PUBMET2024

The 11th Conference on Scholarly Communication in the context of Open Science

BOOK OF ABSTRACTS

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PUBMET2024

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INTRODUCTORY WORDS

INTRODUCTORY WORDS

The 11th PUBMET2024 Conference on Scholarly Communication in the Context of Open Science was held at the University of Zadar, Croatia, from 12 to 13 September 2024, marking another milestone in fostering innovation, collaboration, and progress in open science and scientific communication. Organised by the University of Zadar; Croatian Association for Scientific Communication - ZNAK; Faculty of Food Technology and Biotechnology, Faculty of Humanities and Social Sciences, School of Medicine of the University of Zagreb; Faculty of Medicine of the University of Rijeka, and the Ruđer Bošković Institute, PUBMET2024 continued its tradition of engaging discussions and valuable networking opportunities.

This year's conference focused on the central theme of research assessment, addressing the pressing challenges in this area, including transparency, bias mitigation, robustness, cost-effectiveness, and efficiency optimisation. The conference delved into the critical role of research assessment in shaping the future of scholarly communication, exploring diverse perspectives, best practices, and emerging trends that impact researchers, institutions, and the broader scientific community.

The conference began with a focus on research assessment and openness, exploring how transparency, inclusivity, and fairness can enhance the assessment process. This was followed by a session on integrity and ethics in research assessment, which examined the challenges of maintaining high ethical standards in evaluation. Diverse perspectives on research assessment were also showcased, highlighting international approaches and innovative ideas for improvement. The poster session provided a dynamic platform where presenters had three minutes to share their projects, offering attendees quick insights into a wide range of topics. Finally, the session on initiatives and practices in transforming research assessment highlighted successful reforms and forward-looking practices shaping the future of research evaluation.

Opened by prominent figures in the open science community, Associate Professor Lea Škorić and Professor Zvjezdan Penezić, PUBMET2024 underscored its commitment to openness, collaboration, and innovation.

PUBMET2024 built on the themes introduced in previous years, including enhancing peer review mechanisms, promoting reviewer diversity, advancing technological tools, and fostering a more inclusive research culture. As the conference navigated the evolving landscape of scholarly communication, PUBMET2024 equipped researchers, librarians, publishers, and all stakeholders with the knowledge and skills needed to contribute to a

more effective and equitable research assessment system.

We hope that PUBMET2024 served as a catalyst for fruitful discussions, inspiring new collaborations, and driving meaningful change in the field of scholarly communication. As we celebrated our eleventh conference, we continued to expand our scope, embracing the complexities of open science and reinforcing the value of transparent, ethical, and effective research assessment.

Thank you to all who joined us in the vibrant city of Zadar for PUBMET2024.

Thank you for being a part of PUBMET2024!

Ivana Končić
Ruđer Bošković Institute

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KEYNOTE PRESENTATIONS

Research assessment and openness - a multi-faceted relationship

BIANCA KRAMER

Sesame Open Science

Bianca Kramer will explore the multi-faceted relationship between research assessment and openness. Questions around openness shape the lenses through which we look at research assessment - considering both who and what we include in assessment of research and researchers, and how such assessments can be performed.

On the question of who and what is included in research assessment, this concerns decisions on what research activities are included and which indicators of usage and impact (both qualitative and quantitative) are considered, but also who is involved in these decisions. What agency do researchers themselves have in what they are evaluated on, and how can research institutions and funders navigate the tension between context-dependency and comparability in assessment?

Regarding how research assessment is performed, there are questions around the extent to which available data shape choices in research assessment as well as around the importance and prioritisation of open data sources. If it is considered that fair assessment requires full transparency, and equity in decision making requires inclusive data, then what does that mean for the systems we use and support to collect and analyse research information?

In her presentation, Bianca will discuss current international developments in reshaping research assessment, including - and how they position openness in the future of research assessment.

Eastern Europe as a blind spot in the research assessment reform

EMANUEL KULCZYCKI

Adam Mickiewicz University in Poznań

Many Eastern European research institutions and organizations have joined the Coalition on Advancing Research Assessment, an international effort aimed at reforming how research is evaluated, including a move away from the crude use of metrics and rankings.

Research is so international that it's easy to think of it as a flat world where everyone faces the same conditions and constraints. However, national systems retain significant differences that often go overlooked in the enthusiasm for international reform efforts, which tend to originate from and be driven by Western Europe.

Eastern Europe has a long and distinctive tradition of research evaluation. Various countries have used publication counting as a means of evaluating research for two centuries. This is one of several reasons why, broadly speaking, in many parts of the former Soviet bloc and more generally in Eastern Europe, metrics are trusted more than experts.

The socialist era also deeply embedded the idea of the social function of science in these countries' research systems, as a means of contributing to the economy or fulfilling Soviet ideals. Yet Western European policymakers often treat societal impact as a recent discovery that they need to export to other, less up-to-date parts of the world.

On top of this, Soviet and socialist science management systems in higher education and science have left a legacy of relatively centralized, national-level decision-making. Government-level incentives are still crucial in shaping research and academic advancements.

In my talk, I will use the concept of the 'evaluation game,' developed in my recent book (The Evaluation Game: How Scholarly Metrics Shape Scholarly Communication, CUP 2023), to show how this concept can enrich our understanding of how researchers, institutions, and other stakeholders respond to pressures generated by metrics and research evaluation exercises. More importantly, I will show why, in reforming research assessment, we have to take into account the history and heritage of diverse evaluation traditions and attitudes towards metrics.

One is all, all is one? Embracing value-driven approaches in research assessment for a resilient academic future

ERZSÉBET TÓTH-CZIFRA

CoARA

In recent years, the call to reform research assessment has gained significant momentum, driven by a growing recognition that the current systems often fail to align with the original mission of universities. We see an ever broadening consensus worldwide to build alternatives for evaluation systems that are entangled in a productivity-driven culture, prioritising the simplistic use of bibliometrics and prestige over the integrity, quality, and broader impact of scholarly work.

This talk explores the intricate relationship between research culture and assessment, particularly in the context of smaller, underfunded academic communities. It addresses some of the key dilemmas that are shaping the ongoing reform, such as meaningful combination of quantitative and qualitative approaches, or finding balance between sensitivity to the diverse national, regional, disciplinary, and epistemic contexts in which research occurs versus keeping research assessment practises interoperable across them in a way that does not impose significant burden on those who are involved in these evaluation practices and operate with increasingly limited capacities. The talk will focus on two key preconditions of addressing such dilemmas and successfully implement the reform: community-control over the assessment workflows and basing research assessment on collectively negotiated values and missions of research organisations and research teams.

Through real-world examples and insights from ongoing initiatives, we will outline some of the paths forward that prioritise quality, integrity, and humanity in research assessment. These include rewarding the critical and often overlooked activities of reviewing, and engaging deeply with existing scholarship or strategies to build decentralised and community-owned infrastructure and databases used for research assessment. At the end of the talk, it will also be showcased how the Coalition for Advancing Research Assessment (CoARA) supports a critical mass of research organisations, funders and other not-for-profit actors to realign research evaluation criteria with their own diverse missions under the broader, shared values of research integrity, transparency, and inclusivity.

Attendees will leave with actionable insights on how to contribute to this ongoing reform, whether as researchers, institutions, or infrastructure providers.

SHORT PRESENTATIONS

Increasing Diamond Open Access Journals quality, visibility, and recognition through the Diamond Discovery Hub

ARNAUD GINGOLD[1] [2], SONA LISA ARASTEH-ROODSARY[1] [3] & HANNA VARACHKINA[4]

[1] OPERAS
[2] Aix-Marseille University
[3] Max Weber Foundation
[4] Göttingen State and University Library

ABSTRACT

As shown by the Open Access (OA) Diamond Journals study, which considers OA journals to be journals that are "free for the reader and for the author", the landscape of academic publishing turns out to be much more diverse and rich than indicated by Research Assessment (RA) quantitative methods, such as the Impact Factor (IF). Indeed, RA policies relying mostly on the IF favour well-established journals supported by big publishers, and corresponding to a specific profile: Western, English-speaking, and primarily STEM focused journals. The Diamond OA model, on the other hand, represents a community-driven and scholar-led publishing model that is equitable and diverse (e.g. in terms of languages, and countries represented), capable of transforming the global publishing ecosystem towards a more equitable, diverse and scholar-owned future. In this sense, supporting and increasing Diamond OA journals' quality and visibility means transforming not only the perception of the academic landscape but also the way RA policies are defined.

With this prospect in mind, the CRAFT-OA Horizon Europe project has been set up to support the quality improvement, build technical expertise, and enhance the visibility and discoverability of Open Access Diamond Journals (OADJs). A major contribution to this is the Diamond Discovery Hub (DDH), which CRAFT-OA is currently developing. The DDH is intended to be a strategic and game-changing service to increase the visibility of OADJs and, therefore, to give policymakers the appropriate tool to recognise the value of OADJs in their RA processes.

The DDH is a key element on the path from visibility to discoverability and finally, to the recognition of OADJs. While the CRAFT-OA project will support the OADJs' quality through training and documentation and enhancements of some major publishing tools, the DDH will ensure that this global improvement has a concrete ecosystemic impact. The DDH will collect and validate high-quality metadata, with a special focus on diamond metadata based on refined criteria and verified manually. This set of richer and more consistent information about OADJs will thus constitute an authoritative list of OADJs and provide complete and reliable information to human users, and interoperable metadata to any indexer or aggregator.

However, the DDH is not designed only as a technical tool, but rather as a community service that can both preserve and promote equity and diversity. Its design takes into account the diverse landscape of Diamond OA publishing and the potential challenges for individual publishers to reach such a high-quality level. It will be implemented as a responsive and WCAG (Web Content Accessibility Guidelines) compliant website with an SEO (Search Engine Optimization) friendly User Interface (UI) and will be scalable as well as easy to maintain and extend in the future. Furthermore, at the centre of the DDH operations will stand an "Editorial team", initially composed of partners of the CRAFT-OA project. The Editorial team's mission will be to communicate about the DDH requirements and facilitate their adoption. The Editorial team will support individual publishers who wish to join the DDH directly but it will primarily target trusted sources. A trusted source is a source of journal metadata that provides verified metadata about the Diamond OA criteria for journals. In the context of the DDH, the concept of trust relies on the verification of metadata by humans that check the metadata according to the Diamond OA criteria for journals developed by CRAFT-OA and DIAMAS. Concretely, the CRAFT-OA trusted sources will be either indexing or publishing services that will verify their journals' compliance with the diamond criteria. This distribution of work between the DDH team and the Diamond community will ensure optimal coverage of the OADJs and secure both the consistency and flexibility necessary to offer a common framework and adapt to specific cases.

The DDH, alongside the other outputs of the CRAFT-OA project, is therefore a powerful tool to strengthen the Diamond OA community, facilitate the recognition of OADJs, and, ultimately, contribute to the reform of RA.

The CRAFT-OA project (Creating a Robust Accessible Federated Technology for Open Access) is an OPERAS project funded for three years under the Horizon Europe Framework Programme and is coordinated by the University of Göttingen.

KEYWORDS

academic publishing; diamond open access; open access; research assessment

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DIAMAS tools and resources for Diamond OA publishing

IRYNA KUCHMA & MILICA ŠEVKUŠIĆ

EIFL

ABSTRACT

The presentation discusses tools and resources for Diamond open access (OA) publishers (charging no fees to either readers or authors) and service providers, policymakers, funders, libraries and all those who practise and support Diamond OA publishing, released by the project Developing Institutional Open Access Publishing Models to Advance Scholarly Communication – DIAMAS (2022–2025). Diamond OA publishing initiatives play a crucial role in the research ecosystem. Along with offering equitable publication venues, they often support scholarly communication in native languages and foster multilingualism and bibliodiversity. However, they struggle with fragmentation, limited visibility, insufficient recognition in local and international research assessment systems and largely rely on a variety of fluctuating income streams and an unpaid workforce to carry out their work. DIAMAS activities and resources address these challenges.

Research on the financial sustainability of institutional publishers and service providers in Europe and recommendations to help Diamond OA publishers and service providers become more sustainable are explored. It is noteworthy that sustainability is not considered at the level of individual institutions only and that the role of infrastructures used by many is taken into account as well: "If we are to envision the future, we need to look at institutional OA publishing at the national and international policy and practice ecosystem level. Supporting infrastructures that facilitate the development of small to mid-sized IPSPs and efforts that connect, build capacity and share resources have the potential to make this ecosystem more technically and financially sustainable in the mid to long term." (Brun et al., 2024). To help IPSPs deal with sustainability challenges, DIAMAS has developed the Diamond OA Sustainability Check. This self-assessment tool helps IPSPs gain insights into their financial health and aids them in planning for a more sustainable future.

The richness of Diamond Open Access (OA) publishing is characterised by its diversity: from the wide-ranging disciplines it serves in multiple languages to the types of organisations and networks involved in developing, running or maintaining it. The newly-published report National overviews on sustaining institutional publishing in Europe (Taşkın et al., 2024) describes the current contexts for Diamond OA publishing in ten countries: Croatia, Finland, France, Germany, Italy, the

Netherlands, Norway, Poland, Spain and the UK.

This research, together with the Landscape of Diamond OA publishing in Europe (Armengou et al., 2023), is accompanied by supporting materials that can be used for further research (e.g., survey results published as datasets, a registry of institutional publishers and service providers, country reports, etc.) or advocacy and dissemination materials (factsheets, presentations, webinar recordings, podcasts and blog posts).

Diamond Open Access Standard (DOAS) (Consortium of the DIAMAS project, 2024) promotes quality in Diamond OA publishing. Serving as both a technical guide and a practical benchmarking resource, DOAS combines comprehensive guidelines with a self-assessment tool to elevate standards in scholarly publishing. This comprehensive quality framework defines required and desired criteria across seven key components of scholarly publishing: 1. Funding; 2. Legal ownership, mission and governance; 3. Open Science; 4. Editorial management, editorial quality and research integrity; 5. Technical service efficiency; 6. Visibility, communication, marketing and impact; 7. Equity, Diversity, Inclusion and Belonging (EDIB), multilingualism and gender equity.

The self-assessment tool will soon be accompanied by detailed guidelines relating to the implementation of DOAS criteria, which will be released in the autumn of 2024, together with the DIAMAS toolsuite for publishers and service providers covering a range of topics (ownership and governance, sustainability, technical efficiency, editorial quality, and multilingualism). The toolsuite and guidelines are designed as a collection of fairly short texts offering hands-on advice and references to external resources and are organised in a modular way, allowing for text extension, expanding the scope of topics covered, translation and adaptations.

All these resources and many more will be available via the DIAMAS Common Access Point (CAP) – a virtual gateway that will serve as a hub for both DIAMAS and external resources. CAP will also include a registry for institutional publishers and service providers, a community forum and a platform for knowledge sharing.

The actions and results of DIAMAS support the vision of the Coalition for Advancing Research Assessment that the assessment of research, researchers, and research organisations should recognise "diverse outputs, practices, and activities that maximise the quality and impact of research. This requires basing assessment primarily on qualitative judgement, for which peer review is central, supported by responsible use of quantitative indicators." (CoARA - Coalition for Advancing Research Assessment Agreement, 2022) Through consultations with regional, national and European funders/sponsors/donors and policymakers, DIAMAS is developing guidelines and recommendations aimed at supporting Diamond OA publishing. If integrated into funder and policy requirements these recommendations will mainstream research integrity and quality in research assessment and lead to the recognition of bibliodiversity, a wide range of Open Science practices and the engagement of researchers in Diamond OA publishing

(e.g., as authors, editors or reviewers) for assessment and promotion. Furthermore, DOAS will be instrumental in aligning quality standards in Diamond OA publishing across institutions and countries. Along with providing guidance to Diamond OA publishers, it could also be integrated into national frameworks for journal assessment and allocation of funding.

KEYWORDS

diamond open access; guidelines; institutional publishing; standards

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Attitudes towards open peer-review in the Croatian Medical Journal

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ABSTRACT

Background and aim: Traditional peer-review is anonymized and often criticized for being subjective, time consuming, not able to detect errors, and biased (Smith, 2006, Tennant, Ross-Hellauer, 2020). Coupled with the rise of open science, and the replication crisis, this has led to calls for more transparency and openness, including openness of peer-review and grant proposal evaluations.

Open peer-review does not have a universal definition as there are myriad of practices represented under the term: open identities of the authors and reviewers, open review reports published alongside the article, open interaction and discussion between author(s) and reviewers, or open platforms where a review is facilitated by a different entity than the one where the paper is published (Ross-Hellauer, 2017, Bazdaric et al, 2021). Today, less than 2% of journals practice open peer-review (Responsible Journals, 2024), and the reasons for such a slow uptake are unclear, but attitudes of scientist likely play a role.

Attitudes towards open peer-review were previously investigated with a validated questionnaire in a sample of Croatian scientists (n=541) that showed neutral and negative attitudes toward open peer-review and open peer-review in a small scientific community (Bazdaric et al, 2021). The goal of our study was to investigate attitudes of authors, reviewers and editors of the Croatian Medical Journal (CMJ), a diamond open access journal, regarding open peer review.

Methods: Participants (n=4347) were invited to complete an anonymous online questionnaire through Google forms, where they also indicated their consent to participate in the study. The survey was open from March to May 2024, and we sent two reminders 14 days apart.

We used the validated ATOPP questionnaire (Bazdaric et al, 2021) and added extra questions related to the Croatian Medical Journal, altogether 41 questions (21 attitudes on Likert scale 1-5; 9 open science practices, 11 demography and publishing). The open peer-review scale has two factors: open peer-review (6 questions) and open-peer review in a small scientific community (2 questions).

Results: We received a total of 254 answers (response rate 6%), out of which 120

(47%) were authors, 25 (10%) reviewers, 57 (22%) authors and reviewers, and 26 (10%) in multiple editorial and author roles (editors, editorial board members and authors) and 19 (7%) did not want to declare their role. Of all participants, 128 (50%) were female, and the median age was 50 years (min 27-max 83) years. Participants came from 35 countries, however a little over half were from Croatia (54%).

Participants' attitudes towards open peer review were neutral (median score 3.2 (25 percentile 2.7-75th percentile 3.8), while their attitudes toward open peer review in a small scientific community were negative (median 2.3 (25 percentile 1.5-75th percentile 3.0). There were no gender differences in both constructs (P=0.259 and P=0.719, respectively). Over a third of participants (136, 53%) expressed they would like to see open peer-review in the journal, and 96 (38%) stated they would like to know the identity of their reviewers in the CMJ.

Conclusion: Authors, reviewers, and editors in the CMJ are still very cautious towards open peer-review, especially in small scientific communities which is in line with previous results on a Croatian sample of scientists. It is important to raise awareness among journal editors and government agencies to increase peer-review transparency in journals and projects.

KEYWORDS

attitudes; journals; open peer-review; open science; transparency

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Leveraging the OpenAIRE Graph for Transparent and Responsible Research Assessment

MAJA DOLINAR, GIULIA MALAGUARNERA, ANGELIKI TZOUGANATOU, PAOLO MANGHI, THANASIS VERGOULIS & LEONIDAS PISPIRINGAS

OpenAIRE

ABSTRACT

A key element of Reforming Research Assessment (RRA) practices is to move away from simplistic approaches based on bibliometric indicators and consider a wide variety of research activities. Existing large-scale data collections cover a broader range of research output such as publications, data, software, research methods, patents, data management plans and tools. The current challenge is the lack of a robust, high-quality open infrastructure.

The presentation will explore how the OpenAIRE Graph (2024), a core service of OpenAIRE and the European Open Science Cloud (EOSC), can be utilized to address key challenges in research assessment. OpenAIRE, a non-profit partnership organisation, operates an e- infrastructure, the OpenAIRE Graph, that compiles metadata and links from over 140,740 data sources using advanced AI tools. The OpenAIRE Graph aggregates millions of metadata records from trusted data sources like OpenDOAR, re3data.org, DOAJ, and pre-print servers. Using the OpenAIRE Guidelines and PROVIDE's metadata validation mechanism, the data undergoes a thorough deduplication process with PIDs, followed by enrichment with records from Crossref, Unpaywall, ORCID, Microsoft Academic, PubMed, DataCite, OpenCitations, and UsageCounts. AI tools enhance this metadata further by adding information on authors, classifications, Open Access status, and relationships like co-authorship and citations. This results in a Scientific Knowledge Graph of over 272 million research products, including publications, research data, and software, all linked to their funding sources and producing entities.

Whereas projects like SciLake and OSTrails have the aim to foster the quality, the FAIRness, and the interoperability of Open Infrastructures like the OpenAIRE Graph, GraspOS aims to federate open infrastructure for RRA to serve EOSC and its users. Moreover, OpenAIRE is responsible for the provision of the EOSC Knowledge Graph, used in the EOSC EU Node (2024), which aggregates metadata records and semantic links from the OpenAIRE Graph, the EOSC Service Catalogue, and other relevant European Commission databases and publishing platforms, including Open Research Europe (ORE). Through the EOSC Knowledge Graph, researchers can discover, navigate, and monitor an up-to-date global map of science, encompassing valuable information about EOSC research products, such as publications, data, and software. This enhances the capability for comprehensive

research assessment on a European scale.

The proposal will highlight the OpenAIRE Graph's and EOSC Knowledge Graph's role in enhancing RRA by providing an open infrastructure as a possible option to proprietary databases and by enabling institutions to conduct thorough and unbiased research assessment. We will discuss the primary role of the Institutional Repositories and CRIS to provide and curate the metadata, as well as the OpenAIRE Graph's and EOSC Knowledge Graph's workflow, including its comprehensive aggregation-enrichment-deduplication process to ensure robust data quality and facilitate bibliometric analysis through citation metrics and indicators. Collaborative approaches to improve the coverage and the value of the OpenAIRE Graph includes collaboration with other initiatives and infrastructures such as OpenCitations and OpenAPC that joined the OpenAIRE Catalogue. OpenCitations leverage the OpenAIRE Graph data to enhance bibliometric information by integrating open bibliographic and citation data, while OpenAPC provides detailed publication cost data (APC and BPC), useful in monitoring the publications cost and the researcher behaviours towards publication's venues.

The OpenAIRE MONITOR (2024) service provides analysis and statistics from the OpenAIRE Graph and is curated by researchers, research supporting staff, and developers. It showcases dashboards with dynamic visualisations of Open Science activities, research outputs and performance, including Research Impact, funding and collaborations indicators on demand. This service facilitates the data elaboration at institutions, university alliances or networks, research initiatives, and research funding organisations. The MONITOR service is instrumental for research performing organizations and research funding organizations empowering them to track the adoption of Open Science practices, discern the evolution of Open Access pathways over time, and evaluate associated metrics. It can also be used for creating National Monitors for Countries that want to track progress towards open access. In the proposal, we will showcase the Irish National Open Access Monitor (2024) as a prime example of how the OpenAIRE Graph supports national- level research assessment initiatives.

The efforts of OpenAIRE and its services are strongly aimed at enhancing features and indicators to align with the research assessment reforms suggested by CoARA (2022) and DORA (2024), and reaffirming its commitment to the Barcelona Declaration (2024), offering a comprehensive infrastructure that can be used to monitor and assess Open Science in research practices. To further address these topics, we participate in the CoARA Working Group (WG) "Towards Open Infrastructures for Responsible Research Assessment" to undertake a comprehensive redefinition and evaluation of essential infrastructural components for equitable research assessment. This WG is focused on establishing foundational principles and delineating the critical components required for an open infrastructure suitable for research assessment. These discussions are paramount for developing a robust framework that fosters transparent, collaborative, responsible and equitable research evaluation practices.

To this end, MONITOR's incorporation of coverage is essential, as it bolsters the dimensions of scientific knowledge production, encompassing the rigor and integrity of research quality, the collaborative nature of open research methodologies, and the broader societal impact of scholarly work (Di Donato, 2024). For that reason, the MONITOR service adeptly integrates qualitative and quantitative indicators, providing a holistic perspective on the breadth and diversity of research endeavours. This integration advocates for the formulation of inclusive policies that recognize and reward diverse scholarly contributions, thereby influencing research assessment frameworks. The MONITOR service accomplishes this by delivering data on the openness, findability, and FAIRness (Findable, Accessible, Interoperable, Reusable) of research outputs, thus enhancing OS initiatives. In addition, integrated qualitative evaluations enable the assessment of whether a researcher exhibits specialization within a particular Field of Science or demonstrates interdisciplinary expertise across multiple domains. Specific indicators aligned with the United Nations Sustainable Development Goals (SDGs) are also integrated. These indicators are meticulously crafted to classify and analyse research contributions addressing pivotal global challenges such as climate change, biodiversity loss, pollution, and poverty reduction. By synthesizing qualitative and quantitative metrics, this approach ensures that research assessment transcends mere quantitative evaluation to encompass the broader impact and societal contributions of research.

By integrating qualitative and quantitative indicators, the MONITOR service offers a comprehensive and sophisticated approach to research assessment. This framework underscores the significance of evaluating the broader implications and contributions of research to societal and global challenges, fostering a deeper and more impactful understanding of research activities. Furthermore, the MONITOR service significantly augments infrastructure readiness by promoting discourse on cost efficiency, sustainability, and best practices. Rather than prioritizing ranking mechanisms, it fosters collaborative efforts through the OpenAIRE framework, thereby enabling universities and research-performing organizations to disseminate and adopt successful strategies. Initiatives such as University Alliances Gateways and Institutional Monitors exemplify this approach, facilitating the exchange of knowledge and fostering the development of robust, sustainable, and cost-effective research infrastructures.

Ultimately, this proposal aims to provide practical strategies for leveraging the OpenAIRE Graph and the EOSC Knowledge Graph to support informed decisions on Open Science policies and practices, fostering a more transparent, efficient, and equitable research assessment process.

KEYWORDS

monitoring; indicators; OpenAIRE Graph; open infrastructures; Open Science policies; reforming research assessment

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Assessing scientific merit through data quality in a domain repository

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ABSTRACT

A widespread open science publishing culture means the researchers involved should be rewarded for the merit contained in the research output they produce and share. A recent survey shows that "Open and FAIR data management and sharing" is the most deserving of reward. (Grattarola et al., 2024). Research assessment should prioritize quality, encompassing the entire spectrum of research outputs, including research data, computer code, and other. Evaluating the scientific quality of research data is crucial for including it as a legitimate scientific output, akin to the way literature is evaluated in the editorial and peer review publishing selection.

The data review, traditionally forming part of the pre-ingest 'appraisal and selection' stage within a repository, has gained prominence since the variety of data published has expanded. Transparent documentation and information concerning data quality can help in determining the reusability of data (Sharma, 2024; Kindling and Strecker, 2022).

Authors themselves are the first to critically assess the quality of their data and its overall significance. They can then choose to publish the data in the most suitable repository, considering factors like acquisition criteria and processing intensity. Domain-specific repositories are more appropriate for assessing the data characteristics that are important for the research community.

Repositories are also distinguished by levels of curation. The most intensive "Data-level curation" is more than simply checking the quality, consistency and completeness of (meta)data. Such curation actively enhances these elements in collaboration with the author, similar to the traditional literature publishing process.

While depositing data 'as is' is preferable to not sharing at all and should be duly recognised, research evaluation should differentiate such data from reviewed data whose scientific quality has been established. Only the latter can be evaluated similarly to peer-reviewed literature.

Assessing research data quality in a domain repository

The way research data quality is assessed varies depending on the intended re-use purpose. In the European Statistical System (ESS), data quality reporting utilises a standard scheme featuring 18 criteria like relevance, accuracy and comparability. Some journals have already introduced the 'data editor' role (Muench, 2023) that focuses on the overall data and computer code consistency to assess the "computational reproducibility", provided that the material is openly accessible, well documented, and cited in an article. Although these criteria suit the specific purpose they are meant for, research data repositories need to more broadly examine various quality aspects.

The consideration is the reuse potential of future data weighted against the cost of digital curation activities. Not all data can be processed to the highest curation standards. Further, data re-use potential entails a prediction that respects the context that determines the value, not taking any criterion in isolation. The value depends on whether the content of data is rare or it duplicates data already in the collection. There are no absolute measures. Combinations of criteria are also considered (Gutmann et al., 2004; Whyte and Wilson, 2010). During the COVID-19 period, it was important to collect timely data and share it widely, even if some methodological quality factors may have been compromised.

ADP Template for Evaluating Research Data Quality

To determine the re-use potential, processing, long-term curation costs, and scientific data quality, the Slovenian social science data archives (ADP) are testing a "Template for the evaluation of research data quality" it produced itself. Elements from the above-mentioned sources, supplemented with general social science research reports on aspects of ratings (e.g., Miller, 1991: 642-644) for research data, are incorporated in the template and tailored to the repository's mission and designated user community.

The template's criteria are categorised in different sections distinguishing which role can assess them. In the first section, the Data archivist assesses the completeness of data, formal aspects of metadata, adherence to the minimum set established by the CESSDA community, the format, and whether the data are sufficiently clean and documented on a granular level to facilitate informed re-use. Legal and ethical conditions for data sharing are also verified. This provides an elementary data transparency review that is thus performed. The basic scientific relevance is assessed regarding its further research re-use potential: if the data cover the research topic's multifaceted nature; if the sample represents the complete or an important population; and if methodological relevance and research design complexity are demonstrated.

The relevance of a study and associated data for the repository collection is assessed in the second section and performed by the Head of acquisition. The historical and cultural relevance and uniqueness of data are considered, along with suitability for use in teaching or citizen science, etc.

Thus far, the assessment already evaluates a few scientific qualities. In the remaining section, the Domain specialist (from either the repository team or outside) assesses some broader aspects of scientific fitness for use for studying a wide range of theoretically or practically inspired problems. This includes methodological quality assurance and the study's significance for various research areas or for addressing important societal problems.

The written assessment is then presented orally to the acquisition commission, which decides on the study's category (self-deposit or long-term curation) and produces a summary. Data published in the long-term curation system that meets most criteria of scientific relevance also receives a score, which is entered in the Slovenian bibliographic system where it counts as scientific output for the researcher's promotion.

Benefits and Challenges of the System

The comprehensive evaluation system aims to minimise subjective and arbitrary evaluations. Nonetheless, it requires additional effort from data repository staff already in the pre-ingest phase. The observations made are noted in internal documentation and in the long-term curation regime and communicated to the author for further formal data, metadata, and documentation quality assurance on a higher level.

Although the scientific quality evaluation cannot be completely objective, as there is always a certain arbitrariness in weighting the importance of different criteria, like with a literature peer review, attracting established researchers for a role that brings little reward is hard. A compromise is to rely on experienced researchers among the repository staff. The discussion in the acquisition commission also helps overcome the limitations of the primary evaluation: it is usually enough for the final decision on scientific merit to establish that at least some of the scientific quality criteria have been met.

The scores associated with the data publication incentivise researchers to maintain high quality throughout the data lifecycle, including the effort involved in preparing the data for publishing, and discourage the intentional reduction of data quality to gain a competitive advantage. The data itself is already recognised as a scientific product in its own right, and its secondary re-use can further enhance the researcher's citation reputation.

KEYWORDS

data repository; data curation; research data quality; research assessment; re-use

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Reconciling open science practices and research assessment requirements in the process of establishing a national CRIS system in Serbia

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ABSTRACT

Open science promotes transparency, open access, and reproducibility in research, ensuring that research outputs are openly available and reusable by others. However, traditional research assessment systems usually emphasize quantitative indicators, such as journal impact factors and

citation counts, encouraging publication in 'high-prestige' journals and failing to fully capture the value of open science practices. Accordingly, a Current Research Information System (CRIS) tracking research outputs for assessment purposes does not necessarily encourage open science practices. This presentation explores the challenges and strategies involved in reconciling open science practices with research assessment requirements in Serbia during the process of establishing the national CRIS system eNauka.

Over the past decade, the Serbian research community has made significant efforts to implement the principles of open science. This process has intensified since 2018, following the adoption of the Open Science Platform, which introduced a green open mandate, leading to the development of more than 80 institutional repositories within five years, most of which ensure compliance with the FAIR principles and are harvested by international aggregators (Kosanović & Ševkušić, 2021). Research organizations have recognized the role of repositories in preserving research results and ensuring wide dissemination and improved visibility through open access. Intensive informal training provided by librarians (Đorđević et al., 2021) and community development (Open Science Community, 2021) have been instrumental in raising awareness and improving the understanding of open science practices among researchers.

In 2022, the ministry responsible for science started developing an information system to track research outputs in Serbia for reporting and assessment purposes, eNauka (eScience) portal (Kosanović, 2023). The portal provides registries of all accredited research organizations and all researchers in Serbia, as well as a database containing metadata about their research outputs, which predominantly include publications, patents and technical reports. Administrative data about

organizations and researchers are curated by the organizations' administrative staff and the ministry personnel. Metadata describing research outputs are harvested (e.g. Cobiss OPAC) or imported (Crossref, ORCID profiles) from various sources, but institutional repositories are the main data source. Metadata records in eNauka are harvested once a week and curated by officially appointed individuals from research organizations, usually librarians and repository managers. Thanks to this, the establishment of the national CRIS system additionally encouraged the development of institutional repositories. However, this process has been accompanied with some challenges and has threatened to disrupt progress in adopting open science practices.

Here is a brief overview of the major challenges:

- One of the functions of eNauka is to facilitate research assessment. Along with publications, patents, technical reports, artworks and similar outputs that can be deposited in a repository, the national regulations recognize a number of results the evidence of which (e.g. signed certificates, invitation letters, diplomas) is typically not deposited in a repository. Due to this, repository managers have faced pressure to allow depositing materials not allowed by repository policies.

- A number of research organizations established repositories with the sole idea of feeding data into the national CRIS system. In such cases, repositories provided only metadata and it was practically impossible to persuade researchers to deposit full-text content, let alone to make it open access.

- In a number of well-functioning repositories good depositing practices were disrupted, as a number of researchers refused to provide full-text content. They either only provided metadata or deposited the front pages of their publications and insisted on depositing inappropriate materials.

- A major challenge was the pressure to align institutional repositories, using standard metadata schemas and vocabularies, with the non-standard classifications used by the ministry.

The initiative to deal with these challenges came from the library community and the ministry accepted the request to establish a working group to develop guidelines for metadata curation in eNauka. It included librarians, i.e. repository managers, ministry analysts, the administrators of the eNauka portal, and ministry representatives. Their task was to harmonize the requirements of all stakeholders towards facilitating research assessment while maintaining the integrity of repositories and fostering open science practices.

The working group produced two sets of guidelines (adopted in March 2024): guidelines for metadata curation in eNauka (Ministarstvo nauke, 2024b) explaining how to describe research outputs using standardized metadata in eNauka, and guidelines for repository managers (Ministarstvo nauke, 2024a), detailing the

metadata and providing clear instructions regarding full-text deposition. These guidelines make it possible to meet the assessment requirements, while empowering the managers of institutional repositories to spread awareness at the level of their organization about the multiple benefits of open science. In this respect, the guidelines are particularly valuable for newly established repositories.

The fact that the national CRIS system relies on repository data opens up many possibilities for the recognition and tracking of open research practices in research assessment. However, there are still many challenges to overcome, such as the lack of awareness and understanding of open science practices among researchers, ministry analysts and national policy makers. Many researchers are not fully aware of the benefits of open science or how to effectively implement open practices in their work. Similarly, ministry analysts lack the knowledge and tools needed to evaluate the full spectrum of research outputs that open science encompasses.

Cultural resistance within the academic community also poses a barrier. Established norms and practices in research and assessment are deeply ingrained, and resistance to change is widespread in the local research community. Researchers are hesitant to embrace open science practices if they perceive them as risky, believe that these practices might negatively impact their career prospects, or simply if they get no reward for them.

Policy reforms are crucial in integrating open science practices into research assessment. Funding agencies, universities, and research institutions should adopt policies that recognize and reward open science contributions.

KEYWORDS

CRIS systems; institutional repositories; open science; research assessment

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POSTER PRESENTATIONS

OPERAS Innovation Lab: researching, supporting and assessing innovation in the SSH

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IBL PAN

ABSTRACT

The goal of the Innovation Lab is to design and implement repeatable and sustainable innovation processes to ensure innovation culture within OPERAS and foster innovative solutions for open scholarly communication in Social Sciences Humanities (SSH). To achieve this, the OPERAS Innovation Lab engages with the OPERAS Community, OPERAS Bodies and the Open Science Community as a whole, including Industry.

The poster will present the current state of Lab's implementation. The Lab offers two main services: the Observatory and the Accelerator. The Observatory performs innovation research and aims to produce knowledge on innovation in the SSH. The Accelerator facilitates innovation implementation in and around OPERAS through piloting solutions to the most pressing challenges in open scholarly communication in the SSH. The Lab's operations are being communicated through its website (https://lab.operas-eu.org/), offering a wide range of materials discussing innovation and current activities of the Lab.

The poster will highlight the role of assessing innovation within research assessment models in the SSH. Understanding and improving innovation assessment is one of the core tasks for the Lab and the team aims to engage the community to tackle this challenge collaboratively.

KEYWORDS

innovation; scholarly communication; social sciences and humanities

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Open infrastructure for research integrity: leveraging scholarly metadata as trust signals

MADHURA S. AMDEKAR

Crossref

ABSTRACT

Journal articles and books are generally considered the traditional published outputs that result at the end of the scholarly process and constitute the scholarly record. With rapid advancements in scholarly communication, the type and complexity of published outputs have increased significantly in recent times to include works such as datasets, software, conference presentations, as well as the elements that go into the creation of these outputs (e.g., peer reviews and preprints) (Lavoie et al, 2014). As such, the definition of the scholarly record has expanded to include published outputs, the inputs, the relationships between them, as well as the context around each output that can be inferred from the associated metadata. Preserving the integrity of such a comprehensive and constantly evolving scholarly record is a key component of the overall efforts to preserve research integrity. Open scholarly infrastructure plays an important role in this undertaking by providing trust signals that enable the assessment of the trustworthiness of published outputs. Crossref is a not-for-profit membership organisation that provides open scholarly infrastructure to enable the scholarly community to provide and deposit metadata about the content that they produce. This open and rich metadata provides a framework for detecting trustworthiness, thereby helping to preserve the integrity of the scholarly record.

In this presentation, we will provide an overview of Crossref's Research Nexus vision, which is a "rich and reusable open network of relationships connecting research organisations, people, things, and actions; a scholarly record that the global community can build on forever, for the benefit of society" and is tied to the concept of the scholarly record (Hendricks, 2021). We will also expand upon how metadata elements and the relationships between them provide important context about the work produced by the scholarly community. Metadata tells us about who authored a work, who funded it, whether it was updated after publication, what the relationship is between a work A and a dataset B, and more. Crossref provides infrastructure so members of the scholarly community can provide metadata about the content produced by them. By making this metadata available openly, Crossref enables members to communicate the trustworthiness and context of their content. Given that the scale and impact of research integrity issues have increased considerably in recent years, the scholarly community needs solutions at scale for these issues now more than ever. We highlight that open and

machine-readable datasets of metadata can play a crucial role in supporting the development of such solutions.

To inform our efforts in this direction, we have been engaging with our community to understand which metadata elements are perceived as key for communicating trust. We find that information on retractions, abstracts, references, and affiliations is important to our community members for signalling trust. In light of recent developments in the area of research integrity, information on peer review, special issues, ethics approvals, conflicts of interest, and clinical trials is being recognised as information that would be "nice to have" in the scholarly record. We will elaborate on the value of each of these elements in supporting trustworthiness.

Preserving the integrity of the scholarly record is a collaborative endeavour that requires participation from the entire community. We will outline some ways in which every stakeholder can contribute to enriching the Research Nexus. We hope that this information will help the community to recognise the value of metadata in supporting research integrity, encourage them to contribute and use rich metadata in their work.

KEYWORDS

Crossref; metadata; research integrity; Research Nexus; scholarly record; trustworthiness

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Balancing Principles and Practices: Disciplinary Differences in Croatian Researchers' Perspectives on Open Access Publishing

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ABSTRACT

Researchers' open access publishing (OAP) attitudes and practices are shaped by a complex interplay of factors, including the characteristics of scientific disciplines and the overall settings in which authors and journals operate. They are influenced not only by the authors' awareness of the benefits of open access and financial aspects of publishing, but also by various micro-characteristic like requirements for academic promotion, institutional or governmental mandates, OA advocacy, and incentives for publishing in OA.

Currently, more than 65% of the total Croatian scientific output visible in the Web of Science Core Collection is published in open access. Croatia adheres to the recommendations and guidelines of the EU, with many public educational and scientific institutions participating in European projects addressing open science issues. The majority of Croatian scientific journals listed in the Directory of Open Access Journals (DOAJ) employ the diamond model of OA publishing.

Since our previous research revealed differences in OA practices across scientific disciplines (Macan et al., 2020), the aim of this research was to analyse the current attitudes of Croatian authors towards OA publishing and explore possible differences in OA publishing attitudes and practices between researchers in STEM (Science, Technology, Engineering and Medicine) and SSH (Social Sciences and Humanities).

The online questionnaire comprised 17 questions divided into four sections: academic status and main area of expertise, general attitudes towards OA, OA publishing models, criteria for choosing publication outlets, and attitudes towards pay-to-publish models. The questionnaire targeted researchers who primarily publish in journals. The survey yielded 1,041 responses from researchers affiliated with Croatian universities and research institutes, PhD students, postdoctoral researchers and librarians. Only fully completed questionnaires were included in the analysis, reducing the dataset to 763 responses.

The majority of respondents (75%) expressed support for OA publishing and

acknowledged its benefits in scientific research and education. SSH authors have a more favourable attitude toward OA publishing compared to STEM authors. Support for open access is associated with a greater number of papers published in local journals and a lower emphasis on the journal's scientific reputation.

When selecting a journal for publication, respondents were primarily motivated by the journal's prestige rather than its open access status. STEM researchers tend to prioritize journal reputation and impact, while SSH respondents value strict disciplinary orientation more than journals' bibliometric indicators. Publications from SSH, mainly published in local journals, dominated the Croatian OA output reported in this survey. Along with disciplinary differences in the requirements for academic promotion, this probably influenced the expressed attitudes.

Attitudes towards publishing in fully OA journals operating exclusively with the pay-to-publish model varied among respondents. The difference was statistically significant, with STEM respondents more inclined to submit their papers to pay-to-publish journals. Those with a positive attitude were motivated by the speed of peer review and publication process, while those with a negative attitude believed that gold OA journal publishers prioritize profit over the quality of published articles. SSH respondents were more opposed to paying publication fees, even if their institution or research funder covered them, because they do not support any financial barriers in publishing scientific results.

Balancing the diverse needs and practices of different scientific disciplines while ensuring equitable access to publishing opportunities seems to be the key challenge in scientific publishing. Continued state financial support for national journals, particularly those following the diamond OA model, complemented with improving the financial capabilities of STEM researchers to publish in international journals will be crucial in maintaining the current level of OA publishing in Croatia.

KEYWORDS

authors' attitudes; Croatia; open access publishing; publishing practices; research areas; scholarly communication

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Data retrieval, data cleaning and data merging: creating a database for bibliometric analyses

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ABSTRACT

Introduction: Bibliometric analyses have become fairly frequent in today's science (Donthu et al., 2021; Klarin, 2024; Öztürk et al., 2024). They help map out research areas and evaluate the quality of scientific research. Most bibliometric analyses today gather their data from Web of Science or Scopus. Yet, the methodology sections on obtaining that data often leave us wanting, especially in the few cases where datasets from both databases were merged (Echchakoui, 2020).

The aim of our research was to create a comprehensive database of all publications by Croatian clinicians, regardless of the research area, so we could map their areas of interest during the period 2005-2022, as well as study potential effects of Croatia's European Union (EU) membership. Our focus on publications by clinicians rather than publications in clinical medicine led us to create a more complex data retrieval strategy, using affiliations instead of research areas.

Methods:

Identification of publications

Using the government-provided list of registered healthcare legal subjects, a list of all possible names for all types of medical subjects was created, excluding medical faculties. Using truncation, the terms were grouped where possible. Operators OR, AND, and SAME were used to create the search strategy in Web of Science: Core Collection (WoS:CC) and Scopus.

The search was conducted separately for each database. The results in both databases were limited to publication years 2005 through 2022, in order to obtain data for a proportional number of years prior and after Croatia joined the EU.

Data retrieval

The results were downloaded via built-in export functions in both databases. The built-in option was used due to API keys either being too expensive or limited in scope for this part of the process.

The data from WOS:CC had to be downloaded in groups of 1,000 due to the

limitations of our national licenses. The first 20,000 results from Scopus, sorted by date (newest first), were exported simultaneously. As Scopus only allows the first 20,000 results to be downloaded, we changed the sorting to date (oldest first), and downloaded the remaining 8,159 results. All exported data were deposited as raw data in the form in which they were downloaded. Copies were made and then combined into a single Excel document for each database separately.

We used Python to automatize parts of our cleaning process. We implemented random controls of data after any step including Python, to ensure the different rows and columns did not shuffle.

Deduplication

The most distinguishable identifier common to both datasets was the DOI number. We considered the title as well, but given how a portion of the publications had the same title, e.g. Reply or Letter to the Editor, we realized the most trustworthy identifier was DOI.

Using Excel's built-in sorting function, we were able to easily remove all records with the empty DOI field. We used Python to identify records that appeared in both datasets and removed the duplicates found in Scopus, leaving the WoS records as they had less missing data than Scopus.

Merging and data cleaning

To merge the two datasets, we had to decide which data columns we needed to keep, and, of those, which ones could be combined into one column. We used Excel's Merge Tables function to create the unique dataset.

During the previous steps, we noticed that some of our data probably did not meet the inclusion criteria. Through trial and error, we realized that the most thorough way to ensure the eligibility of all records in our dataset was to check each entry manually. All in all, we checked 21,651 records, 3,531 of which were excluded for not meeting the inclusion criteria.

Missing data

The most important type of missing data was the publication month, as our interrupted time-series analysis would use them as observation points. We automatized this process for 989 records using DOIs and PubMed export, and manually extracted the 1,530 remaining.

The majority of missing publication month data originated from Scopus' records for publications from Croatian journals.

Results: In total, 26,873 records from WoS and 28,159 records from Scopus were identified. Of those, 9,045 from WoS and 10,600 from Scopus were filtered out for not having a DOI number and are awaiting manual deduplication and data cleaning.

A total of 13,730 duplicates were removed.

A total of 21,657 records with DOI were assessed for eligibility. We excluded 3,530 records for not having a required affiliation and 2 for not being able to find any publication month-related data.

All in all, 18,125 records with DOI were included in the database for our study.

Discussion: While being aware that no database can be perfect, we believe we will have the most comprehensive bibliographic database of the research Croatian clinicians published in the period from 2005 to 2022 after including the records without DOI.

Sometimes limiting our bibliometric analyses to a database's predetermined research areas and document types may not be enough to gain a full overview of a body of research. We believe affiliations are the only currently viable way to gain insight into the research that specific types of institutions conduct.

KEYWORDS

bibliometrics; data cleaning; data merging; data retrieval; database merging

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Digital Library of the Belgrade City Library in the service of Citizen Science

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ABSTRACT

Citizen science allows participants to directly contribute to research, increase their understanding of science, and learn about issues facing the entire community. However, a significant concern related to practising citizen science is the ability of amateur scientists, i.e., citizen science volunteers, to provide quality and accurate data. From a societal angle, it is essential to engage with societal actors in various formats that suit participants, evaluate two-way learning outcomes, and develop the transformative role of science communication. (3) Public libraries and their digital collections have an important role in fostering citizen science. By curating and providing access to verifiable sources of information public libraries empower citizens and non-academic researchers to collaborate on research projects, thereby democratising knowledge and promoting a culture of lifelong learning and scientific inquiry. (1)

We will present the history of the Digital Library of the Belgrade City Library (BCL) and its implications for citizen science. The first steps and plans for digitization were made in 2000, but it only started to be realised much later. BCL became a partner in the two-year project AccessIT (Accelerate the circulation of culture through exchange of skills in information technology), which was funded by the European Commission, from the "Culture 2007-2013" Program. The duration of the project was from May 1, 2009 to April 30, 2011. The project coordinator was MDR Partners from London, the partners were PSNC (Poznan Supercomputing and Networking Center) from Poland, Hacettepe University from Ankara - Turkey, the Central Public Library from Veria - Greece and the Belgrade City Library.The project is designed to encourage intercultural dialogue, international connection and cooperation of cultural workers, as well as transnational presentation of cultural treasures. The result of the work on this project is the "dLibra digital library" (dLibra, 2016). (4) The Digital Library of the Belgrade City Library has been available to users since August 2012. The total number of views since the beginning of the Digital Library of the City of Belgrade was 3,274,389 or 163,927 views in 2012, that is, 449 views per day. (2)

However, due to the development of new technologies and the lack of space for storing digital objects, at the end of 2018, the Library's management decided to switch to the new ResCarta platform (ResCarta, 2019) for the creation of the Digital Library. Therefore, from January of 2019, it moved to the new ResCarta platform. This

professional software for creating and organising digital collections can be loaded on a stand-alone system or on a shared network. An unlimited number of users can share the tools or unlimited copies can be uploaded to the server Although relatively small in size (728 items), the Digital Library of the Belgrade City Library contains diverse materials, including digitised books, periodicals, geographical maps, and annual reports. (5) Most of the digitised material is associated with Belgrade's history or library programs, making the collections highly relevant for those studying the history and culture of Belgrade and its surroundings. All researchers, including academic and non-academic researchers, as well as citizen scientists, can access collections and can get the support of the Beogradika Department if the required resources are not available in the digital library. Thanks to the increasing amount of digitised material, the materials are available to a considerably wider audience and potential researchers, helping them overcome the physical boundaries of the library space and any financial constraints limiting access to materials..

The Digital Library of the Belgrade City Library stands as a testament to the power of digitization in preserving cultural heritage and supporting research, including citizen science. Citizen science is a versatile concept, adaptable to a wide range of situations and disciplines. The Digital Library of the Belgrade City Library (BCL) provides a rich resource for non-academic researchers and citizen scientists to engage in meaningful research.

On the poster, a number of use cases where the Digital Library's materials have been used in research conducted by non-academic researchers and citizen scientists will be presented. The Beogradika Department plays a pivotal role in collecting and curating materials related to Belgrade, ensuring that researchers have access to a comprehensive archive. This collection is particularly valuable for those who are not affiliated with academic institutions but are passionate about researching Belgrade's past. These use cases demonstrate the flexibility and applicability of citizen science, showcasing how the Digital Library of the Belgrade City Library supports a diverse range of research endeavours. By providing access to curated resources, the library empowers non-academic researchers, journalists, and educators to contribute to the broader understanding of Belgrade's history and culture. This structure will highlight the practical applications of the Digital Library in supporting citizen science and non-academic research.

The majority of researchers utilising the Digital Library of the Belgrade City Library (BCL) hail from cultural institutions. Although they employ scholarly research methodologies, their primary goal is to produce outputs for non-academic audiences. The presentation will focus on a number of use cases illustrating this kind of collaboration, including:

Jelena Jovanović Simić, Museum of the Serbian Medical Society; research topic: "The first years of the Children's Clinic in Belgrade",

Jelica Reljić, State Archives of Serbia; research topic: "Serbs in Sarajevo",

-Ranka Gašić, Institute for Contemporary History, research topic: “Economic history between the two wars, banking institutions of Belgrade”.

The collaboration between the Digital Library and cultural institutions exemplifies how scholarly research can be adapted to serve non-academic audiences. Through these use cases, the presentation will underscore the importance of such partnerships in making cultural heritage accessible and engaging for the wider public. The examples discussed illustrate the significant impact that well- curated digital archives, such as the Digital Library of the Belgrade City Library (BCL), can have in supporting citizen science. By making historical and cultural resources accessible to a broader audience, these archives empower non-academic researchers and foster public engagement with

scholarly research. In addition to the examples covered in the presentation, further illustrations of this impact will be displayed on the poster. It will feature photographs and additional use cases, providing a visual and comprehensive overview of how the Digital Library's resources are being utilised. These examples are just a glimpse into the broader potential of digital archives. As digitization efforts continue to expand, so too will the opportunities for collaboration between cultural institutions, researchers, and citizen scientists. The future holds even more possibilities for making history and culture accessible to all.

The Digital Library of the Belgrade City Library serves as a vital repository of the cultural heritage of Belgrade and its surroundings. Through its evolution across two different platforms and continuous upgrades, it has become an essential resource for researchers, educators, and the general public. This presentation will highlight the significant strides made by the Belgrade City Library in the field of digitization. From the early days of digitization efforts to the adoption of more advanced platforms, the Library has consistently prioritised the preservation and accessibility of its valuable materials.

KEYWORDS

citizen science; Beogradika Department; Belgrade; Digital Belgrade City Library; digitization; research

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