Digital Transformation

21-22 January 2021
BOBCATSSS 2021 Virtual Conference

Porto, Portugal

BOOK OF ABSTRACTS

Porto, 2021

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Bobcatsss 2021 – Porto
Digital Transformation

January, 21-22, 2021
Virtual Conference

Book of Abstracts

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Table of contents

[blank page]

Preface

This Book of Abstracts provides an overview of all selected papers, Pecha Kucha and posters that will be presented at BOBCATSSS 2021 Virtual Conference on "Digital Transformation" (https://bobcatsss2021.sciencesconf.org/).

The conference is jointly organized by the Porto Accounting and Business School - Porto Polytechnic (ISCAP), Portugal, University of Library Studies and Information Technologies (ULSIT), Sofia, Bulgaria and University of Leon, Spain.

BOBCATSSS is an international annual symposium which addresses hot topics for librarians and information professionals in a fast-changing environment. It is created by and for students, teachers, researchers and professionals in the information field. BOBCATSSS is held under the auspices of BOBCATSSS Association (https://bobcatsss.info/, former EUCLID (European Association for Library and Information Education and Research). It is a tradition which has been passed on from one European country to another since 1993, providing a rich professional conference, accompanied by numerous opportunities for networking, personal exchanges, discussions, and learning.

The 29th conference of BOBCATSSS is a virtual edition, due to the COVID-19 worldwide crisis.

This year, we have chosen "DIGITAL TRANSFORMATION" as the theme for BOBCATSSS 2021.

Information and communication technologies have a great impact on society, namely concerning the immediacy of access to information, the constant increase in the available information volume, the automation of services, the dematerialization of processes, the change in supports and formats, the attention to the client and changes in the behaviour of individuals. These impacts are also felt in the way people interact with information, in professional, academic, personal and playful terms.

Soon, half of the consumers will be digital natives, and this will force the digital transformation in organizations, creating new opportunities for change, including in organizational, cultural and legal standards.

Digital transformation as an effect of a process marked by the influence of ICT in society will influence changes in every social dimension, including business models and in the way they develop, with ICT and, inseparably, information, having a leading role in any organization.
According to Rogers (2016)[1] and Herbert (2017)[2], it is possible to identify five domains where the digital transformation takes place, and which are based on the transversal use of ICT:

1. Customers, who interact dynamically with organizations
2. Competition, which impliesa differentiation of organizations in relation to the consumer / final customer
3. Information, which due to its essential nature for the business, whether structured or not, will require an increasingly strict management
4. Innovation, focusing on the development of new ideas
5. Value, which becomes volatile in the face of market demand.

Information professionals face challenges that can be characterized by the transfer and sharing of knowledge, their safeguarding, the selection and filtering of information, the management of information and resources, access using national and international networks and the structuring information service appropriate to the organization.

It will therefore be necessary for information professionals to be active elements in the digital transformation

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[1] Rogers, David L. (2016). The Digital Transformation Playbook: Rethink Your Business for the Digital Age. Columbia Business School Publishing.
[2] Herbert, L. (2017). Digital Transformation: Build Your Organization's Future for the Innovation Age. London : Bloomsbury.

of organizations, as true informational mediators which is why the theme of the BOBCATSSS 2021 virtual conference is "Digital Transformation."

The conference aims to connect theoretical approaches and professional practices by addressing the **DIGITAL TRANSFORMATION** from the perspective of the LIS community, information managers, librarians, and archivists.

In the Book of Abstracts, the 49 contributions are listed in alphabetical order by title.

Presentations come from 16 countries: Albania, Belarus, Bulgaria, Croatia, Finland, France, Ghana, Hungary, Japan, the Netherlands, Poland, Portugal, Spain, Sweden, Turkey, and the United Kingdom.

We all together confirmed the thought, shared by Paavo Arvola, President of the BOBCSATSSS Association, at the Bobcatsss Association Newsletter in September 2020: *"Distance conferencing should not mean social distancing, though. A conference is not only for sharing knowledge, but to promote and facilitate collaboration and networking among participants. This is very much so in Bobcatsss…."*

And in the BOBCATSSS 2021 edition!

Thank you for your fruitful collaboration!

Organizers of BOBCATSSS 2021

Porto Accounting and Business School - Porto Polytechnic (ISCAP), Portugal

Degree in Documentation and Information Sciences and Technologies / Master I Business Information

Porto Accounting and Business School belongs to Portugal's largest and most prestigious public Polytechnic Institute and offers its 4,000-strong student population a range of innovative undergraduate and graduate programs. The Degree in Documentation and Information Sciences and Technologies (LCTDI) trains qualified professionals for the areas of Information Management, Library Science, Archive and Documentation. It provides the development of specialized technical skills in systemic information management in any type of support, in the most diverse sectors of activity, including the creation, research, evaluation and selection of quality information and its organization, making it accessible and usable to employees and customers of organizations. It prepares specialized technicians capable of accompanying and using the technological innovations appropriate to the management of information resources of any type of organization. LCTDI annually, organize the CTDI Meetings which promote, an important international forum for the discussion and sharing of information science subjects.

The Master in Business Information presents an opportunity for in-depth study to prepare professionals with solid knowledge and skills for information management in organizations, linking two key areas: Information Science and Information Systems and Technologies. In a context of the rapid development of the information and knowledge society, it is expected that the graduates of this program can help organizations to meet their information needs by demonstrating skills to: - Assess problems, design solutions and propose/adopt approaches related to Information Management. - Facilitate and make efficient and effective the creation and use of the information resources and the information flows required by organizational activities. - Manage organizational intervention projects aimed at the adoption and use of information technologies and systems.

The University of Library Studies and Information Technologies (ULSIT), Sofia, Bulgaria

Is one of the leading universities in Bulgaria with modern and dynamic development (http://www.unibit.bg). Its predecessor, the State Library Institute was founded in 1950. ULSIT is accredited by the National Accreditation and Evaluation Agency to deliver education in Bachelor, Master, and Doctoral degrees. It has professional preparation and educational competence and capacity in the field of: Library and Information Sciences, Cultural and Historical Heritage, Social Communications, Informatics and Computer Sciences and National Security. The main university units are: Faculty of Library Studies and Cultural Heritage, Faculty of Information Sciences, and Department of Comprehensive Studies. Since 2012 UNESCO Chair plays the role of a center of excellence and innovation zone in the specified areas of ICT in Library Studies, Education and Cultural Heritage (http://unesco.unibit.bg/). ULSIT was co-organizer of BOBCATSSS 2020 in Paris, France.

The University of León, Léon, Spain

The University of León is a pioneer among the official titles of the Diploma in Library Science and Documentation in Spain in offering Blended Learning since the 2006/2007 academic year. Degree in Library and Information Sciences has a curriculum of 240 ECTS. The length of course is four years.

- Possibilities: Blended Learning and Online
The online mode uses the University of Leon's Moodle/AVIP platform, which allows timetable freedom without making attendance mandatory. Students will only have to take an on-site test per subject to be scheduled at the end of each semester. These on-site tests can be taken in different locations authorized by the ULE throughout the whole country.
- Employment opportunities:

There is a labour market demand for professionals such as: archivists, librarians, documentalists, bibliographic and documentary heritage managers, digital content managers, experts in corporate information management, consultants and trainers in the use of information.

The area of library and information science organizes the meeting of academics, students and media professionals. The last meeting took place in 2018 on 'Digital and informational competences in the library'.

Our Teams:

P.Porto, Portugal, main organizing Team: Agostinho Sousa Pinto, Alexandra Albuquerque, Ana Isabel Azevedo, Ana Lúcia Terra, Ana Paula Camarinha, António João Vidal Carvalho, António José Abreu, Cláudia Susana Pinto, Dalbert Marques Oliveira, Luís Silva Rodrigues, Maria Inês Braga, Maria José Angélico, Maria João Castro, Milena Carvalho, Mariana Curado Malta, Patrícia Pereira, Rosalina Babo, Rui Humberto Pereira, Susana Martins, Susana Pinto, Ana Margarida Correia Borges, Ana Patrícia Pereira Ferreira, Angélica Correia Lopes, Cristiana Sofia Ferreira Ramos, Gonçalo Bateira da Costa, Leonor Filipa Oliveira Eusébio, Maria Sofia de Tété, Paula Carolina da Silva Moreira, Filipa Cunha, Inês Pacheco Teixeira, Paula Cantante.

University of Library Studies and Information Technologies (ULSIT), Sofia, Bulgaria, co-organizing team: Svetoslava Dimitrova, Elena Popova, Denitza Dimitrova (PhD Students), Kristiyan Simeonov, Stanislav Lyubenov and Yanislava Mitkova (Bachelor and Master students) and Tania Todorova, Lubomira Parizhkova, Sabina Eftimova-Ilieva (lecturers).

University of Leon, Spain, co-organizing team: María del Carmen Rodríguez López, María Lourdes Santos de Paz, Josefa Gallego Lorenzo, María Luisa Alvite Díez, Andrés Fernández Ramos, Marian Morán Suárez, María Blanca Rodríguez Bravo, Isabel Olea, Patricia Herrero Sánchez, Rafael Ceballos Roa, Ángela Díez Díez, Leticia Barrinuevo Almuzara.

Meeting at 25th October 2019, ISCAP-Porto

24th January 2020, Closing Ceremony at BOBCATSSS 2020, Paris
Photos: T. Todorova archive

INVITED SPEAKERS

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Jane Secker and Chris Morrison, United Kingdom

Keynote title: **Copyright in a time of crisis**

Photo: Jane and Chris archive

Jane Secker is Senior Lecturer in Educational Development at City, University of London which she is Deputy Programme Manager of the Masters in Academic Practice. She leads the technology-enabled learning route through the programme. She was Copyright and Digital Literacy Advisor at London School of Economics and Political Science for over 15 years where she advised staff about copyright issues and the online environment. She is Chair of the CILIP Information Literacy Group and a member of the Universities UK Copyright Negotiation and Advisory Committee which negotiates with the Copyright Licensing Agency on the higher education licence. She is also a member of the Copyright Advisory Panel which is a governance group of the UK's Intellectual Property Office. She is co-author of Copyright and E-learning: a guide for practitioners published by Facet in 2016. Jane is a Senior Fellow of the Higher Education Academy and a Fellow of the Royal Society of Arts. She has a PhD from the Aberystwyth University and has worked on numerous research projects funded by the British Library, JISC and the University of London.

Chris Morrison is the Copyright, Licensing and Policy Manager at the University of Kent, responsible for copyright policy, licences, training and advice. He was previously the Copyright Assurance Manager at the British Library and before that worked for music collecting society PRS for Music. He is a member of the Universities UK Copyright Negotiation and Advisory Committee on whose behalf he also attends the Copyright Education Awareness Group (CEAG). He is co-author of the second edition of Copyright and E-Learning: a guide for practitioners which was published in July 2016, and is also the originator of Copyright the Card Game, which is an openly licensed resource for teaching about copyright in practice. Chris recently completed a masters in copyright law at King's College London and his dissertation explored the understanding and interpretation of Section 32 of the Copyright, Designs and Patents Act 'Illustration for Instruction' by UK universities.
Jane and Chris tweet as @UKCopyrightLit and maintain the Copyright Literacy website: https://copyrightliteracy.org
They started developing a playful approach to copyright education in 2015 when they created Copyright the Card Game. They have subsequently created the Publishing Trap, a board game on the choices academics make related to scholarly communication and sharing their research. They are keen advocates of open education and founded a playful learning conference on copyright education called Icepops, which is now in its third year.

Copyright in a time of crisis

Chris Morrison[1], and Jane Secker[2]
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In March 2020, following the outbreak of the COVID-19 global pandemic, universities and schools around the world switched rapidly to online learning. In this talk, invited speakers Chris Morrison (University of Kent) and Jane Secker (City, University of London) will focus on the copyright and licensing issues that arose and the impact that they had on access to digital and print learning resources. The speakers will explain how issues associated with online learning point to the need for greater levels of copyright literacy, amongst educators and students. They argue that the pandemic could lead to a step change in the way in which content is produced and shared for teaching and learning, but only if those in education and research are able to critically examine the issues.

In the first few months the shift to online learning, referred to as ''Emergency remote teaching' (Hodges et al, 2020) was largely an attempt allow students to progress with their studies. Libraries responded by trying to increase the number of digital resources available to support students studying remotely. Additionally, many publishers temporarily made a number of additional resources available for free. However, as the situation continued into the autumn, more sustained efforts were needed to plan for the new academic year and deliver high quality online teaching. As budgets across education became stretched, educators and librarians urgently considered the balance between maintaining access to existing collections and finding more sustainable solutions.

The speakers' experience suggests that copyright was a relatively low priority for many university lecturers and teachers prior to the pandemic. However, as experts in copyright and online learning (Secker and Morrison, 2016), and passionate advocates for greater levels of understanding of copyright (or copyright literacy), the speakers recognised that access to educational resources was likely to be an issue, as so few materials used in teaching are openly available (Gadd et al, 2019). In this presentation, they will discuss their response to the pandemic and highlight the actions of those in the copyright community to support online learning. They will also report on the increased traction that open educational practice has gained during this time.

In March 2020, the speakers wrote a blog post reminding the education community about existing licences and copyright exceptions that support online learning, and also the wealth of open educational resources available. They also wrote and spoke at other events for those in the education community and for senior managers and policy makers in education (Morrison and Secker, 2020). They launched a webinar series, to help support the community and build confidence in answering challenging copyright queries. These webinars became an ongoing event featuring a number of guest presenters from national and international organisations such as Harvard University and Creative Commons. Many of the webinars were open to all and included contributions from a range of different people, including those representing copyright owners and legal academics providing the community with expert guidance (Hudson and Wragg, 2020). However, some sessions were closed to allow the community to discuss sensitive issues related the interpretation of copyright law. In autumn 2020, the speakers decided to set up a special interest group in Copyright and Online Learning as part of the Association of Learning Technology. This was intended to provide the community with a sustainable basis on which to continue the webinars and build on the work already done to draw together different perspectives.

The crisis meant that despite not being able to travel, there were in fact more opportunities to speak to groups about copyright outside of the UK. The speakers presented at events in New Zealand, Jamaica and Switzerland, to name just a few countries, and it became clear that copyright issues were affecting educators worldwide.

The speakers will conclude by describing their future plans, and reflect on what the pandemic has taught them about the need for ongoing community support to develop confidence and resilience in the education sector. They will also discuss the creative ways they have devised to continue working and teaching others about copyright. Finally, Chris and Jane will share their commitment to advocating for copyright literacy as an essential part of solving the challenges the education community is facing.

Keywords: copyright, online learning, education, COVID-19, e-books, digitization

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Luís Vidigal, Portugal

Keynote title: ***The future of digital transformation in government administration***

Photo**:** Luís Vidigal archive

Luís Vidigal is a national and international independent consultant on administrative modernization, information management, e-Government and civic society (European Union, OECD, World Bank, and United Nations).
He has an experience of over 38 years in Portuguese Public Administration, most of them in central coordination bodies (Administrative Modernization, Taxes and Customs, Information Management and ICT areas).
Lecturer and invited professor in high schools and professional training bodies. Member of the Board and former President of the Board of Directors of the PASC – Platform for Portuguese Civic Society "Citizenship House"; Member of the OGP Portugal - Open Government Partnership, representing the Portuguese Civic Society; Founder and Former President of the Portuguese Association for the Promotion and Development of Information Society (APDSI); President of the General Assembly of the Internet Society Portugal Chapter; Former Member of the Board (1989-1993) and National Representative (2001-2007) of the International Council for Information Technology in Government Administration.

The future of digital transformation in government administration

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The world has witnessed an explosion of information in recent years, and thinking about the state, it's time to make choices between the continuity of the bureaucratic and hierarchical model closed on itself or its effective reorientation to meet the needs of citizens and economic agents in a faster, cheaper and more personalized way, guaranteeing the universality, inclusion and equity of public services.

ICT offers the possibility to accelerate the provision of services through the automation of inter-organizational processes, desirably built from the perspective of the life events of citizens and companies, and this is almost totally undone as public administrations remain fragmented in silos power and vanity fairs. Fragmentation can only be tackled through an integrated vision and horizontal coordination, thus creating the notion that everyone will be contributing to a common process, geared to the needs of citizens and businesses.

With the progressive dematerialization of the operational processes of the state and the data that support them, there is an ever-greater dependence in relation to information technologies, which end up being confused with the core areas of public services, with very high risks of continuity, sustainability and sovereignty for the future.

It becomes evident the need to safeguard rules, processes and data, which are being increasingly dematerialized and embedded in technologies, constituting themselves the real assets of organizations. The state in the information society, like all organizations in general, needs to safeguard its assets and needs to protect itself from excessive dependence on external technology suppliers. It is necessary to make a clear separation between the functions and components that involve the highest levels of sovereignty and operational risk (strategic management and architecture of processes and data) and what can be subcontracted externally and replaced whenever necessary (engineering and technological infrastructure). Even at European level, there is great concern about digital sovereignty in a more geostrategic context.

When we decide to automate parts without looking at the whole, creating barriers within the same process that is supposed to flow end-to-end for the resolution of life events of citizens and companies, we end up being blocked and hostage to the slowest parts of each process and waste many stray modernization initiatives. At first glance, it is not easy to assess the degree of fluidity of processes and to analyse the extent and effectiveness of public administration services provided to citizens and businesses.

Finally, will be addressed some examples of the challenges that arise for the future in more or less structured information management, namely through the use of advanced tools of artificial intelligence and big data.

Keywords: digital transformation, ICT, government administration, e-government

Juan-Antonio Pastor-Sánchez & **Tomás Saorín**, **Spain**

Keynote title: ***Beyond the data: using Wikidata to create ontologies and controlled vocabularies***

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Professor of the Department of Information and Documentation at the University of Murcia (Spain).
His teaching and research extends to the management of digital content, information systems, knowledge organization, web of data and semantic web, information architecture and web design. He has also carried out professional tasks as an information systems manager, web contents curator and library coordination. He has specialized in controlled vocabularies, SKOS and Wikidata.

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Lecturer of Metadata and information description at the Department of Information and Documentation of the School of Communication and Information Studies, University of Murcia. Coordinator of the new studies of Digital Contents and Information Management. His research is related to online collaboration, open content, digital libraries, online communities, data on the web and content management systems. He has specialized in Wikipedia and Wikidata projects, especially in GLAM concerns and semantic enrichment of entities.

Photos**:** Author's archive

Beyond the data: using Wikidata to create ontologies and controlled vocabularies

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Wikidata is an important source of data, integrated within the ecosystems of the Wikimedia Foundation projects. Within Wikidata there is a large amount of structured data of all kinds. Along with the data, it is also necessary to consider the work of organizing them. The organizing process, initially carried out by obtaining data from Wikipedia, is collaboratively maintained by thousands of editors (Piscopo and Simperl, 2018). In Wikidata entities are not only related to each other, but also to their corresponding types and classes. At the same time, there is a wide variety of properties to represent factual data that describe certain characteristics of entities. Additionally, Wikidata offers a qualifier reification mechanism to describe data declarations in detail and to include references to the sources from which they were obtained. Therefore, Wikidata is an example of the organization of knowledge from structured data. In this way, the exploitation of Wikidata data, especially the items and the relationships between them, could be applied in the design of knowledge organization systems (Vrandečić and Krötzsch, 2014).

This keynote analyzes the structure of the Wikidata data model and its suitability for a process for data extraction that allows the elaboration of ontologies and controlled vocabularies in a supervised way. The extraction is based on the definition of rules to guide the exploration process of the Wikidata relationship structure. These rules are applied in successive iterations in which deeper levels of the Wikidata relationship structure are explored. It should be noted that performing the extraction process automatically is not feasible due to Wikidata data curation issues. At the end of the extraction process, a data set of items and relationships between them are obtained (Saorín, Pastor-Sánchez and Baños-Moreno, 2020). To transform this data set into an ontology is to carry out a process of mapping the Wikidata properties with those object properties that are most appropriate. To obtain controlled vocabularies, the properties of Wikidata must be mapped with the semantic relationships of SKOS. Wikidata associates labels and alternative names for each item in different languages, which can be reused for the labeling of the elements of the ontologies and vocabularies.

Keywords: Wikidata, Knowledge Organization Systems, Ontologies, Controlled Vocabularies

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PAPERS

PECHA KUCHA

POSTERS

ABSTRACTS

Academic Libraries in the Digital Transformation: The Case of the Library of the Faculty of Economics of Porto

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In a world in which the digital transformation is asserting itself with increasing impact, higher education (HE) and academic libraries (AL) do not escape this reality and have been playing an important role in supporting teaching and learning, contributing, through different means, for the training of students.

This work aims to show how a university library - that of the Faculty of Economics of the University of Porto (FEP) - meets the needs of students, namely in terms of information literacy (IL) and digital literacy (DL), using for this the new technologies which enable the referred digital transformation and new ways of teaching and learning.

Due to the current importance of the librarian's role as a trainer, the authors - the trainee of the degree in Documentation and Information Sciences and Technologies (LCTDI) of the Higher Institute of Accounting and Administration of Porto (ISCAP), the FEP librarian and the internship advisor - designed a set of training sessions for IL within the scope of the curricular internship of said course in the academic year 2019-20.

This project had as main objectives: (1) to provide distance learning; (2) to reduce the on- site training provided by the library; (3) to allow any member of the FEP community to have access to information that is relevant to them, whenever and wherever they want; (4) to offer training to the entire educational community, including Erasmus students, with the production of materials in Portuguese and English.

The methodology adopted consisted of a review of the literature on the subject and a practical part carried out in the library involving the production of videos based on the observation of training sessions. From a theoretical point of view, the themes of IL and DL in AL are ad- dressed, the role of the librarian in the development of such skills in students, the exploration of new digital tools used for training, more specifically, the production of tutorial videos, as well as distance learning.

In the practical component of this project, eight video tutorials were produced on the search and location of information using the online catalogue, the subject of one of the training activities given by the FEP library, and which addresses the most basic resources of the library, which is an essential resource for students.

In conclusion, the creation of support materials that will soon be made available on the institution's website will surely contribute to the development of LI skills of a greater number of students. In addition, the new format of these contents will serve as a complement and/or substitute for face-to-face training sessions, responding to a problem detected by the institution itself - that the training for LI is not sufficient nor the most diversified among the academic community. Finally, the sharing and availability of information designed with a specific target audience in mind and disseminated through the right communication channels, is crucial for profitable use, leading to the consequent satisfaction of users.

Keywords: academic library, information literacy, digital literacy, digital transformation, higher education.

A General Assessment upon Postgraduate and Phd Theses Prepared Related to Digital Transformation in Turkey

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In recent years, mainly in information and communication technologies, cloud computing, artificial intelligence, internet of things, big data, advanced robotics, etc. developments in technologies have revealed the concept of digital transformation. In recent years, developments mainly in information and communication technologies, cloud computing, artificial intelligence, internet of things, big data, advanced robotics, etc. developments in technologies have revealed the concept of digital transformation. In other words, digital transformation is a transformation process that occurs when the internet, communication, informatics, sensor, automation, artificial intelligence - machine learning and robotic technologies significantly affect and change all social structures and systems. It is observed that this process deeply affects all social, cultural and economic institutions and structures in the world. In short, an intense digital transformation is taking place in every field where people and society take part. It is not possible for the scientific world to remain indifferent to the issue of digital transformation, which has such a great impact. Indeed, when the literature related to digital conversion assessed, it is seen that there were many academic works published in as papers, articles, books, projects, thesis, etc. in different branches of science both in the World and in Turkey. In these studies, it is seen that each discipline examines "digital transformation" from its own perspective. In this research, graduate theses which were prepared between the years, 2013-2020 related to digital transformation were examined. Purposeful sampling method was used in this study, which was conducted in the documentary scanning model. The sample of the study consists of 43 theses archived by the Higher Education Council's Publication Documentation Department. "Thesis Evaluation Form" was prepared by the researchers to analyse thesis. 43 theses within the scope of the research are classified according to their types, subjects; distribution according to publishing years; distribution according to affiliated institutes and branches of science; distribution according to research methods used; distribution according to measurement tools and distribution according to sample groups were collected with using evaluation form. The findings obtained in the research were interpreted based on percentage and frequency values which were shown on tables and graphs. According to the results of the research, it has been determined that there has been a huge increase in the number of theses prepared on digital transformation since 2018, that there are more master degree theses than doctoral theses on this subject, and that quantitative research methods are used the most in theses and scales are used as measurement tools. In addition, it has been determined that the areas that mainly focus on public institutions, businesses and universities are discussed in the theses

Keywords: Digital transformation, post graduate degree theses, PhD theses, Turkey

A Look at Digital Transformation: Can Society be Persuaded to a New Authentication Method - Behavioral Biometrics?

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The 21st century brings many technological novelties and modifications to existing solutions. The digital transformation that we undergo in every aspect of life often affects us against our will, with varying results. Thousands of years ago, when a human rubbed two stones together, he caused a spark that started a chemical phenomenon, but above all - a revolution. Today, lighting a bonfire does not arouse great emotions, we are faced with many other technological novelties aimed at making our lives easier. In the past, when human didn't need the fire, he had a choice. The present shows that we are becoming strongly dependent on technology and our choice becomes very limited or impossible. As a result, we agree to the terms offered. It is worth to investigate whether we take bold decision overnight? What guides us in making such key decisions in our lives?

The main goal of this paper is to take a look at safeguards used to protect our goods, in in- formation technology. Until now, the security measures used to authenticate the user were in the form of i.a. login and passwords, two-factor authentication (2FA), universal 2nd Factor (U2F), biometrics. Each of these solutions has its advantages and disadvantages. It would seem that these are the best solutions, and using them together would provide multi-layer security. However, does it not become a significant obstacle in everyday use? Then behavioural biometrics comes to the rescue, which aims to learn our behaviour using machine learning and to clearly confirm in real-time whether the person using the service or device is the owner. Using this method, many doubts and concerns arise about the technology itself. Based on the available research, literature and other sources, I will look for answers to the question Can the public be persuaded to use this method of authentication?". Justifying the reply I will analyse the available tools and refer to the document of General Data Protection Regulation.

Keywords: Authentication, behavioral biometric, cybersecurity, machine learning, keystroke

Bulgarian Projects in the Field of Digital Transformation of Education and their Role in Building Digital Literacy in the Children in Primary School

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In recent decades, the digital transformation has been radically changing every aspect of our social life on both global and national level. Following the development of the new ICT technologies, there has been a growing need for rapid adaptation to the new professional, educational and recreational possibilities. In 2020 was developed a strategic document outlining the national guidelines for the digital transformation of Bulgaria for the 2020-2030 period. It contains the essential principles of digital transformation and aims to facilitate the development of innovative models in several areas, such as scientific research, digital education etc. The contemporary education requires the development and implementation of flexible platforms and appropriate electronic content suitable for all age groups. This calls for modern ICT equipment and software as well as trained educators that can provide appropriate digital education and relevant learning content. The article examines the Bulgarian projects for digital transformation in education and their key role in ensuring the learning process *(improving the learning conditions)* for primary school children in the current situation of a global pandemic as well as their prospects in the context of the evolving modern information environment. The good practices and projects in Bulgarian education and the challenges they are facing in the implementation of a successful digital transformation are described.

Keywords: digital transformation, education, e-education, digital literacy, Bulgarian projects, elementary school, primary education

Corporate Email Management Policy: How to Improve Digital Communication

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The use of corporate email is one the first and older attempt to promote the digital transformation of organizations. The purpose of this paper is to explain the specifics of email as corporate mail and to underline some of the main transformations that it has allowed to organizational communication and the challenges to information management in professional contexts. As email is a quite important tool for organizational work and communication, there is a need to create an email management policy in order to define rules for use, to overcome some administrative, ethical, legal and economic problems or the loss of organizational memory. For the purpose of this paper, based on a literature review, the concept of email management policy will be defined. Furthermore, a set of documents produced by five archival national agencies, from Brazil, Canada, South of Africa, United Kingdom, and USA, will be analyzed in order to define the main topics that have to be considered in any corporate email management policy. The five documents will be presented comparatively using an analysis grid with 15 fields related to the more important features of email management. The 15 fields used to for the analysis purpose were: operation of email messages; preservation; application of a classification system; ways to mitigate the loss of email records; ways to report lost emails; data migration; backup and disaster recovery; the role of employees in managing email; email encryption; benefits of the email management policy; guidelines for writing work email messages; misuse of email; levels of responsibility; management of email records; and disposal of email messages. As an output of the content analysis from these national documents on email management policies, a set of recommendations about the main topics to be included in a corporate email management policy will be presented. Thus, this paper can have a practical impact as the recommendations can be used by any organization who want to better the use of the email for communication and information management purposes. An email is a powerful tool for digital transformation in every organization but it has to be managed in the best way to produce better results.

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Data-driven research services in the development process

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In the recent years, there has been plenty of discussion around digitalization as well in humanities and social sciences as in many other disciplines. Globally digitalization also challenges the role of the national libraries having historical or even ancient collections. Usually, only the marginal part of the collections has been digitized, and even a smaller portion of the digital collection is available for everybody because of resources, copyrights and other legal restrictions. At the same time, data-driven research is emerging in humanities and social science and it pressures the collection to be more open and FAIRer (findable, accessible, interoperable, reusable) for research.

The trend of digital humanities accelerates the need for digital research resources and services development to meet the actual researchers' needs. As important is to increase researchers' knowledge about the digital collections and their limitations. Development and meeting both ends' needs take place at the National Library of Finland (NLF) in the project entitled Dig- ital open memory (DOM) (funded by ERDF). The project examines researchers' needs and demands for the research collaboration processes and requirements for the digital research data in these projects. The data of the researchers' perspective is collected with a survey and in- depth interviews. Additionally, the current research collaboration projects between the NLF and researchers are observed with a participatory method approach. Along with national data gathering, European library labs are benchmarked. Benchmarking includes interviews with lab representatives from seven countries, participating in the events organized by the lab community and examining how digital data is used, enriched and visualized on the lab websites. After the analysis of the data, the project develops a research service model for the National Library of Finland. The aim is to be a collaborative partner in research by establishing user-centred services and enhancing digital data usage in research.

Keywords: Libraries, digitalization, research services, cooperation, development, research projects

Digital Library Services During the Covid-19 Crisis: Librarians' Perspective

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The purpose of this paper is to show how Croatian libraries responded to the crisis caused by the outburst of the COVID-19 pandemic in early March 2020. This research covers the period when almost all public services were in complete lockdown, including libraries. Croatian Institute of Public Health (HZJZ) and Civil Protection Headquarters issued a measures to restrict social gatherings, 'non-essential' shops working-hours, services and organization of sports and cultural events for 30 days (19/03/2020-19/04/2020). The aim of this research is to gather personal experience of public librarians during the complete lockdown. The theoretical background of this paper is grounded in crisis management. Dealing with the crisis include development positive attitude towards the crisis and the situation, setting up business activities organizations in line with environmental expectations and seeking opportunities in a crisis (Funda & Majić, 2011). This research will focus on the role of the library in the local community and wider, since during this period all library services were transferred in an online environment. This research is divided into two parts. The first part will use Tisno Public library as a case study and will show how it transformed and transferred their existing, everyday services into digital platforms, and also how librarians have adapted their existing services and how successful they were in implementing virtual content into their standard programs. The second part uses a semi-structured interview with 10 public librarians in order to gain knowledge about personal experiences on their activities and how they personally dealt with the crisis. This research will answer the following research questions:

1. How Tisno Public Library and their librarians responded to crisis?
2. What difficulties public librarians in Croatia experienced during the COVID-19 lockdown period and how they overcome them?

This health crisis has shown that libraries can exist between traditional and digital libraries, i.e. librarians are adaptable to any situation and so-called 'traditional' and digital services can easily coexist. Results of the first part showed that due to local activities, the Tisno Public Library was the first to provide assistance to citizens in overcoming difficulties with access to information during the crisis. The second part of the research gave insight knowledge on a personal view of the libraries on the crisis. This crisis has also demonstrated that libraries have increasing potential to reach diverse public domain and ensure access to information. A global pandemic of COVID-19 has created a rising need for digital libraries service by providing more quality and free service, but it will not change the primary role of the library. In response to the crisis, the American Library Association (ALA) surveyed the community public libraries to understand the immediate effects of the crisis on their business, staff, programs and services (ALA, http). It is important to bear in mind Skip Prichard's words (OCLC): "These are unprecedented times for all of us. Libraries around the world are moving into the new and insecure environment. Their commitment to sharing information and serving the communities has never been shaken" (OCLC, http).

Keywords: digital services, digital library, virtual programs, crisis, COVID-19

The Digital Transformation in App's World: Health Gamification and Brand Personalization

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In the business context, it is essential for organizations to create strategies to motivate their audiences through innovative game-like experiences (Robson, Plangger, Kietzmann, McCarthy, & Pitt, 2015). The authors Hamari, Koivisto, & Sarsa (2014) highlights that gamification represents a process that uses motivation to create a game experience and seeks to achieve certain behavioural results.

In gamified experiences, different types of motivation can be considered, according to different origins that lead to the realization of an action, namely: intrinsic motivation and extrinsic motivation (Ryan & Deci, 2000). In the research of Marczewski (2015) were established six types of users that differ from each other through intrinsic or extrinsic motivational factors. In this way, brands are now looking for the personalization of gamification elements in order to adapt the mechanics of interaction to user types.

This study is intended to analyze the main users' typologies in the context of gamified applications in health, fitness, and well-being area and, consequently the inherent motivations. It is also intended to assess whether brands seek to customize their applications by including game design elements associated with the most frequent users' types in their applications.

We designed a structured questionnaire based on Tondello, et al. (2016) study, to understand the different users' types and motivations related to the gamification. The methodology combined multiple-choice questions with predefined answers, offering respondents the possibility to choose through a Likert scale to rank several sensitivities.

The results analysis was carried out according to descriptive statistic, reliability analysis and factorial analysis. The statistical analysis results demonstrate that users have predominantly intrinsic motivations in the context of health, fitness, and well-being, which means that is an activity based on its inherent satisfaction. In addition, it was also possible to establish that free spirit user type was the most recognized, which may be associated with the need for autonomy and self-expression of users. However, there is clearly no user typology model, and it is essential that brands seek to incorporate game design elements that meet the overall needs of all users.

Keywords: Brand Personalization, Gamification, Health Applications, Motivation, User Types

The Digital Transformation in Human Resources: Gamification and Recruitment

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In today's digital economy, organizations need to be increasingly competitive and able to promote their differentiation through knowledge, which comes from the human capital that represents the most contributory asset to the organization's sustainability and innovation. In a context where the digital world is growing at every minute and every step, human resources management needs to adapt its recruitment techniques and tools in the same sequence.

The gamification is considered a concept highly associated with the digital industry and can be used in any business segment, namely in recruitment practices. Gamification can be applied to recruitment in two distinct ways. In a first approach, a game-like recruitment strategy can bring candidates and the organization closer together, so that the expectations and needs of both intersect. In another perspective, this technique may be able to transmit information between potential candidates and available positions in organizations.

In this study, the recruitment will be evaluated from the perspective of approximation between the candidate and the organization. For this purpose, the Scoutible application was used, which through an immersive 20-minute gaming experience allows the identification of the entire spectrum of human personality, soft skills, and key cognitive attributes. The vision of the application is based on the Japanese concept "ikigai" which represents an intersection of passion, mission, vocation, and profession of the individual.

Given the exploratory nature of the study, ten semi-structured interviews were conducted in order to gather detailed information regarding perceptions, evaluation, and opinions of individual "Strengths Resume" outcomes.

The study has as added value the possibility of organizations to recognize the contribution of current technologies that assume a key role in their innovation and sustainability. The development of human resource management is intended to pay special attention to the new trends that arise every day, where the soft skills of human capital are significantly valued as critical factors for the success of organizations.

Keywords: Gamification, Human Resources Management, Recruitment, Soft Skills

Digitalization in the Service of Preserving the Cultural Heritage of the Metropolitan Library of Zagreb's Archbishopric

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Metropolitan Library of Zagreb's Archbishopric is a jewel among Croatian libraries with its valuables. The Library presents a treasure of the written word and is highly cherished in our cultural and national history. Development and prevalence of ICT in all segments of everyday life resulted in the progress of social sciences and production of new knowledge platforms. The digitalization enables access, preservation and possibility of multiple uses of materials by libraries, archives and museums. In the Library, there are many manuscripts (codices), incunabula, books printed from 16th to 20th century and occasional publications. The Valvasor's graphic collection is a part of a corpus that provides insight into graphic production from late 15th until 17th century. Digitalization of the collection improves permanent protection and online availability of digital content. The aim of this paper is to introduce this valuable Metropolitan Library collection to the entire professional community by applying new technologies. This paper will highlight the cooperation between institutions and experts of different profiles, depending on the type of material that is situated in the Library itself. Its unique goal is the preservation of cultural heritage which represents national identity. A certain number of units has been digitized with the non-invasive Low Light digitization, which will also be presented in this paper. Using the non-invasive Low Light digitalization, the criterion how to carry out any digitalization has been elevated to higher standards, and it simplified the creation of quality documentation consistent with the library, archival and especially museum informational standards. This system was created with an idea that it should uncompromisingly preserve historical original from any physical and chemical degradation. That makes the system extremely suitable for any type of digitalization, especially digitalization of originals before restoration. Using this system, it is possible to preserve the important yet interesting "part" of the original before restoration.

Keywords: digitalization, Low Light digitalization, Valvasor's graphic collection, cultural heritage, manuscripts (codices), institutional collaboration

Digitalization of museum communications in libraries

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Libraries of the Republic of Belarus, following the world trends, have been actively collecting and preserving museum collections in their funds for more than a decade. The most effective forms of popularizing museum collections of libraries and presenting information about them have always been traditional museum expositions and exhibitions. However, the aggravation of the epidemiological situation around the world in 2020 associated with the spread of coronavirus infection (COVID-19) significantly accelerated the transition of museum collections to the online space, which allowed library users around the world to familiarize themselves with the collections without leaving their homes. To this end, libraries are digitizing their collections and using digital communication tools to promote them on the Internet. In order for the online promotion of designated collections to be effective, library professionals must have the knowledge, skills and abilities necessary to implement technology and establish communication between users and museum collections of libraries through library sites and social media.

The ways of presenting materials about museum objects and collections through library sites can be virtual tours, audio and video guides, virtual exhibitions and catalogues.

An effective presentation tool, with the help of which a visual and fascinating demonstration of any museum expositions actually organized in the space of libraries is possible, is a virtual tour. The organization of virtual excursions on library websites requires library specialists to know the technologies of their creation using special software.

To use audio and video guides (tours), which are a reference guide in the form of audio or video recording, library specialists need to know the technologies for creating videos. Technologies briefly describe the objects that are exhibited in museum expositions of libraries. Also, specialists need to know the technologies for digitizing items in museum collections of libraries and creating audio recordings with a narrated story about them.

The technology of creation of virtual exhibitions involves demonstration on websites of libraries of specially selected and digitized museum items, which are organized and structured according to thematic areas, artistically designed, and creates a single museum image.

The most difficult thing is to create virtual catalogues. They are a database with a list of digitized items from museum collections of libraries and descriptions to them. Virtual catalogues also have filters for searching by name, type, etc. To use virtual catalogs as a tool to popularize museum collections, librarians need to know the technologies for their development and creation, as well as the technology for digitizing items in museum collections of libraries and replenishing the database with them.

To organize communication with target audiences on social networks, library specialists need to be able to determine the goals and objectives of popularizing museum collections of libraries, target audience and social networks, develop a content strategy, organize and evaluate the effectiveness of the work done. The possibilities of social networks make it possible to maintain interactive headings, organize polls, contests, quizzes, etc., which is an effective means of popularizing museum collections of libraries among its users.

Keywords: libraries, museum collections, professional competencies, libraries, digitalization, library sites, social networks, internet promotion

Digitalization of People's Daily Routine in 21st Century

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Through the ages of time, mankind has always been in a constant motion towards revolutions – abandoning old habits and paving new paths for the next generations so they could live a better and more easeful life, was and always will be number one priority of our ancestors. It is fair to say, that there are many revolutions that have led our civilization to its current state and currently the most significant one is The Digital Revolution which began in late 20th century and we are still living in it though it is nearing the end of its lifespan.

This study presents some aspects of the digitalization and its effects on us as individuals, our families, friends, colleagues, societies, countries, regions and the world on the most primitive level and that is our everyday life. The focus of our research is the ongoing processes that are directly or indirectly connected with the **Digitalization** as a new historic period such as critical digital literacy, development of new artificial intelligence, the digitalization of our personal lives – a threat to our privacy or a new frontier aimed at getting people together, the future professions - what portion of the world it is going to have an impact on. Reviewing national-level problems, Bulgaria and our society is put in a rather complex situation due to the anti-government protests and the upcoming elections which were supposed to be e-elections as part of the digitalization processes. Another problem for our society is that digitalization is perceived in different ways by generations such as, Z, A. Making the right decision will most probably map out the way for our nation and our development.

Our team has conducted a survey from march to September about the digital literacy amongst children between eight and eleven years old and the way their family introduces and prepares them for the digital world they are being raised in and are going to live in. The survey is conducted digitally and we use different kinds of sociological methods. It is especially useful for our research because it doesn't only give us information about the digital literacy and culture of the youngsters, but their parents, too. Information such as this is of great value for the scientists and analysts who have an interest in digitalization and need to find a way to determine what stage of development certain groups, ethnos or nations have achieved regarding their digital literacy and digital culture.

Keywords: digital literacy, students, digitalization, survey, parents

Digitalization Possible – Main Achievements in Bulgarian Libraries

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The aim of the paper is to systematize the main achievements regarding the digitalization of the cultural heritage in Bulgaria and to highlight the problems and recommendations for the continued integration of the Bulgarian cultural heritage in the pan-European context. The study is focused on six projects, split into two categories – initiated by Bulgarian institutions and participation in global initiatives. The idea is to show the overall progress in the development of Bulgarian libraries, and not to compare the importance of different projects. It is time to show some good examples and practices, which strengthened the place of Bulgarian specialists on the European and world stage: Projects BG0046 ”Digitization and preservation of the written heritage of Bulgaria” and ”Manuscripts and documentary monuments from the Bulgarian lands XIII – XVII c.”; Project ”Varna Digital Library”; Project ”Digital cultural and historical heritage of The Municipality of Plovdiv”; IMPACT project; TELPlus project.

The results achieved in these projects are an important example of progress in the perception of digitalization as a key method for preserving cultural heritage. The specificity of this process in the modern information society requires reconsideration of some important issues regarding copyright and preparation of well-informed specialists. This is why the report also presents a short description of the academic discipline ”Digitalization and Copyright” in ULSIT in order to show how important it is to integrate knowledge about the problems and achievements of the modern information society in the educational system.

The projects, initiatives and good practices presented in this report are a kind of proof of the adaptability of Bulgarian professionals in the global picture, the positive impact of cooperation at the international level and the importance of modernization in the education system as fundamental for bringing a new generation of librarians.

In conclusion, it is important to note the current discussion on the Draft of the Strategy for the Bulgarian Culture in the period 2019-2029. For several years, Bulgarian librarians have conducted several campaigns, projects, discussions and initiatives, appealing for the preparation of such a document. It affects almost all the problems of modern cultural institutions, and the 10-year period implies the correct prioritization of goals. The need for state support in the construction of future modern cultural and educational institutions was felt a decade ago. Now, we still have many challenges ahead of us, but solid foundations have been laid.

Keywords: cultural heritage, digitalization, library, project, LIS academic education, Bulgaria

Digitizing Public Archives in Ghana: What is PRAAD's Problem?

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Knowledge of the past is necessary to shape the present and to predict the future. Archival materials are evidence of what happened in the past. Archives connect past to the future by informing future generations what had happened. Individuals, organisations and governments use archives for varied purposes. Owing to the intrinsic value of archives, society is required to preserve them and it has been doing that over the years. However, the advancement of technology is putting demand on institutions responsible for preserving archives to digitize their resources and operations. The argument is that digitized archives are more appealing to users, have the potential to be preserved for a longer period and could easily be accessed from anywhere, anytime. In response to the demand, many countries especially in the developed world have digitized their public archives. In Ghana, Public Records and Archives Administration Department is responsible for protecting, preserving and making public archives accessible to users. The department has made attempts to digitize archives in its possession but those materials are still not digitized. The purpose of this study is to investigate the problems faced by PRAAD in digitizing public archives. The main question the study seeks to answer is: What problems prevent PRAAD from digitizing public archives in Ghana?
To answer the above question, the study employed a case study strategy and a questionnaire instrument to collect data from 150 PRAAD staff, purposefully selected from the various ministries in Accra. The data collected shall be analysed using descriptive statistical methods and with the aid of SPSS.
The study hopes to report on the efforts PRAAD has made to digitize public archives in Ghana, the challenges it faces in digitizing public archives and what can be done to overcome those chal-lenges.

Keywords: Digitizing, public, archives, Ghana, PRAAD, Problem

Effects of Covid-19 on the Online Information and Documentation Degree at the University of León (Spain): the Advantages of more than a Decade Teaching Blended and Online

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The Degree in Library Science and Documentation of the University of León started during the 1990-1991 academic year. This first curriculum suffered from a large presence of humanistic subjects and a low rate of experimentation granted to many subjects, caused by the integration within the Faculty of Philosophy and Letters. In the first courses, there were a high number of students. Subsequently, the decrease in the number of students in our degree caused us to initiate the change to the blended and online modalities.
The Librarianship and Documentation Area of the University of León (ULe) already has a long experience in blended teaching, firstly, with the Degree in Librarianship and Documentation since the 2006/2007 academic year using the platform aul@unileon. Currently, with the Degree of Information and Documentation in the modality blended since the 2010/2011 academic year, and in distance mode, since the 2014/2015 academic year.
New technologies have been fully introduced in university education and have facilitated the teaching-learning process through the use of interactive programs from the Internet.
The main objective of this communication is to know and study what kind of multimedia tools were used by the professors of the Bachelor of Information and Documentation at the University of León (ULe) in the teaching-learning process and in virtual teaching before the Covid19; and on the other hand, observe what new tools have been introduced by the University for this reason. We will study student-teacher and student-student interaction to help promote communication and participatory learning through chat, forum, email, hangout, Skype, Meet, videoconferences, etc.
In order to carry out this study, two types of methodologies will be implemented: the satisfaction surveys hosted in the Quality Office of the ULe will be studied to know the degree of satisfaction shown by students and teachers; second, the study of the annual memories.

Keywords: Blended education, Information and Documentation Degree, multimedia tools, Online teaching, Universidad de León (Spain), virtual learning environments

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Electronics Libraries of the Student Scientific Society at University of Library Studies and Information Technologies

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The paper goal is to reveal the methodology and scientific-practical platform of the digital transformation of the knowledge through the meta-information resources - twelve electronic libraries, created by students at the University of Library Studies and Information Technologies (ULSIT) in Bulgaria. These resources are shown as unified modelling general databases of electronic libraries, which realized effectively the objective bibliometric dimensions of the unique reference-encyclopedic production, traditionally accessible for analysis and synthesis by classical statistical instruments.

The goal of this study is to substantiate the bibliometric and humanitarian dimensions of the rhizomatic structured information resources in the university electronic environment. A subject of this study is the system unity of the twelve electronic libraries created of the Student Scientific Society (SSS) at ULSIT, such as: Universalica (for the genesis of the world universal bibliography from III c. BC – XXI c. in 20 languages accord. the originals); Humanitariana (for the bibliographies of the authors of conceptions of the humanitarian knowledge in Bulg. Rus. and Eng.); Etymologica (for the linguistic diversity of the terms and notions in the biblio-info-noosphere in Bulg. Rus. and Eng.); Anthology (of the information code of Bulgarian literature, letters and spirituality: IX-XXI c.); Autobiobibliography (structuring of autobiobibliographies of the figures – architects of SSS at the University – among whom are students, doctoral students, young scientists), and the issue of their regionalizing and mapping.

Through the rhizomatic methodology positioning from framing modulation (facts – primary documents – secondary documents – metasystems – philosophical pictures of relations among things) was achieved the idea of the historiographic unification of the information resources of the university information environment in the cognitive context of the informatics.

The methodology of regionalizing and mapping was positioning as a prerequisite for the realization of the conceptual humanitarian dimensions of the resources, which are especially pressing for the postnonclassical paradigm of the knowledge in the contemporary science with their intrinsic prognostic of fixation of directions to establish connections between information realities. Rhizomatic structuring of the historiography of the electronic libraries was assessed as a corresponding to the unique bibliographic and historiographic scientific school of Bulgaria with international recognition related to the creative laboratories of Acad. N. Mihov, Prof. T. Borov, Acad. I. Duychev, Prof. V. Velchev, Prof. K. Kuev, Prof. B. Angelov, Acad. P. Dinekov.

The created for the digitization historiographical resource - electronic libraries at ULSIT - has the mission to preserve the thin layer of the established relations among things, representing the focal goal of the reference-information resources.

Keywords: electronic libraries, Student Scientific Society, information resources, digitization, ULSIT, rhizomatic structuring, regionalizing and mapping of the knowledge

Exploring NPL: Generating Automatic Control Keywords

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Keywords are a tool to help indexers and search engines find relevant papers. Unfortunately, authors use them wrong, unintentionally or to misleading readers into a non-related topic, promoting their articles by using non-representative keywords. Previous, scholars (Ansari, 2005; Voorbij, 1998) exposed lack of consistency between abstracts, full-texts and keywords. This is an old but effective practice, an early investigation conducted by Schultz, Schultz and Orr on 1965 matched author keywords to document titles and to indexing terms appointed by subject matter experts, and found out the author-supplied keywords matched more closely the terms used by subject matter experts than did the title terms (as cited in Kipp, 2011, p. 249). Fifty-five years later, Terra et al. (2020) suggest seven improvements to keyword parameterization. In fact, author keywords have received relatively little attention in the literature, according to Kipp (2007). Moreover, with the ever-increasing academic data available, finding relevant documents has become more challenging for regular users and library specialists.

The propose of this article is to generate thesis keywords using NLP - Natural language processing techniques; NLP is a subfield of linguistics, computer science, and artificial intelligence, taking advance of big data, indexing data while removing human errors and costs (Moskovitch, Martins, Behiri, Weiss & Shahar 2007).

Design/methodology/approach: A 95% sample population of 51.010 master thesis population, from the institutional repository of the University of São Paulo, was extracted and selected, representing 48.501 records, then a thematic dictionary was created based on thesis major area, subsequently generating the thesis' keywords established by the previous dictionary.

Research limitations/implications: The effectiveness of information retrieval is highly de- pendent on the accurate and complete representation of document content and major area of the thesis.

Originality/value: Author keywords have received relatively little attention in the literature (as cited in Kipp, 2011). Not due to lack of importance for all stakeholders, but because of the complexity involved on the task and publisher lack of control. This paper highlights a new method to generate and control author keywords.

Keywords: keyword indexation, NLP keywords, keyword generator

Exploring the Workflow of Products' Return Management in B2B Companies

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The growing demand for new products also increases the market supply. However, with a high number of products released in the market each year, consumers may have a difficult time in finding if a particular product is exactly what they need. Therefore, companies need to formulate return policies in case the consumer intends on returning the product. When companies have consumer return policies, it draws more customers, helps to stay competitive, and the consumer can be more at ease to order a product. According to Zailani et al. (2017, p. 24), product returns can be considered as "reverse logistics", since it involves both logistics and "products' reverse flows". The products' return can have several reasons, namely "product failure, damaged product, wrong delivery, incomplete shipments" and others (Batarfi et al., 2017; Lee, 2015, p. 50; Xu et al., 2018; Zailani et al., 2017).

According to Lee (2015), the number of consumer product returns have been increasing along the years, even though there has been an overall improvement in the products' quality. There- fore, the companies need to be able to manage the increased flow of these returns. The products' return process involves several activities such as product recovery and processing, return organisation and reverse logistics (Russo et al., 2016). Managing this flow of information, as well as all the communication between the stakeholders, is very important and needs to be carefully handled (Guide et al., 2006; Lee, 2015; Mihi Ramírez, 2012; Russo et al., 2016).

The company's ability to perform product return management and deliver fast decisions to the consumer can help them become a competitive advantage and increase customer loyalty. In Business-to-Business (B2B) context, the costumers are in lower number which in turn will strengthen the business relationship with them. However, the "average transaction value is higher" than in the Business-to-Consumer (B2C) market and therefore the product return management has a greater impact (Lesmono et al., 2020; Russo et al., 2016)

This study will compare the product return process between B2C companies and B2B companies, as well as look at the common practices used by these companies. It will also explore how these companies manage their consumer product returns, the product returns phases and main reasons for returns.

Keywords: Products' return, return policies, returns management, reverse, logistic, B2B, B2C

The Fishbowl in my Classroom: How Children Become Information Specialists

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In 2018 Lowie van Eck graduated from The Hague University of Applied Sciences, majoring in Information Sciences. During the summer vacation, he got inspired to start with the teacher training for primary education (PABO). Since 2020 he began working as a primary school teacher and set up a lesson series to promote critical thinking. In those lesson series children around the age of twelve are working with data to find solutions to environmental issues in their own surroundings. The kick-off of this project took place in the classroom. Without his pupils knowing Lowie set up an experiment where he measured the clarity of the fishbowl. Prior to this experiment, the children were excited to keep their own fish in the classroom. The outcome of the experiment was used to improve the quality of the water. In the following months, project groups will be working on similar plans to contribute to sustainable development practices. The results will be presented in a Pecha Kucha during Bobcatsss 2021. The education is designed in collaboration with information professionals and data journalists. The nationwide learning goals for information literacy were used to give directions to the learning process (SLO, 2019). Hereby the students are taking the following steps: 1. formulate the information problem, 2. design a search strategy, 3. acquire and select the data, 4. processing the data, 5. present the data, 6. evaluate and rate the data. For this, the children are using higher-order thinking skills (Bloom, 1956) that consists of analysing information and looking for connections, evaluate the information, and creating new ideas and products. The teacher gives assignments and asks questions that focus on critical thinking, problem-solving, stimulating discussion, and curiosity to look for new information. After finishing the project, the learning process will be evaluated with the pupils and used to improve the lesson series for furthermore educational purposes. During our presentation, the goal is to present a plan that is usable for teachers, information professionals and librarians.

Keywords: green society development, sustainable development practices, open data, lesson series, Inquiry, based learning, 21st-century skills

Highlighting the Importance of Business Intelligence Maturity Models in the Healthcare Sector

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The digital transformation associated with the huge volume of data that healthcare organizations deal nowadays is on the basis of transforming this complex knowledge-driven industry to transform data into knowledge.

The healthcare industry fails to have comprehensive models to help to identify the priorities to implement a BI solution.

In the recent digital transformation, the decision process is supported through data analysis. Established as a common denominator, small and large organizations transform their data into valuable knowledge and powerful capabilities.

In the healthcare area, the quick growth of Information Technologies has had a particular and striking impact as it has led to an urgent need to improve the healthcare provided to the population. (Correia e Silva, 2019)

Currently, Business Intelligence presents itself as an area of great growth and high funding by organizations, presenting itself as a decisive role in creating competitive advantages. (Corte-Real, 2010).

As health organizations continue to be asked to do more with less, access to information is essential for evidence-based decision-making. The use of technology to help ensure the quality of healthcare and cost reduction is a constantly evolving theme of study. (Ashrafi, Kelleher & Kuilboer, 2014)

In a hospital organization, most of the data come from medical activity and all the processes related to management. All this data is transformed into useful clinical information and then provided to the various parties involved, such as patients, doctors, managers, government, and other employees of the organization. (Binoti, 2019)

It is believed that careful and attentive use of business intelligence in healthcare can transform data into knowledge that can improve patient outcomes and operational efficiency. (Brooks, El-Gayar & Sarnikar, 2013)

Maturity models are based on the premise that people and organizations evolve through a process of development or growth towards a more advanced maturity. The higher the level of maturity, the greater the organization and effectiveness of a company. These models are also used in healthcare organizations. (Rocha & Vasconcelos, 2004)

The success of Business Intelligence systems in the organization depends on a series of factors related to the work environment and its culture, and all these factors constitute the maturity of the project.

The paper presents and highlights a comprehensive review of existing healthcare maturity models and tries to identify the main features of the presented models as well as the common success factors. A summary table of the several models will be provided as a way to infer several conclusions for the adoption of maturity models as well the prominent needs in healthcare organizations.

Keywords: Business Intelligence, Maturity Models, Healthcare, Business Intelligence Maturity Mo

How ICT Have Impact at Academic Libraries Performance

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Information and Communication Technologies (ICT) are today essential in the world of work, leisure and especially in terms of communication, as these have a strong impact on life in society, on the economy and on business competitiveness.
We live in a society characterized by the constant advance of ICT and young people who attend schools and universities have a very technological experience, as they have already grown up in a context where technology is very accessible and is part of their daily lives.
This investigation aims to reflect on issues that arise in the context of the Information and Knowledge Society and which are important to answer. How is the use of ICT evolving in Portugal? Are we making good use of them and taking advantage of their potential? How do educational institutions deal with ICT? Higher Education Libraries (HEL) play a decisive role in the dissemination of knowledge and should reinforce users' information literacy skills and guide them towards the use of credible scientific resources. It is therefore important that HEL be proactive with and through ICT.
The present work intends to make the state of the art of the use of ICT, within the scope of HEL, in Portugal and in the last ten years, trying to understand how they perform this function, providing users with quick access to quality information. This objective is complemented by a survey of statistical data from the National Statistics Institute (INE), Pordata, Eurostat and the OECD that provide a quantitative view of the evolution of ICT in the last ten years.
As a result of the theoretical research carried out, some aspects that may provide necessary changes in the university context are highlighted, namely: i) there are considerable gaps in terms of human resources, mainly due to the lack of adequate training, resistance to change and lack of motivation, although the infrastructures, technological equipment and communications are satisfactory. Given that university librarians are important to the successful use of ICT, their training is crucial and urgent; ii) One must understand the rapid change imposed by ICT and take advantage of this change to evolve and better position libraries in higher education establishments, which will allow them to stop being seen as book stores. This is a challenge for all library staff and should be a priority for management bodies; iii) National support initiatives
and programs are of great importance, with continued, persistent and monitored investment being crucial, with cooperation between ministries, an investment that will enable libraries to be provided with new digital resources.
In conclusion, the authors - a librarian at the Faculty of Economics of the University of Porto and a professor of higher education in Porto Accounting and Business School, in the field of Information Science - feel that, from now, in the exercise of their professions, they will be able to influence other educational agents for the advantages of a necessary digital transformation.

Keywords: ICT, academic libraries, higher education, digital transformation

If Crisis Comes

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Since a worldwide pandemic is a new phenomenon in the modern era, the outbreak of COVID-19 during the spring of 2020 resulted in Swedish libraries having to restructure their daily operations regarding the physical library and in-person services. The purpose of this paper is to present how the university libraries in Sweden responded to the imposed government directions. While reviewing several universities' crisis plans, it became apparent that guidelines for pandemics were missing: this, in turn, led to different solutions for each university library. The paper analyses these solutions to see how well-prepared the university libraries in Sweden were, and how the libraries fulfilled their obligations to patrons and society while working under the directions from Folkhälsomyndigheten (the Swedish National Healthy Agency).

Data regarding the libraries' responses to the pandemic was collected from each library's website; all data were collected on the same date, to make comparisons between the different libraries possible. The data was then analysed using quantitative content analysis, where the actions taken by the different libraries were sorted into a number of predetermined categories. These categories were determined using information from crisis plans, The Swedish Higher Education Act (1992:1434), and actions taken by libraries during previous pandemics. Among the study's findings are drastically reduced opening hours and the conversion of a majority of in-person services to digital services. Earlier studies in the United States indicate that libraries need reliable e-learning systems and digital platforms in case of a worldwide pandemic, as well as guidelines for the acquisition of new software and digital services. The findings of this study indicate that such systems are already in place at a majority of Swedish university libraries, which made the transition to digital services smoother.

This paper provides insights into the different actions taken by the university libraries in Swe- den during the COVID-19 pandemic, and how these actions affected the daily operations for university libraries all over the country. The study can therefore be used as a basis for further studies regarding assessments of different approaches to crisis, and for determining what course of action to take in a future similar crisis.

Keywords: Covid, 19 pandemics, digital services, university libraries

The Impact of Users' Perception on Applications Score-Rating

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Gaming is more and more present in our everyday lives: we play in different situations with different goals, but mainly for the purpose of gaining pleasant and single experiences for ourselves and for other people (Robson, Plangger, Kietzmann, McCarthy, & Pitt, 2015). The gamification concept in non-gaming contexts has become a growing practice and represents one of the greatest technological tendencies of the last decade (Yang, Asaad, & Dwivedi, 2017; Xi & Hamari 2020), with special emphasis on the applications world.

Currently, gamification has a significant impact in several areas, but especially in the health and well-being context (Liu, Wang, Huang, & Tang, 2019; Leclercq, Poncin, & Hammedi, 2020). In different application stores, there are numerous applications in this context. In each application, it is possible to check the respective number of reviews and their rating, which reflect the users' perception of the application quality. Thus, it is essential to emphasize that the rating indicated in each application may influence the opinion of other possible future users.

This study is intended to evaluate gamification in the context of health, fitness and well-being and analyse the different sub-components of perception: - usefulness; - ease of use; and - satisfaction and its impact on applications score-rating.

To comprehend the different sub-components of users' perceptions and its impacts on applications score-rating, we designed a structured questionnaire based on studies defined in the literature. The methodology combined multiple-choice questions with predefined answers, offering respondents the possibility to choose through a Likert scale. The hypotheses under study were also defined and their respective interconnections and associations established.

The results analysis was carried out according to a reliability analysis, factorial analysis and using linear regression. The statistical analysis results demonstrate that usefulness, ease of use and satisfaction have an influence on the user's perception. Additionally, can be concluded that the user's perception influences applications score-rating, which corroborates other studies present in the literature.

Keywords: Gamification, Health Applications, Score, Rating, User Perception

Importance of Perceived Strategic Value of E-Commerce: the interaction effect of Personal Innovativeness

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This project explores the interaction effect of Personal Innovativeness in Information Technology (PIIT) on the relationship between determinants of Perceived Strategic Value of E-Commerce (PSVEC) and attitude towards E-Commerce adoption. Based on a survey of 15 carefully selected organisations from both the public and private sectors in Pakistan, the objectives are to (a) have an idea of what decision-makers in organisations think about the strategic value of E-Commerce in Public and Private sectors (b) examine the relationship between determinants of PSVEC and attitude towards E-Commerce adoption (c) and how PIIT impacts the relationship between determinants of PSVEC and attitude towards E-Commerce adoption. To ensure a higher degree of accuracy of results, all the variables in this study were measured on highly respected and validated scales from previous studies(Agarwal & Prasad, 1998; Subramanian & Nosek, 2001; Venkatesh & Davis, 2000). A second-generation technique; PLS Structural Equation Modelling (PLS-SEM) was used to analyse and process the data. Behavioural sciences suggest that Innovation adoption at the organisational level is more complicated than individual-level adoption as it involves both personal and organisational level factors(Rogers, 1995). E-Commerce adoption within an organisation heavily depends on the personal perceptions, beliefs, and attitudes of the management(Ajzen, 1985; Davis, 1989). The study contributes to the existing knowledge by measuring and establishing relationships between personal-level factors and attitudes towards organisational level innovation adoption. An important (and unique) aspect of this study is that unlike most of the previous studies, more relevant and domain-specific latent variable PIIT is studied instead of the generic variable of personal innovativeness. As the E-Commerce adoption rate in developing economies is very low, the UN, WTO and World Bank have emphasised the developing economies to adopt E-Commerce and have initiated several programs to accelerate the E-Commerce adoption rate in underdeveloped countries. The study is likely to provide valuable insight into the nature of E-Commerce adoption in developing economies context.

Keywords: Perceived Strategic Value of E-Commerce, Personal Innovativeness in Information Technology, Intention to adopt E-Commerce, E-Commerce in developing economies, PLS-SEM.

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Keywords: Perceived Strategic Value of E, Commerce, Personal Innovativeness in Information Technology, Intention to adopt E, Commerce, E, Commerce in developing economies, PLS, SEM

Incorporating Digital Heritage Content into Information Science Programs

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Information science is an area that does not actually have a generally accepted definition that everyone would agree with. The reason for this may be because the field itself is still considered relatively young, but also because it is strongly linked to other disciplines, such as information technology (IT). Information sciences follow and adapt to advances in technology that have become very important support in their work. "In the 1990s, the Internet opened the door to information and communication, creativity and digital libraries in today's sense of the word" (Zubac & Tominac, 2012, p. 68). With the help of the Internet or one of its parts - libraries through digitalization, storage and protection provide access to their own material. During their studies, information science students at the University of Zadar develop competencies necessary for building and managing collections of materials and information, information organization, design and provision of information services, research and analysis of information needs, problems and phenomena, organization and management of information institutions and networks. educational processes, cultural projects and scientific research, and training for lifelong learning. But is there a focus on digital libraries, the digital transformation, and the library profession of the future? Do students have the opportunity to participate in digitization and the creation of digital information services? The aim of the poster is to show the ways in which content related to all aspects of creating, collecting, processing and managing digital heritage is included in information science programs conducted at the Department of Information Science, University of Zadar, Croatia, and how information science students actively participate. in the creation of digital heritage content and their creative use. The active participation of students in the project Digitization, bibliographic processing and research of texts of the Zadar-Šibenik area until the end of the 19th century written in Glagolitic, Bosnian and Latin (further in text: Written Heritage) and their assignments on the project itself as an example of good practice. The phases of the project in which students participate will be described and explained with the aim of defining the competencies that students develop through the project and through courses related to digital libraries, digitization and digital transformation in general.

Keywords: digital heritage, information science, digitalization, University of Zadar

Information Behavior and its Manifestations on the Internet

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Today the process of informatization, the basis of which is the active introduction of automated technologies and computer networks, has become an integral part of society. This entailed changes not only in the daily life of the individual but also had a significant impact on the ways and means of obtaining the necessary information, his informational behaviour. The relevance of the work is connected with the dominant influence of the Internet, which is an important platform not only for the socialization of a modern person but also a place for the manifestation of the features of his informational behaviour.

An array of publications on the topic has been studied by methods of analysis and synthesis.

Generalization and comparison made it possible to highlight the distinctive and specific features in the previously identified definitions, as well as to establish the existing similarities and differences between them. Terminological analysis and analysis of the conceptual vocabulary made it possible to derive the correct definition of the phenomenon studied.

Unfortunately, the library has ceased to be the main channel for obtaining the necessary literature and factual data. In the same segment of the information market, various information and analytical agencies offer their products and services. The necessary materials can also be obtained by direct access of users to the Internet resources, which is the dominant source for obtaining the necessary information and a platform for socialization. It is the Internet that covers almost all spheres of life and activity of both an individual and the entire society as a whole. This leads to an awareness of the importance of the peculiarities of the development of social consciousness of people, their communication, management and interaction.

The role of the Internet in the life of every person is so great that the problem of its influence on the individual and the masses is currently quite relevant.

As a result, the time interval for the emergence of the term "information behaviour" was de termined, namely – 1980-the 1990s, when the intensive development of information and communication technologies began. The components of the phenomenon under discussion were highlighted: "action", "activity" and "information activity", which makes it possible to estimate the volume of the phenomenon under consideration. The main interpretations of the definition are indicated and on their basis, the common ground between them is formed. Two positions from which information behaviour is regarded today, are presented namely "media behavior", "Internet behavior". Several models of information behavior that are mostly found on the Internet are described. The first group of models is based on the behavior of mobile users: "Repetitive Now", "Bored Now", "Urgent Now". While the second group of models is not connected with the technical devices, thanks to it the user goes to the Internet. Namely: "Consumer", "Enafist", "Prosumer".

This article will be useful for employees of information and analytical agencies, developers of various Internet resources, librarians, managers, marketers, as well as various types of information workers.

Keywords: information needs, information behaviour, media behaviour, Internet behaviour, the Internet

Information Management and Exponential Learning in Society 5.0: Foundations for an Integrated System

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Individuals use the information to reduce discomfort, effort and errors. Thinking about it, headphones were invented, so that the music could be heard without disturbing others; household appliances, to reduce the effort in washing dishes or clothes; and calculating machines, so that human distraction would not cause an accident in calculating the weight that a bridge could bear. But the information has hardly changed the certainties and doubts about which is the most suitable college course to attend; what are the best practices that could contribute to the individual's daily life, during the academic career, which includes when and what to study, what to eat and what to do in their free time. It is undeniable that there is greater access to information, but many times, instead of browsing this information, the individual sinks into it. In addition, teachers and students remain stuck in the curriculum, with the same menu being provided for carnivores, vegetarians or lactose intolerants. If before students were beaten with rules in their hands and were attacked psychologically, having to learn the same as everyone else, nowadays only rules have ceased to exist, at least in theory. Reducing errors in choosing a higher education course and the entire life that governs the academic path can be a dream for many individuals and an integrative system that collects information about the individual and guides him in his academic path could be an extremely useful compass. Know which college course to take; knowing which discipline, among the electives, to choose; know the right time to get up and sleep; what to do throughout the day; what and when to eat; they are all informational outputs that the utopian system could provide, in order to contribute to the individual's success. This paper will attempt to discuss these issues, investigating part of the enabling technologies in today's Society 5.0. The objective is to initiate a debate on the delegation to an integrative system of data, information and knowledge management, the success of individuals and society.

Keywords: education data meaning, integrated system, know thyself, machine learning for education, Society 5.0

Is Bobcatsss Preparing its Participants for Digital Transformation? Topic Analysis of Papers Presented at Bobcatsss Conferences from 2015 to 2020

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This paper deals with a topic analysis of papers presented at the Bobcatsss conferences from 2015 to 2020. The corpus for this research was gathered from conference proceedings and includes only paper presentations and excludes posters, workshops, pecha-kucha, etc. Sample consists of 232 collected papers. Content analysis was done by using a classification scheme for library & information sciences compiled by Mučnjak and Zrnić (2018) (adapted from Järvelin and Vakkari (1990)). Content analysis. i.e. indexing was applied only on titles and was done by both authors individually. After the indexing of all 232 titles, results were gathered in topical clusters, created using a proposed classification scheme. The aim of the paper is to explore the distribution of the topics presented at the Bobcatsss conference and compare them against the topics gathered around this years' main theme: digital transformation. This analysis will explore in more details all papers found dealing with digital content, digitalization, information and communication technology, etc. In order to see if and how BOBCATSSS papers correspond to trends recognized in other relevant conferences in past five years in the field of library & information sciences, this paper will give a brief overview of main themes of most relevant conferences in the LIS field (e.g. IFLA WLIC, ALA Annual Conference, ASIS&T Annual Meeting, etc.) Research questions are as followed: 1. Which areas are most represented within the papers presented at the BOBCATSSS conferences from 2015 till 2020?; 2. How are topics in the area of digital transformation represented in BOBCATSSS conferences from 2015 till 2020? 3. Is BOBCATSSS following trends in relevant topics in the field of library & information sciences?

Keywords: topic analysis, analysis of conference papers, BOBCATSSS conference, digital transformation

Library Copywriting

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Advertising has closely entered the life of modern society and the library was no exception. The better the advertising in library activity is set up, the more users will be interested in this library. The significant element of library advertising namely copywriting is investigated by methods of analysis and analogy. Since the topic of library copywriting is little studied, the scientific work spells out a clear definition of its concept and purpose. A distinctive feature of the texts is indicated.

The main functions of library copywriting are highlighted: communicative, regulatory and generalizing. Each of them has its own characteristics. There are several types of copywriting, which will be used to some extent in the library, depending on what it will advertise on the information platform. A comparison of rating and its application in the library sphere is given.

Popular types of copywriting are identified: exclusive and copyright, their features are analyzed. The tactical and technical methods of library copywriting are considered, thanks to which the text is perceived by the reader easily. As practice shows, the library has the active work of the copywriter, even during the period of information lull. From here follows the question of the importance of studying library copywriting in all its aspects.

Since the services of a professional copywriter are costly for the library, all its functions are performed by a librarian. The article contains examples of special applications, services and sites that will help employees create the content, correctly taking into account the spelling and uniqueness of the text. Ortho-online, Advego, Orthographer are services with which you can check the spelling of the text, as well as make a semantic analysis. It is described what tool can select synonyms, which will allow the librarian to create unique content.

The authors offer such online services as AnalysisPisem.RU and Vaal-mini. The characteristic features of the services, their assistance in compiling a psycholinguistic analysis of the author of the text are described. It was found that with their help the librarian will compile emotionally coloured advertising text. The program Quotania can also be used in library copywriting. It is perfectly suited for promotional presentations. Particular attention is paid to advertising slogans and what dictionary can be used by the library copywriter to select rhymes.

To draw the conclusion, one can say that the librarian should not rely only on these services and sites. In order to master the library copywriting, the employee must constantly develop himself. As research on this topic showed, knowledge of library copywriting will help the specialist in many processes of working activity, as well as transfer their thoughts to a printed or electronic media in a correct way.

This article will be useful for librarians, culturologists, copywriters and specialists studying aspects of marketing and communication activities. The topic of library copywriting, no doubt, requires further study, as it is a relevant direction at the moment. With an in-depth study of copywriting, the library will be able to reach a new level.

Keywords: copywriting, library copywriting, advertising, library marketing

Library trends in the popularization of reading

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Reading, either sense we are talking about (by traditional or digital reading) is an important area to which we need to pay close attention.

Among young people, the phenomenon of declining reading mood can be observed emphatically, but also in general, which is supported by several domestic and international researches. The results of the survey carried out within the framework of the "Az Én könyvtáram" (My Library) project also show this. According to this, only 10% of the Hungarian population reads regularly, but the proportion of non-readers is over 50%. (Tóth, 2019)

The results of the PISA survey, which measures young people's reading comprehension skills, also show that students' reading comprehension skills are weaker than in previous years, based on the OECD average. (PISA 2018 Synthesis Report, 2019)

In my presentation, I am looking at the question of what measures we can take to ensure that this trend does not continue. This is how we get to promoting reading and initiatives to stimulate reading.

While it is undeniable that the primary arena for educating as a reader should be the family, this role is increasingly shifting to schools. (Gombos, 2013) In addition to the family and the school, libraries also play an undeniably important role in promoting reading and establishing reading habits. This is why it is so important how the librarian profession views the topic, how they relate to the role of libraries.

In my research, I examine the attitude of Hungarian librarians to the topic of popularization of reading, as well as their proficiency in the programs and initiatives aimed at this.

In my presentation, I compare the prevailing trends in the field of reading promotion with the help of examples, and I examine the opinion of the Hungarian librarian community on the topic, which I base on an online questionnaire survey.

Keywords: Reading, libraries, librarians, reading promotion

Management of Digital Services During Covid-19 in the Library of Medical University of Pleven

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During Covid-19, libraries face enormous challenges and requirements. Some of them have started offering new and stable online opportunities for their users. As part of the international library space, the Library of Medical University of Pleven (MU – Pleven) created new online services and consolidated proven ones. They emerged as a kind of a meaningful and purposeful project, and the need for their management is palpable.

The subject of the present study is the digital services, provided by the Library of MU – Pleven, such as remote extension of the term for rewriting; constant communication with a librarian through the social network Facebook and e-mail; increasing the Digital Collections at the re-quest of student teachers; online - re-registration in order to provide access to digital content; information mediation - providing addresses of free databases. Particular attention is paid to the cooperation with the research department. We assist in obtaining remote access to the Scopus database and the Web of Science of doctoral students, postgraduates and lecturers, in order to continue the scientific activity. The methodology of conducting the research is based on taking an online interview. Each of the librarians is tasked to do a specific task - to manage a particular digital service. A linear management structure has been created. Each of the subordinates receives orders from only one head/director of the library / above him and reports only to him. Formal connections are made through direct contacts. This ensures the stability of the relationship between co-workers and the responsibility is individual.

The conclusion from the research is that, unfortunately, there are no trained staff, but it is necessary to transform positions into "moves". That is why we have chosen a simplified management model that can be changed in the future. Although slightly "primitive", we think that simple things are more digestible and easy to implement. Thus, an unprepared user or staff member will be able to adapt fast. We hope that this will be in favour of some libraries that decide to follow our example.

Keywords: management, digital services, library space, Covid, 19, linear structure, libraries, Medical University Pleven

Open Access and Library: the Postulates of Interaction

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Modern technologies turn the librarianship into a large-scale branch of the information industry; new practices allow transforming traditional functions of libraries, and new content appears in their basic technological processes. Today it is not enough for a librarian to know the exact location of a particular document in the collection of his library, he is obliged to navigate in the electronic collections of the world space. The idea of equal access to information and text, which is familiar and natural for libraries, continues to work in the new conditions. The availability of free online collections only increases the resource potential of the library.

The article uses the bibliographic method, the bibliometric method, and the modelling method based on the analysis of publications on the topic and the experience of libraries to derive the main postulates of interaction between the open access initiative and library.

It is noted that Open Access for scientists is a form of communication and a way to share the results of their experiments and research. Open Access performs a kind of fund-forming function for libraries, allows to fill in the gaps existing in the funds by legally accessing external resources. There are also such directions in providing libraries with readers' access to open resources as a systematization of information about open journals by library profile and providing the reader with links to open electronic platforms and journals; search for open articles in hybrid journals, etc.

Open access documents and data are of interest to libraries and library professionals as resources of scientific, educational and cultural significance. Due to the large-scale distribution of e-resources of open access, their quality is not always unambiguous, so the preparation of appropriate guides or navigators may become relevant in the activities of libraries of all types. Methodological features of such navigators are determined by the inseparability of the unity of the bibliographic and electronic nature of the e-resources and are characterized by such at- tributes as formalized description of the object, structured information, abstracts, auxiliary pointers, illustrative materials, hyperlinks, search bar, indication of the date of the last update. Such navigators for e-resources of open access will be especially in demand for information and bibliographic support and support of educational and research developments in individual areas of knowledge, case study. As an example, the demand for and methodological features of preparing such information products for open access e-resources in radioelectronics is shown. Methodological products of libraries (recommendations, memos, etc.) on the search and use of e-resources of open access, various training events may also be in demand.

Undoubtedly, the open access initiative is a benefit for libraries and library specialists. The modern library accepts this phenomenon as a consultant, as a mentor and as a moderator.

Psychological Empowerment and Improved Professional Performance as a Result of Effective Information Management

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Information is essential for organizations. Information and knowledge, associated with technological and scientific advances are, nowadays, easily accessible to all organizations, so whoever holds more information and knows how to manage it in the most adequate way to their vision and style, will be able to acquire a competitive advantage faster than the competitors. In a highly competitive environment for companies today, managers must realize the need to design strategies for organizations based on information as a valuable asset. Companies structure and classify information based on their structure, functions and activities, that is, based on documentary production, information flows between departments, safeguarding and proving what this information constitutes. At Goweb Agency, Lda., the target company of this study, except for the document templates that were intended for commercial proposals and directly linked to sales, most documents existed only for the purpose of quality certification. All documents were organized in a valid, intuitive and based on the information needs of employees. However, these documents weren't used or even known by the employees. The project planning and the accountability for everyday tasks were lacking meaning to them and conflicts were a constant. By incorporating the documents that described the responsibilities and assignments of each function into the routine tasks of everyday life and encouraging their use, creating and adapting the sharing and management of information in the company's activities, there has been a reduction in internal conflicts among employees, an increase in their degree of satisfaction and motivation, its efficiency and effectiveness and the satisfaction of the company's customers, due to the performance and quality of the work presented. In order to maintain each employee's accountability and therefore their motivation in doing a better work it is important to continue to invest in the management of information appropriate to the business area of the company, make known the existence of essential information to each workplace and make access to documentation quick and intuitive for all employees.

Keywords: Information needs, Information management, Psychological empowerment, Professional performance

Reading Creates Digital Bridges: Interactive Online Reading with Students of Information Sciences and Elementary School Pupils in Croatia

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Many studies (e.g. Bus, van IJzendoorn, & Pellegrini (1995), Meyer et al. (1994), McGee & Schickedanz (2007), van der Wilt, Femke et al. (2019) and DeBruin-Pareck (2009)) showed the importance and lasting benefits of interactive reading aloud from an early age. This paper is exploring the possibilities of improving reading comprehension among 4th-grade elementary school pupils using interactive online reading. This paper shows a successful collaboration between students and teachers of information sciences and an elementary school teacher and her 4th-grade pupils. The aim of this paper is to explore how regular interactive online reading sessions can help pupils to further develop their literacy skills: reading comprehension, storytelling, etc. Furthermore, activities included in this project ended with the creation of a collaborative digital story/picture book, which helped all participants to better understand the process of online communication between different parts of Croatia. Since the student involved in the process is from a different region and speaks a different dialect than the pupils, storytelling included learning about different dialects. Most activities were carried out using tales that are part of a well-known Croatian book titled Tales of Long Ago (Priče iz davnine) written by Nobel Prize Nominee, Ivana Brlić Măzuranić, often dubbed "the Croatian Andersen". The project was done in five steps: 1. One student retold one tale, Stribor's Forest (Sŭma Striborova), in chakavian dialect and made an audio for pupils. 2. Teacher sent the audio to pupils to listen to the tale and discuss unknown dialect-specific words with their parents. 3. Three consecutive online read-aloud sessions followed, with all project participants and with two tales. 4. Pupils retold the tale in their own words, in shtokavian dialect, and made an audio for the students to listen.
During the last week, pupils read aloud the original tale to students and teachers in an online session and afterwards retold it in the form of a picture book created collaboratively: each pupil drew one scene from the tale Stribor's Forest. Picture book was digitized and shared online between the participants. Each step of the project was evaluated by pupils and other participants using Padlet. At the end of the project, pupils gained new knowledge, improved their literacy skills and online communication, enjoyed reading aloud – whether it was their obligatory reading or other stories chosen by them and their teacher. They also learned about Croatian dialects, learned how to collaborate and communicate online and build a collaborative picture book. Students involved in the project had an opportunity to participate in an online collaborative project, create appropriate online learning and teaching materials, and participate in creation and documentation of collaborative online projects. Authors requested and got signed permission from parents for online communication with the pupils and for use of their photos and work for promoting and presenting this project at the BOBCATSSS conference.

Keywords: interactive online reading, information & communication technology, digital storytelling, reading comprehension research, digital picture book

Remote Work and Data Protection: How do Organizations Secure Personal Data Protection Compliance From Home?

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In the Information Society, business processes tend to become increasingly digital and operate in the virtual world. With the recent pandemic, this transformation has become almost mandatory. With their workers performing their duties remotely, organisations feel the need to digitally adapt their processes. Among several aspects of concern in these transmutations, one stands out: data protection. How can data protection be controlled remotely? Workers take to their homes their work equipment, their documents and their information with them
- full of personal data. With the entry into force of the GDPR, organisations have a duty to register the treatment of information containing personal data. This requires that information circuits be controlled, i.e., a mapping of business processes and the information contained and transmitted in them. A case study was carried out with a focus on the activities of the Data Pro tection Group of a private Portuguese research and development company in order to discover how an organisation, where the main asset is information, controls and monitors data protection compliance.

Keywords: data protection, GDPR, information security, remote work, digital transformation

Research in the Digital Transformation of the Library System

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Libraries have always tried to adapt to changing social needs, the development of the sciences, and the emergence of new technological solutions. Consider, for example, the invention of book printing or the mass distribution of printed products and the resulting current bibliographies or even to the gradually emerging reference service. Undoubtedly, the next major stage in the development of library science will be induced by the spread of computer science and informatics. More and more areas of life are digitizing and people are increasingly relying on electronic sources to obtain information thus, the use of digital remotely accessible services has become commonplace. All of this involves a transformation in people's expectations of the library, and libraries are trying to keep up with emerging needs. More and more libraries offer thematic collections that are available electronically so eventually the digital, remote access use of services become daily. They also enable electronic document lending, online events, e-learning courses and other services that have recently been integrated into the library's service offering. In my research, I would like to explore how the Hungarian, European and US librarian profession has reacted to the fundamental transformation of the societal demands placed on libraries in the last two decades whether their electronic services have been able to respond appropriately to new societal needs and are still able to meet the role set out in the 1994 IFLA and UNESCO Manifesto on Public Libraries. The aim of my research is to review the transformation of the library service offer over the last two decades, to compare the development direction of Hungarian libraries with international (European and US) trends, and to use new statistics, research results and needs assessments bypass as well as the extent to which libraries have been able to adapt to significantly changed user needs and whether their newly developed services are in line with them.

Keywords: changing social needs, transformation of the library services, statistics, digitizing

The Role of Digital Media and Online Tools as Motivating Factors in Learning German Language

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Covid19, among others, influenced also the way of teaching. The transition from auditor to online teaching posed significant challenges for both students and teachers. After an intensive phase of online lessons, the task of every teacher was and will continue to be the systematization of the experience gained, in order to use this experience to further support and motivate students. Thus, distance learning through different platforms is the only possibility in such a pandemic time for students to be in touch with teachers and in step with learning. In this re- gard, we definitely need a piece of good knowledge in the use of digital media. There is a lot of discussion about the use of digital tools in foreign language teaching. However, what is often overlooked or neglected in some way is a student-centered teaching and how digital tools can enhance teaching and thus ultimately boost student motivation. Digital tools and instruments do not fundamentally question our ideas about learning and didactics today. Rather, they support teachers in fostering learning processes. The focus is more and more on organizing lessons in the most in- interactive way. This means: students learn best when they intertwine their experiences, thinking and actions. We are dealing with exactly what happens when teachers use digital tools in the classroom: students become active themselves. But what exactly can such a lesson look like with the help of digital tools? The challenges that may arise in such a process can be numerous for teachers who have not previously had internet access. But on the other hand, through this paper, teachers, who are not yet or somewhat familiar with online didactic instruments, have a good opportunity to get acquainted with some online teaching tools, that serve for a more independent, communicative and collaborative teaching. These tools (such as forums, chat, wiki or web-tools, etc.) will be described and presented concretely based on the didactic function they have in learning foreign languages. However, it should be noted that the description and presentation of such instruments will focus only on a part of them, important for our purpose, as their variety is extremely large. New tools are constantly being created, of which, the foreign language teachers need to be informed and updated, including and using them in our learning process.

Keywords: mobile learning, digital and online tools, German teaching, foreign language, motivation

School Libraries as Teaching Support Centers: the Case of the Secondary Schools of Leon City

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The pandemic generated by Covid-19 has caused numerous changes in all areas, including the libraries of Secondary Schools in Spain. These have had to adapt not only in the period of confinement, but also, in the face of the situation called "New normality" that is coinciding with the beginning of the new academic year 2020/2021. Online teaching has become the protagonist in the new educational model and teachers have been forced to use tools and resources that facilitate this work. Libraries are established as support centres for teaching and learning, therefore, the objective of this analysis is to discover how libraries, dependent on the Secondary Schools of the Leon city, have supported and helped the staff in their teaching tasks, in the period of confinement, on the one hand, and in this phase that we are living called "New normality", on the other. For this, a survey has been designed that has been sent to all public Secondary Schools, located in the capital Leon, which aims to collect relevant data and information on the state of their libraries, from the staff in charge of management, on the tools they have, about the services they offer to their users and of all the actions carried out to strengthen the work of teachers in these moments where teaching has undergone a global transformation. The results obtained from this study reveal that, in general, school libraries, dependent on Secondary Education Centers, are quite precarious services, to which Little time is devoted and where scarce resources are hardly used to entertain students but are far from to be useful tools for teachers, to support them in their teaching tasks and activities. Even so, there are isolated cases where, due to pandemic and the mandatory adaptation of staff to the blended and online education model, the centers have improved their libraries and offer a greater variety of products and services to help teachers carry out their work.

Keywords: Covid, 19, Leon (Spain), Teaching support, School libraries

School Libraries in the Digital Age: Digitization Against Library Anxiety

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The society of the 21st century is a witness of digital transition in our history. The information is available for anyone online and offline too, because of the results of these changes. Nowadays the environment which provides access to information is more complex like the methods used in the past. The types of information carriers are changed as the channels of communication too. The exclusivity of printed sources is ceased because of the internet, this is the beginning of the homogenized information.

In the digital world, the amount of available information grew which is the result of easier, faster publication and the blurring of the role of authors and consumers.

Because of these, nowadays more frequent are the appearance of diseases, caused by too much available information. The 21st century's information diseases – like library anxiety, in-formation anxiety or information overload – indicate one of the species of fear and anxiety. These diseases are primarily detectable at university students. The fear of using a library or in-formation anxiety could have a strong influence on students' learning performance (Mellon, 1986.)

Information overload, the feeling of anxiety caused by too much available information are not a new, rather eternal thing. We can talk about it since Gutenberg, and the spread of printed books; namely that was the first time when people taught about information like there is too much of it and an average person cannot read and learn all of it in his or her lifetime.

In my research, I deal with library anxiety detailed, especially school libraries. The inspiration came from my workplace which is a school library in an elementary- and high school. In my experience the 11-17 years old children it is hard to make them a library user. This experience confirmed by the statistics of Hungarian Library Institute.

In my research, I look for the answer why do not use the school library the 11-17 years old people. Though library anxiety proved by researches, but mostly at senior or graduate students. There is no research about public education,.

I will make a survey to prove or disproof my hypothesis. Striving representativeness, I would like to reach the 11-17-year-old students in Hungary's public schools to measure the library using attitudes. Making the questionnaire I will use Bostick's Library Anxiety Scale and Van Kampen's Multidimensional Library Anxiety Scale. The theme is not a new thing, which is proved, since the 1980s there are new pieces of literature. I search for the answer, how digitization can help reduce library anxiety.

Keywords: digitization, library anxiety, students, education, school library, information anxiety

Support for Teaching, in the Academic Library, in Times of Pandemic. The Case of the University of León (Spain)

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The times of pandemic, that we are living, are favouring that information professionals are rethinking many tasks that until now were very consolidated in the work centres. Academic libraries have had to adapt to this new situation and have been forced to offer even more services focused on supporting teaching and research work. In this presentation, we want to show the experience of the library of the University of Leon (Spain) in relation to the actions carried out to help and support the professors in their teaching tasks, since they have also had to adapt, unexpectedly, to this situation. The activities that have been carried out to offer this support have been basically there:

- From the University Training School, different webinars were organized that were taught by the library staff through the Google Meet platform, with the aim of supporting the task of online teaching, promoting the use of online tools and respond to specific special needs arising from the current situation.

- In addition, the Library of the University of Leon designed a website to promote remote use of all information resources. This space called "The ULE library from home" https://sites.google.com/unileon.es/recursosonline/p%C3%A1gina-principal?authuser also offers free access to numerous resources provided by publishers that have temporarily enabled them to be used by the scientific and academic community.

- Finally, and to end with the presentation of the actions developed during this time, the library staff has been offering important support through social networks, answering daily questions of different kinds, creating explanatory videos about the use of resources and services:

Moodle: https://videos.unileon.es/series/5e8e28a18f420880618b45b5
Video classes: https://videos.unileon.es/series/5e6b69ed8f42083b398b4581
Videoconferences: https://videos.unileon.es/series/5ebd6e7f8f4208eb1a8b45c4
Library: https://videos.unileon.es/series/5eca44f88f4208de118b46e4
WebconferenceAVIP: https://videos.unileon.es/series/5d7bc5d58f42088c5a8b4587

The reception of all these initiatives, by the teachers, has been very good, especially the one related to the training webinars that have had to be repeated in several editions because the attendance quota was full on the first day. Likewise, the views of the explanatory videos have been several hundred during the time of the pandemic.

Keywords: Academic libraries, Covid, 19, Leon (Spain), Teaching support, University of Leon (Spain)

Tensions and Contradictions: A Study of Charity Shop Workers in the Digital Age

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The purpose of this paper is to present a set of collected views concerning an exploration of tension between the retailing of old or vintage items in today's new digital age. In particular to consider the 'Digital Transformation' of the artefacts by exploring views and opinions of workers. This study explored the social perspectives regarding tensions and contradictions between the function of the charity shop whose primary purpose is to "recycle" pre-loved, pre- owned, memory laden products, often labelled as "vintage" within a 21st century setting where new digital technologies are accepted as part of our everyday life. This regional study of "Digital Transformation" took place in (pre-COVID) South East England, in the cities of Chichester, Salisbury and Winchester. These cities were chosen as each has a strong cultural identity, such as historical monuments, cathedrals, museums and a range of National Heritage sites, which make these cities popular and attractive to tourists. As a result, these high streets have become prime retail spaces for shops and cafes, - and ideal locations for charity shops, which provided the setting for the research. The research methodology needed to allow for cultural differences between the shops whilst still taking into account the similarity of their organisational purpose. In order to allow for, and yet explore this tension, an interpretivist approach was employed using semi-structured interviews to collect the empirical data. The contribution of the work is in terms of providing a previously unseen "body of opinion" that may act as a marker for future generations exploring the life and digital transformation of charity shop workers in the digital age. The work will also be useful for museums and heritage institutions who deal with vintage artefacts.

Keywords: charity shop workers, digital transformation, second, hand goods, cathedral cities, digital age, digital environment, digitalization

Trusted Digital Repositories for Document Preservation: A Tools Evaluation

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Grounded on a review of the concept of preservation in trusted digital repositories, this article aims to address how different trusted digital repositories operate while in the process of preserving digital objects. For this purpose, a literature review and an evaluation of trusted digital repositories tools were carried out. A research was first carried out on several concepts inherent to the theme, namely digital preservation and its policies, reliable digital repositories and the rules related to them. A search on software tools to support trusted digital repositories was then undertaking.

Digital preservation will allow the long-term use of information gathered in digital repositories, as it ensures continuous access to authentic documents. The biggest challenge of digital preservation is the verification of reliability, integrity, originality and access to information that comes from new documents. For that purpose, there are policies on digital preservation, that are a set of principles that guide all decisions and actions taken in order to achieve one or more desirable results related to a certain aspect and/or objective. The place where digital preservation actions and the respective policies can be put into practice is in trusted digital repositories, which constitute an environment for the storage and management of digital objects. These repositories must comply a set of rules that establish their reliability, namely the need to manage documents and metadata according to archival practices and standards, specifically related to document management, multilevel archival description and preservation. It is also possible to find general standards already intended for these situations, such as the OAIS reference model.

Attending to this theoretical background, a survey of available tools for trusted digital repositories was performed. A set of tools was identified and them evaluated, and for that purpose several steps were outlined, First, in the criteria identification phase, the several criteria that a reliable digital repository must meet were identified, and then they were classified as mandatory or complementary. Second, functionalities of different software were highlighted, and then a comparison was made between them, resulting in a comparative table that led to the choice of DSpace software. The choice of this software was due to the fact that it is the most complete tool, and has all the most important functionalities that a trusted digital repository must have. Besides that, it is one of the most used software worldwide for trusted digital repositories, which gives it a high degree of reliability.

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Keywords: Digital preservation, trusted digital repositories, information preservation

Two intellectual upheavals induced by the digital transformation

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The Enlightenment movement has widely disseminated the conception of a citizen who, in order to be enlightened, must master reading and writing. This conception has been reinforced, in connection with the development of schooling and the increasingly massive use of printed writing as a fundamental reference for the functioning of the public sphere. How is this functioning affected by the new writing and reading practices induced by the digital transformation? Linked to the development of information technologies, digital transformation creates radical breaks: between data and their origin, between the simplicity of the presentation of results and the complexity of processing, between the diversity of data and their unified processing, and so on. This is why the objective of this poster will be to highlight two complementary aspects of digital transformation that have major consequences on digital literacy and digital culture in general.

The suspension of meaning. As it gives the means to favor methods that suspend the immediate comprehension of a text, computing easily appears as a methodological guarantee. This feature is particularly visible in the analysis of cultural data on a large scale. But this type of work leads to the delinearization of the text because the tools used traverse the entire corpus and produce results most often in the form of lists or of diagrams, which makes it possible, for example, to identify recurring elements that would otherwise be imperceptible. Since the database reports the world this way, knowledge is not going to be based on reading texts, but on processing corpuses, leading to a major evolution of the humanities.

The formatting of communication. A computer's operating system is inaccessible to the average user, whereas anyone who can read is able to access printed text. At the same time, the concealment of procedures allows a form of transparency to emerge, or even to be brought to the fore, which must manifest itself in the interfaces. But the conditions of communication in a digital environment are largely determined by actors who possess technical or economic capacities. These capacities will impose both the possibilities and the limits of the mode of communication. As a result, the form of texts is constrained by the requirements of computerization, requirements which tend to privilege precisely what is computable and which can go as far as admitting only a single form considered perfect for its automated processing.

Keywords: Public sphere, meaning, computing, delinearization, formatting, interfaces, constraints

The Use of Digital Heritage in the Construction of Virtual Exhibitions

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Cultural heritage is the testimony of time, space and society and the identification card of the people and nation. GLAM institutions are in charge of storing, preserving and protecting cultural heritage, as well as enabling its use. Šošić (2014, p. 833) states that cultural heritage represents the totality of creations or phenomena in the material and spiritual life of every nation and humanity. Digitization has changed the way material is accessed as well as the way material is communicated. Also, digitalization has provided access to materials that are of significant importance for the culture of the entire community. The development of technology has certainly enabled various forms of access to collections in GLAM institutions, and digitization has provided easier access to materials. Seiter-Šverko (2012, p. 2) emphasizes that digitalization also enables the presentation of cultural heritage to a wider circle of users. From the above, it can be concluded that technology and digitalization are increasingly affecting the management and visibility of information institutions. Today, virtual exhibitions are considered as one of the creative forms of digitalization, intended for the presentation of cultural heritage. Virtual exhibitions are used in information institutions to make valuable collections visible to end users (Foo, Leng, Hoe-Lian & Cheong, 2009). They can also contribute to a more effective presentation of the cultural aspect of the institution and the community. The focus of this paper is on the use of digital heritage in the construction of a virtual exhibition. A case study method will be used. The research will describe the creation of a virtual exhibition *In the footsteps of Glagolitics from Ugljan and Pašman*, made as part of the university project *Digitization, bibliographic description, and research of texts written on Glagolitic, Croatian Cyrillic and Latin scripts until the end of 19th century in Zadar and Šibenik area* (further in text: *Written Heritage*). The aim of the case study that will be applied to this research is to explore - the possibilities of creating a virtual exhibition with the help of two tools and to compare the effectiveness of these two tools in communicating digital heritage. Also, the paper will explore the positive effects and benefits of the application of new technologies, more precisely virtual exhibitions in education, culture, tourism and other areas. The tools that will be used to create the virtual exhibition and on the basis of which the comparative analysis will be done are *StoryMap KnightLab* and *SpaceTime Layers*. Digitized content produced within the *Written Heritage* project will be used to create a virtual exhibition. The virtual exhibition will include materials and catalogue descriptions from the *Written Heritage* catalogue, photographs taken in the field as part of the project *In the Footsteps of Glagolitics from Ugljan and Pašman*. Based on theoretical assumptions and the implementation of a case study, the paper will try to answer two research questions:
1. What are the benefits of communication of digital heritage through virtual exhibitions?
2. For what purposes can virtual exhibitions be used?

Keywords: cultural heritage, digitization, virtual exhibitions, GLAM institutions

The Digital Library Transformation Current Trends at a Glance

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The Fourth Industrial Revolution (Schwab, 2016) has had an increasingly significant impact on the social ecosystem over the past decade and it has caused a cultural paradigm shift. Therefore, many models, theories, and frameworks are published to describe and give a frame for digital technology integration in social subsystems.

The digital transformation's phenomenon has affected the entire public collection network, including libraries, and the extensive changes go beyond infrastructural developments at the institutional level, requiring human resource training and modernizing collections and services.

The education subsystem is a pioneer in this field, as the European Union has developed a number of frameworks (DigComp 2.1, DigCompOrg, DigCompEdu) that describe expectations on the basis of the digital switch's pillars and measure the degree of digital maturity (SELFIE-tool)

However, in a library environment, currently there aren't any definitions describing the digital transformation or an international framework for diagnosing the progress, although improvements have been started in a different field.

The aim of our presentation is to outline the concept and pillars of library digital transformation using deductive research strategy and document analysis. We describe current trends based on our research and the actual Hype cycle (Fenn and LeHong, 2011)

During our analysis, we considered these pillars: Professional Development (Human Resources), Leadership and Management Practices (Management), Infrastructure, Collection Channels, and Services. According to the mentioned pillars the emerging novelties in the library ecosystem will be presented along with these aspects: trend name, a short description of the trend, year and place of publication, which field is related, the possibilities or working practice of adapting the trend in a library environment, where it is located on the Hype cycle.

Keywords: digital transformation, Hype, cycle, library, public collection

Volunteer Missions for Digital Transformation: Educational Experiences

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The European Union is focusing on digital transformation through various mechanisms. One of the new framework programs – Horizon Europe (2021-2027) with a budget of over 100 billion euros – aims to precisely support the digital transformation and, along with investment in supercomputers, artificial intelligence, and cybersecurity, will stimulate skills development.

The digital transformation has opened new opportunities for access to information for people with special needs in Bulgaria. At the University of Library Studies and Information Technologies (ULSIT) – Bulgaria, at the Faculty of Library Studies and Cultural Heritage (FLSCH) for ten years, part of the curriculum is the elective course ”Access to Information for People with Special Needs” (AIPSN). It is an opportunity to expand the skills of future professionals to work with a wide group of users.

In recent years, there have been more and more occasions for reasoning volunteering as a social phenomenon and assessing its practical dimensions, starting with the motivation of volunteers and reaching to all aspects of the benefits for society.

An element of the training in the elective course ”Access to Information for People with Special Needs” is the inclusion of students in various volunteer missions, that also contribute to the enrichment of information resources for people with visual difficulties. This happens thanks to the platform Bemyguide.org, created to help people with visual difficulties in the perception of various phenomena, objects, people, through text descriptions of photographs and videos.

The goal of this paper is to reveal the possibilities for enriching the information resources for people with visual impairments in Bulgaria by involving students in the volunteer initiative of the Bemyguide.org platform. The current research is based on an analysis of the results of the learning process with undergraduate students in the period 2016-2020. The achievements of the students' activities as volunteers in the Bemyguide.org platform are statistically summarized and an overview of the issues and achievements of defended diploma theses on this topic. Conclusions are reached about the effectiveness and prospects of this pedagogical approach for fostering empathy and commitment of the future library and information professionals to the opportunities for the enrichment of information resources for people with visual impairments in Bulgaria.

The opportunities and benefits of volunteering for students are multifaceted. The new approaches for the inclusion of volunteering in the content of the elective course ”AIPSN” contributes to the enrichment of traditional education in the specialities preparing library professionals in Bulgaria. This is a good practice that can be multiplied and to be of interest for the international audience.

Keywords: digital transformation, ULSIT, access to information for people with special needs, volunteer missions, Bemyguide.org

Why do Voters Allow a Tax Levy for Library Management?

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From the late 20th century, economic pressure on public library budgets rises as government funding has declined. Under increasing financial pressure, creating a procedure for how public libraries can provide fulfilling services to residents is one of the essential issues in public library management. As a result, internationally, management models of public libraries have become more diverse in terms of dealing with financial problems. For example, there are management models such as the Designated Manager System (privatisation of public libraries) in Japan, the Community Libraries (managed by volunteers) in England, and the Combined Libraries (hybridisation of different types) in the Nordic Countries. All of these management models are a means to address the financial challenges of public libraries.

In the same way in the United States, library districts are receiving much attention as a management model that responds to financial deterioration. Library districts are Special-Purpose Governments that have a tax levy and bond authority for library management. Also, library districts are formed through a referendum.

Recent studies have demonstrated that library districts' revenues are more stable over the long term than those of other legal bases, such as General-Purpose Governments and Non-Profit Organisations (NPOs) in the United States. However, forming library districts are not simple, because it means a tax increase for residents. Nevertheless, the number of library districts has increased since the late 20th century. Why do voters allow a tax levy for library management? In this paper, we examined in detail the arguments regarding the formation of library districts through in-depth case analysis.

In this research, we analysed the "voters' pamphlet" distributed to residents at the time of referendum for forming the Josephine Community library district in the state of Oregon. The "voters' pamphlet" described detailed opinions of residents regarding the formation of library districts.

In the analysis, based on the constituents of library district management presented through a comprehensive literature review by Suzuki and Koizumi (2020), we analysed the opinions of the residents through qualitative content analysis. Specifically, through the analysis of opinions in favour, we illustrated the factors that residents allow to form library districts. Second, through the analysis of opinions in opposition, we illustrated the factors that residents opposed to form library districts.

As a result, we showed the following research results. Those in favour emphasised the significance of public libraries in the community. On top of that, they allowed the formation of the library district as a means to provide library services sustainably. In particular, they were satisfied with the current library service and hoped to enhance it further. On the other hand, many opponents opposed the formation of the library district, even though they recognised the value of public libraries. It was against the permanent taxation of the library district. Also, opponents called for donations to public libraries.

In other words, the significance of public libraries in the community was a common understanding among residents. The argument is how much the residents are willing to accept the burden of providing library services.

INDEX OF AUTHORS

BOOK OF ABSTRACTS
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