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## **Pracují v českých knihovnách digitální kurátoři?**

Římanová, Radka; Melichar, Marek  
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# ARE THERE ANY DIGITAL CURATORS IN CZECH LIBRARIES?

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**Radka Římanová**

radka.rimanova@ff.cuni.cz

Charles University, Institute of Information Studies and Librarianship, Czech Republic

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**Marek Melichar**

marek.melichar@ruk.cuni.cz

Charles University, Computer Science Center, Czech Republic

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## **Abstract**

The development of digital repositories reveals the need for new Czech terminologies for library positions. One such job title or specialization is "digital curator," a term which refers to a specialist responsible for digital collections. Competencies for digital curators include technical, organizational, communication, and marketing skills as well as some level of expertise in computer science as well as in information and library science. A survey of several administrators of Czech digital libraries asks how to best professionally label this group of library staff with respect to the actual activities they perform in their jobs - digital curators, administrators of digital libraries, or digital librarians? Job titles have a strong impact on higher education curricula, on the management of libraries, and also on the coordinated system of remuneration of employees at libraries, academic, and research institutions.

## **Keywords**

Digital Data, Digital Libraries, Professional Competence, Digital Curator, Librarian as Profession

## Introduction

The English term “*digital curation*” was initially used in archives of scientific data and data from space research (“*data curation*”). The collections of the first large archives of scientific data in the 1990s, such as **NASA Planetary Data Systems**, contained unique digital data collected over several preceding decades on many types of carrier. Maintaining the continuous availability of such collections was complex, and so the concept of “*digital preservation*” appeared in the community of archives of scientific data at the end of the 1990s, followed by talk of “*digital curation*”. In the early 21st Century, collecting, protecting, managing and accessing, and various methods of increasing the value of, digital collections<sup>1</sup> became standard functions of many libraries and information centres (Higgins, 2011; Prom, 2011). The issue of the management, protection and accessing of content in digital form gradually began to affect academic libraries and cultural heritage institutions (Ray, 2009). The importance of repositories and digital collections in all types of institution is growing. Little attention was initially paid to questions of the professional preparation of the managers of digital libraries and repositories in comparison with the level of investments into technology (Ray, 2009; Pomerantz, 2006). Only projects such as **DigCCurr I and II** between 2006 and 2013<sup>2</sup> defined the education profiles needed to create a *digital curator curriculum*.

Currently (Madrid, 2013; Kim, 2015) academic institutions in the field of library and information science (LIS) routinely offer courses on digital curatorship. Czech LIS schools place this topic into the gradual innovation of subjects (Jilečková, 2015), while an independent accredited study programme focusing exclusively on digital curatorship does not yet exist in the Czech Republic. Not even the thesis of Michal Konečný (2016) considers the introduction of a new field of study, but rather proposes a syllabus for a single-semester subject entitled “Introduction to Digital Curatorship”. The practical needs of Czech libraries have resulted in the definition of the *profession of librarian – digital library manager*<sup>3</sup>, which is part of the National System of Occupations and the National Qualifications Framework (Houšková, 2012). In the **Catalogue of Work** (Czech Republic, 2010), issues associated with the management of a digital library have been incorporated in the description of the profession of *Librarian* in a very non-conceptual manner.

## Survey among Czech managers of digital libraries/collections

In the Czech Republic, there is no empirical data about how digital data is managed in libraries, or who does it. SDRUK (The Association of Libraries of the Czech Republic) attempted to map related issues in 2007<sup>4</sup>, there is some relevant information available in the results of

<sup>1</sup> For example the definition of DCC <http://www.dcc.ac.uk/digital-curation/what-digital-curation>.

<sup>2</sup> The project outcomes are available at: <https://ils.unc.edu/digccurr/index.html>.

<sup>3</sup> The profession of librarian – digital library manager – is addressed at three competency levels - librarian, independent librarian (V, specialist librarian (expert)). To understand the descriptions of the librarian specialisations (where there is less IT competence than might be necessary) it is important to realise that pure IT specialists may also work in a library, for whom there are competency profiles in the “Information Technology” group, see [http://katalog.nsp.cz/poziceOdbornySmer.aspx?kod\\_sm1=5&kod\\_smeru=5](http://katalog.nsp.cz/poziceOdbornySmer.aspx?kod_sm1=5&kod_smeru=5).

<sup>4</sup> [http://sdruk.mlp.cz/data/xinha/sdruk/zmapovani\\_situace\\_digitalizace\\_v\\_cr.pdf](http://sdruk.mlp.cz/data/xinha/sdruk/zmapovani_situace_digitalizace_v_cr.pdf)

the Europe-wide project focused on the collection of statistical indicators of the digitisation of cultural heritage called “Enumerate”<sup>5</sup>, yet summary current information is lacking in this field.

The following text summarises the results of a survey conducted between May and July 2016. We questioned the employees of six libraries and one archive, a total of fifteen respondents<sup>6</sup>. The survey was conducted in the form of a semi-standardised interview. We questioned people who actually work with digital data in libraries. We did not record the interviews, but made two parallel records of them, and coded and evaluated the texts of the interviews. The results cannot be related to any defined target population. Our objectives were to better understand the situation that has naturally arisen, and to support discussion that could bring about changes in undergraduate training and lifelong learning programmes.

## **The organisation of the management of digital data in individual institutions**

As expected, the experiences of the respondents differed depending on the size of the institutions. In smaller institutions, the management of digital data includes more types of activity, and digital data managers have more responsibility. The technology management (system administration) and content management departments are reflected in the organisational structure as well as practice in the majority of institutions. Yet in smaller institutions, part of the role of the IT department (system administration, backups, installation and testing new versions, OS management, connecting HW and networks, etc.) is performed by employees of the department also responsible for the digital content (digital library content management). The scope of activities performed by digital collection content managers differs greatly in different institutions.

Larger institutions may have separate departments for digital libraries, whose employees look after data and metadata (production, metadata creation, access) at content management level. The activities connected with application management – application servers, databases and server operating systems, or backing up or automating data transfers and conversion – are typically performed by employees in the IT or infrastructure department. The institutional culture then determines how effective or ineffective cooperation between IT and the digital collection content managers is.

The content management departments of digital libraries are gradually drawing in people who work with digital data elsewhere in the institutions, often in informal roles. In some places, “everything digital” originally fell under IT, yet with time it was shown that IT cannot address “content” or “XML”. A search was thus undertaken to see who would take over content management. Elsewhere, the management of digital data was more tied to production or acquisition, or with the management of library applications in general. It was only the growing volumes of data that applied pressure for the release of employees directly for digital library

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<sup>5</sup> <http://www.enumerate.eu/>

<sup>6</sup> The selection of respondents was based on a circle of known people working in the given field, and was understandably not representative. During the seventh interview, it was clear that similar answers were being obtained for important groups of questions from multiple respondents, and so in this pilot phase the survey can be concluded.

content management<sup>7</sup>. In terms of the organisational structure, the majority of the respondents are relatively close to top management, while sometimes they report directly to the director. Almost all the respondents had the possibility of direct communication within the organisation, however not always completely without problems. Digital library managers would welcome more interest from the founders and better financial support for their work.

The link to digitisation was the common theme of the interviews. Digitisation remains an important topic for libraries, although “technology past its prime” is still of great concern for most libraries. Digitised data are not the first digital data in libraries, but provide great added value for users. These digital data are the daily bread for digital library managers, and many have experience with work on scanners or digitising lines. The managers do not usually create the descriptive metadata of digitised data themselves, but rather are expected to provide orientation in standards, the principles of cataloguing work, and the ability to work with XML. The importance of the role of cataloguer does not disappear even in the context of digital collections.

## **Daily activities and the competencies of digital data managers**

The management of digital data in libraries is performed by people with diverse professional histories and education. Only some of them have specialist librarian or informatics education. Almost all the respondents had at some point worked and studied concurrently, many perhaps unsuccessfully, and studied information science and librarianship. The management of digital data in libraries is performed by - in addition to librarians - historians, Bohemists, philosophers or high school students from technical colleges<sup>8</sup>. It is pleasing that they are all trying to understand librarianship, or are actively acquiring competency in other fields (programming, system administration, data analysis, law, and management skills). Although the respondents differed from one another, they were connected by a passion for what they do – they do it “from the heart”. Everyone is trying to expand their skills, and are being supported in this by the institutions directly (they can attend organized classes, study while employed etc.)<sup>9</sup> or indirectly (they have space for self-study, and are acquiring experience from their colleagues).

So what do people actually do when managing digital data? As expected, they add content to digital libraries, import data after checking them, and validate, assemble and convert them. In the environment of the digital library they then maintain the data and metadata, and modify certain metadata. Many of them are connected with data production through digitisation (they directly scan, create data packages, or propose approaches for the processing of digitised data, help write projects or operate scanners, manage the people doing the scanning, and manage the processed data) or with acquiring content from originators (they conclude agreements with content authors and owners, acquire and modify content, transfer it for further processing in the library, and sometimes even organise editorial processing for re-publication

<sup>7</sup> The interviews confirmed the hypothesis that an insignificant percentage of employees manage the digital libraries compared to traditional library activities.

<sup>8</sup> Two of the respondents, with very humanities-oriented university education, mentioned high quality teaching of computer science at grammar school as the cause of their understanding of “programming” being a normal part of daily work.

<sup>9</sup> This support has its limits, and most respondents would welcome the possibility to participate in high quality commercial courses, for example relating to the management of operating systems, yet noted that such training is very costly and of a long-term nature and is not something their employers usually offer.

or e-books). They manage digital library applications at a technical level (they install and maintain servers and operating systems, monitor and configure backups, etc.), even though they are not formally part of the IT department. Many of them participate in system development (they analyse and propose SW modifications, test new versions, manage supplier development, prepare materials for tenders), while the roles of other respondents are shifting more towards promotion and strategic management<sup>10</sup>.

It is noteworthy that all the responsibilities mentioned above are sometimes accumulated. A mismatch between original qualifications, field of study, and the activities that they people do, is the rule. A trained librarian programs, writes scripts, installs applications, and maintains server operating systems. A Bohemist or historian checks and enters data into a digital library, tests new SW application versions, and participates in analytical work for development. A trained philosopher manages SW implementation, etc. Competencies are acquired and transferred informally – through contact with more experienced colleagues, self-study or practice. Everybody has some type of foundation from which they derive their current confidence (training in librarianship, IT - even if only partial, contact with colleagues, previous work with scanners or in cataloguing), but all of them also feel that they are lacking something (a systematic and comprehensive course in a specific programming language, more experience with the Linux environment, more technical experience, etc.)

As can be seen from the above, the differences between “non-IT specialists” and “IT specialists” are hazy. IT activities are stealthily penetrating the daily routines of ever more people, even outside librarianship. In addition to purely librarian competencies (knowledge of MARC21, cataloguing rules, RDA etc.) the management of digital data also anticipates competency in work with XML (validation and conversion of metadata, linking metadata, automatic XML processing), work in the Linux environment (processing automation, bulk reports/exports, document searches, data transfers, md5 data validation, etc.), sometimes programming, work with digital formats, scanners, etc.

Conversion takes place mainly in the "non-IT specialist" > "IT specialist" direction. The interest of pure "IT specialists" in library issues usually ends with XML validation. Content standards and descriptive rules are not of much interest to "IT specialists", and if they decide to supplement their education with a specific level of librarianship training, they tend to fail because they feel that they are “just repeating what they already know”, and in the end give up at “history of libraries”, because an “IT specialist” cannot surely be expected to learn any lists by heart. Libraries logically have a larger percentage of people with librarian training available, and hence they are in turn available to the “IT specialist”. On the other hand, there are very few people in libraries with purely informatics training<sup>11</sup>.

## **Users of digital libraries**

How do the managers of digital libraries communicate with users? Digital library users surprisingly include the actual librarians, for example during retrospective cataloguing. In some institutions, queries reach digital library managers via a filter of reference librarians, in other

<sup>10</sup> Surprisingly, the respondents did not consider their own roles as technicians but as managers.

<sup>11</sup> In almost every interview we heard the complaint that the wage situation at state organisations prevents the creation of a stable high quality team. Benefits of the “benevolent treatment” type can help this to some extent.

cases users ask questions directly to the managers. Communication frequency is variable. Users point out errors (metadata, bad scans), are interested in exporting specific works, and are interested whether and when a specific work will be digitised. There are queries about the rights to the re-publication of works. Users also use data from digital collections for data-driven research or lay genealogical research. The systematic improvement of digital libraries using "user experience" methods was not mentioned by the respondents. Or even the participation in systematic marketing. If users find a digital collection themselves, have a problem and make contact, then our respondents are happy to help.

## The roles of the respondents within the framework of the competency framework of digital curatorship (by Michal Konečný, 2016)

In his thesis, Konečný (2016) addressed the competency framework of digital curatorship. The importance of the roles<sup>12</sup> of eight Czech experts, inter alia, were evaluated during the preparation of this model. Thanks to this initial analysis, Konečný (2016) fine-tuned the terminology used and developed his own proposal for a competency model at basic, advanced and expert levels. In accordance with the competency model, he then developed a detailed proposal for the syllabus of a master's course **Introduction into Digital Curatorship**.

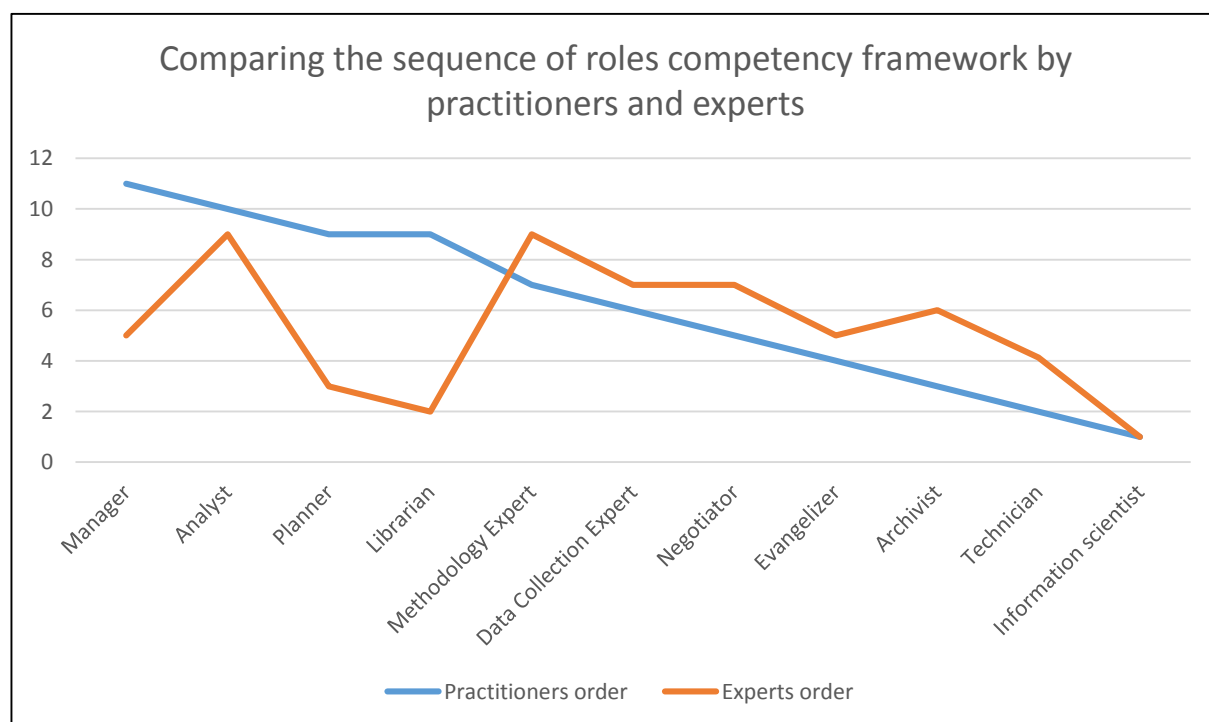


Figure 1: Comparing the sequence of roles competency framework by practitioners and expert. Resource of the terms of role typology: Konečný, 2016.

The table of roles was also submitted to the fifteen respondents who manage digital libraries daily. Both practitioners and experts see the competencies of digital curatorship fairly

<sup>12</sup> The characteristics of the individual roles are available in Konečný's work.

consistently, while the sequence of the roles differs slightly. The experts considered the role of *methodology expert*<sup>13</sup> to be the most important, while practitioners the role of *manager*<sup>14</sup>.

(Konečný, 2016) realises that his competency framework is too broad, something also noted by the Slovak study by Androvič, Ciglan, Matúšková (2016). Most respondents did not exclude any of the roles. There are differences between experts and practitioners in the evaluation of the importance of the roles of manager, planner and librarian, which is probably related to their differing assignments. Experts assessed the importance of competency for a digital curator in general, while practitioners did so considering their personal roles and experience.

## Conclusion

So, is digital curatorship practiced in Czech libraries? Our survey did not unequivocally answer this question. Konečný (2016) defines digital curatorship primarily with regard to *long-term preservation (LTP)*, while our respondents primarily address the management of digital data. The creation of digital libraries in the Czech Republic is methodologically centralised as regards LTP, with small institutions expecting the big players – for example, the National Library of the Czech Republic – to address this issue. The management of digital data in libraries is only now being formalised. Not all libraries have optimal organisational structures to enable them to effectively employ their personnel capacities, or sufficient employees with the right competencies. The people who manage digital data in libraries deserve our admiration and support. They should have the possibility to participate in further systematic education.

The effective management of digital data today primarily requires the creation of conditions in the library environment enabling several active and enthusiastic people to work. An emphasis on sustainability, documentation, and continuous development and financing is desirable. Digital data require continuous attention - one cannot stop for a year or two, unlike with retrospective cataloguing or the fund revision. The use of all the experience of the digital pioneers will bring many valuable findings to theory, training and practice in librarianship. We heard from almost all the respondents that they would need more confidence when working with data on Linux servers. Let this then be the concrete conclusion of the article – we would be glad if all digital curators and librarians were granted this.

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<sup>13</sup> Focuses on current digital curatorship trends and standards. Prepares conceptual proposals for the introduction of a curatorial approach to long-term preservation. Reviews and evaluates current practices in their institutions from the perspective of good practice.

<sup>14</sup> Organises and manages activities connected with the lifecycle of digitally stored information in accordance with the needs of the institution. Selects, checks and evaluates practices that guarantee the applicability and sustainability of information. Communicates with stakeholders.



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