

## New job role profiles to bridge the digital skills gap in the cultural heritage sectors: The BIBLIO project

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### Abstract

In the Digital Transformation (DT) Era, introducing new methodologies and technologies in the workplace has increased the need to renew the existing job profiles and create new professionals with adequate digital skills, especially in the cultural heritage sectors. An ERASMUS+ three-year project: *Boosting Digital Skills and Competencies for Librarians in Europe* (BIBLIO), related to this issue and focused on the library field as a case study has been granted by the European Union (EU) to the Department of Research and Innovation in Humanities (DIRIUM) of the University of Bari Aldo Moro (UNIBA). The Consortium comprises four partner countries: Bulgaria, Belgium, Greece, and Latvia. Following an introductory survey, this paper presents the results of four different activities carried out in the first two years by a mixed research framework: *desk research*, *training needs survey*, *in-depth interviews with library professionals*, and *best practice interviews with Vocational Education and Training (VET) providers*. Finally, two emerging job profiles for the library sector have been developed based on the research findings. They are respectively: the *Community Engagement and Communication Officer* (CECO) and the *Digital Transformation Facilitator* (DIGY). The training course is ongoing, and it will end in November 2022.

Nell'era della Trasformazione Digitale (TD), l'introduzione di nuove metodologie e tecnologie nei luoghi di lavoro ha accresciuto la necessità di rinnovare i profili professionali esistenti creando

nuovi professionisti dotati di adeguate competenze digitali, soprattutto nei settori dei beni culturali. Su questo tema, l'Unione Europea (UE) ha finanziato al Dipartimento di Ricerca e Innovazione Umanistica (DIRIUM) dell'Università degli Studi di Bari Aldo Moro (UNIBA) un progetto triennale ERASMUS+, incentrato sul campo delle biblioteche come caso di studio: *Boosting Digital Skills and Competencies for Librarians in Europe* (BIBLIO). Il Consorzio del progetto comprende quattro Paesi partner: Bulgaria, Belgio, Grecia e Lettonia. Questo documento presenta i risultati di quattro diverse attività svolte nei primi due anni in seguito a una preliminare indagine introduttiva, realizzate secondo un metodo di ricerca *misto: desk research, indagine sui bisogni formativi, interviste approfondite ai professionisti delle biblioteche e interviste con Vocational Education and Training (VET) per portare a valore buone pratiche*. Infine, sulla base dei risultati della ricerca, sono stati delineati due profili professionali innovativi per il settore delle biblioteche, il *Community Engagement and Communication Officer* (CECO) e il *Digital Transformation Facilitator* (DIGY). Il percorso formativo è in corso e terminerà a novembre 2022.

### Introduction

In today's continuously changing world, the world of Digital Transformation [11], the emergence of new digital job profiles in the cultural heritage sectors<sup>1</sup> is the consequence of introducing new digital technologies in the workplace<sup>2</sup>. Specifically, for several years, in the library sector, the digitisation of artefacts and the management and curation of computational and digital resources have been tasks linked to roles with specific skills. The new digital environment<sup>3</sup> poses new challenges for librarians: digital deluge, the life cycle of research, data policy, discipline differences, data curation, and confidentiality of data [13]. There will always be multiple changes in the environment, and the professional librarian and information

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1 Digital Skills & Job Platforms, *Digital skills for cultural heritage: a report*, <https://digital-skills-jobs.europa.eu/en/inspiration/research/digital-skills-cultural-heritage-report>, (last accessed: 10/05/2022).

2 Office + SpacelQ, <https://spaceiq.com/blog/impact-of-technology-in-the-workplace/>, (last accessed: 10/05/2022).

3 European Parliament, Digital cultural diversity, Think tank, [https://www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS\\_BRI%282021%29690570](https://www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS_BRI%282021%29690570), (last accessed: 20/10/2021).

specialists are faced with technological challenges and user expectations: their role, job opportunities, self-image, motivation, and even their survival are affected by digital innovation [6]. Recent studies have shown that librarians' profile needs continuous searching for additional expertise to enhance their knowledge for providing library services of high quality. Notably, Dr Chutima Sacchanand [4] addresses the issue of librarians' new role profiles, such as:

- librarians as information experts,
- librarians as educators,
- instructional designers,
- instructional partners
- and librarians as practitioner-researchers, research partners, and innovators;

proposing to assist the professional community that is facing new challenges and integrating their professional roles within the digital society. Modern librarians have many functions linked to several tasks concerning the library's workflow [8]. Within many of these roles, there is potential for applying digital skills, which allow for tasks and data management automation, whether this task includes aggregating and harmonising usage statistics from different sources or bulk editing of metadata in library catalogues in digital collections. Academic libraries' research data management and open access services motivate librarians to develop such skills, including digital responsibilities [5]. An analysis of job descriptions for curators in the US library and museum sectors highlighted the interplay between professional knowledge, technical skills (such as understanding software, web mark-up languages, relational databases, and digital repositories) and digital knowledge (understanding metadata) [7].

Choi and Rasmussen [3] surveyed for their 2006 article *future digital librarians* to underline their skills and find possible gaps in their training. Subsequently, the authors summarised that *LIS education needs to pay attention to [...] integration of practical skills and experience with digital collection management and digital technologies into curricula*. One year later, Tammaro [12] focused on the trends for digital library education in Europe based on a "curriculum for digital librarians". Librarians need opportunities to learn more education and training programmes either on campus or through attendance at workshops and professional conferences [15]. Finally, Chutima Sacchanand [4] highlights the ways of transformation through which librarians could transform their roles for the new demanding digital learning era. Transforming librarians' roles through:

- new competencies,
- research and innovation,
- through continuing professional development,
- internationalisation,

would assist them in facing changes and challenges and enhance the value and raise awareness of libraries and the library profession globally.

### **State-of-the-Art<sup>4</sup>**

Nowadays, librarianship is not a regulated profession at the EU level; consequently, formal qualifications are not subject to EU regulation either [10]. Thus, it is difficult to assess the DT's impact on the European library sector, considering work realities and changes to formal qualifications. This hypothesis is one of the fundamental assumptions that inspired the concept of the BIBLIO project and the creation of a Consortium coordinated by the Department of Research and Innovation in Humanities (DIRIUM) of the University of UNIBA (Coordinator) – Italy and composed by:

- the Istituto Centrale per il Catalogo Unico delle Biblioteche Italiane – ICCU – Italy,
- the European Grants International Academy – EGINA s.r.l.– Italy,
- the Center for vocational training to University of Library Studies and Information Technologies – Bulgaria,
- the Global Libraries – Bulgaria Foundation – Bulgaria,
- the SIA DMG – Latvia, the Kulturas Informacijas Sistemu Centre – Latvia,
- the Hellenic Open University – Greece, the All Digital – Belgium and Public Libraries 2030.

Preliminary research conducted by the Consortium in European Countries has shown that technological innovations challenge the library sector as access to information is more readily

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<sup>4</sup> This section summarizes the Librarianship in Europe chapter of the *Librarianship in Europe* report pp 13-17 [8]. The full detailed report will be published by the authors of this contribution as a miscellaneous monograph at the end of 2022.

available. In response to this, libraries have adopted new means of enabling access to information to their users through some digital tools. However, this does not mean that library professionals have the skills required to manage these new means, nor do they have training opportunities to acquire the digital skills needed. In the initial case study, at the beginning of this research, partners agreed to focus on European public libraries during the investigation activities (considering the composition of the Consortium). Private libraries' insights will probably be analysed to implement the research results; to achieve this further goal, it is essential to examine EU data and research touching on the EU understanding of librarianship.

We then look at each partner country's library sector to establish librarians' professional expectations and regulations and the available training opportunities and job vacancies.

Moreover, while this profession is not regulated, several tools have been put into place by the EU to map specific aspects of librarianship. Notably, the EU *Regulated professions database*<sup>5</sup> mandated by Directive 2005/36/EC<sup>6</sup> collects the data provided by the EU Member States, EEA countries, the UK, and Switzerland. The EU has also established the European Skills, Competences, Qualifications, and Occupations (ESCO)<sup>7</sup> framework as a taxonomy between the labour market and the skills, qualifications and competencies needed. These EU tools reveal the perception of librarianship and the responsibilities held by library staff at the EU level and served as an initial point of analysis into the skills mismatch in the library sector.

### *Database of regulated professions*

As previously reported, the title of *librarian* (or any library-related occupation) is not regulated at the EU level. The EU Member States, EEA countries, the UK, and Switzerland set country-specific regulations. The controlled professions database (as of 09/03/2020) has data from Croatia, Hungary, Iceland, Slovakia, Slovenia and the United Kingdom.

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5 The UE Single Market, *Regulated Professions Database*, <https://ec.europa.eu/growth/tools-databases/regprofil/>, (last accessed: 10/05/2022).

6 Official Journal of the European Union, *Directive 2005/36/EC of the European Parliament and Council of 7 September 2005, on the recognition of professional qualifications (Text with EEA relevance)*, (last accessed: 13/05/2022).

7 Epea, ESCO – European Skills, *Competences, Qualifications and Occupations*, <https://www.epea.org/esco-european-skills-competences-qualifications-and-occupations/>, (last accessed: 12/05/2022).

The description of the activities, when provided, can be broken down into six broad competencies:

- Information and collection management
- User education management
- User management
- Library management
- Digital document/archive management
- Event management.

The competence appearing most frequently in this data set is *information and collection management*, followed closely by *digital document/archive management* and *user management*. Notably, the tasks under *user management* are broadly described as providing information to users and notifying users of existing services in the library and beyond, including a web environment. However, the collection management tasks - including digital collection management - are described extensively. While collection management is a multidimensional competence requiring various skills, the preponderance of this competence in the professional descriptions provided in the regulated professions database indicates a strong leaning towards collection and information management as the crucial role of library staff rather than user-based interactions.

## **ESCO**

### **Occupations**

ESCO bases itself on the *International Standard Classification of Occupations* (ISCO) developed by the International Labour Organization (ILO)<sup>8</sup>. ESCO's profiles for occupations are mapped to specific ISCO-08<sup>9</sup> codes and start from level 5 or lower as the ISCO-08 classifications are organised according to four groups. Eight library-related occupational profiles can be found in ESCO.

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8 International Labour Organization, *ISCO*, <https://www.ilo.org/public/english/bureau/stat/isco/>, (last accessed: 12/05/2022).

9 International Labour Organization, ISCO-08, <https://www.ilo.org/public/english/bureau/stat/isco/isco08/index.htm>, (last accessed: 12/05/2022).

The library-related profiles identified in ESCO fall under the following categories:

- Legal, social and cultural professionals under the title “Librarians and related information professionals” (category 2622)
- Artistic, cultural and culinary associate professionals under the title “Gallery, museum and library technicians” (category 3433)
- Professional services managers not elsewhere classified under the qualification “library manager” (category 1349)
- Office, accounting and support clerks under the title “library clerk” (category 4411)

These categories provide an overview of the various roles mapped out in ESCO concerning library-related work. *Seniority* (e.g., a library manager) impacts whether a position is considered an associate professional, professional, or technical manager. *Information and collection management* is crucial in all profiles despite these hierarchical differences. A digital component is considered in some profiles list, such as “digital collection management”, as one of the competencies required for the title. Thus, digitisation and digital library management have been integrated as a library-related competence to a certain extent. However, although the need is clear and recognised, it is not regularised.

The notion of assisting users in finding library materials and information comes up in the categories of “library and related information professionals”, specifically in the “librarian” job profile and in the “library clerk” profile. We can observe that accompanying users in searching for information - whether in physical format at the library or helping users acquire the skills to find information on their own - is still a responsibility today for modern librarians. Thus, customer service and pedagogical skills would be needed to fulfil these responsibilities.

### ***Qualifications***

As the title of the librarian is not regulated at the EU level, no specific European qualification exists concerning librarianship. Instead, each EU Member State has its capabilities for this profession. The ESCO portal managed by the European Commission lists qualifications from Greece, Hungary, Latvia, Poland, Portugal, and Slovenia.

The library-related qualifications collected on ESCO range from EQF level 4 to 8, indicating various pathways for someone to become a library professional. While distinctions may exist at a national level between the jobs these qualifications lead to, they tend to train globally for a “librarian” role. The capabilities collected on ESCO vary from overtly library-oriented courses to broader courses that can be applied within the library field. Those slightly more generally tend

to provide more training in ICT technologies in the cultural sector. For instance, Hungary’s qualifications for a “Librarian and Information Scientist” focus heavily on digital skills outside the library sector, similar to Greece’s “Bachelor’s Degree in Cultural Technology and Communication”.

Library science, collection management, and an understanding of digitisation are commonplace for the more library-oriented qualifications. Several capabilities also touch on lifelong learning for library patrons suggesting that pedagogy is an essential competence for library professionals. Based on this qualification list, those undertaking a library-oriented course will have the traditional skill set of a librarian, which centres around collection management, library, and information science. Throughout their qualification, they may acquire digital skills in digitisation and other library management systems without understanding how other technological innovations can be employed in the library sector.

### CEDEFOP<sup>10</sup>

As explained in the previous paragraph, library-related professions fit under different ISCO/ESCO categories depending on their seniority. We apply the same categories to analyse CEDEFOP data and research. While this data set is broad and covers professions outside of the library sector, interesting insights into EU trends for employment and opportunities emerge from this data and can supplement our understanding of some new skill sets librarians will need for the future.

#### ***Technical managers***

Under ISCO and ESCO, library managers can be classified as *technical managers* due to the difference in their roles compared to librarians. The projection for technical managers focuses on changing technologies and workforce demographics<sup>11</sup>. As younger generations enter the workforce and are used to communicating in a specific way, technical managers must balance this with the older workforce. Once more, as technology progresses, managers will have to acquire technology-related skills to understand how these new technologies can be applied in

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10 CEDEFOP, *Centre Européen pour le Développement de la Formation Professionnelle*, <https://www.cedefop.europa.eu/it>, (last accessed: 12/05/2022).

11 EU Skills Panorama (2019c), *Technical managers: skills opportunities and challenges* (2019 update), <https://www.cedefop.europa.eu/en/data-insights/technical-managers-skills-opportunities-and-challenges-2019-update>, (last accessed: 13/05/2022).



their field and how to use these efficiently. However, unlike associate professionals, their skill set is focused on management, whether *team management* or more *general management*.

### ***Office, accounting and support clerks***

To a certain extent, some library professionals can be considered support clerks due to the administrative work they undertake (although ISCO and ESCO refer to these roles as *library clerks* rather than librarians). On the whole, CEDEFOP expects a decrease in employment for this sector which could force the library sector to incorporate administrative tasks into the role of librarians<sup>12</sup>. The most critical tasks and skills for this category are using ICT, being autonomous and gathering and evaluating information. This category is also expected to be strongly impacted by digitisation and technological changes. However, technological advancements are expected to have a deskilling effect on workers while simultaneously requiring clerks to take on higher functions.

Based on CEDEFOP research, the library sector will likely see an overhaul in terms of how it conducts its activities and the activities it undertakes. As technological advancements can push for the automation of routine, non-autonomous tasks, librarians will have to adapt and acquire new skills to maintain the technology present in their libraries and ensure their users are equipped with the skills needed to<sup>13</sup> search for information.

## **Research Methodology**

Aiming to define a training model to create digital skills in the cultural heritage fields addressing the gap and the issues mentioned above, we have focused on the library sector as a case study.

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12 EU Skills Panorama (2019b) *Office, accounting and support clerks: skills opportunities and challenges* (2019 update), [https://skillspanorama.cedefop.europa.eu/en/analytical\\_highlights/office-accounting-and-support-clerks-skills-opportunities-and-challenges-2019#\\_what\\_are\\_the\\_trends\\_for\\_the\\_future\\_2](https://skillspanorama.cedefop.europa.eu/en/analytical_highlights/office-accounting-and-support-clerks-skills-opportunities-and-challenges-2019#_what_are_the_trends_for_the_future_2), (last accessed: 13/05/2022).

13 User Education, H. Alwine - Weebly, <https://alwinehd.weebly.com/user-education.html>, (last accessed: 11/05/2022).

For this reason, the goal of the ERASMUS+ three-year project<sup>14</sup>: *Boosting Digital Skills and Competencies for Librarians in Europe* – BIBLIO<sup>15</sup> is to develop digital skills and competencies in this sector, designing new job role profiles that will be able to address the complexities of the DT. This assumption will be achieved through the sustainable cooperation between key stakeholders in the sector, public authorities and VET providers and by supporting the development of the VET curricula of “Library operator” (EQF 5) and of “Library expert” (EQF 6), fundamentals to design the digital librarian prototypes proposed in the project described [1].

The BIBLIO research took place in the countries participating in the project (Belgium, Bulgaria, Greece, Italy, and Latvia). The activities started by identifying the training needs in the European library sector for providing digital and transversal competencies to address the innovation of existing services and develop and manage new ones in the digital transformation.

Following a mixed-method approach to capture, compare and analyse both qualitative and quantitative data, four different research tools have been applied to address the context:

- desk research;
- training needs survey;
- in-depth interviews with library professionals;
- best practice interviews with VET providers.

Each section of this paper presents the results and the conclusions drawn upon a basis of comparative analysis. Finally, the two job profiles, CECO and DIGY, by the research results, are presented.

### *Desk research*

Desk research was carried out in the five participating countries and other library digitisation leader countries: Finland, Denmark, and the Netherlands. In this way, we had a complete overview of the librarianship context.

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14 Funding Agency: European Commission – Call EACA03-2018, Erasmus Program – Sector Skills Alliances in Vocational Education and Training, [https://www.eacea.ec.europa.eu/grants/2014-2020/erasmus/sector-skills-alliances-2018\\_en](https://www.eacea.ec.europa.eu/grants/2014-2020/erasmus/sector-skills-alliances-2018_en), (last accessed: 12/05/2022).

15 BIBLIO, Home page, <https://www.biblio-project.eu/>, (last accessed: 13/05/2022).

While librarianship in Europe is not regulated as a profession and therefore does not have a standard qualification or job description, there is a general overview (across the EU) that librarians play a crucial role in accessing information and understanding how to access information. As briefly explored in some European case studies, libraries play an increasingly important role in enhancing their users with the basic digital skills needed in their lives for work and everyday tasks. Furthermore, they often reach key target groups such as adult learners and are essential for citizen upskilling initiatives. The focus on enhancing users with the skills to access and critically evaluate information marks a departure from the traditional skill set of librarians. Rather than being cataloguers and collection managers, librarians now need to be more extroverted and socially oriented as a crucial part of their profession. This requires upskilling and reskilling librarians in both digital and transversal competencies so that they can meet the new challenges presented by a changing information landscape.

To a certain extent, the analysed case studies indicate that this departure from traditional librarianship occurs at various levels. In Finland and Netherlands, governments recognised opportunities for public libraries to support their communities differently and created action plans or legislation to push for a new role for public libraries. Similarly to Finland, Denmark reassessed the role of public libraries and defined a new role and function for it. Denmark's approach to training is community-oriented and encourages learners to develop collaborative and design thinking skills in response to this. This initial research suggests that public libraries should focus on developing community-oriented services and having staff that understand how to respond to this.

Finally, CEDEFOP data suggests that automation may be risky only for routine tasks, which would represent the shelving and checkout of material in most libraries. Some libraries have already started using checkout kiosks and self-return machines for most - if not all - of their material, reinventing the traditional shelving method to face the risk of automation as soon as possible and consciously. However, given the research that has been done already, libraries are naturally adapting to modern challenges, especially around performative spaces for users (e.g., maker spaces, fabrication laboratories etc.) and providing support to various target groups on topics such as media literacy. Thus, the title of “librarian” has been moving to one focused on pedagogy and support to users more so than a purely collection-focused one, as might be suggested from our perceptions

The skills gap emerging from this research varies across the partner countries. Specifically, Bulgarian librarians would learn digital skills indicating a low starting level in these skills. In

Italy, Latvia, Belgium and Greece, existing research pointed out also a need for pedagogical skills in libraries, as the librarians are expected to carry out educational activities for their users. Cherinet [2] also argued a need for pedagogical skills in libraries, as the librarians are expected to carry out educational activities for their users. Specifically, some roles and skills required by librarians are evolutionary. In contrast, others are revolutionary, but the ultimate future role of librarians is to change knowledge revolution into society (to create an informed community) through re-socialising and shaping the young generations. This skill set should be accompanied by user-needs analysis skills, as librarians are front-end professionals dealing with customers and must identify and address their needs and respond promptly.

### *Survey*

A training needs survey was addressed to library professionals<sup>16</sup> following the desk research. Over three hundred librarians have responded to the online questionnaire. They come from the five participating Countries and from Sweden, Portugal, Cyprus, Finland, Denmark and the Netherlands<sup>17</sup>. The library professionals who responded generally seemed to be motivated and aware of the need to improve their skills. They identified various training needs to fulfil their duties, such as:

- Online and offline communication
- Communication and interaction with users
- Knowing how to create digital content
- Exploring technological changes
- Upskilling in information, data, and media literacy
- Community assessment and facilitation.

### *In-depth interviews*

Following the survey, experts in the library sector from Sweden, Portugal, Cyprus, Finland, Denmark and the Netherlands (one for each country) were in-depth interviewed to understand the impact of the digital transformation on their respective library sectors. In addition, one

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16 BIBLIO Project, <https://www.biblio-project.eu/studies-reports/>, (last accessed: 10/05/2022).

17 The datasets coming from this research will be soon available online on Zotero.

representative responded from the Flemish digital library for Belgium, four respondents for Bulgaria, four respondents for Greece, two respondents for Italy and five respondents for Latvia.

The results indicated that the interviewees sustained that upskilling is necessary throughout a library professional's career to stay up with technological changes and have the relevant knowledge. Several respondents stated that librarians might have confidence in their media literacy. However, they must regularly partake in training to acquire knowledge and skills relevant to managing the changing information landscape. Many respondents focused on the widespread lack of digital skills in libraries because most rely on one or two staff members with the relevant skills. Therefore, strengthening basic digital skills in all library staff members is needed for work to manage user queries and ensure a level of digital autonomy in library professionals. Some respondents claimed that librarians need to be pushed to participate in continuing vocational training<sup>18</sup>.

#### *VET best-practice interviews*

All five Countries used interviews with VET providers on best practices to identify innovative training methods or programs teaching new topics in the library sector. These addressed various areas of digital competencies. Notably, results show that both library services need to be more digital-oriented, and library professionals should be able to leverage digital tools for interacting with their communities. Interestingly, in Latvia, libraries are seen as “digital agents” that can reach broad segments of the population and thus should be considered for citizen upskilling initiatives. This approach stands out amongst all the best practices as this intends to equip library professionals with up-to-date knowledge about e-services and make them an access point for non-digital-literate users. The interviews showed a high need for blended learning opportunities that allow learners to balance professional and personal commitments.

In light of the COVID-19 pandemic, blended courses allowed to continue the delivery of theoretical modules<sup>19</sup>, providing the learners with the possibility of convening later. Only some of the best practices identified were full-online, while most included practical activities as part of

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18 Publications Office of the European Union, <https://op.europa.eu/en/web/eu-vocabularies/concept/-/resource?uri=http://eurovoc.europa.eu/6345&lang=en>, (last accessed: 10/05/2022).

19 BIBLIO, Librarianship in the post covid world, <https://www.biblio-project.eu/stories-2/librarianship-in-the-post-covid-world/>, (last accessed: 11/05/2022).

their curricula. In Italy, Tammaro [13] point out the importance of understanding the impact of the COVID 19 emergency on libraries and reflecting on how this period could affect the future of libraries.

Thus, the BIBLIO VET curricula<sup>20</sup> have also been designed to include practical activities. A blended format seemed the best to deliver theoretical aspects online and bring learners together for in-person practical activities. Several interviewees from different countries pointed out that they consider the existing collaborative and supportive work environment in the first place. Consequently, they (interviewees with the role of librarians) had an excellent opportunity to learn from each other and create and support networks between libraries.

Starting with this assumption, the learning experience of the BIBLIO project has been based on a collaborative approach among professionals to foster an inter-European community that can exchange best practices from each country.

### **Development of two job profiles**

Considering the analysis results mentioned above, the project Consortium developed two specific job profiles: the Community Engagement and Communication Officer (CECO) and the Digital Transformation Facilitator (DIGY).

#### *Community Engagement and Communication Officer (CECO )*

This job profile focuses on improving communication and community engagement skills, starting with the needs identified throughout the research. CECO librarians will have contact with library users and local stakeholders to create a network for engaging the community and improving the interaction with the libraries. The main task of this role is to focus on developing different services and activities based on the community's needs, including non-library users, aiming at building a network of local stakeholders to involve in those activities and services for the community. CECO professionals will communicate with their target groups online and offline in the library workflow.

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<sup>20</sup> BIBLIO, Modular Vet Curriculum based on 2 job profiles is under development, <https://www.biblio-project.eu/stories-2/modular-vet-curriculum-based-on-2-job-profiles-is-under-development/>, (last accessed: 21/06/2022).

The digital skills related to the tasks of this profile address the searching and understanding of the different users' target needs to design and provide targeted communication. According to the DigComp 2.1<sup>21</sup> level fixed for the project, the CECO professional must understand and learn different communication techniques, both online and offline, information, data, and media literacy, to avoid the spread of disinformation; also, graphic design skills must be provided, needed to produce content for communication campaigns.

There are many transversals and crucial competencies included in this profile. The CECO professionals must listen actively to their community's needs and address them by developing creative solutions. They must have the communication skills to cooperate with local stakeholders in engaging their community, which requires strong networking abilities. Furthermore, as they frequently interact with their community, they must have strong interpersonal skills and need well-based pedagogical, coaching, and mentoring competencies.

#### ***Job role profile description***

The *Community Engagement and Communication Officers* are flexible, proactive, and digitally aware professionals. They use data and information inferred by community engagement to assess users' needs and set priorities for outreach services. The CECO professionals also reach out to underserved communities to identify, pilot and establish non-structured based library service delivery models that improve their engagement, addressing library use, literacy, and digital inclusion barriers. They analyse, interpret, and act upon data and trends in library engagement and outreach, locally and nationally. They involve communities and different people through various channels: community-based organisations and groups, networking, social media and other communication methods.

#### ***Digital Transformation Facilitator (DIGY)***

This profile was developed as a role that would provide digital tasks in different types of libraries. The DigComp 2.1 headings are used in this profile; specifically, the DIGY professionals will support the library and their colleagues' transition into the digital era. Their activities will focus on implementing new digitalisation processes in the library, digital tools for the staff, research

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21 DigComp 2.1, Il quadro di riferimento per le competenze digitali dei cittadini, [https://www.agid.gov.it/sites/default/files/repository\\_files/digcomp2-1\\_ita.pdf](https://www.agid.gov.it/sites/default/files/repository_files/digcomp2-1_ita.pdf), (last accessed: 11/05/2022).

and training, and digitising artefacts. There is a high expectation of proficiency that these professionals must have.

As this is a facilitator role, the DIGY professionals must have transversal skills and teach colleagues to use digital methodologies and technologies. This know-how requires strong interpersonal skills and well-based pedagogical, coaching, and mentoring competencies. Furthermore, as they work on digitising collections and curating data, they must have related digital skills and communication skills to explain to their colleagues and external users how to access and interact with digital artefacts. Finally, DIGY professionals must stay informed on the developments in their sector and devise ways to integrate innovative solutions into their library successfully, when applicable. For this role, constantly monitoring how the cultural sector evolves is fundamental, especially for addressing the digital cultural heritage creation challenge and library management.

#### ***Job role profile description***

The Digital Transformation Facilitators are flexible and proactive professionals provided with the skills to drive the librarians' transition to the digital era. They will provide their colleagues with methodological and technical support to manage activities adopting new digital tools. They must be able to: collaborate online using tools and platforms; design and/or select library content and services; facilitate tasks management for events and other library activities; provide for library systems management tasks; collaborate on research and training activities; check the workflow efficiency between teams and overall team management.

They also support cataloguing, archiving and digitising library artefacts and curating digital resources and collections.

#### **Conclusions**

According to the goals defined for the BIBLIO project, the two distinct job role profiles, CECO and DIGY, have been designed to start filling the skills gap that arose in the library sector due to the Digital Transformation. The two professionals are intended to enhance the role of librarians and boost digital skills, with the perspective to share the training model developed in the project with other cultural heritage sectors. The role of CECO aims at responding to the communication and the community engagement training needs. In contrast, the part of DIGY will provide the needed skills for facilitating methodological and technical support for digitisation processes. Supplied with digital and transversal skills, these two professional profiles will help the library



sector transition into the digital era, being aware of how to address the challenges of a too-quick innovation. In this way, the BIBLIO project opens the field to further research and development of training models for integrating digital skills and knowledge in other cultural sectors to fill the entire heritage system's gap: the lack of digital culture.

The project has reached its first objective, completing the provision of introductory MOOCs<sup>22</sup> (the result of joint work between partners), which were provided to the participants to allow them to approach the more complex issues later deepen in the specialization courses. After selecting the learners from MOOC's participants (maximum 25 learners per country), the courses were "localised" in partners' National languages<sup>23</sup>, in blended form among the various partners, providing 38 modules with specifications and insights based on the needs of the CECO and DIGY profiles. In particular, increasing students' digital know-how was considered in creating the modules.

In May 2022, the BIBLIO Consortium planned the fourth partnership meeting, which was held online, replacing the mobility to Athens, Greece.

The meeting was primarily dedicated to the current delivery of local pilots in the partner countries, the upcoming face to face activities (F2F), and the delivery of the Work-based-learning (WBL) activities.

In this crucial phase, learners helped by tutors will develop a proper project-based idea (consisting of 40 hours dedicated to design a project) that will be developed tangibly in the 160 hours of WBL in affiliated Libraries. At the end of this path, deserving learners who have completed all the tasks, activities and innovative training paths will receive the specialist certification with European significance. The project has already achieved quite substantial acknowledgment from different organisations: the EC invited the partners to include the course in the Digital Skills and Jobs platform, the course was also presented to the African Digital Library Support Network (ADLSN)<sup>24</sup>, and there is an idea to adapt the course and launch it there as well. Together with

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22 BIBLIO, *The BIBLIO Massive Open Online Course (MOOC) is on its way*, <https://www.biblio-project.eu/stories-2/biblio-mooc-on-its-way/>, (last accessed: 15/05/2022).

23 BIBLIO, Content, <https://www.biblio-project.eu/training-programme/>, (last accessed: 15/05/2022).

24 ADLSN, *African Digital Library Support Network Home page*, <https://adlsn.org>, (last accessed: 12/05/2022).

UNIBA, EGINA s.r.l.<sup>25</sup> was invited to join a Capacity Building project in Higher Education<sup>26</sup>. The project has already attracted attention both at the European and international levels.

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25 EGINA s.r.l., Home page <https://www.egina.eu>, (last accessed: 12/05/2022).

26 European Commission, *Erasmus+ EU programme for education, training, youth and sport*, <https://erasmus-plus.ec.europa.eu/opportunities/opportunities-for-organisations/cooperation-among-organisations-and-institutions/capacity-building-higher-education>, (last accessed: 17/05/2022).

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