

Fodor János

fodor.janos.konyvtud@btk.elte.hu

ORCID: 0000-0001-7749-7623

Eötvös Loránd University, Faculty of Humanities, Budapest, Hungary

Kiszl Péter

kiszl.peter@btk.elte.hu

ORCID: 0000-0003-2992-295X

Eötvös Loránd University, Faculty of Humanities, Budapest, Hungary

Developing Digital Collections: a Training Model of Digital Humanities Web Projects in Library and Information Science Education

Abstract: Creating content providing systems and programming database connections, queries, and complex web platforms are primarily the tasks of information technology. However, the professional and content-related preparation of service engineering and the customisation and effective use of content providing systems belong to the librarians' competences, and therefore constitute an interdisciplinary area of our training. The so called Content Development Working Group of the Institute of Library and Information Science of the Faculty of Humanities at Eötvös Loránd University has therefore had a dual purpose since the mid-2000s. On the one hand, it involves future librarians in projects yielding tangible outcomes for the professional community, thus helping the students acquire competences relating to various aspects of the librarian profession through motivating and creative work. On the other hand, the working group studies and analyses the instruments of content provision, especially network-based information services. The results obtained through joint research and the display platform created are also published as a complex project, thus introducing students into the network-based forms of research support and scientific information provision. As an integral part of a modern librarian's duties is to inform social media users of existing digital collections, within the framework of the programme we also test the effectiveness of libraries' social media presence through short excerpts of our sample projects. Bearing all the above in mind, this paper aims to provide a detailed description of (1) the content development projects, (2) the experimental research projects and (3) the collaborative projects of the Content Development Working Group devised to enhance trainee librarians' interdisciplinary competences. The study also highlights how the outcomes of the projects are integrated into the disciplinary (BA and MA) degree programmes of the Institute. To demonstrate the broader context of the undertaking, the study also includes a short section on the educational aspects of e-books and e-publishing and presents some of the internationally recognised results, the international connections and the future plans of the Centre for Digital Humanities founded in the Institute in 2017.

Keywords: library and information science, librarian training, content development, collections management, digital literacy, local history, digital humanities

Introduction

Providing constant access to values archived in libraries requires flexibility and open-mindedness in the current, ever-changing technological environment (Vignau and Quesada, 2006). We also need to adapt to these changes (Huwe, 2015) regarding our Library and Information Science university programmes.

In the Institute of Library and Information Science of the Faculty of Humanities of Eötvös Loránd University (ELTE for short), we work with new generations of students each year. We use new tasks to demonstrate how to manage collections of mixed document types (books, articles of periodicals, manuscripts, photographs, audio and video recordings, their metadata, connections, and data links). We research the readers' changing habits on new social media platforms. In addition, we do all this in a constantly changing software environment: we try free, open-source solutions and test collections' websites optimized for mobile devices.

In this paper we introduce how a university working group, more precisely, the so called Content Development Working Group (henceforth referred to briefly as CDWG) of the Institute of Library and Information Science of ELTE, can function as an effective experimental laboratory of its field, through content development web projects. Each semester-long educational project, carried out with the cooperation of researchers and students within the limited university timeframe, can serve as a model for greater, national or even international endeavours of library science. By carefully planning each task, students with differing educational backgrounds and professional competences can produce valuable results, much like professionals at a library.

The aim of the projects described in the paper is to let the BA and MA degree programmes' participants achieve the kind of versatility that is essential for the librarians of the digital age. The complexity of the projects enables the organic development of students' interests. Therefore, building on this versatility we can effectively support their specialization process and professional development. Thus, in this paper we analyse how each project reflects on current issues, while we also point out the lessons to be learnt about work organization and how our results can serve the innovation of library services.

Therefore, this paper aims to provide a detailed description of the five main elements (projects) of the comprehensive and interdisciplinary progressive (BA and MA level) educational programme of the Institute: the content development projects, the experimental research projects, the collaborative projects, the e-publishing projects and our future plans relating to the recently founded Centre for Digital Humanities. The study also reveals how the outcomes of the projects are integrated into the educational practices of the LIS degree programmes of the Institute.

As a result of the project-oriented educational methods described in the paper, the students are able to process, identify and organize documents from different eras, both analogue and born-digital; they can recreate the context of original photographs through geographic and historic

research or by taking their own photographs; and they learn to digitally and philologically process materials by examining manuscripts and comparing different versions of texts.

1. Content development tasks in library and information science degree programmes

1.1 Context

The Institute of Library and Information Science of the Faculty of Humanities at Eötvös Loránd University, founded in 1949, is the oldest librarian training higher education institution in Hungary, and also the one operating with the highest number of students and lecturers. This is the only institution in Hungary which provides programmes at all levels: our students can earn a Bachelor's Degree in Information and Library Studies (specialisations: Book History, Information and Knowledge Management, EU Information) and a Master's Degree in Library Science (specialisations: Research and Development Information Manager, Business Information Manager) either as full-time or as part-time students, while our Library Science Doctoral Programme provides the opportunity to earn a PhD degree. Furthermore, we also run the so called "undivided", five-year Librarian Teacher Training Programme and the Music Librarian specialisation of the Music BA Programme. We have substantial domestic and international connections, as shown by our twenty ERASMUS contracts currently in effect. Our foreign partner universities include Åbo Akademi University, Turku; Alexander Technological Educational Institute of Thessaloniki; Babes–Bolyai University, Kolozsvár; Hacettepe Üniversitesi, Ankara; Högskolan i Borås; Høgskolen i Oslo og Akershus, Oslo; Ionian University, Corfu; Johannes Gutenberg Universität, Mainz; Latvijas Universitāte, Riga; Sapienza Università di Roma; Sveučilište J.J. Strossmayera u Osijeku; Technische Hochschule Köln; Universidad Carlos III de Madrid; Universidad de León; Universidad de Salamanca; Universidade do Porto; Università degli Studi di Firenze; Universitatea de Vest, Temesvár; Université Sciences Humaines et Sociales, Lille; Uniwersytet Jagielloński w Krakowie (Kiszl, 2015; 2017).

1.2 The disciplinary programmes

An increasing number of our newly accepted students have notable background knowledge in information technology. Our training programme's goal is thus to further develop their high level of competence, and also to provide them with opportunities to enhance their outstanding skills and to promote their talent. The contents of our disciplinary programmes are determined by a government decree (Decree No. 18/2016, 5 March, of the Minister of Human Capacities on the Training and Outcome Requirements of High-Level Vocational Trainings, Bachelor's and Master's Degree Programmes, and on the Amendment of Decree No. 8/2013, 30 Jan., of the Minister of Human Capacities on the Set Requirements of Teacher Training and the Training and Outcome Requirements of Teacher Training Programmes), our curricula came into effect in 2017. They were designed within the following framework:

Bachelor's Degree Programme in Information and Library Studies 180 credits (6 semesters)
- social sciences and humanities 15-25 credits;

- library studies and information management 30-40 credits;
- management studies 5-20 credits;
- information technology 15-25 credits;
- communication studies 5-20 credits;
- optional specialisation 35-50 credits;
- internship 15 credits

Master's Degree Programme in Library Science 120 credits (4 semesters)

- social sciences and humanities 5-15 credits;
- content management, knowledge management 10-25 credits;
- scientometrics, research support 5-15 credits;
- business and management studies, organisation development 5-15 credits;
- technical terminology 4-10 credits;
- optional, specialised professional knowledge 35-50 credits;
- internship 10 credits.

1.3 The content development working group: aims and focuses

Our Institute has always deemed it important to engage the students in practical work closely related to their theoretical training (Kiszl 2014). Therefore, the Content Development Working Group (CDWG) was established at the Institute, operating within the framework of our disciplinary programmes, and having a dual purpose ever since the mid-2000s:

1. It involves future librarians in projects yielding tangible outcomes for the professional community, thus helping the students acquire competences relating to various aspects of the librarian profession through motivating and creative work.
2. In cooperation with the students, it also studies and analyses the instruments of network-based information provision, creating the content itself and its display platform simultaneously (as the result of this joint research).

We provide new knowledge with each course, and a layered training programme, continuously supported by tasks related to content provision. During the ten semesters of our bachelor's and master's degree programmes (taken together), the CDWG provides the following ten progressive elements of practical work:

BA level:

1. Tasks on coding and style sheet editing. The contents of the created HTML pages constitute an individual paper related to the theoretical material students receive as input.
2. Collaborative tasks on searching, referencing and content editing.
3. Tasks on digitization and keyword database development.
4. Uniform use of a shared publication platform, the joint creation of a thematic review blog.
5. Tasks on database development. During the BA programme a series of courses introduce the students to database development. The first course lays the general

foundations, the second focuses on library-related usage. During the third course the students take part in web content development.

MA level:

1. Master's students also take part in more complex web content development tasks to lay the foundations of their studies in the first semester.
2. During the seminar entitled *Text publishing* students examine handwritten literary manuscripts philologically and publish them on the web.
3. During the *Instruments of Content Provision* courses the results of theoretical research are published on a shared platform.
4. This same platform later on contains the series of papers (on topics chosen by the students) completed as their seminar assignments.
5. By the last semester, students should make sure that the content service they have developed on the selected topic, using the chosen content providing system, works properly (Figure 1).

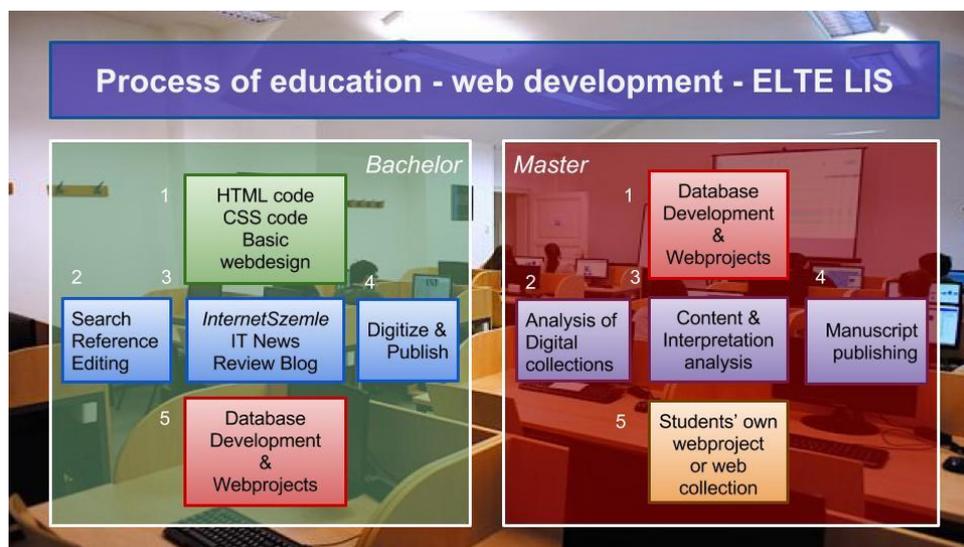


Figure 1. Process of education – web development

Out of the ten stages above, nine results in publicly accessible content hosted on independent websites. On the other hand, the HTML tasks mentioned in Point 1 are available only for archiving purposes, under the “*Dolgozattár*” [Paper collection] subpage of the website of the Institute.¹

Besides the results of the seminar projects, the general conditions of work organisation in higher education are also informative. The experiences of organisation – through success and failure alike – have formed our working group’s activities for decades and also shape our future strategies.

¹ Institute of Library and Information Science, Faculty of Humanities, Eötvös Loránd University [website] <http://lis.elte.hu>

2. Motivation – Characteristics of a project situation with a deadline

Motivated work is important at a workplace, both for colleagues and managers. To achieve this, it is essential for all participants to be aware that their roles are imperative and that the quality of their work increases the value of the collective result. The inclusion of students and volunteers in digitizing and collection development has the same advantages and disadvantages everywhere in the world: it develops professional competences and digital literacy, but the limitations of the situation compared to employing professionally trained, experienced workforce need to be taken into consideration (Skulan, 2018).

Most of our projects were born not only for the sole purpose of the teacher reading the student's paper. Learning from each other and publishing their work online as their own motivates the students more than practicing sample tasks.

However, while in a library it is usually possible to catch up over time and to gradually take over the role of the experienced colleague, in a university working group task the student has one semester to complete the course. The twelve, usually 90-minute sessions are hardly enough to prepare 10-20 new colleagues, understand the joint project, assign tasks, provide adequate instruction for quality work, and – when possible – close and evaluate the completed tasks, and publish the results. Considering the above, each of our content development projects simulates a project situation with a short deadline. It is a considerable responsibility for the instructor to end the seminar with the experience of success, and to assemble a motivational end result from the supposedly sensible tasks. Our most important findings so far may be summarized as follows:

- Jobs that can be undertaken as university coursework are carried out with a fixed group of colleagues from start to finish.
- For the development of the project it is beneficial to choose a format with which the joint effort can lead to a publishable, functional end result within a single semester.
- The project should be divided into sub-tasks of the same difficulty level, which can be carried out by the participants individually and – with the appropriate amount of work and attention – at the required level. Their current knowledge needs to be taken into consideration, similarly to the competences and the experiences to be gained throughout the semester.

The primary focus of team work – the actual lessons – should be to help those with lacking performance to catch up. Problems that can be educational for others need to be shared with the project's participants. One can react to questions and ideas raised by students with outstanding performance via e-mail or using the shared platform.

While it is our obligation to develop the expected competences, we also need to help students with exceptional abilities to also develop, preferably in a way that enriches and improves the results of the joint project. Despite the short deadline, we cannot treat our students as a homogeneous workforce or as interchangeable participants.

Finally, we need to mention the emotional relationship between participants and projects. The projects of libraries, information providing institutions, museums, and memory institutions all relate to their own profile. To their own employees these are subjects of great importance, but the interests of university students can be extremely diverse, even within a single field. It seems to be a general truth regarding the projects described below that participants attach great importance to subjects that relate to their own reality and experiences, and that are beneficial for their own professional development; and they also appreciate value creation that can be of interest to the general public. It is beneficial to maintain the constant presence of these motivating factors.

3. Modelling – Information service situations simulated in university courses

Considering the limitations mentioned above, we need to model content development environments that can result in valuable web content after a short training period, building on the students' background knowledge. Relating to their current level of education and the subjects of courses and theoretical material, we can only choose forms that provide for the students' gradual development in the field of information technology, and we need to show them processes that will prove useful at their future workplace. However, we must acknowledge the fact that the enormous digitized collections and web archives do not necessarily encourage readers to do research. In many cases not only do they lose interest in printed books, but the use of the digital archives offered may be even lower than that of books available in libraries (Correa, 2017). Therefore, when it comes to digital archives, the creative presence of librarians, customised research support, and the adequate form of content development are especially important.

Complying with this complex set of criteria, among the forms of network-based information provision generally considered important and up-to-date by library science, we choose to model the following cases:

- *One-off, informative web publications* – Web projects promoting events and projects.
- *Smaller archive projects* – Displaying smaller parts of an archive on an independent web platform. Creating a format, structure and navigation customised to the characteristics of the given collection. Microsites, virtual exhibitions, informative web publications.
- *Digitizing individual documents of a collection* – Web publication of standalone documents that can be concluded on their own; creating content producing added value with secondary information, key words, and the expansion of the metadatabase.
- *Research project sites* – Websites displaying constant updates and summarised conclusions of simultaneous research projects on several topics and by several authors.
- *Collaborative, community-developed knowledge bases* – Collections serving as a platform and also encouraging community development.
- *Web magazines and blog networks providing scientific and cultural information* – Regularly updated publications by several authors.

4. Content development projects

When compiling the portfolio of seminars, we make a conscious effort regarding our expectations towards the students to reflect the most recent content development tasks. Our goal is that the seminars serve both as experience and knowledge providers, offering insights for our students into the processes determining their own lives and professional development, during which they can master the modern competences expected of librarians (such as professional knowledge promoting digital literacy; Martzoukou and Elliott, 2016), and all of this in a practical, life-like setting.

4.1 IT Review – the experience of organising information

During the discussion of network-related phenomena and issues considered important in the field of library and information science, the only unchanging factors are the basic principles. If we are looking for examples and topical issues, the list of tasks changes from year to year. Regulations on copyright protection are amended constantly, while new, educational stories emerge on infringements and attacks against privacy. We acknowledge the current phases of the ever-changing media, but it is hard to gain insight into the process itself.

The *Internet Szemle [IT Review]*,² a web project of our working group, organises all IT sector news relevant to library science, dating back several years. From an educational point of view, this project models the work of co-authors collaborating on a shared platform. Our students have published and tagged more than 700 posts, article reviews, and news summaries on the website, which has been up and running for five years. During their work not only do they master the basic rules of network-based information publishing (concision, division, title, introductory paragraph, links, illustrations, finding and providing relevant sources), but they can also practice their summarising and reviewing skills in “real life” situations. They come to know and research reviewable sources, and perceive the movement and spread of news, mostly from their original English version to the different levels of domestic content provision.

In its current form the project includes the contents of several previous projects; it integrates and archives not only the paper database of our earlier Joomla-based website, but also our article collection comprised in a community-powered bookmark collection updated on a daily basis.

4.2 Research Diary on content development

For a 21st century library, active information provision is just as important as maintaining the physical public space and the helpful environment within. Our MA students are future professionals with a BA degree, who are aware of their own limitations and opportunities. They need to be able to model professional content provision on a subject they feel competent in, because it is part of their developing professional interest: it is their research subject, or maybe even their hobby. According to recent research on the topic, they need to improve their

² *Internet Szemle* [website] <http://internetszemle.blogspot.hu>

knowledge of the collection, develop their competences in recognising the possible ways of interpretation, accessing and assessing sources, and relevant ethical and copyright-related issues (Carini, 2016).

Their shared content development platform, the *Kutatási Napló [Research Diary]*³ publishes their work completed throughout the three-semester long course, *Instruments of Content Provision*. The different sections are summarised in a table of contents each year. The project models a complex situation: the website can be seen and interpreted both as a display platform of a research group's work in progress, and as diverse web content which is easy to read.

- The first *Content Provision Analysis* seminar serves as an opportunity to let the students explore the possibilities of the introduced instruments on a small scale, using their own project; editing, publishing, and broadcasting content in an engaging way – all of this on a freely chosen but appropriate subject.
- During the second *Topic Analysis* seminar we examine how the topic chosen by the students appears on the web: How is it displayed, how is it expressed, and what unique possibilities does it have to offer? What does or would technological development enable? Can we see usable parallels in projects providing content on different subjects? What can we learn from the task relating to our own mini project in everyday reality (technological and financial opportunities, programming background) and beyond? What would ideal content provision be like in the field of our chosen topic?
- *Digital Collection Analysis* – as a broader form of projects completed in practice, we have been building a register of Hungarian corpora and digital libraries since 2015. The regular analysis of digital collections based on unified criteria does not provide a full picture, but it can offer ideas, and it can be used for international comparison too, as a significant sample.
- *Reviews* – as the fourth component of the *Research Diary*, students prepare summaries of relevant international, professional articles.

In the *Research Diary* our students can realise their own content development ideas. It is not surprising that as a continuation of their work on a chosen subject, many degree theses and publications are born; several students carry on and further develop their research after finishing their university studies. Our web projects are summarised in Figure 2.

³ *Kutatási Napló [Research Log]* [website] <http://kutasinaplo.blogspot.hu>

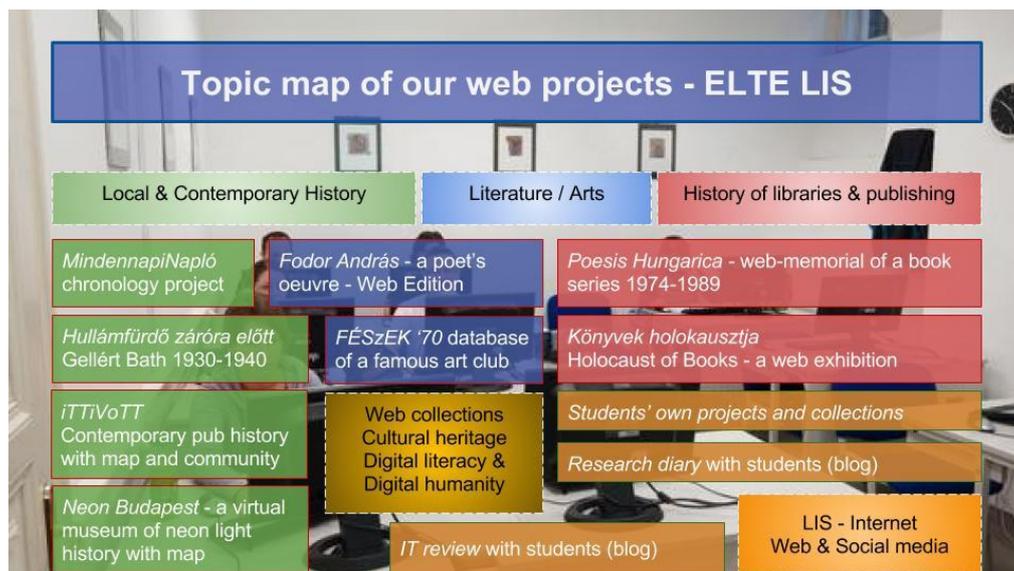


Figure 2. Topic map of our web projects

5. Main experimental research projects – content with added information

5.1 Local history

Local history concerns everyone, because it builds on common knowledge and our shared physical space of existence. In this field of cultural heritage especially, libraries need to be prepared for the enthusiasm of non-professional participants, and plan projects that can be completed in collaboration with them (Roued-Cunliffe, 2017). Local history collections have a unique place in social media as well. If these collections are published on the internet, there is a fair chance that they raise interest, promote research, and awaken the desire to acquire deeper background knowledge and learn about connections. Our working group has always been focusing on examining the possibilities of the web publication of local history collections. The most popular examples of completed sample experiments are built on publishing old photographs of Budapest. In these projects we use popular Web 2.0 services, blogs, and photo sharing sites, realising the already proven benefits of community collaboration (De Sarkar, 2017).

Ixbolt

Our website, *Egyszer Bolt*⁴ (*IxBolt*) [literally: *Once Upon a Store*] was created as a microsite displaying part of a bigger collection. It is built on Béla Kalota's, an amateur photographer's collection. Béla Katola realised in the 1990s how the image of Budapest is changing with the transformation of commerce and catering. He took hundreds of photos of stores he (mostly correctly) suspected would shortly close down, just to be replaced by department stores, or disappear completely, together with the demand for their services (e.g., stockings repair, older forms of alternative medicine, glaziers, fettlers, tobacconists). We have created an encyclopaedia of urban retail trade and services on the website. Students added not only their

⁴ *Egyszer Bolt* [website] <http://1xbolt.blogspot.hu>

own photos, but research papers and photo collages to the categorised web collection, which also has a comment section. They examined several chosen professions' past and present, exploring the background and the reasons of the changes.

iTTiVoTT

Our second project from the field of local and contemporary history was built on Béla Kalota's more sizable photo collection (almost 1,000 pieces), which is particularly popular among our students. The project entitled *iTTiVoTT*⁵ [literally: *DRaNKHeRe*] organises photographs of hundreds of restaurants and pubs around the change of the political system in the 1990s, and it does so with the methods of an encyclopaedia, even if the list is not exhaustive. Complete or not, the collection contains a plethora of pictures from self-service canteens to expensive restaurants, taken in all districts of the capital; therefore, it is the most exhaustive collection of pubs on the outskirts from this time period.

During the implementation of the project we were the first – preceding every similar “pub map”-like mashup – to place the locations on a map (Google Maps), link and embed them. We were also the pioneers of the increasingly popular “before-after” parallels of pictures taken at the same place at different times, since it has always been the most interesting aspect of this project to revisit the locations from time to time. We capture the changes in appearance and function, and the development or decay of stores. The written location descriptions and new pictures taken by the students add an educational timeline to the locations immortalised by Béla Kalota. This is how each student's work throughout a semester bears a result that can be both continued and closed.

Besides the interactive blog depicting the changes through photographs and the maps helping spatial orientation, project *iTTiVoTT* was the first that made it to our Facebook platform in 2009. The group⁶ is constantly growing, with interested users sharing our pictures and uploading their own. There is an existing collaboration between collection and reader, which can be studied.

Neon Budapest 2017

The most successful among our university projects is probably our collection entitled *Neon Budapest*⁷ (Figure 3). The neon signs of Budapest are spectacular mementos of past eras. Their maintenance and protection was very dear to many, even before the project itself started. During the project we re-took some of the pictures from a student's few-year-old collection. Many of the fragile decorations disappeared or got damaged just in those few years.

⁵ *iTTiVoTT* [website] <http://inaplo.hu/ittivott>

⁶ *iTTiVoTT* Facebook group <https://www.facebook.com/groups/ittivott>

⁷ *Neon Budapest* [website] <http://inaplo.hu/neon>



Figure 3. Neon Budapest homepage

The pictures can be filtered by many criteria: we can browse neon signs based on the content of the advertisement, the actuality of the activity, typography, location, and condition. We added written location description and map navigation to each picture.

The novelty of the project was the diversity of the background material and that of the professionals and professions involved. We contacted the neon-saving initiatives of the 2000s. We considered the domestic and international possibilities and examples of saving neon signs; for example, we contacted the Neon Museum in Warsaw. We have written an overview of the history of the city and its technological development. We have also collected examples from other cities. We introduced the contemporary artistic use and the modern production of neon. We aimed to offer all the possible connecting factors to pique the visitors' interest.

Many representatives of related fields participated at the project introduction event held on 26 May 2017; the director of the Museum of Electrical Engineering of Budapest, and David Hill, the director of the Neon Museum of Warsaw both gave lectures.

András Fodor – A Poet's Oeuvre – Web Edition

All librarians who have earned their degree in Budapest since 2000 share the experience of having participated in the *Web Edition of András Fodor's Oeuvre*.⁸ There are two factors that justify the educational use of András Fodor's (1929-1997; poet, essayist and literary translator) life's work. On the one hand, the leader of the content development working group – and the co-author of this paper – inherited the copyright. On the other hand, his life's work is an ideal hypertext material. His poetic works, essays, and translations spanning half a century are accompanied by plenty of letter correspondences and a diary with daily entries. These texts of different genres and the continuously recorded activities provide a layered, vibrant source of

⁸ András Fodor – *A Poet's Oeuvre – Web Edition*. [website] URL: <http://inaplo.hu/fodorandras>

history and literary history, in which thousands of hidden connections can be discovered between known artists, public figures, referenced pieces of art, and events.

As the first step of the project, a student only processes one single entry of András Fodor's detailed diary, but the digitization of the text and its publication with added information – identifying and indexing all the referenced people, locations, and pieces of art – is a complex task. As a result, the names and titles mentioned in the text are interconnected with other references made to them throughout the whole publication. The processes of the work, which has been going on continuously for 15 years, are formed according to the students' feedbacks. Besides the benefit of assigning tasks that can bring success in the span of one semester, another important outcome is that even those less interested in literature can get caught up in the process of organising and building a system.

Not only did we publish the diary, but with the help of the students we digitized all of András Fodor's poems and essays: more than 3,000 pieces of work. Indexing and thematically processing these will provide students participating in the project plenty of work for years to come.

With our MA students we connect the final forms of poems published in books with the first manuscripts. We aim to create web publications that present the process of the poems' birth through all its stages, capturing the changes in the mode of expression. Each detail crossed out, changed, or omitted, is connected through meticulous investigative work to the corresponding part or line of the poem, in which the poet's intention can be recognised.

From the very beginning there is a video and photo collection connected to the *Web Edition of András Fodor's Oeuvre*, since András Fodor was not only a poet and a writer – he also took pictures and captured many of his travels and trips with artists and friends on film.

Our working group has an especially great responsibility in this project: the quality of the literary texts published and the correct definition of keywords goes beyond the semesters spent with the students. Literary historians, librarians, and the poet's contemporaries help our work by examining it and clarifying disputed issues.

Future professionals who participate in the *Web Edition of András Fodor's Oeuvre* can experience first-hand that their work, may it be carried out in any kind of library environment, can have an effect on cultural tradition and scientific history – in this case, the history of literature.

5.2 Contemporary history

MindennapiNapló

*MindennapiNapló*⁹ [*EverydayDiary*] is an individual content development project on contemporary history linked to the diary entries of the *Web Edition of András Fodor's Oeuvre*. Chronological order is a complex issue of human knowledge storage. There is a demand for the exploration of the layered quality of time, which is proven by the popularity of chronological web content. It is difficult to separate the knowledge of earlier times from that of later eras, and it is difficult to see separately familiar past events side to side.

Our students prepare press reviews and monthly chronological collections for the dates of diary entries; they compose a “monthly portrait” of the events, add countless links, and visualise the events through infographics. Not only librarian students are involved in this task. This particular content development project has been an exciting forum of collaboration with the BA students of the Communication and Media Studies programme of the Faculty of Humanities at ELTE since 2015.

Our project aims to process sources referencing the second part of the 20th century: to create an event collection with exact dates, or at least months, from the 1940s until the turn of the millennium. The content profile of this service fills a gap: it is a lot easier to read and a lot more colourful than chronological databases. However, it is more clearly arranged than digitized versions of daily newspapers; we publish brief compilations that enable the quick overlook of an entire month. Although digitizing printed daily newspapers gives researchers invaluable sources all over the world, through our project we also filter out the “noise”: the unavoidable mistakes resulting from mass digitization (Jarlbrink and Snickars, 2017).

Since *MindennapiNapló* is independent from the *Web Edition of András Fodor's Oeuvre* and its mostly literary content, students have a lot more freedom to express their creativity in these monthly articles. We enrich historical and political facts with relevant references to cultural and even pop-cultural data from available databases. We compensate for the censored, sombre news of Hungarian press with lists of American film and radio hits. Our monthly event lists are complemented by abstracts made of contemporary Hungarian cultural periodicals.

Students are often surprised to learn that certain films still on television today and songs retaining their popularity through remixes are in fact from the same time as social, scientific and political events recorded by the press.

Using the collaboratively editable Google Docs, which became widespread at the time when our project started, we rely heavily on the sharing, publishing, recovering and backup features of the cloud storage. This project simulates a collectively edited publication created on a network in real time, but it can also be an educational sample project for the increasingly

⁹ *MindennapiNapló* [website] <http://inaplo.hu/mindennapinaplo>

popular (Garner, Goldberg and Pou, 2016, 100) social media campaigns run by libraries and built on the collaboration of several institutions and collections.

The knowledge base covering nearly each month of the 1960s and 1970s is gradually getting closer to the consistent quality we aim to provide for the public.

6. Collaborative projects

6.1 Online interpretations of offline collections

Poesis Hungarica

Hungary is famously centred around Budapest. There are no other cities of a similar size within the country, which explains Budapest's cultural dominance as well. This is part of the reason why we are so proud to have created a tribute with students from rural areas to the work of Pál Lipták, a legendary librarian, who created high culture in the second half of the 20th century far from Budapest, in Békés county – a culture that is considered high even by European standards. Besides his innovations in the field of library science, his experiments in publishing are also worth mentioning. Remaining copies of his limited edition book series entitled *Poesis Hungarica* are sought after by bibliophiles at auctions. In the 1970s, illustrious Hungarian poets gifted signed copies to their dearest readers and friends. Pál Lipták was assisted by András Fodor, who provided him with advice and personal connections during the selection process of the unique series.

The *Poesis Hungarica*¹⁰ website is comprised of pictures of unembellished covers with uniquely beautiful typography, the index of contributing poets and illustrators, bibliographical data, and references. It does not contain the texts themselves, since the poems selected to be published during the 1970s and 1980s have been published in other digitized publications since then.

However, it is still important for the website as a “digital tribute” to highlight the series: *Poesis Hungarica*'s importance is unparalleled, since this was the visionary pioneer of today's on-demand, limited edition printed books.

Pál Lipták was the director of the Library of Békés County, and he designed the building itself and its furnishings. Our collaboration with the descendants of the multitalented Pál Lipták became permanent, since our Institute was invited to the exhibition of Pál Lipták's paintings in the fall of 2017.

Holocaust of Books

The Metropolitan Ervin Szabó Library of Budapest and our Institute decided to launch a collaborative project in the summer of 2015. As part of this endeavour our working group works on the online display of certain local and contemporary history collections of the library's

¹⁰ *Poesis Hungarica* [website] <http://inaplo.hu/posesihungarica>

Budapest Collection. In 2015, the Holocaust memorial year, the Budapest Collection contributed to the series of commemorations with its exhibition entitled *Holocaust of Books*.¹¹ Our first joint project was the web-based interpretation of the exhibition, which depicted the historical cataclysm in the context of local history, and the history of press, books, publishing, and literature.

It was a major challenge to both virtually preserve and interpret all the images collected for the exhibition in a web-based form. The processing of more than a thousand text and image files – nearly one gigabyte of data – resulted in a 90-megabyte website consisting of 140 pages and more than 500 files.

The selection and the thematic organisation of the material for the *Holocaust of Books website*¹² was a joint effort by the students, after studying and rearranging all the text and image files uploaded to the cloud storage.

By keeping the original accompanying texts, we avoided the danger of being scientifically incompetent, and we only segmented the “well-established” commentary into paragraphs, keeping their linearity intact. According to our plans, the reader can “join” the collection at any given point: the previous or following material can be browsed through from paragraph to paragraph, from story to story. To provide full context we needed to bring the historical events closer to the reader and make the data at our disposal organised.

With the students we composed the complete code of the virtual exhibition as a database: in each field of each record we connected the link of the image file and the permanent (e.g., formatting and navigation) and variable features of the page to be displayed. The website that can be generated from a database table enabled us to make quick modifications and corrections. Not only does the database-type master file enable the future modification and expansion of the content, but it also makes further processing, adaptation of different formats, and transformation into a web database possible.

Besides processing the raw material of the exhibition and planning the virtual interpretation, we also added “extra value” functions to the website. We created a biography collection of banned writers, and added all the contemporary book stores and second-hand bookshops forced to close down to the image collection in an embedded Google map.

We added links and source references to the images collected for the exhibition, and also embedded snippets from contemporary television news.

For the homepage of our exhibition we selected a few contemporary pictures from the popular, community-developed *Fortepan* photo collection. To recreate the era’s mood, we also

¹¹ *Holocaust of Books. Hunted writers, banned papers, robbed library storages, destroyed books.* Metropolitan Ervin Szabó Library of Budapest. [website]

http://www.fszek.hu/konyvtaraink/kozponti_konyvtar/budapest_gyujtemeny/?article_hid=27561

¹² *Holocaust of Books* [website] <http://inaplo.hu/konyvekhokolokausztja>

embedded a video uploaded to YouTube, made from the coloured slides of Lajos Hollán, another Holocaust survivor. The pictures capture the everyday life of those final years when he could still immortalise his beloved, peaceful Budapest.

6.2 Creating native online collections

FÉSZEK '70

The FÉSZEK Club is a legendary artists' club of Budapest. The establishment, which was in its prime during the second half of the 20th century, providing high-level but still colourful contemporary artistic programmes, has lost its role by the 21st century, along with its monopoly and funding. The troubled establishment was grateful to collaborate with us in processing its programme booklets, and thus introducing its culturally important past. By digitizing the booklets of the 1970s we have created a valuable database called *FÉSZEK '70*¹³. The database offers many points of connection to those interested in contemporary culture, and significant milestones of certain performers' and artists' careers. The literary evenings of the establishment had been organised by András Fodor for decades, thus this project was connected to the *web edition of his oeuvre* as well. Not only did our students digitize the booklets from the 1970s, but they also gave context to the contemporary events by completing missing or incorrect names and researching the artists' biographical details. The database can be browsed by names, titles and dates.

Bathing before closing time

In our joint project with the Budapest Collection of Metropolitan Ervin Szabó Library of Budapest entitled *Hullámfürdő záróra előtt [Bathing before closing time]*, we explore the possibilities of investigating together with the audience, and the ways of motivating them. In the more than 500 pictures published we can see the visitors of the most famous and prestigious Gellért Bath of Budapest, the elites of the time in unusually intimate settings, preceding the times of the paparazzi. The photos were taken by the bath attendant of the bath, Sándor Pusztai. He photographed the bathers in part for his own joy, but also as gifts for the models themselves.

We involved a few historians in the project, who helped us identify some of the guests who were previously unknown. With the participating students we gave a description of each person recognised, and searched for links and photos taken of them elsewhere.

According to the concept established together with the Budapest Collection, we did our best to help the community's search for and identification of grand- and great-grandparents. We composed sample collages to spread on social media, with pictures selected from the vast collection based on certain common themes. We aim to pique the audience's interest in unique details, therefore we highlight certain pieces of clothing, bags, accessories, or poses, hair styles, and activities.

¹³ FÉSZEK '70. The FÉSZEK Club in the 1970s. [website] <http://inaplo.hu/feszek>

We make the collection browsable by these filters, and create background material about contemporary bath life, bathing suit fashion, and current events. In keeping with international research in the field (Augustyniak and Orzechowski, 2017), we build our social media campaign on teamwork and thorough preparation. We plan on collecting feedback of *Bathing before closing time* via a form and on our Facebook page, so we can analyse and measure the success of the project.

Regarding our above described existing projects we plan on increasing our social media presence; the development and stronger Facebook-presence of *iNapló portál [iDiary website]*, which displays content from different sources we operate in a homogeneous form; and the practical examination and theoretical research of involving our readers.

6.3 Knowledge exchange and joint research projects

Guest lecturers and experts in our working group

An important part of providing content and digitizing is to learn about best practices. Therefore, in 2013, our Institute entered into a collaboration agreement with the national library of Hungary, the National Széchényi Library. The agreement sets the objective of analysing and introducing real-life professional practices into university training, and of increasing the effectiveness of internships spent at the library. Thus, within the framework of this collaboration the Institute had the chance to learn about the unique IT processes developed in the national library. During these courses the colleagues at the National Széchényi Library showed us the secrets of the *Hungarian Electronic Library*¹⁴ and the *Electronic Periodicals Archive and Database*¹⁵. In return, students who enrolled in the course spent their internship at the National Széchényi Library.

We invited several employees from the libraries of different fields, collections, repositories, and databases, so they can introduce their future colleagues to the daily processes of content provision, and share their experiences about difficulties and best practices. We published detailed reports on these guest lectures.¹⁶ The students' analyses of the digital collections introduced are now accessible in the relevant section of the *Research Diary*.

Joint research – Collaboration with ELTE University Library

In 2013, our working group started an important research programme at the request of the University Library of Eötvös Loránd University (ELTE University Library for short). Social media is an important tool of libraries and other memory institutions, but a strategy regarding social media presence seems to be severely lacking all over the world (Liew, King and Oliver, 2015). Examining the effectiveness of the content development of Hungarian collections, we used scientific methods to measure the success and effects of posts, news, and short introductions posted on the web, especially on social media platforms. According to a set of

¹⁴ Hungarian Electronic Library [website] <http://mek.oszk.hu/indexeng.phtml>

¹⁵ Electronic Periodicals Archive and Database [website] <http://epa.oszk.hu/html/aboutus.html>

¹⁶ For example: Content provision in practice. 2015. 06. 24. [blog] <http://elte-lis.blogspot.hu/2015/06/tartalomszolgaltatas-gyakorlatban.html>

parameters developed together with the students, we examined more than 4,500 posts of 126 Facebook pages in the fall and spring semesters of 2013, and in the spring of 2014. During the evaluation of the results, we performed a few random checks to look for possible changes in tendencies (Fodor, 2014). As a continuation of this project in the spring of 2016 we analysed 2,200 current posts to examine the social media presence of 90 libraries and memory institutions (Fodor, 2017). Varying numbers of posts were examined from the pages monitored: the basic time limit was one month, but from those who rarely posted, at least 20 posts were included even if this meant a longer period, and from those who posted more often, the maximum number of posts analysed was 30. We measured the success of each post, the efficiency of the pages compared to the scope of their institution, the characteristics of their posting habits (periodicity, typical posting gestures, post contents), and the relation of their contents to the scope of the institution.

Our publications explaining our results serve as reference points of the topic even until today, and our findings and recommendations are consistent with those of the most recent research in the field of library science (Liew, Oliver and Watkins, 2018). Our results prove that the work of librarian students and professionals will remain essential in the long run, if we wish to assess the results of collections and content development projects, and the probable reactions of the audience correctly.

Further collaborations

Our CDWG has been seeking connections according to our Institute's strategy. It was an active participant of the ELTE IT Humanities Individual Programme (later a Minor in IT Humanities), and the organisation of joint classes, projects (e.g., *iTTiVoTT*) and conferences.

We presented our work at the conference commemorating the famous Hungarian literary historian Ildikó Bárczi, organised by the Working Committee of Information Technology and Literature of the Hungarian Academy of Sciences; at the technical conference of the K2 research group at the National Széchényi Library; and in front of the general public we did the same at the ELTE University Library by organising a comprehensive professional event for *András Fodor – A Poet's Oeuvre – Web Edition*.

We collaborated with Petőfi Literary Museum in relation to those documents of András Fodor's oeuvre which were digitized and are archived there (narrow film legacy), and cooperated with the FÉSZEK Artists' Club during the development of our contemporary history database.

Book publishing

The first e-book summarising the work of our Institute's content development working group and the findings of the *Web Edition of András Fodor's Oeuvre* was published in 2014 (Fodor, 2014).

The results of our digitizing projects were also published in printed form in a series by the publishing company: Gondolat Kiadó. András Fodor's oeuvre, which was made editable again

by our students (2013a, 2013b, 2014, 2015, 2016) has been published in five volumes to date by this renowned Hungarian publisher.

The fourth and last volume of essays (also including other artists) is currently in the works, and is expected to be published by Christmas 2018. The publishing events are like celebrations for our Institute and the content providing working group. Our fellow lecturers and students can hear about the wider context of our work first-hand: from contemporaries of András Fodor still among us, and our most prominent poets and literary historians.

7. E-publishing

A significant element of modern education is the inclusion of digital content in the curriculum for all age groups. The electronic book as an infant tool of knowledge transfer plays a crucial role in our training and research activities, which is why we include our relevant activities here, following our content development projects. Besides the historical roots (Kerekes and Kiszl, 2014a) we also address terminology definitions, analysis of the consumption and usage of this new medium, organisation of service providers who offer these contents, and discussion of other relevant issues (Kerekes and Kiszl, 2014b). We aim to illustrate that pitting printed and electronic books against each other is a fruitless endeavour, and the changes of the book in the 21st century cannot be tracked through such an artificial dichotomy. University education on e-publishing – in our opinion – should try to convince future humanities students and teachers that e-books and their contents are neither premium goods with high-tech specifications, nor fashion statements, but usable tools with which they, their peers, and later their students can access the literary products of past and present.

Let us mention our general education course on e-publishing entitled *E-book, e-publishing – The e-book in the electronic culture*, which was introduced into our curriculum in the spring semester of 2009/2010 as the first course in the topic in Hungary, serving as a model that can be adapted in a wide variety of ways. Not only students of library and information science, but all BA students of the Faculty of Humanities can enrol in this course. We have reported on the introduction and the first impressions shortly after launching the course (Kerekes, 2012). We have ventured to introduce the topic of e-books in both a general and a broader sense in Hungarian (Kerekes and Kiszl, 2015) and in Vojvodinian-Hungarian (Kerekes and Kiszl, 2016) professional press, and we have also published a standalone volume (Kerekes, Kiszl and Takács, 2015) on the subject.

8. Centre for Digital Humanities

Our projects are now parts of the faculty's newly established research centre's long-term plans. Since 2000 we have recognised, researched, and included in our curriculum the connections and interdependent, cooperative relations between digital humanities and library science (Wong, 2016). The *Centre for Digital Humanities* (CDH)¹⁷ was established in the spring of

¹⁷ ELTE BTK Centre for Digital Humanities [website] www.elte-dh.hu

2017 by the Senate of ELTE, with the goal to introduce and synthesize earlier findings in the field of digital humanities, to provide relevant services and trainings to all of our university's lecturers, researchers, and their research groups, and to conduct methodological activities. Our professional activities from the last few months include the following:

1. We have organised a series of lectures at the Institute of Library and Information Science to be able to reach the aims of Centre, where several projects were introduced from different departments, and participants could share their experiences, best practices, and the typical needs of their teaching-researching activities. We would like to continue these events this year as well.
2. The Centre offers consultancy services and trainings in the fields of computational linguistics, stylometrics, digital archives, processing digitally created content, digital publishing of scientific texts, digital cultural heritage, and aggregation.
3. We have created an international, peer-reviewed, English-language journal in the field of digital humanities entitled *Digital Scholar* in cooperation with a group of renowned editors (Editor-in-Chief: Gábor Palkó, ELTE CDH; Zsolt Almási, Pázmány Péter Catholic University; Katalin Bella ELTE-DH, Roman Bleier, ZIM-ACDH, Uni Graz; Péter Kiszl, ELTE-CDH; Katalin Lejtovicz, ACDH – Austrian Centre for Digital Humanities; Piroska Lendvai, GCDH – The Göttingen Centre for Digital Humanities; Nicholas Pethes, Universität zu Köln; Thorsten Ries, Ghent University; Dirk Van Hulle, University of Antwerp; Melinda Vásári, ELTE DH) and the collaboration of potent institutions (ACDH – Austrian Centre for Digital Humanities, GCDH – The Göttingen Centre for Digital Humanities, ZIM – Centre for Information Modelling), to be published by Ubiquity Press, London.
4. In May 2018 we are organising an international conference, *DH_Budapest_2018*, to which the lecturers and doctoral students of ELTE giving a presentation can register for free. Our keynote lecturers will be: Wolfgang Ernst (Humboldt-Universität, Berlin, Germany); Dirk Van Hulle (University of Antwerp, Belgium); Matthew Kirschenbaum (University of Maryland, US); Patrick Sahle (Universität zu Köln, Germany); Susan Schreibman (Maynooth University, Ireland).¹⁸

¹⁸ Further details: The Centre for Digital Humanities at the Eötvös Loránd University – in collaboration with DARIAH, CLARIN and Michael Culture Association – calls for abstracts for its conference held on 27–31 May 2018. Researchers of the social sciences and humanities (SSH) all experience changes in their chosen fields as everyday scholarly practices become more and more digital. Digital humanities – as a new and quickly institutionalizing interdiscipline – plays a vital role in promoting this shift. In addition, it serves as a new medium that connects the various more-or-less independent disciplines we call(ed) humanities. This new “unity” in the digital medium – a medium, that was not designed to be used by scholars – takes place in a variety of ways: via digital cultural heritage aggregation, via using international data standards, mark-up languages, technologies like linked open data, or by applying widely used CMS and repository software. Standardized data transfer has its undeniable benefits, nevertheless, the process certainly re-writes not only disciplinary borders and hierarchies but scholarly communication and knowledge transfer at large. The unstoppable curiosity about new digital methodologies and the urge to reflect on their influence theoretically: this dual drive has motivated us in launching this conference series. *DH_Budapest_2018* seeks to provide a stimulating international forum to bring together researchers from Central Europe and beyond. It will survey the current state of research in digital humanities in the hope of exposing further aspects of the role played by the digital medium in the present and the future of scholarly practices. We invite submission of abstracts on subjects relating to digital humanities and social sciences ranging from practical approaches to novel methodologies and theoretical reflections concerning but not limited to the topics below: Digital scholarly editing; Digital cultural heritage with a special focus on born digital documents; Natural Language Processing (NLP) in the SSH, named entity recognition, topic modelling, big data

5. We started creating a faculty-wide knowledge base compatible with the university repository (ELTE University Digital Knowledge Base = EDIT), through which research data can be published, linked, searched, and stored in a modern environment but still in a sustainable, safe, and standardised form. The first unit of the collection, in collaboration with the Institute of Philosophy, will be the Hungarian Philosophy Knowledge Base; and naturally we are open to applications for other projects.
6. We organised foreign *guest lectures*, where Thorsten Ries (Ghent University), Henning Scholz (Europeana) and Heinz Werner Kramski (Literaturarchiv Marbach) gave lectures on several topics related to digital humanities.
7. We organised the first *DARIAH* (Digital Research Infrastructure for the Arts and Humanities) *Central European Hub Workshop* with the support of project No. 675570 Humanities at Scale of EU Horizon 2020. At this session the digital humanities experts of the region and the representatives of the leading institutions (Zsolt Almási – Pázmány Péter Catholic University, Hungary; Silvie Cinková Charles University, Czech Republic; Andrej Gogora – Slovak Academy of Sciences, Slovak Republic; Jan Hajič – Charles University, Czech Republic; Michał Kozak – Poznań Supercomputing and Networking Center, Poland; Katalin Lejtovicz – ACDH =Austrian Centre for Digital Humanities, Austria; Martin Lhoták – Charles University, Czech Republic; Gábor Palkó – ELTE Centre for Digital Humanities, Hungary; Marianne Ping Huang – Aarhus University, Denmark; Gerlinde Schneider – University of Graz, Austria; Tanja Wissik – Austrian Centre for Digital Humanities, Austria; Miroslav Zumrík – Slovak Academy of Sciences, Slovak Republic) analysed the local collaborations in digital humanities, introduced the institutional systems, best practices, cross-border cooperational (tender) opportunities, and the benefits of an international infrastructure. The international integration of our work is proven by our memberships in several institutions acquired in this short period of time, as well as by our further collaborations. Besides *DARIAH* here should be mentioned: CLARIN ERIC (Common Language Resources and Technology Infrastructure European Research Infrastructure Consortium), Digital Humanities Course Registry, CenterNet, Michael Culture Association, Michael Culture Association).
8. Péter Kizsl and Gábor Palkó were invited as Hungarian representatives to join the management committee of *COST (European Cooperation in Science and Technology) Action CA16204 Distant Reading for European Literary History*. The project aims to create a network of researchers to study the new possibilities and methodology of writing literary history, utilising the tools of computational text analysis. A shared, multi-language database is currently being assembled from the texts of novels; this will be the subject of the computational analyses.
9. In November 2017 the conference titled *Real Library – Library Reality III* introduced an individual *Digital Humanities Section* (Kizsl and Csík, 2017, 32–35).

analysis, semantic web technology etc.; Past and present practices and networks of Digital humanities in Central-Europe; Teaching digital humanities for students, teachers and researchers; eLearning. Source: Digital Humanities Conference Budapest, 2018 Call for Papers http://elte-dh.hu/wp-content/uploads/2017/12/DH_Budapest_2018.pdf

In order to harmonise the activities of the Centre for Digital Humanities with the needs of the faculty's lecturers and researchers, and to provide the leadership of the faculty an overview of the scientific and educational databases created and developed at the Faculty of Humanities (e.g., collections of texts, audio files, images or multimedia files; bigger compositions; major professional electronic content worth archiving, processing and potentially publishing), we have started a comprehensive survey that concerns as many as 80 departments and 500 lecturer-researchers of the Faculty of Humanities. This makes it the initiative involving the most humanities experts of Hungary. We are determined to make preparations in order to achieve the long-term conservation, standardised linking, and searchable form of already existing and future scientific and educational content at the faculty, and at the same time discover and analyse the researchers' needs in the field of digital humanities (Hartsell-Gundy, Braunstein and Golomb, 2015).

Conclusions

In our paper we introduced the content development web projects of the Institute of Library and Information Science of the Faculty of Humanities of Eötvös Loránd University. This comprehensive overview was necessary to demonstrate their roles within the programme. The chain of these projects and the consecutive efforts of each generation of students hugely contributed to our Institute having become a renowned experimental laboratory of content development in the field of library and information science in Hungary over the past ten years. During our seminars we verified that besides the preservation of knowledge and credible service, flexibility and fast adaptation, and sensitivity and open-mindedness towards all kinds of changes have all become essential in the field of library services.

We integrated the modelling of these two qualities into our programme, since we realized that not even libraries need to be more flexible and open than a working group educating future librarians, because:

- each year we welcome new students and colleagues with the newest set of technological skills and questions;
- we need to provide them with an up-to-date picture of the different areas of our field, so that they can have a sufficiently complex and competitive view by the end of their training;
- we do not have our own collection, we are not bound by existing systems or our readers' fixed set of needs, therefore we can focus on the most recent issues and best practices;
- we need to keep up with the changes so we can provide a significant sample from the available examples and a complete picture of the important phenomena.

The major lessons learnt from the content development web projects carried out in cooperation with the students are the following:

- It is more useful for the entire library profession if during the programme we engage students in projects that can be carried out and their results published within a short period of time. Instead of obligatory, detailed introductions of technologies or

procedures throughout several semesters, we need to focus on projects bearing real, tangible results, providing a sense of accomplishment. Students need to be supported according to their interests if during group work they become intrigued by a specific field (e.g., database building or web development).

- While we prepare our students for the tasks of a librarian, we also compress situations that model several-year-long work programmes of bigger collections into semester-long projects.
- With these projects we can carry out experiments for years that libraries could never afford to do, because they do not have the time, the manpower, or the connections with other institutions; or, it may also happen that because of the project's diversity, it does not fit into any single library's strategy.

Librarians who are awarded a degree at our Institute thus gain project experience, and during the process they become familiar with

- collaboration with professional partners, data repositories, and archives;
- the adequate processing of different types of documents (old photographs, literary texts, manuscripts, data of repositories, results of online searches);
- analysing the needs of readers engaged in social media;
- the characteristics of e-texts and e-books;
- the digital humanities approach, and the significance of data visualisation and gamification.

The projects completed and then published in the press or at conferences prove to be educational for the librarian community in general as well:

- they reflect on the social media activity of libraries;
- they are attempts to present collections associatively and to raise interest with background material;
- they exemplify the division of tasks within an institution, and they test the possibilities of collaborating with colleagues.

Our projects are well-tested examples showing in which field novice or non-professional colleagues can be integrated into the development of web content built on library collections. Documents on local history and chronological repositories provide unique opportunities. With small steps, and with the contribution of interested readers, even complex projects like the processing of connections within a poet's oeuvre can be extended safely.

The Institute of Library and Information Science of ELTE is constantly updating its educational programme in partnership with the biggest Hungarian libraries. It will launch another experimental project in the next few years in collaboration with the Centre for Digital Humanities of ELTE. We will continue to examine social media, and assess the readers' needs for information and otherwise. We plan on expanding our toolkit with digital humanities tools and data science methods. We see great opportunity in the research of data visualisation; we will experiment with map display and timeline representation in our projects. In collaboration with our partners, we research the creative role opportunities of librarians providing information

on collections, in the field of scientific information service. In our next projects we will focus on designing interactive web platforms and increase our efforts to research the possibilities of gamification.

References

1. Augustyniak, A., Orzechowski, V., 2017. Unlocking the Vault: Sharing Special Collections on Social Media. *Computers in Libraries*, 37(7), pp. 12-15.
2. Carini, P., 2016. Information Literacy for Archives and Special Collections: Defining Outcomes. *Portal: Libraries and the Academy*, 16(1), pp. 191-206.
3. Correa, D.J., 2017. Digitization: Does It Always Improve Access to Rare Books and Special Collections? *Preservation, Digital Technology & Culture*, 45(4), pp. 177-179.
4. De Sarkar, T., 2017. Adopting a photo-sharing site as a library tool: a web-based survey, *Information and Learning Science*, 118(3/4), pp. 185-209.
5. Fodor A., 2013a. *Különös szép hajsza. Összegyűjtött versek. Első kötet 1944-1976. [Peculiar Beautiful Pursuit. Collected Poems. Volume 1 1944-1976]* Budapest: Gondolat Kiadó.
6. Fodor A., 2013b. *A párbeszéd oltalma. Összegyűjtött versek. Második kötet 1977-1997. [The Shelter of Dialogue. Collected Poems. Volume 2 1977-1997]* Budapest: Gondolat Kiadó.
7. Fodor A., 2014. *Kulcsolt vállak tengelye. Összegyűjtött esszék. Első kötet. [The Axis of Interlaced Shoulders. Collected Essays. Volume 1]* Budapest: Gondolat Kiadó.
8. Fodor A., 2015. *Megfejtett párhuzamok. Összegyűjtött esszék. Második kötet. [Solved Parallels. Collected Essays. Volume 2]* Budapest: Gondolat Kiadó.
9. Fodor A., 2016. *Utam a zenéhez. Összegyűjtött esszék. Harmadik kötet. [My Way to Music. Collected Poems. Volume 3]* Budapest: Gondolat Kiadó.
10. Fodor A., 2014. A megosztó hivatás. Könyvtári jelenlét a Facebook közösségi oldalon 2013/2014-ben. [The Controversial Profession. Libraries' Presence on the Social Media Page Facebook in 2013/2014] *Tudományos és Műszaki Tájékoztatás*, 61(7/8), pp. 275-294.
11. Fodor A., 2014. *A webre fordított nap. Egy hálózati életműkiadás margójára. [Days Translated into Web. Notes on the Web Edition of an Oeuvre.]* [e-book] Budapest: Kossuth Kiadó.
https://play.google.com/store/books/details/Fodor_J%C3%A1nos_A_webre_ford%C3%ADtott_nap?id=gveHCgAAQBAJ
12. Fodor A., 2017. Megosztás vagy szerkesztés? A könyvtár változó szerepe a közösségi médiában. [Sharing or Editing? The Changing Role of Libraries in Social Media] *Tudományos és Műszaki Tájékoztatás*, 64(1), pp. 24-36.
13. Garner, A., Goldberg, J. and Pou, R., 2016. Collaborative Social Media Campaigns and Special Collections: A Case Study on #ColorOurCollections. *RBM: a Journal of Rare Books, Manuscripts, and Cultural Heritage*, 17(2), pp. 100-117.
14. Hartsell-Gundy, A., Braunstein, L. and Golomb, L. ed., 2015. *Digital humanities in the library: challenges and opportunities for subject specialists*. Chicago: Association of College and Research Libraries.

- http://www.ala.org/acrl/sites/ala.org.acrl/files/content/publications/booksanddigitalresources/digital/9780838987681_humanities_OA.pdf
15. Huwe, T. K., 2015. Building Digital Libraries – Collaborative Collection Development Comes of Age. *Computers in Libraries*, (4) pp. 25-27.
 16. Jarlbrink, J. and Snickars, P., 2017. Cultural heritage as digital noise: nineteenth century newspapers in the digital archive. *Journal of Documentation*, 73(6), pp. 1228-1243.
 17. Kerekes P., 2012. E-könyvészet a könyvtárosképzésben. [E-publishing in Librarian Training.] *Tudományos és Műszaki Tájékoztatás*, (59)9, pp. 379-386.
 18. Kerekes P. and Kiszl P., 2014a. E-book krónika. Fejezetek az elektronikus könyv történetéből. [E-book Chronicles. Chapters from the History of the Electronic Book] *Korunk*, 25(10), pp. 15-26.
 19. Kerekes P. and Kiszl P., 2014b. „Műszálas” olvasás – mérlegen a nyomtatott és az elektronikus szöveg. [“Synthetic” Reading – Printed vs. Electronic Texts] *Könyv és Nevelés*, 16(4), pp. 8-15.
 20. Kerekes P. and Kiszl P., 2015. Az elektronikus könyvről – oktatáson innen és túl. [On the Electronic Book – In Education and Beyond] *Iskolakultúra*, 25(3), pp. 56-71.
 21. Kerekes P. and Kiszl P., 2016. Univerzális szövegelérés és olvasói integráció: az elektronikus könyv kulturális és oktatási vetületei. [Universal Availability of Text and Reader Integration: Cultural and Educational Aspects of the Electronic Book] *Híd*, 80(7), pp. 65-92.
 22. Kerekes P., Kiszl P. and Takács D., 2013. *E-könyvészet. A digitális könyvkultúra alapvonásai. [E-publishing. The Basic Features of the Digital Book Culture]* Budapest: Eötvös Loránd Tudományegyetem.
 23. Kiszl P., 2014. Könyvtártudomány elméletben és gyakorlatban – intézményi együttműködés az Eötvös Loránd Tudományegyetemen. [Library Science in Theory and Practice – Institutional Collaboration at Eötvös Loránd University] *Tudományos és Műszaki Tájékoztatás*, 61(7/8), pp. 251-266.
 24. Kiszl P., 2015. Tudományos örökség és gyorsuló fejlődés – könyvtárosképzés az Eötvös Loránd Tudományegyetemen. [Scientific Heritage and Accelerated Development – Library Training at Eötvös Loránd University] *Könyvtári Figyelő*, 25(4), pp. 443-462.
 25. Kiszl P., 2017. Könyvtártudomány 2017-től – a katedra szemszögéből. [Library Science from 2017 Onwards – From A Professor’s Point of View] *Könyv és Nevelés*, 19(1), pp. 26-37.
 26. Kiszl Péter and Csík Tibor ed., 2017. *Valóságos könyvtár – könyvtári valóság III. Konferenciaprogram az előadások tartalmi összefoglalóival. 2017. november 27-28. [Real Library – Library Reality III Conference Programme with Short Summaries of the Lectures. 27-28 November 2017]* Budapest: ELTE BTK Könyvtár- és Információtudományi Intézet.
 27. Liew, C. L., King, V. and Oliver, G., 2015. Social Media in Archives and Libraries: A Snapshot of Planning, Evaluation, and Preservation Decisions Preservation. *Digital Technology & Culture*, 44(1), pp. 3-11.
 28. Liew, C. L., Oliver, G. and Watkins, M., 2018. Insight from social media use by memory institutions in New Zealand: Participatory vs curatorial culture. *Online Information Review*, 42(1), pp. 93-106.

29. Martzoukou, K. and Elliott, J., 2016. The Development of Digital Literacy and Inclusion Skills of Public Librarians. *Communications in Information Literacy*, 10(1), pp. 99-115.
30. Roued-Cunliffe, H., 2017. Collection building amongst heritage amateurs. *Collection Building*, 36(3), pp. 108-114.
31. Skulan, N., 2018. Staffing with students: Digitizing campus newspapers with student volunteers at the University of Minnesota, Morris. *Digital Library Perspectives*, 34(1), pp. 32-44.
32. Vignau, B. S. S. and Quesada, I. L. P., 2006. Collection Development in a digital environment: an imperative for information organizations in the twenty-first century. *Collection Building*, 25(4), pp. 139-144.
33. Wong, S. H. R., 2016. Digital Humanities: What Can Libraries Offer? *Portal: Libraries and the Academy*, 16(4), pp. 669-690.