblioteczny* V. 91, 2023.

The aim of the study was to get acquainted with the issues discussed, to determine whether and to what extent an approach oriented to user impressions and experiences is present in academic libraries, and to consider how to effectively implement the UX idea in academic librarianship in Poland. This research should be considered as an introduction to more advanced analysis in this area and to other quantitative and qualitative research conducted on a larger scale, which would give a broader view of the phenomenon discussed and would allow the identification of certain trends or relationships.

The research was conducted using a semi-structured in-depth interview according to a prepared research scenario. Interviews were conducted with eight respondents who represented seven academic libraries (university and technical) – they were library directors and (in two cases) people directly related to user research in the spirit of UX. The interviews took place between December 20, 2022, and January 30, 2023.

The qualitative analysis of the collected material, in which the MAX-QDA program was used, allowed for the identification of the following issues and topics: activities undertaken in connection with research and learning about the needs and impressions of users; the organization of this process and the management's awareness of the user-oriented approach; reflections, questions about the future. As part of the analysis, an attempt was also made to indicate what competencies, according to the directors, are desirable in the job in question. Further in the article there is a summary of these topics, including anonymous quotes and fragments of respondents' statements, which are also supplemented with two case studies of interest from the UX perspective.

The basic conclusion that can be drawn from all the interviews is the high awareness of management staff in terms of conducting user research and gaining knowledge about the needs of readers. This awareness does not always boil down to taking specific actions and does not always lead to the use of techniques and tools typical for UX, but the way of looking at library services through the prism of the user seems to be quite firmly rooted in library practice. One may even be tempted to conclude that the subject of UX in Polish academic libraries is mainly (with a few exceptions) limited to the issue of user research, especially in the context of learning about their needs, expectations and assessing satisfaction (and not a thorough analysis of user experiences and impressions). Another conclusion is not so optimistic and concerns insufficient financial and human resources to implement interesting projects and changes aimed at user satisfaction.

RESEARCH CONDUCTED AND TECHNIQUES USED

The analysis of the interviews shows that the dominant technique of formalized research of users in academic libraries is the survey. The questionnaire (distributed electronically, as well as in paper form) is appreciated for its universal nature, standardization facilitating repetition and cyclicity of research, and its universal, quantitative character.

- “The questionnaire is the same, at most we add questions to it that result from our current activities”
- “The assumption was to periodically survey users and compare these results over time”
- “If we are going to do research, it will only be through a survey”
- “A modern library simply has to adapt its services to users, and the survey – apart from daily conversations and observations – is the easiest way to learn about their needs.”

In the surveyed libraries, both one-off surveys were conducted, including the use of a tool prepared by the SBP for surveying user satisfaction (“Library User Satisfaction Survey”, 2018), as well as cyclical surveys, carried out at appropriate intervals and developed individually taking into account the specificity of the library and its users. As emphasized by the respondents, in the case of a survey, it is important when the research is conducted, significantly affecting the results obtained and the determination of cyclicity. While in the past, an interval of several years between examinations was justified, in today’s very dynamic and changing times an interval of 2 years (maximum 3 years) seems to be optimal.

In the respondents’ statements, there was also the conviction that formalized research is not always necessary to understand the needs of users. The important role of individual contacts with users, which take place in sharing branches, was emphasized, as well as direct contact, e.g. during a traditional library training session. Many times in this way, during informal and casual conversations with users, you can obtain valuable information to improve the quality of services.

- “These are not formalized surveys, but we always try to respond to every reported need of the user, guided by the principle of maximizing the availability of the service (i.e., making the resource available) and the product (i.e., the book). We’ve asked a lot, especially during the pandemic, how we can simply help our users.”
- “Users know that we are always waiting for their feedback and that we analyze all their requests and proposals and that we implement what is possible from an organizational perspective.”

Other research techniques that, in addition to the survey, appeared in the respondents’ statements were analyzing statistics and hard data (shares and use of electronic resources), reading comments in social media, collec-

ting opinions and suggestions from users using special forms and physical boxes / urns made available in the library or through guest books, as well as using typical UX techniques as was present in two libraries: observations, in-depth interviews and focus groups, and various types of research on the usability of library digital services. The latter will be discussed in the case studies section.

ORGANIZATION OF RESEARCH AND REQUIRED COMPETENCIES

It is difficult to point to a dominant trend in the organization of research in libraries, apart from the fact that most often the person or team conducting the research is located in the reader access / service department. With the exception of one library, issues related to research are not permanently assigned to a specific position and person – they are rather conducted ad hoc, as a result of an emerging need, or on the initiative of the employee him or herself. Respondents emphasized the fact that teamwork and a common understanding of the UX perspective among all library employees is necessary here – one specialist in research looking at services from the user's perspective is not enough.

- “All library employees, including those from the so-called back office need to look at the services we offer from a broader perspective and understand the needs and behaviors of our users”
- “It seems to me that in every user-related department there should be a person (or a team of people) who will look at the user's activity through user's 'eyes'. And when a need for change is perceived, that person brings it up to the supervisor for further action.”

The exception on the map of the surveyed libraries is the University of Warsaw Library, where since 2020 there has been a position dedicated to designing and developing services from the user's perspective. The characteristics of activities undertaken in this area will be presented in the further part of the analysis.

An interesting observation is the fact that libraries are open to cooperation with other university units and even external companies in terms of research and getting to know users. Cooperation is undertaken, for example, with the scientific circle of sociologists in the case of conducting surveys, or employees of the Faculty of Architecture in order to determine the needs of users regarding the development of space in the library building.

When it comes to the virtual space of the library and user research related to it, librarians also establish cooperation with other units. These are scientific and didactic institutes at the university dealing with designing information and testing the usability of websites, central units from the

broadly understood “research and development” sector, as well as external companies.

- “External research and commissioned expert analysis can be more powerful than research conducted by librarians. If we paid for something, if it was examined and analyzed by experts, maybe money could also be found to implement these solutions?”

When asked about the best positioning of the person “responsible for research” in the structure of the library, there were various suggestions from the respondents, but the prevailing opinions focused on the lending department or the functioning of an interdisciplinary team that would research and implement the proposed changes, with the clear cooperation of people responsible for library marketing.

And what do respondents say about current and desired user research competencies? Some of the respondents did not hide their doubts whether their team included the right people with sufficient competencies and skills to conduct reliable research. In these statements, the issue of remuneration was often raised, which rather discourages than attracts committed employees willing to develop libraries.

- “She was a fantastic librarian, with passion, openness and great commitment. Unfortunately, when it came to talking about a raise, I couldn’t offer her anything competitive to the offer she got on the commercial market. She is no longer working for us.”

However, there were also completely contradictory opinions, affirming the fact that the library has appropriate employees who are willing and able to conduct research, as well as statements regarding the required training and teamwork skills.

- „Yes. I have a few really competent people in my team who, if properly directed, will surely manage the project of implementing a new library website”
- “Informal communication plays an important role in learning about the needs of our users. The ability to listen, ask questions and just ordinary human cordiality – seemingly obvious, but these are very important features in everyday work with the reader”
- „Conducting good research, going beyond the questionnaire, would certainly have to be preceded by appropriate training for the library staff”
- “It seems to me that not only the issue of individual competencies and skills, but rather the ability to work in a team is crucial here. Which, in a way, is also a competency”.

As the analysis presented here shows, it is difficult to indicate one, best way of organizing research in academic libraries. On the subject of competency, there is a need for training in order to acquire additional qualifications, the ability to work in a team, openness, commitment, asking

questions and listening, and passion as well. It is also worth emphasizing the fact that the management pays attention to the organizational culture – one person or department is not enough, all librarians should be aware and “vigilant” towards the user and look at the library from a broader perspective.

AWARENESS AND REFLECTION

All respondents were convinced of the need to take into account the user’s perspective in the current functioning of the library.

- “I have the impression that we rarely answer the fundamental question of modern librarianship: what kind of library do users need?”
- “A modern service unit should carry out research to find out the requirements of students. If we want our services to reach the interested parties, we absolutely cannot close ourselves to traditional and theoretically proven frameworks. I can’t imagine a library that doesn’t research and analyze hard data provided by users”
- “So far we have not conducted research, but I see a great need to carry it out. We need this knowledge”
- “The library’s priority should be to respond to the specific needs of the community it serves. And knowing these needs is only possible through research.”

All respondents point to the fact that the current time is a good (ideal?) time to conduct research and to consider the direction of further development of library services in the academic environment. The pandemic has redefined the way we function – it has moved many things into the digital world, but at the same time it has made physical space and personal contact play an important role again. If you are to study users, now is the time – this is one of the main conclusions of the study.

- “The pandemic has changed us employees and, above all, changed the users and their habits and approach to using the library and its services. The physical space of the library must now be a place not only for studying, individual or group work, or waiting out the gap between classes, but it should also take into account the so-called social distancing and be adapted, for example, to remote participation in lectures that take place at our university and will probably continue to take place in this way. I will not mention the use of digital resources – after all, everything is happening online and in the mobile environment today”
- “Although we see that everything is now moving to the digital world, we are also surprised to see that our library is full. Students come, spend time in our open spaces and really expect a personalized ap-

proach to them as people, not avatars on [Microsoft] Teams. They want to be in the library and spend time there: both in groups and not necessarily quietly, as well as individually and in guaranteed comfort and concentration. This somewhat contradicts the common view that we are all escaping to work, study, and remote contacts right now.”

In libraries where user surveys are not currently conducted or have not been conducted in the past few years, there are plans for them to be carried out, for example in connection with the creation of a new library website.

- “We are planning to implement a new version of the library website and a project team will be established, which will include librarians and a person from the university IT project support center. We will start with interviews with users to find out what content and services on the website are most important to them. I am counting on professional substantive assistance from our Centre.”

Increasing attention is also paid to the analysis of the so-called hard data, which, thanks to advanced analytical functions in computer systems, provide extensive and reliable information about the real behavior of users.

The respondents drew attention to the important fact that the implementation of changes initiated by a signal from users should always be accompanied by appropriate marketing communication.

- “It is important to communicate to users that we are changing, taking into account their proposals and reported needs, that we hear their opinion. Each implemented change must be accompanied by an appropriate promotional and PR campaign.”

In several conversations there was a (sad) opinion expressed that asking users about their visions and needs misses the point, since the library cannot meet them.

- “Let’s assume we do great and comprehensive research, get nice data and valuable conclusions, but unfortunately we can’t implement the suggested changes due to lack of resources and capabilities.”

There were also voices that some users’ expectations (e.g. opening the library on Sunday or 24/7, as well as unlimited increase of resources for borrowing or liquidation of fees for late return of books) simply cannot be met for organizational, financial or legal reasons.

- “However, our goal is to come as close as possible to these expectations and needs; we act in accordance with these needs, but within the limits of our physical and organizational capabilities. After all, the decision is made all the time by us – librarians, not users”
- “In general, students’ requirements will probably always exceed our capabilities, but this does not mean that we should not learn about these needs and try to implement what we can anyway.”

Respondents also pointed out that the library functions in a certain university ecosystem and research, e.g. on visual identification or the design of the digital space of the entire university, should be conducted from the central level, not the library level. The lack of standardization in the field of electronic user service across the university is also not conducive to building positive user experiences and impressions.

- “Many systems, many patches, lack of coherent data flow results in the lack of a unified system of information about users – this is not conducive to building positive experiences and impressions of our recipients.”

According to the conducted analysis, the topic of UX in academic libraries in Poland is strongly related to the issue of user research. Undoubtedly, knowledge should be promoted more intensively and this perspective extended to comprehensive design of positive user experiences: both in the traditional and digital space. The ideal examples illustrating the implementation of the UX concept in modern academic librarianship are the activities carried out in two academic libraries: the University of Warsaw Library (BUW) and the University Library in Toruń. These practices differ from each other, but as they take into account the physical and digital spaces, and use techniques and tools typical of the UX approach, they deserve a separate characterization.

CASE STUDY – UNIVERSITY OF WARSAW LIBRARY

In September 2020, the position of Service Design Representative was created at the Library. The Representative’s activities focus on researching users’ experiences and impressions and designing library services with this perspective in mind; they cover both the Library’s physical space and its website. On the BUW blog, the Representative writes about her tasks and work: “We ask ourselves a question, e.g. how to make our readers quickly find the book they are looking for in Free Access. The process of finding a solution has several steps, the most important of which is conducting research in the form of conversations with users, asking them how they see this problem, but also observing their behavior and checking what is most difficult for them in a given process. Then, we analyze the collected data and come up with possible solutions, which are quickly tested together with users and improved on an ongoing basis. Thanks to this, the whole process is very educational, and mistakes made are important feedback. The end result is a service or product that will make life easier for both users and employees” (Kajczuk, 2021).

When it comes to physical space, one of the projects implemented so far was (and still is) research on how users find their way in such a (specific) building as BUW. The aim of the activities is to improve navigation

and the entire way-finding system in the library. The research techniques used include: desk research (analysis of the literature on the subject of way-finding in public institutions), user observations (what is happening in a given place, how users react or do not react to the marking system), organization of “cognitive tours” around the building, where users played the role of guides and thus showed their perception and understanding of the physical library space, as well as interviews with users and testing prototypes of way-finding markings. Some of the identified problems have been solved (e.g. liquidation of the division of toilets into men’s and women’s toilets, thanks to which their accessibility has been increased, change of toilet markings, as well as the design of visible navigation arrows), other ideas to improve navigation in the building are still being researched or waiting for funding. The second area of the Representative’s activities is the design of services that take into account the user’s experience in the digital space, which currently boils down to the design of the new website of the Library. In this area, the Library cooperated with an external company, and the Representative was responsible for collecting requirements and needs from BUW branches and employees (interviews), organizing interviews with users, carrying out constant project consultation with the company and proposing changes. The current challenge is to design the content for the website: content that, on the one hand, will reflect the needs and expectations of librarians, and, on the other hand, will be legible and understandable for users, i.e. created in accordance with the principles of accessibility and UX writing. Another area in which the Representative plays an important role is ongoing consultation of minor matters and decisions made in the library, in other words: answering the question of what a given problem may look like from the user’s perspective.

- “I am such a user advocate in our library.”

Among other projects implemented in the spirit of UX, carried out by the Representative, it is worth mentioning among others carrying out and coordinating cyclical surveys among BUW users, as well as focus groups with users on communication conducted by BUW in social media.

What is the greatest difficulty and challenge facing a person designing good services for users? It is primarily the lack of one’s own team with the help of which it would be possible to implement projects or at least discuss and deliberate certain issues including the efficient reconciliation of the “interests” of the library and librarians and users.

- “Sometimes I simply rely on the kindness of other people who can join my projects and research only after performing their basic professional duties”
- “For me, employees are also users, which is why I try to notice and take into account their needs, which sometimes differ from the needs of readers. Finding a good solution is not always easy then, but just

noticing these differences is already an important element of the design process.”

And what is the biggest advantage? What does the Representative particularly like about her job? “Firstly, that I am close to people and their needs. I believe that an empathetic conversation and asking about the perspective of our users is an extraordinary privilege and an important task. I also like the variety of topics that it allows me to deal with. I have a chance to get to know various aspects of work in the library, constantly improve my education and learn new things.”

Among the planned project activities, taking into account user experience, there is among others further improvement of navigation in the BUW building and creation of a coworking space. There are also plans to train all library employees to take a broader, UX-inclusive view of the user (Z. Kajczuk, personal communication, January 13, 2023).

CASE STUDY – NCU UNIVERSITY LIBRARY IN TORUŃ

Assessment of usability and functionality of online library services in accordance with UX principles is one of the areas of activity of the Information Department at the University Library of the Nicolaus Copernicus University in Toruń. The implementation of the Alma system in 2020 together with the PRIMO VE multisearch engine provided an impulse to conduct comprehensive usability studies of the website. The aim of the research was to optimize and adapt the PRIMO discovery layer to the needs of users. The usability test consisted of 12 tasks, and the research – due to the then prevailing pandemic – was entirely carried out remotely (Marzec & Piotrowski, 2023). During the analysis, the following factors were taken into account: the success of each task, various quantitative metrics (number of interactions, task completion time, path compliance), and qualitative data. Data analysis indicated the need to improve some labels as well as certain functionalities through manipulation of the CSS, which resulted in improving the interface in the implemented version of PRIMO – the system became more intuitive and understandable for users.

- “Thanks to the research, we used the configuration and customization possibilities of the interface offered by PRIMO. We improved the labels and implemented additional elements using cascading style sheets. Usability testing was successful.”

The effective teamwork within the working group (responsible for optimizing PRIMO) in the Library, as well as cooperation with the University’s academic staff, is typical of UX practices.

“We greatly appreciate the cooperation with Dr. Paweł Marc from the Institute of Information and Communication Research of the Nicolaus Copernicus University – we have created a valuable platform for ex-

changing experiences between practice and theory and we have received a measurable effect in the form of a useful and user-friendly PRIMO interface.”

The vision of implementing a useful system also guided the launch of a new version of the website based on the ECMS Liferay Portal (Piotrowski & Marczak, 2018). Thanks to the use of Liferay and Lighthouse, an automatic tool for analyzing and assessing the quality of websites, the refreshed library website was compliant with the latest standards of accessibility and usability (Marzec & Piotrowski, 2018). In addition, the use of Lighthouse was an impulse to develop a progressive web application, i.e. an application that is something in between a website and a mobile application. The progressive web application is characterized by among others high performance, fast loading and availability in offline mode and the ability to add a shortcut to the start screen.

- “Thanks to Lighthouse, we were able to examine how our library website fares in terms of quality (including usability), implement some features of a progressive web application and finally adapt it to the requirements of our users in the spirit of UX.”

In addition to Lighthouse, the NCU Library also uses other analytical tools to improve user experience: e.g. Mouseflow – a “mouse tracking” application, i.e. tracking mouse movements on the screen.

- “We used Mouseflow to analyze the library’s home page (making minor changes to the search area), and now we are trying to track mouse movements on the library training website. Maybe we will be able to find some correlations between the activity and learning content on the library’s website and the results of the Moodle test.”

Task tests with users, the use of tools for automatic website quality audits and the mouse-tracking application, and in the future maybe also eye-tracking tests, are activities thanks to which digital services are built in the NCU Library taking into account the experiences and impressions of users. In addition, in order to learn about the needs and behavior of users, analytical tools offered by the integrated computer system Alma are also used (D.M. Piotrowski, personal communication, January 9, 2023).

This research, conducted in the form of in-depth interviews, should be considered as an introduction to further analyses and learning about the topic of UX in Polish librarianship. As pointed out by A.M. Cox and S. Corall, surveys of current practitioners, case studies of individual institutions and analysis of job advertisements are most often used to study new specializations in librarianship (Cox & Corall, 2013). It would therefore be advisable to continue qualitative discussions with the management and/or persons responsible for researching the needs and experiences of users, combined with an analysis of selected job descriptions, quantita-

tive research using a structured questionnaire and a possible review of job advertisements.

COMPETENCIES AND EDUCATION OF THE UX LIBRARIAN

UX Designer is a relatively young profession, chosen by people with various educational backgrounds, not always in the field. According to *the User Experience and Product Design in Poland 2021 Report*, every third respondent has completed post-graduate studies related to the design of digital services and products, but the majority (63%) do not have a relevant education. Most graduates of postgraduate studies in the field of experience design hold a diploma from the SWPS University (University of Social Sciences and Humanities) and graduated from User Experience Design studies there, as well as from the AGH University of Science and Technology and User Experience & Product Design studies (Mościchowska et al., 2021). In addition, UX specialists gain competency at various professional courses and bootcamps², deepening their knowledge.

And what should be the educational path of UX librarians? Should librarians interested in the subject of UX gain knowledge through library science studies, or educate themselves in other ways in the field of user experience design? Research by C. MacDonald proves that UX librarians in the American environment expand their competencies in this area in various ways. Among the most frequently mentioned methods were knowledge and help from other UX librarians, exchange of experience in the industry community of experience designers (including self-expanding knowledge from books and articles), learning by doing in your own library, and – what is worth emphasizing – completing courses related to UX at a library school. Five out of eight respondents who graduated from library schools after 2009 declared that they gained UX competencies during this learning process (e.g. in the field of usability testing, user-oriented interaction design, user research, functionality testing, interface design). Undoubtedly, the trend related to the popularization of UX is quite clear in the American environment and is reflected in library science education. The analysis of programs for the education of future librarians accredited by the American Library Association (ALA), which was carried out in 2014 by M. Maceli, confirms this thesis. Among the 93 thematic areas identified during the study, user experience was the most popular (followed by web design and development, database design and development, introduction to information technology, and digital libraries and

² Bootcamp – intensive training that allows you to acquire practical skills necessary to perform a new profession in the IT industry in a relatively short time; the name is taken from Boot Camp, i.e. from the English term for a recruit camp.

information retrieval). The analysis also shows that many ALA-accredited programs offer various courses within a specific research area, and UX is the most common (32%) of these thematic areas. The topic of UX appears in 18 curricula, where it is represented by a minimum of two and a maximum of eight courses (Maceli, 2015).

In this context, it is worth considering whether Polish majors in library science equip their graduates with competencies in the field of designing impressions and user experiences.

The landscape of academic education for librarians in Poland has changed significantly over the last two decades. As noted by R. Malesa, out of fourteen universities that offered studies in the field of scientific information and library science (bachelor, master, postgraduate), in 2022 the field of study remained in the offer of only four: the University of Wrocław (1st and 2nd cycle studies), the University of Silesia (1st and 2nd cycle studies), the University of Warsaw (1st and 2nd degree studies – part-time) and Adam Mickiewicz University in Poznań (1st degree practical studies conducted by the Faculty of Pedagogy and Art in Kalisz) (Malesa, 2022). For the purposes of this article, the curricula of these faculties were analyzed in order to check whether the didactic content takes into account the subject of user experience design. It turns out that there is no course in any major that directly relates to user experiences and impressions, or has the term UX in its name. However, there are items that may, to some extent, relate to the subject under discussion. They occur mainly in second-cycle programs and are related to specializations. These are, for example, courses on information users (service and needs research), designing information spaces and assessing the quality of services. The offer of the Faculty of Journalism, Information and Book Studies at the University of Warsaw is particularly interesting in this area. A detailed list of courses indirectly related to the subject of UX is presented in table 1.

It is worth emphasizing, however, that future library employees also acquire education in other “post-library” fields of study, such as: Information in e-society (Maria Curie-Skłodowska University in Lublin), Information Architecture (Nicolaus Copernicus University in Toruń; Pedagogical University in Krakow), Information Management (Jagiellonian University), Architecture of Information Spaces (University of Warsaw), Information Management and Digital Publishing (Pedagogical University of Krakow), Information in the Digital Environment (University of Lodz), or Digital and Web Publishing (University of Wrocław). In the curricula of the above-mentioned studies, especially those focused on designing information spaces, there are already many more specialized courses devoted to UX.

University	Faculty	UX related courses
University of Wrocław	Scientific information and library science. 1st cycle	None
	Scientific information and library science. 2nd cycle	Specialty: Digital Libraries – Website design – Needs of users of electronic information – Assessment of the quality of electronic documents Specialty: Libraries in the knowledge society – Quality of work of modern libraries – Studying the needs of library users
University of Silesia in Katowice	Scientific information and library science. 1st cycle	– Support for users with special needs
	Scientific information and library science. 2nd cycle	– Design and arrangement of the library space
University of Warsaw	Scientific information and library science. 1st cycle	– Psychology – Users of information – Designing information services – Working with a user with special needs – Introduction to database design and digital repositories
	Scientific information and library science. 2nd cycle - extramural	Specialization: Information and knowledge architecture – Information architecture – Quantitative information research – Analysis and visualization of information Specialty: Information and communication in cultural institutions – Psychology of social behavior – Project management – Methods of working with the user – Information behavior in culture – Evaluation of work efficiency in cultural institutions

Adam Mickiewicz University in Poznań	Scientific information and library science. 1st cycle (practical) (Faculty of Pedagogy and Arts, branch in Kalisz)	Specialization: Infobrokering – Information architecture – Information heuristics – Information quality assessment – Data visualization
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Table 1. Offer of courses related to the subject of UX, which are included in the curricula of studies in Scientific information and library science. Source: Author's own study based on the 2023 study plans available on the universities' websites, 2023.

The analysis of the literature on the subject as well as this author's own research and personal experience allows us to conclude that a UX specialist in a library should have a wide range of skills. We are talking about both specific UX skills and comprehensive soft skills. Knowledge of tools in the field of product and service design (e.g. Figma, Adobe XD, Axure, InVision, Sketch), research tools in the field of data visualization and analysis (e.g. Google Analytics, HotJar, Mouseflow, Maze, Optimalworkshop, MAXQDA), helpful programs in organizing stationary and remote workshops (e.g. MS Teams, Webex, Skype) and commonly used boards (e.g. Miro, Mural) – these are desirable skills, if not necessary to work as a UX specialist in the library. In addition, there is a wide range of soft skills, without which it is impossible to thoroughly understand the user, cooperate in a team and build UX awareness in the organization. Openness and inquisitiveness in research, analytical and synthetic thinking skills, empathy, charisma and pugnacity, flexibility, creativity, perceptiveness, independence and ability to organize work, as well as high communication and interpersonal skills – undoubtedly having these features will be very desirable as a UX librarian.

On the subject of competencies necessary for the position of a UX specialist, it is worth referring again to the *User Experience and Product Design in Poland 2021 Report*. When asked about the skills missing in their profession, the surveyed UX designers mentioned: business competencies (42% of responses), analytical skills and research (36%), soft skills (35%), theoretical knowledge (33%), and technology support (28%) (Mościchowska et al., 2021). While business competencies useful in the commercial market are unlikely to be at the forefront in library work, fluent mastery of other skills should be of great importance in the proper fulfillment of tasks as a UX librarian. The surveyed UX designers listed among the competencies

they particularly care about developing: web analytics and A/B testing (49%), identification of business needs (44%), cognitive and social psychology, data science and team facilitation (43% each), as well as product and service management (42%), UX writing (41%) and machine learning (40%). Other competency gaps also included: coping with stress, knowledge of patterns and trends, leadership skills, advanced research techniques, selling one's own services, product discovery, and knowledge of HTML, CSS, jQuery, JavaScript (Mościchowska et al., 2021). The analysis of these answers and indications proves how versatile competencies and various skills can be useful to a UX specialist in a library. We should also not forget about the competency that, according to experts, will gain in value in the coming years, namely prompt engineering related to the development and optimization of prompts for the effective use of language models in systems based on artificial intelligence. Skillful use of tools using artificial intelligence can significantly improve projects created for users, e.g. in terms of accessibility, inclusivity and many useful functionalities (Deakin, 2023).

SUMMARY AND CONCLUSIONS

The environment of libraries is changing, users and their needs are changing, and thus the nature of the librarian's work is changing. The emerging new specialization in librarianship in the field of UX is an attempt to meet the expectations and an opportunity to provide services adequate to the requirements and habits of recipients. Looking at library services from the user's perspective and designing them taking into account not only needs and expectations, but also impressions and experiences, seems to be the right direction in the development of modern librarianship.

The experience of foreign libraries, as well as the user experience practices developed in the design and technology industries, have paved the way for Polish academic libraries to enter gradually. Awareness of the field of UX is growing, more and more research and analyses are being carried out taking into account the user's perspective, the first UX-dedicated workstations are appearing, and the virtual space of the library is more and more often being designed and evaluated using the methodology developed by the UX industry. For now, it is difficult to indicate the dominant trend and forecast how the UX specialization in Polish libraries will develop in the coming years. Will these be stand-alone positions, or permanent or interdisciplinary teams appointed as needed? Will Polish librarianship discover the potential and possibilities hidden in UX? These questions remain unanswered.

Undoubtedly, however, a UX librarian who wants to properly fulfill their tasks must have a number of unique hard and soft skills, constantly deepen their knowledge and exchange experiences with other members

of this profession. Unfortunately, most academic programs for the education of future librarians do not include courses related to UX, there is no training offer dedicated to librarians in this field, and industry conferences on LUX (*library user experience*) are currently held only abroad (such as the annual congresses: “UXLIBS” in the UK and “Designing for Digital” in the US). It remains to be hoped that this will change – that the libraries will be filled with graduates of other, sister faculties, such as information architecture or information management, equipped with design competencies; that good UX practices, such as those implemented at the University Library in Warsaw and the University Library in Toruń, will be disseminated and promoted; and that the library environment will discover the role and importance of the UX approach in library activities. As C. MacDonald’s research proves, the implementation of the UX approach in a library can bring many benefits. This includes increased empathy and more efficient response to user needs, better understanding of user needs (decision-making based on research data), improved image, capturing *the big picture*, and increased usability of websites and other digital services (MacDonald, 2017). The coming years will show whether Polish libraries will also be able to boast of these advantages.

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