



PUBMET

2019

BOOK OF
ABSTRACTS

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The 6th Conference on Scholarly Publishing in the Context of Open Science
University of Zadar, Croatia, 18-20 September 2019

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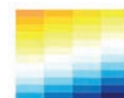
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PUBMET 2019

The 6th Conference on Scholarly Publishing in the Context of Open Science
University of Zadar, Croatia, 18-20 September 2019

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INTRODUCTORY WORDS

Welcome to the PUBMET2019 - The 6th Conference on Scholarly Publishing in the Context of Open Science, which is being held in the beautiful city of Zadar. Building on the success of previous five PUBMET conferences, PUBMET2019 strives to bring the most recent topics in scholarly publishing closer to as many researchers, editors, publishers, service providers, policy makers, librarians, repository managers and information specialists as possible through a series of presentations, posters, workshops, panel discussions and round tables. The organisers have tried to cover different aspects of scholarly communication, emphasising the important issues that we are facing today, starting from open access to the publications and research data policies, open access funding, multilingualism, Plan S, etc. to research misconduct and reproducibility issues.

We gather together some of the most highly respected professionals in the field of scholarly communication. Victoria Tsoukala, a Policy Officer in the European Commission, DG RTD.G2: Open Science, will present the European Commission's proposal and plans for open access and open science policies and requirements in the new Framework Programme 'Horizon Europe' that will launch in 2021. In her talk, Vanessa Proudman, the director of SPARC Europe, will describe the results of a research study called the RIF Project that gleans insights into the various patterns of rewards and incentives being employed by European research funders to encourage open access to publications and research data and openness in research assessment for the research they fund. Sami Syrjämäki, the head of publications at the Federation of Finnish Learned Societies, will present us the Helsinki Initiative for Multilingualism, which was born from the appreciation of multilingual scholarly and scientific communication and publishing. Adriaan van der Weel, professor at the University of Leiden, will remind us how Open Access and Open Science focus is deflecting our attention away from more fundamental but much less visible changes in scholarly communication. Olga Kirillova from the Association of Science Editors and Publishers (ASEP) in Moscow will discuss the pros and cons of the evaluation of research results according to the scientometric data of Scopus and WoSCC databases. Gwen Franck from OpenAIRE will propose business models which offer the most perspective for aspiring service providers to reconcile organisational sustainability with maximum openness. Thed van Leeuwen, a senior researcher at the Centre for Science and Technology Studies (CWTS) of Leiden University, will focus on the role of journal metrics in assessing research in general, in particular in the transition towards an Open Science situation. According to his study on Gold OA journals, Plan S could have the complete opposite effects, by prioritising Gold OA as the route to OA to publications. A Russian physicist Andrei Rostovtsev will present the Dissernet project and its aim to visualise a research misconduct landscape over different scientific fields and universities in Russia.

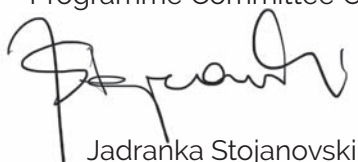
Numerous lectures will give an overview of the Open Science and Open Access practices. The programme also includes an exciting poster session, covering various topics, from open educational resources, open access books impact assessment, open research data, open peer review, etc. Trying to offer practical knowledge to conference participants, we have organised four interesting workshops, on open research data storage and new tools and possibilities for scholarly publication and, thanks to our gold sponsor CrossReff, we will also have a workshop on CrossRef services.

Last, but not least, this year's conference is organising panel session for scholarly publishers, to present us their views and approaches towards Open Science, and round table which will bring in focus scholarly publishing in Croatia.

Of course, at every conference social events are an important part, so we have organised a conference dinner with traditional dalmatian music at lovely Konoba Dalmatia, together with old Zadar city tour and an excursion to explore the park reserve Vrana lake.

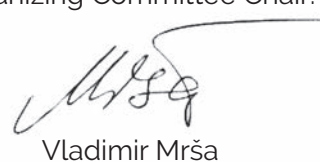
We hope that you will enjoy the conference and take nice memories with you. We thank you all, especially the speakers, workshop leaders and poster presenters for bringing your knowledge, experience and good energy. Special thanks to the Croatian Ministry of Science and Education, OpenAIRE Advance, SPARC Europe, European Association of Science Editors (EASE) and Zadar Tourist Board for supporting the conference and to all of our sponsors for financing the event.

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Jadranka Stojanovski

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Vladimir Mrša

PUBMET2019 PROGRAMME

18 September 2019 (Lecture hall Aula Magna)

12:00–13:00 Registration (*Registration desk*)

13:00–14:30 *Blaž Rebernjak (University of Zagreb) and Krešimir Zauder (University of Zadar): How Document Became an Application: New Possibilities for Scholarly Publication (Workshop)*

14:40–16:00 *Alen Vodopivec (Ruđer Bošković Institute, Zagreb), Draženko Celjak (SRCE - University Computing Centre, Zagreb), Ljiljana Jertec Musap (SRCE - University Computing Centre, Zagreb) and Marijana Glavica (University of Zagreb): Open Research Data in the Croatian National Infrastructure DABAR (Workshop)*

16:10–17:10 *Vanessa Fairhurst (CrossRef, UK): Working with Crossref & Crossref Services, Old and New (Workshop)*

17:20–18:20 *Jure Triglav (Coko, Slovenia): The PubSweet Framework in Journal Publishing (Workshop)*

19 September 2019 (Lecture hall Aula Magna)

8:30–9:30 Registration (*Registration desk*)

9:30–10:00 **Conference opening** (Ministry of Science and Education representative, University of Zadar representative, PUBMET2019 Chair)

10:00–11:30 **Open Science in Europe** (Chair: Zoran Bekić)

Victoria Tsoukala (European Commission): Fit for Purpose! Shaping Open Access and Open Science Policies for Horizon Europe (Invited lecture)

Vanessa Proudman (SPARC Europe): Funders in Europe and Incentivising Open Science (Invited lecture)

Paulin Ribbe (OpenEdition) and Pierre Mounier: OPERAS: Shaping a Distributed Research Infrastructure Advocating for Open Scholarly Communication Discussion

11:30–12:00 Coffee break

12:00–13:30 **Multilingualism in scholarly communication and Bibliographies** (Chair: Ivana Hebrang Grgić)

Sami Syrjämäki (University of Helsinki): Helsinki Initiative for Multilingualism in Scholarly Communication (Invited lecture)

Ivana Majer (University of Zagreb) and Tihana Rubić: Humanities Speak Many Languages: The Language of Summaries Published in Croatian Journals in the Field of Ethnology and Cultural Anthropology

Drahomira Cupar (University of Zadar) and Ljiljana Poljak: Who Needs Controlled Vocabularies When We Have Keywords & Free Text Searching?

Linda Sīle (University of Atwerp): Identifying Bibliographic Families in Records on Scholarly Monographs Discussion

13:30–15:00 Lunch break

15:00–16:45 **Different shapes of scholarly communication** (Chair: Ksenija Baždarić)

Adriaan van der Weel (Leiden University): Why Is a Book? (Invited lecture)

Iva Melinščak Zlodi (University of Zagreb), Željka Salopek and Irena Kranjec: Challenges in Discoverability and Visibility of OA Book Content: The Case of FF Open Press

Marina Cvitanušić Brečić, Marina Grubišić (Croatian Agency for Science and Higher Education): Development of the (National) Database of Project Activities in Science

and Higher Education of the Republic of Croatia
Olga Kirillova (Association of Science Editors and Publishers (ASEP), Moscow): The Current Role of the Global Scientometric Databases in the Academic Journal Policy and Publishing (and the Role of Professional Editing Organizations in Their Preparation and Promoting) (Invited lecture)

Discussion

16:45–17:15 Sponsor's block

17:15–17:45 Coffee break with poster session

17:30–18:15 **New trends in journal publishing** (Chair: Marina Cvitanušić Brečić)

Vicko Tomić (University of Split), Matko Marušić, Danijel Gudelj, Elizabeth Wager and Ana Marušić: Why Overlay Journals for University Repositories May Increase the Visibility of Research in Small Scientific Communities

Marijana Glavica (University of Zagreb), Irena Kranjec and Alen Vodopivec: Journal Data Sharing Policies: Are Croatian Journals Following Trends?

Discussion

20:00– Conference dinner (Konoba Dalmatia)

20 September 2019 (Lecture hall Aula Magna)

9:30–10:30 **Panel discussion:** Scientific publishers and Plan S (Chair: Jadranka Stojanovski)

10:30–11:30 **Round table:** What the future brings to Croatian scholarly publishing (Chair: Vladimir Mrša) - in Croatian

11:30–12:00 Coffee break

12:00–13:30 **Models of OA publishing** (Chair: Radovan Vrana)

Gwen Franck (EIFL, Lithuania): Open for Business: How Open Business Models Can Drive Open Science Forward (Invited lecture)

Filip Horvat and Zoran Velagić (University of Osijek): Supply-Side Model of Academic Publishing in Croatia

Theod van Leeuwen (Leiden University), Nicolas Robinson-Garcia and Rodrigo Costas: The Matthew Effect of Plan S: Is Gold OA Publishing Mainly a Business Model Fitting the Rich in Science? (Invited lecture)

Discussion

13:30–15:00 Lunch break

15:00–16:40 **Research integrity and Evaluation in Open Science** (Chair: Sami Syrjämäki)

Andrei Rostovtsev (Dissernet, Russia): Research Misconduct in Dissertations and Scientific Publications in Russia (Invited lecture)

Želimir Kurtanjek (University of Zagreb): Reproducibility Issues in Publications with Big Data

Rafaelly Stavale (University of Brasilia): Evaluating Quality of Retraction Notices of Health and Life Science Articles Published by Authors Affiliated to Brazilian Institutions: A Systematic Review

Radovan Vrana (University of Zagreb): Attitudes of Scientific Journal Editors Towards Open Peer Review

Luc Boruta (Thunken) and Damien Vannson: Cobaltmetrics: Web-Scale Citation Tracking

Discussion

16:40–17:00 Conference closure

17:30– Zadar city tour

21 September 2019

8:00– Excursion to the nature reserve Vransko lake

Poster session:

Jasminka Maravić (Croatian Academic and Research Network – CARNET): Openness of the Digital Educational Resources Published at the Croatian Universities' Web Sites

Pierre Mounier (OpenEdition) and Paulin Ribbe: Collecting Various Usage and Impact Metrics for Open Access Books

Marijana Briški Gudelj (University of Zagreb) and Josipa Zetović: Transparency and Costs of Publication Fees in Croatian Scholarly Journals

Ksenija Baždarić (University of Rijeka) and Evgenia Arh: Scoping Review of the Predatory Journals in Scopus: First Five Years (2012-2017)

Lovela Machala Poplašen (University of Zagreb), Goranka Mitrović and Kristina Romić: Croatian Scholarly Identity on Mendeley: The Case of the University of Zagreb

Neven Pintarić (University of Zadar) and Anita Pavić Pintarić: Open Research Data in the Field of Phraseology

Vlatka Božičević (University of Zagreb): Hrčak and the Scientific and Professional Journals of the Catholic Faculty of Theology University of Zagreb

Ksenija Švenda Radeljak (University of Zagreb) and Lucija Vejmelka: Openness, Accessibility and Standardization: Ethics in Publishing and Social Work Profession Implemented in Annual of Social Work

How Document Became an Application: New Possibilities for Scholarly Publication

Blaž Rebernjak^{1} and Krešimir Zauder^{2**}*

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ABSTRACT

Aim: The aim of the workshop is to problematize, demystify and demonstrate new technical possibilities for authoring scientific manuscripts.

Computer assisted preparation of manuscripts for publication has for decades now functioned in two main ways: 1) manually and visually creating and arranging elements in their final form (e.g. MS Word and similar software), and 2) creating instructions for the computer to visualise and arrange the elements automatically (e.g. LaTeX).

WWW technologies have adopted the latter approach with much less emphasis on paper representation and with more pronounced interactivity. An "HTML document" over time became more akin to an "application" than to a "document" giving new possibilities for the writer and the reader.

The instruction-based approach is especially relevant for scientific publication as it has pronounced formal publication elements such as in-text references and related bibliography; visualisations, tables and other analytical outputs; in-text representations of data and code and so on. From the author's standpoint, all of these are greatly helped by the instruction-based creation of publications. From the reader's standpoint, the possibility of included interactive elements greatly enhances the reading experience of data-driven scientific publications.

The first part of the workshop will provide a theoretical overview of the topic and provide examples of several relevant technological solutions (R Markdown, Bookdown, Jupyter, LaTeX). Many of these solutions are currently based on extensions of Markdown, a lightweight markup language designed for easy typing and human readability. With some extensions, this language is quite powerful and flexible.

The second part of the workshop will provide a hands-on experience with how one of the most popular and advanced statistics environments, the language R, approaches this problem. R markdown is a framework that allows for programming code (e.g. R, Python and

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others) to be easily embedded in markdown documents. Together with supporting tools, this allows for the creation of beautiful documents containing visualisations, tables and formatted text. Elegant scientific documents as well as flashy popular presentations can be produced using the same set of tools and the same R code as a base. It is important to note that these documents embed data and code to produce the needed output rather than premade visualisations the significance of which will be discussed during the workshop.

Key words: computer assisted preparation of manuscripts, Markdown, language R

Open Research Data in the Croatian National Infrastructure DABAR

Alen Vodopijevac^{1,}, Draženko Celjak^{2,**}, Ljiljana Jertec Musap^{2,***} and Marijana Glavica^{3,****}*

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ABSTRACT

Research data sharing in order to enable its reuse and make the research more transparent is not only increasingly demanded by funders, but is one of the main principles of open science. It increases the quality and efficiency of the research and improves utilization of research results. Since the end of 2018 the Croatian national infrastructure for digital repositories Digital Academic Archives and Repositories (DABAR) offers the technical solution for research data storing and sharing.

The topics of the workshop will be:

- the importance of the research data sharing
- how to manage research data and which are the key elements of the Data Management Plan (DMP)
- what are FAIR data principles
- how can Research Data Alliance (RDA) help researchers and professionals who work with the data
- demonstration of the research data depositing and publishing using the Croatian national infrastructure DABAR.

Key words: Digital Academic Archives and Repositories (DABAR), FAIR data principles, Research Data Alliance (RDA)

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Working with Crossref & Crossref Services, Old and New

*Vanessa Fairhurst**

International Community Outreach Manager, Crossref
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ABSTRACT

Aim: Are you keen to learn more about Crossref, get your questions answered, give feedback and find out what's new? If so, please come and join us! This 90-minute workshop will cover ways to register content with Crossref, new tools (Metadata Manager, Participation Reports) and planned developments (identifiers for organizations/ROR, Grant IDs). We would also like to take time to answer your questions and to find out what would make your interactions with Crossref simple.

Crossref makes research outputs easy to find, cite, link, assess, and reuse. We're a not-for-profit membership organization that exists to make scholarly communications better. In this workshop we will look at the ways in which publishers register their content with Crossref, including new tools to help make this process easier, particularly for those not familiar with working with XML. Additionally, we will also look at creating an XML using the Crossref schema and explore the varied publication metadata that can be included when registering content with us. Depositing accurate, comprehensive and up-to-date metadata when a publisher registers a research article aids discoverability of that content and can also be used in a wide array of tools and services for the benefit of scholarly communications as a whole. We will discuss some of the discovery tools that Crossref has created to ensure that our members research goes further, as well as examples of those from the wider industry.

The second part of this workshop will focus on some of the additional services that Crossref members can participate in which aid research discoverability, integrity, and reproducibility.

Reference Linking: Publishers' content is linked together and more discoverable because all members link their references. Reference Linking is achieved by hyperlinking to Crossref DOIs when creating citation lists. This makes it possible for readers to follow a DOI link from the reference list of a published work to the location of the full-text document on a member's publishing platform, building a network infrastructure that enhances scholarly communications on the web.

Cited-By: This service provides a clear overview of the publications that have cited a piece of content, and lets readers navigate from your content to the content that is citing it. Members tell us what works their papers are referencing by providing that information as metadata when they register content. Then they can query which papers are citing their content.

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Crossmark: After it's published content changes quite frequently and readers need to know. Crossmark gives readers quick and easy access to the current status of an item of content. With one click, you can see if content has been updated, corrected or retracted and access valuable additional metadata provided by the publisher.

Similarity Check: The Similarity Check service offers publishers with a way to actively engage in efforts to prevent plagiarism. Members are provided with access to Turnitin's powerful text comparison tool, iThenticate. This allows them to compare their own documents against the largest comparison database of scientific, technical and medical content in the world.

Funder Registry: The Crossref Funder Registry is a unique taxonomy of grant-giving organizations. Authors acknowledge the funding sources for their research in their publications. Using the Funder Registry, publishers can clearly identify the funders who backed the research, standardize this metadata and send it to Crossref. This makes it easier to track the published results of grants, ensure compliance with funder mandates, and provides greater transparency on who funded the research and the results of funding.

The workshop will conclude by looking at new developments at Crossref including identifiers for organizations via the Research Organization Registry (ROR) and Grant IDs. Information on how to get involved in the Crossref community, keep up to date with developments and how to find further technical support will also be provided.

Key words: metadata, DOIs, research funding, discoverability

References

1. Crossref Services. Available at: <https://www.crossref.org/services/>
2. The Research Organization Registry Community. Available at: <https://ror.community>

The PubSweet Framework in Journal Publishing

*Jure Triglav**

Collaborative Knowledge Foundation (Coko), Ljubljana, Slovenia

ABSTRACT

PubSweet is a free, open source framework for building state-of-the-art publishing platforms. PubSweet enables you to build a publishing platform tailored to your own needs - it is designed to be modular and flexible. PubSweet is being used for book publishing, academic journal production, and micropublication platforms by a growing number of established academic organizations including the University of California Press, eLife, Hindawi, California Digital Library, Wormbase, and others.

Each of these organizations is building their custom platform using PubSweet, and contributing reusable open source components back to the community. By drawing on this growing library of components, PubSweet can be used to rapidly create custom publishing systems. If the existing components do not completely meet your needs, you can focus development on building new components to provide just the new functionality required.

Today most of the existing publishing systems are "big box", expensive, monolithic, proprietary, and slow-moving platforms built years ago when the world of publishing was different. They have not evolved at the same rate as users' needs and are largely just data stores. As these platforms cannot change readily, inevitably the reverse happens and you must change your organization to meet the prescriptive worldview of the software. The PubSweet framework and its community present an alternative: software that works for you and not the other way around.

Key words: PubSweet, publishing platform, custom publishing systems

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Fit for Purpose! Shaping Open Access and Open Science Policies for Horizon Europe

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ABSTRACT

Aim: The presentation focuses on the European Commission's proposal and implementation plans for open access and open science in the new Framework Programme 'Horizon Europe', that will launch in 2021. It discusses recent and significant initiatives on open access and open science by the European Commission (EC) and other parties, thus placing the Horizon Europe requirements in context.

Discussion: The EC has been a frontrunner in adopting and supporting open access policies for many years in its framework programmes, since FP7, first in pilot mode, and subsequently as mandatory requirement in Horizon 2020. It has also been a frontrunner in supporting aligned open access and open science policies for Member States of the EU through Recommendations (2012 Recommendation revised in 2018) to them. Recent and important policy initiatives and developments of the EC include an emphasis on enabling a data-based economy in Europe through the European Cloud Initiative (2016), which led to the development of the European Open Science Cloud (EOSC), a seamless environment for storing and accessing data, an initiative well under way. The EOSC will provide 1.7 million EU researchers with an environment with services for data storage, management, analysis and re-use across disciplines. It will federate existing and emerging horizontal and thematic data infrastructures unifying a fragmented landscape. It will also add value and leverage past infrastructure investment by Member States and the EU (1).

Also in the realm of data, the revised Public Sector Information Directive was adopted in June 2019 as the 'Open Data and the Reuse of Public Sector Information' Directive and now includes research data under its scope. It requires Member States to adopt national policies on open access to publicly funded research data and to ensure the re-usability of publicly funded research data which are already available through repositories (2).

In parallel developments, Plan S, brings together into cOAlition S funders from Europe and beyond to implement its basic premise, requiring that as of 2021 scholarly publications are made available immediately in open access, either through open access journals, or platforms or repositories. While not a member of cOAlition S, the EC supports Plan S and is involved in it (3).

Against such a backdrop, Horizon Europe goes beyond open access to embrace and incentivize open science as modus operandi for research. The regulation for Horizon Europe,

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agreed with the European Parliament and the Council in March 2019 discusses the essence and requirements of open science in the framework programme in articles 10 and 35 (4).

Article 10 sets the basic elements of the policy with respect to open science, which will be encouraged in Horizon Europe in line with mandatory open access to research publications and data (the later under the principle 'as open as possible as closed as necessary'). A new term is introduced, that of 'reciprocity' in open science to be promoted and encouraged in all association and cooperation agreements with third countries. The article also focuses on research data management (RDM). It draws attention to the importance of responsible RDM along the lines of the FAIR principles (Findable, Accessible, Interoperable and Reusable) and to the long-term preservation of research data. The article explains that other open science practices will be promoted and encouraged, including for the benefit of SMEs.

Article 35 explains the open access requirements: For scientific publications, open access will be ensured according to the mandates of the grant agreement. Horizon Europe empowers researchers by mandating that beneficiaries shall ensure that they or the authors retain sufficient intellectual property rights to comply with their open access requirements. Open access to research data will be the rule with exceptions, which include legitimate interests of beneficiaries including commercial exploitation and any other constraints, such as data protection rules, privacy, confidentiality, trade secrets, Union competitive secrets, security rules or intellectual property rights. The work programme may require for additional obligations to use the EOSC for storing and giving access to research data, as well as provide additional incentives or obligations for open science practices. Finally, RDM will take place along the lines of the FAIR principles, according to the requirements of the model grant agreement (MGA) and that beneficiaries will have to develop a data management plan. Horizon Europe, thus, will render DMPs and RDM mandatory, and an activity decoupled from the requirement for open access to research data.

The MGA implements the regulation of Horizon Europe. The MGA is currently under discussion internally in the EC, but will soon be discussed with the Member States. The details of the MGA cannot be released at the time of writing (July 2019). However, with respect to open science, it will provide the detailed requirements of all the elements discussed above including possibly a few important elements that align the programme requirements with Plan S principles. Specifically, it is likely that the new MGA will contain a requirement for immediate open access. This is the most important element that comes as an influence of Plan S on the EC policy, which has thus far consistently supported 6/12 month embargoes.

Further, the European Commission announced in its impact assessment for the new framework programme that it will not pay article processing charges of hybrid journals, rendering these costs ineligible (but not prohibiting publication at such journals). If adopted, this will be a strict line on the side of the Commission. It signals that considering the complicated landscape in journal subscriptions, which often also cover open access, Member States and research institutions and funders are most appropriately positioned to pay for such costs, for some of which they may already have privileged agreements with publishers. It also signals for the need for more transparency and complexity in the subscription charges, including for open access publishing. Additional important elements of the MGA is the clarification that open access will be required for all scientific publications, including monographs. Further, that research data underlying publications will have to be deposited in repositories and made open access. Finally, the MGA will require open licenses for publications and data.

Conclusion: Horizon Europe will broaden and strengthen the current Horizon 2020 policy, embedding recent policy advances and enabling researchers and institutions to transition to a much more open science system overall. The details of the implementation have not yet been finalized.

Key words: Horizon Europe, open access, open science, European Commission

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3. Coalition S: Making full and immediate Open Access a reality. Available at: <https://www.coalition-s.org>
4. Proposal for a Regulation of the European Parliament and of the Council establishing Horizon Europe - the Framework Programme for Research and Innovation, laying down its rules for participation and dissemination - Common understanding . Available at: <https://data.consilium.europa.eu/doc/document/ST-7942-2019-INIT/en/pdf>

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ABSTRACT

This presentation will describe the results of a research study called the RIF Project that gleans insights into the various patterns of rewards and incentives being employed by European research funders to encourage open access to publications and research data and openness in research assessment for the research they fund. Funders across Europe are using scholarly communications to increase the impact of their grant results, thereby incentivizing researchers to share their research more openly. More than 60 funders responded to a survey that was conducted in early Spring 2019 coming from key international funding bodies, national funding agencies, major charities and foundations, and national academies and from over 25 countries. The study is being led by SPARC Europe in consultation with Science Europe, ALLEA and the EFC. The survey is the first of its kind, also to include academies, foundations and charities in Europe.

What kinds of policy choices have funders made to influence how grantees increase open access to their research results with as few restrictions as possible? How can funders contribute to changing the research evaluation system by exploring ways to evaluate the intrinsic value of research beyond the impact factor for example; promoting, and considering a wider range of types of research when evaluating grants. What internal evaluation processes come with that? Can funders stimulate grantees to disseminate a wide range of research more broadly, also for re-use, and encourage its discoverability? How are funders contributing to the investment in open, be it through financing open access journal articles and other material, and supporting infrastructure?

The presentation will provide answers to these questions by sharing some of the survey's high level results, firstly reporting on types of Open Access and Open Science policies amongst a range of funders to frame the other incentives. We will then go into how funders are currently funding Open Access publications, as well as Open Access and research data development, services or infrastructure. Furthermore, we will outline what grant evaluation criteria are used when evaluating the research funders fund or wish to fund and for indications for innovation in this process, e.g. asking how far they endorse initiatives such as the Leiden Manifesto or DORA and where Open Science is and is not included in that process. The project will end by delving into areas of the study that inform on certain principles of Plan S.

This research will help raise awareness of the range of opportunities to funders with Open Science to help them and their grantees increase access, visibility and impact of their research results on health, industry and society. For libraries, more rewards and incentives

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amongst funders in Europe clearly endorses the Open Science work we have been leading on for many years. More development in this area also promises to have positive consequences on helping libraries achieve more open access to research results as seen with the REF in the UK or with Horizon 2020. Note that Plan S, established in Sept 2018, is a key engine for funders to provide more immediate OA to research. Plan S can go hand in hand with studies like the RIF Project that can contribute to showing trends, gaps and good practices to inform and motivate more funders to embrace Open Science in policy and practice on various levels. We hope to tell you how.

Key words: funders, Open Access, Open Scholarship, Open Science, policy, rewards, incentives, Europe

Helsinki Initiative for Multilingualism in Scholarly Communication

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ABSTRACT

Aim: I will introduce the Helsinki Initiative for Multilingualism in Scholarly Communication initiative (1) and rationale behind it. After the presentation we hope that many more institutions and individuals sign the initiative.

Results and Discussion: The Helsinki Initiative promotes the importance of multilingualism in scientific communication. was born from the appreciation of multilingual scholarly and scientific communication and publishing. The initiative advocates multilingualism over monolingual tendencies. In some countries these tendencies may favor English over different national languages and in some countries vice versa.

In addition to the founding signatories, The Committee for Public Information in Finland, European Network for Research Evaluation in the Social Sciences and the Humanities (EN-RESSH), Federation of Finnish Learned Societies, The Finnish Association for Scholarly Publishing and Universities Norway, by now over 50 institutes and organizations and over 450 individuals have signed the initiative

Conclusion: Despite a lot of attention to science communication languages in the world The Helsinki Initiative seems to be the first public and international initiative encouraging action.

Key words: multilingualism, science communication

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Why is a Book? The Fate of Writing, Reading and Thinking in a World of Digital Scholarly Communication

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ABSTRACT

Despite the conscious and well circumscribed aims we may have in mind when we plan and implement technologies, all technology – like all human designs – is ultimately wayward, and always comes with unintended side effects. Digitisation, for example, has unintended side effects for the production, distribution and consumption of scholarly communication. Some of these side effects touch the very heart of scholarship. Consciously pursued goals such as Open Access and Open Science function in effect as red herrings, deflecting our attention away from more fundamental but much less visible changes in scholarly communication. We will examine some of the consequences for research output (writing), research input (reading) and research evaluation, with special regard for the Humanities and Social Sciences.

Keywords: digital scholarly communication, Humanities and Social Sciences, Open Access, Open Science

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Scientometric Databases in the Academic Journal Policy and Publishing (and the Role of Professional Editing Organizations in Their Preparation and Promoting)

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ABSTRACT

The current time the evaluation of research results according to the scientometric data of Scopus and WoS databases plays the essential role on the academic/scholarly publishing and aspirations of publishers to develop and promote their journals to these databases and through them – to international space. Before the time when this process was started ten years ago the internal publishing and policy standards were maintained in Russia and other CIS countries. The last decade has changed the situation extremely. Most publishers did not know before the criteria and demands of databases and international publishing standards for journals and other publications. The new time forced to look at the publishing process from the new side. Working during the decade as Scopus expert the author compares the time before and now in Russia and abroad and can say what criteria for Russian and other journals were new, how the publishing standards changed due to the new demands, what changes did scientometric bring to the academic publishing sphere. The comparison of the situation in different countries also is presented in the report. In this regard, the role of the professional editorial organization is also considered. The problems of transformation the subscribe publishing business models to open access are also considered.

Key words: scientometric databases, academic journal policy, publishing, professional editing

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Open for Business: An Investigation of Ethical Open Access Publishing Models and What You Can Learn from Their Experiences

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ABSTRACT

In recent years, the proliferation of Open Access publishing business models, commercial and not-for-profit alike, has led to a significant amount of confusion at user, research administration and policy level. In this diverse landscape, assessing the value provided by Open Access publishing initiatives can be a real challenge, especially for researchers and administrators who have a broad range of factors to take into account when deciding where to publish their research.

As it turns out, a lot of creativity and innovation is happening in this field. New publishing initiatives try to develop business models based on other revenue streams than the much contested author fees, or they are trying to keep author fees as low as possible by looking for other sources of revenue. Although some of these ventures are commercial companies, they all have in common that profit for profit's sake is not the main goal of their business. Rather, their aim is to facilitate the publication and dissemination of Open Access research, and any profit generated is typically invested back in order to scale up the activities or to accelerate innovative practices. However, even without commercial motives, all these initiatives have in common that they have given the sustainability of their business a lot of thought.

However, from a user perspective, or taking it one or two steps up, from a policy or funder perspective, distinguishing the initiatives offering 'quality' Open Access and value-for-money (if author fees are raised) from the ones that don't, can be a challenging endeavour. During this talk, we will investigate how to recognise quality outlets and how their business models are set up, based on previous work done by the presenter (Knowledge Exchange (1), reference works such as Made with Creative Commons (2) and templates like the 'Open Business Model Canvas' (3)).

Although a lot of this plays at the back-end and is not necessarily visible for the end-user, knowing about these structures can help to communicate sometimes complicated economic and societal dynamics that support new and emerging Open Access publishing initiatives. With this presentation, we hope it will become easier to make an informed choice when choosing a publishing outlet.

Key words: open business models, open access, open data, open access publishing

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The Matthew Effect of Plan S: Is Gold OA Publishing Mainly a Business Model Fitting the Rich in Science?

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ABSTRACT

Aims: In this study we will focus on the role of journal metrics in assessing research in general, in particular in the transition towards an Open Science situation. The analyses will focus on the effect of Gold OA scholarly publishing on accessibility of journals for scholars from all corners of the planet. The study shows that, contrary to what Open Science was aiming for, access to journals with a relative high degree of prestige, is not helped by the Open Access to publications development. In a sense, Plan S could have the complete opposite effects, by prioritizing Gold OA as the route to OA to publications.

Methods: In the study we use data from Web of Science (WoS), namely the publications covered in WoS in 2017. WoS data are dealing with articles, letters and reviews only, and are distributed across countries. A full-counting scheme will be applied. These WoS records are linked to the data from the DOAJ list, the internationally standard for recognizing Gold OA journals. From this DOAJ list we take as variables for the analysis the fact whether a journal charges Article Processing Charges (APCs), and the value of the APCs. Given that these are calculated in various currencies, these are converted to US dollars, to ease comparability. Finally, we use data from Unpaywall, from which we distil labels to tag WoS papers as one of the four variations of OA publishing.

Results and Discussion: The study shows the distribution of publication outputs of countries publishing in Gold OA journals, by absolute numbers as well as by the share of APC-based journals in the Gold OA realm. Inclusion of average APC-rates as well as journal impact measures show a further distribution of activities across the landscape of scholarly Gold OA publishing.

Conclusion: This study shows that Gold OA publishing might not be the way to a situation in which access to sciences, both on the reading as well as the publishing dimension, will be served best. Inclusion of the money factor, as well as journal metrics show that the risk exists that Gold OA publishing is mostly an activity that is open for research communities in North-West Europe and North America, while the Global south still suffers.

Key words: Open Access, Gold OA, APCs, journal metrics

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Research Misconduct in Dissertations and Scientific Publications in Russia

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ABSTRACT

Aim: The main aim of the manuscript is to describe the Dissernet network project in Russia.

Methods: Awarding fake academic degrees to all those who wish to use their academic titles to step onto a faster career route is widely spread in Russia. In order to make a large-scale screening to detect the most dangerous forms of research misconduct over the country a voluntary community so-called "Dissernet" was founded in 2013. The ultimate aim of the Dissernet project is to visualize a research misconduct landscape over different scientific fields and universities in Russia, to gain insight into the backgrounds of this phenomenon and indicate ways of its managing. During six years of running the project nearly 10000 largely falsified dissertations were found and made public. Since 2016 the Dissernet has started the Journal Project. The aim of the Journal Project is to investigate misconduct in Russian scientific journals: plagiarism, duplicate publications, gifted and stolen authorship, fake peer-reviews and other violations. By 2019 significant research misconduct in more than 5000 journal papers published in recent years in Russia is identified.

Results and Discussion: The collected statistics allow a detail analysis of the phenomenon under study. The project has attracted a broad attention of the media and became very popular in the academic society in Russia.

Conclusion: The Dissernet network project in Russia became an important research project in the field of the sociology of falsifications in science. It helps to reconstruct a landscape of reputations among the scientists and academic institutions.

Key words: Dissernet, fake dissertations, sociology of science

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OPERAS: Shaping a Distributed Research Infrastructure Advocating for Open Scholarly Communication

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ABSTRACT

Aim: OPERAS, a distributed infrastructure and the governance choices made to deploy its activities and realize its missions will be presented. The landscape of SSH open scholarly communication is highly fragmented, so the OPERAS has to explore and develop a governance model and activities allowing a common ground for its members.

Methods: In the presentation, we will focus on the strategy and efforts deployed by the infrastructure to leverage the SSH publishing landscape. The recent report "Future of scholarly publishing and scholarly communication" published by the Expert Group of the European Commission (1) evidenced the structural flaws of scholarly publishing in its current state: difficulties for open-access approaches to develop a sustainable economic model, lack of interoperability between platforms, lack of adaptation of the process of certification (peer-review), and impact factor pressuring the research process. Those reflections overtake OPERAS objectives.

OPERAS is a distributed research infrastructure aiming at strengthening the ecosystem of open scholarly communication in Social Sciences and Humanities in diverse local contexts, with the overall objective of introducing the principles of Open Science and ensuring effective dissemination and global access to research results in the Social Science and Humanities (2). The infrastructure aims at supporting the whole lifecycle of scholarly communication, considered as an integral part of the research process.

Thus, OPERAS consortium includes a diversity of participants with differing interests, ranging from traditional publishers with a growing portfolio of Open Access content, to OA only press services. It includes publishers as well as platforms, technology providers and research institutions. The diversity in OPERAS network participants makes available a range of different financial models, priorities and technical concerns. This may appear problematic for the infrastructure to answer specific needs, but we believe this is the fundamental purpose of OPERAS as a distributed infrastructure to sustain this diversity.

Results and Discussion: In this presentation, we will first give an overview of OPERAS vision and projects. We will present the projects developed by the infrastructure to oversee common practices, joint services and technology, to improve the production, the findability, the accessibility and dissemination of scholarly publications and to facilitate further research results building on open results.

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In the second part, we will focus on the governance of OPERAS and the role of its members. Becoming a legal entity, OPERAS is developing a governance model relying on communities. This principle is embodied by working groups, composed of OPERAS members. In 2017, during the design phase of the infrastructure, 7 working groups were launched. Each of these groups represents a strategic aspect of OPERAS matters: Advocacy, Best Practices, Common Standards, Multilingualism, Open Access Business Models, Platforms and Services, Tools Research and Development (2-5). Each of them is coordinated by an OPERAS Core member and has developed a White Paper in July 2018. Those White Papers constitute the basis on which the infrastructure work. We will show how those working groups constitute the core of future projects for the infrastructure.

Conclusion: This presentation will allow to question the role and the governance of a distributed infrastructure in the support and sustainability of interconnected users and stakeholders.

Key words: SSH, infrastructure, open scholarly communication, Open Access, governance

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Humanities Speak Many Languages: The Language of Summaries Published in Croatian Journals in the Field of Ethnology and Cultural Anthropology

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ABSTRACT

Aim: The scientific communication has changed. Changes are visible in the modalities of scientific publishing, especially those concerning languages of scientific publications. The aim of this research is to determine the characteristics of scientific communication patterns noticeable in journals in the field of ethnology and cultural anthropology published in Croatia. The research will focus on the languages in which the articles are published, and in particular the languages of summaries will be explored.

Methods: The research is based on a set of articles published in three Croatian scientific journals in the field of ethnology and cultural anthropology: "Etnološka tribina: godišnjak Hrvatskog etnološkog društva", "Narodna umjetnost: hrvatski časopis za etnologiju i folkloristiku" and "Studia ethnologica Croatica". These are highly specialized journals in the mentioned area. Also, they are categorized as a1 journals in the field of humanities, according to "Pravilnik o uvjetima za izbor u znanstvena zvanja" (Code on requirements for selection in scientific professions) (1). The research covered a five-year period, from 2014 to 2018. In this period, journals "Etnološka tribina" published 5 issues, "Narodna umjetnost" 10 issues, and "Studia ethnologica Croatica" published 5 issues. The types of journal articles considered eligible for inclusion in the analysis are original scientific paper, preliminary communication, review article and professional paper. All three journals are open access and they are present at the Croatian national open access journal platform "Hrčak – Portal hrvatskih znanstvenih i stručnih časopisa" (Hrčak – Portal of Croatian scientific and professional journals) (2). The resulting set of articles (194 articles) was then analysed for determining language practices. The following information was recorded for each article: language in which the full text of an article was published and choice of the language for the article summary.

Results and Discussion: The analysis of languages in which the full text of the articles were published gave the following results: 46.4 % of articles were published in Croatian language (90/194), 48.5 % in English (94/194), 4.6 % in Serbian (9/194) and 0.5 % in Bosnian (1/194). The analysis of article summaries showed the total number of 400 summaries published in the analysed set of 194 articles. The summaries were published in following nine languages:

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46 % in Croatian (184/400), 48.5 % in English (194/400), and 5.5 % in languages other than English (22/400; Albanian 3, Bayash Romanian 1, Bosnian 1, Polish 1, Romani Chib 1, Serbian 9, Slovak 1, Slovenian 4, Spanish 1). The dissemination of new knowledge by publishing articles in scientific journals is crucial in the development of most professions. In addition to the general, international standards applied in scientific research and scientific publishing, national scientific research policy and policymakers can also participate in the creation of the editorial practices.

In the Croatian context, we will mention "Upute za uređivanje i oblikovanje časopisa" (Guidelines for journal editing and formatting) (3) prescribed by The Ministry of Science and Education of the Republic of Croatia. They require that all articles in scientific and professional journals should include, among other elements, a summary. The summary is a brief overview of the main ideas of an article. Along with the title and keywords, it has impact on a reader's intention to read or not to read the article. As for the language of the summaries published in Croatian scientific and professional journals, "Guidelines" mention following recommendation: "Ako se časopis objavljuje na hrvatskom jeziku, sažetak se treba tiskati na hrvatskom i na jednom od svjetskih jezika." (If the journal is published in Croatian, the summary should be published in Croatian and in one of the world languages.) (3). In our research, the term 'world language' denotes the following languages: English, French, Spanish, Russian, German, Italian, Chinese and Portuguese. Although "Guidelines" do not explicitly mention the English language, the results of our research have shown that summaries in English as the second language make up the largest share in the analysed set of articles. Besides following the aforementioned „Guidelines“, some novelties in editorial practices can be observed, too. We noticed the increase in the number of additional summaries published in languages that cannot be reduced to the general category of 'world languages' (e.g. summaries in Slovenian, Albanian, Romani, Slovak, Polish, etc.).

The diversity of languages of the summaries published in the set of articles analysed in this research is the result of the heterogeneous scientific publication patterns in the humanities. Also, every field in the humanities is characterized by specificities in scientific communication and publishing. Therefore, in the field of ethnology and cultural anthropology, as part of humanities, attention must be paid not only to ethnographic writing but also to other forms of communication among experts, which must be followed in writing and editing of scientific articles (4,5). The subject matter of scientific and professional articles in the humanities journals, as well as those from ethnology and cultural anthropology, has a particular national and regional interest, and therefore, publishing in the local language is a very common phenomenon in humanities (6). Publishing in the local languages makes science available to local community, and terminology development plays a pivotal role in enriching the language and culture of a society. In addition, articles can be published also in English, which potentially leads to greater international visibility and recognition of scientific work, and contributes to internationalisation of scientific community and research results.

The research conducted on the scientific and professional articles published in three Croatian scientific journals in the field of ethnology and cultural anthropology, during 2014 and 2018, confirms that English is the main foreign language in which articles (94/194, 48.5 %) and summaries (194/400, 48.5 %) are published. However, changes in editorial practices that have resulted in publishing of the articles in several languages have been recognized. In addition to the article summary in English, summaries are also published in language-

es other than English (22/400, 5.5 %). From this it can be assumed that the importance of language practices and publishing in the non-English languages, in the Croatian context, is recognized. The importance of this issue is confirmed by recent initiatives to encourage multilingualism in scientific communication (7).

Conclusion: The results of the scientific research of a wider scientific community, made up of speakers of different non-English languages, can become invisible and unrecognizable to the wider scientific community. In order to prevent such a language bias in science, it is advisable to publish articles in multiple languages. Multilingualism can encourage accessibility as well as transparency of scientific research, and it is important to mention that it also promotes the preservation of the languages of small-scale scientific communities. This can be accomplished by translating full-text articles into multiple languages, but also by publishing summaries not only in English but also in languages other than English.

Key words: scientific journals, languages, summaries, ethnology and cultural anthropology, Croatia

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Who Needs Controlled Vocabularies When We Have Keywords & Free Text Searching?

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ABSTRACT

Aim: Aim of this paper was to compare keyword searching in Hrčak, Portal of Croatian scientific and professional journals, and subject searching in library catalogues.

Methods: Methods used in this research included content analysis and comparison. The research was done in two phases. The first phase was the analysis of guidelines for authors of 54 journals from the field of biomedicine and healthcare active in Hrčak in order to find out what type of instructions are given to authors regarding the creation of the keywords. In the second phase, research was done following four steps: first step was to choose a sample of articles from the journals with keywords made by using MeSH thesaurus. All data was collected into a table with journal title, article title, abstract and keywords. Second step was to identify all synonyms and keywords used in articles with a similar subject (*e.g.* abortion, miscarriage). Third step was to search using all variations of terms used by authors (*e.g.* synonyms and close synonyms) and compare the results in order to see how they changed when using different keywords for the same subject. Fourth step was to extract an exhaustive list of Main Heading (Descriptor) Terms and Entry Terms from the MeSH thesaurus in order to compare author keywords extracted from chosen articles and subject headings from library catalogue assigned to the same articles. Chosen research topics were abortion and homosexuality (including all keywords closely connected to those terms). Extraction, analysis and keywords test searches were done in English and English keywords were included in the study.

Results and Discussion: Analysis of author guidelines from 54 journals gave an overview of what is expected from authors regarding the keyword creation task. The field of biomedicine and healthcare was chosen because it was noticed that almost all journals within that field either suggest or 'prescribe' usage of the Medical Subject Headings (MeSH) Index Medicus for keywords (1). In literature review, several approaches to keyword creation can be identified. In most cases, authors themselves choose usually around six keywords which best describe topics of their article (2). Also, sometimes authors have to choose keywords from the existing list (*e.g.* MeSH). Some examples include automatic abstracting and keyword extraction or using a professional indexer, *i.e.* librarian for subject indexing/keyword assigning. Keywords are usually not controlled but it would help if they are connected, at least making possible to collocate similar subject areas. On the other hand, subject headings are controlled and often not understandable to regular users. There is a need for controlled

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vocabularies in the catalogues, since keyword searching retrieves only part of results when there are no subject headings included (3). Research showed that keywords provided by authors have an important function in database descriptors (4). It is a great challenge to find satisfactory solutions which will provide the best possible search results for both users of Hrčak and library catalogues.

Conclusion: In order to give more reliable resources and attract more (happy and satisfied) users, the Editorial Board of Hrčak Portal should rethink indexing and search options in Hrčak. There is always an option of a free text searching, but it usually ends up with more (un)useful results. On the other hand, journals should rethink whether they should employ professionals (*i.e.* information scientists) to deal with keywords or introduce controlled vocabulary (thesaurus, subject heading lists) for indexing articles in order to enhance recall of the more relevant results through existing search options. Since there are interesting and innovative approaches to the representation of the article content, journals and Hrčak should consider creating word clouds for an article or even an issue or volume of the journal. Visualization of the content could improve the usage of articles, *i.e.* journals included in Hrčak.

Key words: author keywords, free text searching, exhaustive result list, reliability and relevance of search results, controlled vocabulary vs. keyword search

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Identifying Bibliographic Families in Records on Scholarly Monographs

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ABSTRACT

Aim: The aim of this study is to explore the possibilities to use the notion 'bibliographic family' in book metrics for scholarly books in the social sciences and humanities. Our focus is the most basic bibliometric indicator, the number of books, which is often used in research evaluation and funding allocation settings. Here we follow the Functional Requirements for Bibliographic Records (FRBR) and acknowledge that books belong to bibliographic families. This means that a scholarly monograph is conceptualised as a 'work' with multiple expressions (e.g. translations) and manifestations (paperback, hardback, e-book, etc.). Within the context of research evaluation the fact that a scholarly monograph has been translated into several languages or it has been published in several editions, can be treated as an indication of the scholarly value of the monograph. Hence the notion 'bibliographic family' leads to a more detailed and for research evaluation crucial contextual information that is not available when using *raw* publication counts.

Methods: This exploratory bibliometric study is based on metadata for scholarly monographs retrieved from two national bibliographic databases for research output: VABB-SHW in Belgium (Flanders) and CROSBI in Croatia (more on the databases in 1). The set of metadata is limited to scholarly monographs in SSH published in 2016 ($n_{\text{Flanders}}=101$, $n_{\text{Croatia}}=176$). This is an on-going pilot study for a study that covers a longer timeframe (2000-2017) and metadata records from multiple national bibliographic databases for research output. In addition, we consult WorldCat.org (OCLC) to identify additional ISBN related to monographs (bibliographic families) in the analysed datasets. This step was required since a preliminary exploration of metadata for scholarly monographs in the two national databases showed that these metadata are insufficient to identify bibliographic families. In further steps we follow the approach used by Zuccala and colleagues (2). First, we delineate a list of unique ISBNs. Second, we search and retrieve in WorldCat.org all related ISBNs. Finally, we explore relationships between the related ISBNs.

Results and Discussion: In the first phase we sought for related ISBNs in WorldCat.org using a list of ISBNs retrieved from the two national databases. Coverage of ISBNs in WorldCat.org turned out to be uneven with respect to the two databases. While for VABB-SHW, 95 % ($n=96$) ISBNs could be identified in OCLC, for CROSBI it was only 63 % ($n=111$). For these records we identified, in total, 155 unique additional ISBNs for the VABB-SHW dataset and

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35 unique additional ISBNs for the CROSBI dataset. On average each scholarly work (the original ISBN as recorded in the national databases) was represented with 2.6 ($Md=2$) ISBNs for the VABB-SHW set and 1.3 ($Md=1$) ISBNs for the CROSBI set. These numbers include the original ISBN. The total number of ISBNs varied from one to fourteen in the VABB-SHW set and to six in the CROSBI set. From the VABB-SHW set an example of a scholarly work represented with 14 ISBNs is 'World city network' by Peter J. Taylor. This work was first published in 2003 in four different manifestations: as paperback, hardcover, and two e-book versions. Two other e-book versions were published in 2004 followed by a new edition in 2015 in multiple manifestations (e.g. e-book versions in 2015 and 2016). For one of the e-book versions a record was created in VABB-SHW. From the CROSBI set an example of a scholarly work represented with 6 ISBNs is 'Green jobs for sustainable development' by Ana-Maria Boromisa, Sanja Tišma and Anastasya Raditya Ležaić. All the 6 ISBNs appear to be different manifestations of the same scholarly work. However, sufficient metadata are not available for all ISBNs to fully describe what each of the ISBNs stands for. This limits the amount of detail for descriptions of entities in the identified bibliographic families.

Our analysis shows that the usefulness of this notion in book metric context is highly dependent on the availability of rich metadata. Furthermore, the availability of metadata appears to vary by national context. While for the dataset from VABB-SHW nearly all ISBNs could be identified in OCLC, this is not the case for CROSBI. Aside from these limitations, it is evident that the notion 'bibliographic family' adds additional contextual information for book metrics. When data on additional ISBNs are available at all, they do occasionally reveal that a single scholarly work has over time had different expressions and manifestations. For example, a scholarly monograph which in standard settings would be represented with a bare number '1', can now be accompanied with information that this is a revised version of a monograph published in year X and that Y number of translations are to be published in year Z. Overall, however, the identification of bibliometric families for even such small sets of bibliographic records as explored here turns out to be a time and work-consuming task thus limiting the usability of this approach for book metrics.

Conclusion: The main conclusion from this study is two-fold. On the one hand, it is evident that for book metrics the notion 'bibliographic family' leads to richer contextual information that is not available with basic publication counts. On the other hand, the differences in data availability for VABB-SHW and CROSBI data show that the currently available bibliographic metadata for scholarly monographs are insufficient to incorporate the notion 'bibliographic family' in book metrics. A possible way to overcome this is to explore how to enrich records for scholarly records using other bibliographic resources. This includes resources such as national bibliographies, publisher records, and international services such as, for example, Google Books and GoodReads.

Key words: bibliometrics, monographs, social sciences and humanities, bibliographic control, FRBR

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Challenges in Discoverability and Visibility of OA Books Content : The Case of FF Open Press

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ABSTRACT

Aim: The presentation aims at describing the library led university press open access publishing program at the University of Zagreb, Faculty of Humanities and Social Sciences (FF Open Press, available at: <https://openbooks.ffzg.unizg.hr/>). Being a small academic institution, with programs mainly in humanities, and output largely in a small language, visibility is our main concern, and we see open access as a logical and desired way of increasing the visibility and impact of our publications. Publishing open access books, as well as ensuring their visibility and discoverability, presents a specific set of challenges.

Methods: So far, our open access book program has been developed with existing capacities (staff and technical) and with open source software solution (PKP Open Monograph Press), as we wanted to see how far we can get with this zero-budget approach. After an initial period of development, many advantages, but also some limitations of this approach became apparent, especially in comparison with some hosted open access solutions like OpenEdition Books (<https://books.openedition.org/>), Ubiquity Press (<https://www.ubiquitypress.com/>) or OAPEN Library (<http://www.oapen.org/>). When we speak of visibility, discoverability and impact, we have both the international academic audience as well as national wider community readership in mind, as our output is equally aimed at both. Reaching each of those different audiences requires different strategies and brings ahead a different set of challenges. Those challenges will be recognized and described, based on the recent international surveys and guidelines (1-7), but also taking our own experiences into consideration, and some possible solutions will be outlined.

Results and Discussion: In reaching the global scholarly audience, it is important to get the content of our books included in various discovery channels, ranging from library catalogues and webscale discovery systems, CrossRef, Google Scholar, commercial citation databases and abstracting & indexing services, as well as global open infrastructures like DOAB, OAPEN and OPERAS. In that respect, we are facing a number of challenges regarding standardization in:

- presentation of books (need for producing and distributing high-quality metadata, choosing the right metadata standard, publishing books in different formats, problems in the discoverability of individual chapters, presentation of multilingual content, the multiplicity of digital identifiers (4)),

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- editorial procedures (variations in peer-review procedures, especially in edited books and conference proceedings), and
- recording impact (at present we do not have appropriate ways of measuring the impact of books, especially in humanities (6,8), but also, we have to acknowledge that the impact of books, through citations, altmetric indicators and downloads will happen in the longer timeframe (4)).

In the efforts to increase the impact of their publication, libraries and university presses are finding that the "discovery, acquisition, and usage tracking have been increasingly outsourced over the last few decades to commercial operations" (4), and the open access could be an opportunity to revert the process.

Additional important mechanism for dissemination of OA books is depositing them in institutional repositories or sharing via social networks by their authors, which should be encouraged (by using open licences and clear self-archiving policies).

When we are considering reaching the general public, within national (and regional) borders, some lessons can be drawn from the development of Hrčak portal (<https://hrcak.srce.hr/>), which has been very successful in promoting Croatian OA journals in the last decade. The development of Dabar - The national network of OA repositories (<https://dabar.srce.hr/>) sends a similar message of the importance of building a shared infrastructure. It seems that building a common national portal for open access books, but at the same time creating and empowering a community of open access book publishers (with the aim of exchanging experiences and mutual strengthening of competences and finding common technological solutions) could be the optimal approach with the monograph publishing too.

Conclusion: Although the focus of this presentation is on issues related to visibility and discoverability of books in humanities and social sciences, those are inevitably connected to other issues related to building open and sustainable infrastructures (with carefully planned governance structures and sources of funding), quality certification, copyright and licencing issues and designing successful business models for book publishing. Even further, the issues of visibility will lead us to redefine the role of the book and to rethink the role of humanities and social sciences in academia and in society at large. With whom and for whom are we publishing, who do we want to find and read what we publish and to what purpose?

Key words: open access books, open access monographs, visibility, discoverability, humanities and social sciences

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Development of the (National) Database of Project Activities in Science and Higher Education of the Republic of Croatia

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ABSTRACT

Aim: The EU-financed project SKAZVO** has helped to facilitate the development of external information systems used by the Agency for Science and Higher Education (ASHE) in conducting external evaluations of institutions in the sector of science and higher education (S&HE). In addition to the ASHE database MOZVAG***, already existing information systems developed and maintained by the Centre for Scientific Information of the Ruđer Bošković Institute (CSI-RBI) that could potentially be used for collection of data on HEI activities on the national level, were also upgraded. In addition to the upgrade of Croatian Scientific Bibliography database - CROSBI that provides data on publishing activities of Croatian researchers but also other HEI staff, the Database of Project Activities (DPA) in Science and Higher Education**** has been further developed, enabling the detailed records on all projects that institutions in the S&HE system conduct or participate in. DPA was developed by the CSI-RBI and ASHE with the intention of enabling a centralized data input of all project activities of the institutions in S&HE system, including a detailed description of each project. DPA data can be used in external evaluations carried out by ASHE, but also for other purposes.

Methods: In order to determine the current situation and sources of information on project activities of the institutions in the S&HE system, ASHE has carried out a desk research. Following the desk research findings, collaboration was established with CSI-RBI aimed at upgrading the existing database on project activities that was developed by CSI-RBI. Through constructive meetings and discussions between ASHE and IRB experts, the existing data sources on project activities were analysed and a model for improving the existing database developed in order to cover all different types of project activities of the institutions in the S&HE system.

Results and Discussion: Findings of the desk research conducted by ASHE were discouraging as it was established that there was no systematic tracking of the project activities of the institutions in the system of S&HE at the national level. There was no national database, and the national bodies in charge of collecting data on S&HE system (Ministry of Science and Education, Croatian Statistic Bureau) did not have any comprehensive or structured informa-

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** project SKAZVO - Improvement of quality assurance and enhancement systems in higher education (2016-2018). Available at: <https://www.azvo.hr/en/news-archive/173-newsletter/1563-skazvo-improvement-of-quality-assurance-and-enhancement-systems-in-higher-education>

*** MOZVAG is an information system to support AZVO's external evaluation procedures.

**** Available at: <https://pdb.irb.hr/>

tion on all project activities of the institutions in the S&HE system. CSI-RBI was identified as the only institution collecting data on different project activities, mostly by importing existing (publicly available) data from different sources (such are projects financed by Ministry of Science and Education until 2013 and by Croatian Science Foundation afterwards, as well as data on EC-funded projects from CORDIS****). CSI-RBI database was developed in 2017, with the goal of uniquely identifying projects by Croatian researchers and institutions, as well as linking projects with their publication records in various information systems (such as the national bibliography CROSBI or Croatian institutional digital repositories)(1). Database enabled API access to existing information systems: CROSBI, DABAR, Hrčak, EPrints, Šestar. Information in the database were only related to the research projects, while ASHE also needs information on non-research project activities (commercial projects, mobility and development of HE projects, etc.) for its external evaluation procedures. Upgrade of the existing DPA database was seen as a good solution for motivating institutions in S&HE system to provide data on their activities in one place, from where the data could be used in the external evaluations carried out by ASHE. Prior to the collaboration of ASHE and CSI-RBI and development of the DPA, there was no database or a single central system in which all institutions in the S&HE system could enter all their project activities (manually or by importing). In collaboration between ASHE and CSI-RBI, a user interface and an administration interface with multiple levels of administration were developed and metadata project descriptions extended, with plans for the developing API access for the exchange of data with MOZVAG (and other services) in the near future. More detailed metadata on projects were necessary in order to have better description of the projects, and to help differentiate between research and non-research projects, as well as those funded through different national and international instruments and funds. Better metadata would allow for more quality evaluation of institution's activities, but would also provide greater transparency of project activities throughout the S&HE system. A foreseen added value of the development of the DPA are better quality data on projects in the S&HE system, which could be integrated into the CroRIS system that should be developed within the EU funded strategic project "Scientific and Technological Foresight"(2).

Conclusion: In the external evaluation procedures conducted by ASHE, it is necessary to provide information on all types of projects that institutions in the S&HE system implement or participate in. ASHE recognised the Database of Project Activities in Science and Higher Education as an obvious solution to this deficiency, and therefore decided to finance further development of this database through the SKAZVO project.

Key words: higher education and science, research, database on project activities, Agency for Science Higher Education, Centre for Scientific Information of the Ruđer Bošković Institute

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**** Community Research and Development Information Service (CORDIS) is the European Commission's primary source of results from the projects funded by the EU's framework programmes for research and innovation (FP1 to Horizon 2020). Available at: <https://cordis.europa.eu>

Why Overlay Journals for University Repositories May Increase the Visibility of Research in Small Scientific Communities

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ABSTRACT

The development of digital technology has created new tools and opportunities in the world of scientific publishing, which is why many universities today have moved from their traditional roles as passive supporters and customers of established publishing models to creators of digital publishing platforms (1,2). The possibility of scholarly publishing through institutional repositories has led to the emergence of overlay journals which can transform the repository into a proper scholarly publishing medium since they add a guarantee of quality to the content by providing peer review (3). The University of Split recognized the value of an overlay journal and readily supported the creation of online open access overlay journal ST-OPEN by providing full financial support for the editorial office. Overlay journals usually derive their content from preprint servers or they collecting already published articles in standard scientific journals in order to increase awareness (4). On the other hand, ST-OPEN has been created as a new type of overlay journals that has a broad, multidisciplinary scope, which we hope may promote interdisciplinary collaboration across university schools and departments. In order to increase the overall quality of research of the University of Split and strengthen its role as a research university, this journal will focus on graduate student research from Masters and doctoral programmes, selecting the best student-supervisor research work for publication.

ST-OPEN is organized as an online open access overlay interjournal which will extract most of its content from the documents deposited in the national platform DABAR – Digital Academic Archives and Repositories (<https://dabar.srce.hr/en/repositories>). This is a national repository of all bachelor and master theses, doctoral theses, other types of specialist college diploma work and other publications, including original scientific reports from conferences, and research data from Croatian universities. At the moment, ST-OPEN focuses on selection and peer review of graduation theses from the University of Split, but will invite other Croatian universities to join efforts in building a national overlay journal. We will also consider direct submissions from researchers, who can deposit their work in DABAR and contact the journal with a submission letter.

The process of article selection will be somewhat different from, but definitely more complex than, the usual practice of overlay journals because all graduation theses are published

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in Croatian. Members of the ST-OPEN Editorial Board select a thesis or other work of interest for the journal, and the ST-OPEN editors approach the supervisor and the student and offer to work with them on transforming the thesis into a manuscript in English. ST-OPEN does not restrict the length of the manuscript, and the only requirement is that it presents research results. The ST-OPEN editors work with the authors, using the author-helpful policy developed in the Croatian Medical Journal (5). The manuscript in Croatian deposited in DABAR is first sent for an official intramural review by the Editorial Board or experts in the research field. After the revision of the manuscript in this first peer review step, the manuscript is translated into English by ST-OPEN and sent out for external peer review (external of the University and in most cases external to Croatia). If the reviews are favourable, the manuscript is sent back to the authors and accepted if the final revision is adequate. After acceptance, the article is deposited in DABAR and published in ST-OPEN as the final published version of the manuscript.

ST-OPEN is a multidisciplinary journal not restricted to a specific research field. We hope that this multidisciplinary will bring researchers from different research fields and perhaps give them ideas for interdisciplinary collaboration – within the university and with the other Croatian and international research groups. The first aim of ST-OPEN is an indirect but concrete practical training of students in scientific publishing (5). This will prepare future researchers for their research/academic careers by training them in standards and practices of the scientific publishing process (6). The second aim is to increase the scientific production and global visibility of scholarly research of the University of Split. ST-OPEN does not aim to publish „great“ research or to achieve a high academic impact, but to serve as a tool to advance research education of university students and the visibility of a small research-oriented university. It will be a large and multidisciplinary journal, so our Editorial Board is large, including at least one member from each university school or department.

Conclusion: Some 2000 students per year graduate from the University of Split and we estimate that, if we manage to transform ten percent of their theses into research articles, it would be a good result. Without the existence of ST-OPEN, most of this work would never be published outside the theses written in Croatian. We hope, however, that the positive experience of students from our collaboration and the visibility of their work to the international community will encourage students and even create some form of competition to publish in ST-OPEN. The key basis for this hope is our author-friendly policy, which proved to be an effective method to build the research capacity in a small scholarly community (5-7). The full text of the article describing ST OPEN is published in the *European Science Editing* (8) and includes more detail information about the journal.

Key words: journal, overlay, repository, student, university

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Journal Data Sharing Policies: Are Croatian Journals Following Trends?

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ABSTRACT

Aim: The aim of this work is to give an overview of recent developments of journal data sharing policies, with summary and examples of standardised guidelines for journal publishers. In addition, it examines the prevalence of journal data policies in Croatian journals and explores the content of these policies.

Methods: To give an overview of the current state of data sharing policies, published articles that review existing journal data policies and develop model data policies or guidelines for journals were identified and examined. For the analysis of Croatian journals, data was collected from the Hrčak portal, using a software script for harvesting journal metadata and attached files from the portal. Searching for content related to data archiving through downloaded files was done using the following keywords: 'data', 'deposit', 'archiving', 'supplement', including Croatian variants and different grammar forms. The search process was facilitated by using software tools that extracted lines of text from source documents containing defined keywords, together with two lines of text above and below the position of keywords in the text as context. The script parses through documents and creates one file containing file name of the identified document and snippets of extracted text from that document. Created file was then manually examined to identify journals that have any content related to research data and eliminate content that is related to data in another context. A dataset was created, which contains journal metadata and coded information about the content of the policy. Coding framework for the analysis of content related to research data in journal editorial documents was developed based on previous research (1,2) and adapted for this analysis.

Results and Discussion: Recent studies (1-3) show lack of clear data sharing and transparency policies in the majority of journals. Where the policies were present, wide variety in quality of existing policies was found. This is an obstacle in the practice of data sharing, especially for the authors who need clear guidelines on how to deposit and make their data transparent and available for others to re-use. Standardisation of data policies could help journal editors and research funders to formulate clear mandates and recommendations that can influence the development of research transparency culture. Several attempts to develop a model data policies are identified in recent years, and the most prominent existing implementation guidelines for journals, publishers and funders are: Research data for jour-

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nal editors by the Australian National Data Service (4), Transparency and Openness Promotion (TOP) Guidelines by the Center for Open Science (5), Research Data Policy Framework for all journals and publishers by Data policy standardisation and implementation Interest Group (IG) of the Research Data Alliance (RDA)(6), and Journal Research Data Policy Model Framework by The Journal Research Data (JoRD) Project, funded by JISC (Joint Information Systems Committee)(2). These guidelines identify the key elements of a good data policy such as data citation, data repositories, data availability statements, data standards and formats, and peer review of research data. Although all of them attempt to establish standard features, they provide flexibility for adoption depending on disciplinary variation. In order to find out if Croatian journals are implementing and promoting data sharing policies, the analysis of data policies of Croatian journals was conducted. Preliminary results, based on a sample of editorial documents, show that around 15 % of journals mention research data in their policy and guidance documents, whether the statement expresses only the general principle of research transparency or the statement is a requirement. Journals that explicitly mention data access and retention are usually referring to the outdated ALPSP-STM Statement on data and databases.

Conclusion: Data sharing is encouraged in contemporary research environment. Journals in the stage of planning to implement research data policy might find it very useful to consult existing guidelines and follow examples of good practice presented in this work. Some Croatian journals started to adopt basic data sharing policies and transparency principles, but often it is not clear how and if the existing policies are enforced.

Key words: data sharing policies, research data transparency, Croatian journals

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Supply-Side Model of Academic Publishing in Croatia

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ABSTRACT

Aim: The aim of the paper is to research into the scale and structure of recent (2012-2018) subsidized academic publishing in Croatia, with focus on academic books and journals, participation of institutions and publishers, included scientific fields and disciplines, quality and visibility of output, and invested financial means. As a huge majority of Croatian academic production depends on subsidies, such analyses would contribute to the understanding of the academic publishing landscape in general.

Methods: The paper is based on the analyses of data from seven years of subventions which Croatian Ministry of Science and Education allocates to national academic publishing. Data are analysed for both journal and book publishing. Available are data about author or editor, publisher, publication title, and granted finances - in clearly structured documents publicly accessible at <https://mzo.hr/hr/rubrike/znanstveno-izdavacka-djelatnost>.

Results and Discussion: Supply-side model of publishing is conceived as an opposition to the model of demand – where publisher at his own risk invests in the publication (1). In supply-side model, the publication is pre-financed and thus, factually, in no relation towards sales and marketing. The costs could be covered by authors, their sponsors, or, in this case, by public institution – and resulting publication could be distributed for free, or sold for a low price. All of the publications subsidised by the Ministry should be considered as products of supply-side model, and the deep analyses of granted subsidies provides detailed picture of Croatian academic publishing landscape. Collected data are telling about total allocated financial means (which are growing year after year), rise of the output, distinctions in subventions to academic books and academic journals (which are roughly equal, in contrast to the general perception of rise of the journals on cost of the academic monographs (2)), differences in subventions to publications from different academic fields and disciplines (paradoxically in regard to STEM promotion policies, highest subsidies go to humanities and social sciences), about publishers (public institutions and private enterprises) involved in academic field, including clear insight into the publishing programmes of the most prolific players in the field, *etc.* Additionally, subsidised academic journals are analysed in relation to access policies, substrate (electronic or printed), and presence in relevant databases. The results show continuous growth both in the amount of subsidies and in published titles. In 2016, subsidies for books doubled in relation to 2012. For books, publications from humanities and social sciences received the biggest support, followed by technical sciences, biomedicine, natural sciences, biotechnical sciences and arts. For journals, no such

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differences are noticed. Most of the subsidies for books is granted to private publishers, while institutions have a primacy in journal publishing. Two biggest players – publishers that received highest financial support – are Medicinska naklada and Croatian Academy of Arts and Sciences. Geographically, almost all of the Croatian academic publishing is concentrated in Zagreb. Ministry preferred to subsidise journals indexed in relevant databases, and published both in electronic and printed format.

Conclusion: Regarding the size of the market, purchasing power of individual buyers targeted by academic publishers (students), and underdeveloped marketing and sales policies for academic publications in Croatia, it could be argued that supply-side model developed by the Ministry of Science and Education makes possible overwhelming majority of publishing projects. Conducted analyses provide detailed insight into this model, including shortcomings such as lack of the evidence for realization of some projects or subsidising journals which, in spite of assistance, cease publishing. The topics – academic publishing and system of subsidies – has rarely been addressed by researchers (3,4). Thus, this research offers new insights to researchers (e.g. providing knowledge about the scale and structure of academic publishing), gives evaluation possibilities for policymakers (e.g. to design the tools for monitoring and improving the system of public subsidies), and provide comparable perspective for national academic publishing in the context of European academic publishing setting.

Key words: academic publishing, supply-side publishing, journal publishing

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Reproducibility and Cognitive Issues in Publications Based on Big Data Analysis

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ABSTRACT

Aim: Big Data based research has become dominant feature of many scientific fields, such as high throughput genomics, proteomics, medicine, biotechnology, agriculture and many others. In recent years it has been recognised that publications based on Big Data have very specific issues which are not fully understood and result in conflicting inferences on causality, leading to general mistrust in published results. The aim of this work is to focus on problems which publishers of scientific journals are facing when Big Data are presented. Key issues related to source data availability, algorithmic and software reliabilities, model validations and data adjustments methodologies aiding cognitive inference are emphasized.

Methods: The main concern in Big Data analysis is the extraction of key features and adjustments of cofounders needed for unsupervised pattern recognition and/or supervised learning of functional relations and cognitive inference. Main methodologies and critical review of algorithms for data regularization such as principal component analysis and regression (PCA, PCR, PLS), elastic nets (LASSO), decision trees (DT) and artificial neural networks (ANN) are described (1-4). Since most of Big Data research are based on large scale observational studies which are unbalanced and lead to significant biases, positive and negative aspects of propensity score data adjustments to mimic properties of randomized trials are presented. Application of data bootstrapping as the key methodology needed for model validation and cognitive inference from Big Data studies is emphasized (5-6).

Results and Discussion: Science progresses by corroboration through publications in scientific journals, books and electronic data exchange. Today's world of Big Data is a result of integration of high throughput data, large databases and extensive networking facing upcoming 5G technologies. Validation of data and inference of cognition becomes the critical aspects for publishers of science journals. Although reproducibility and availability of data have been golden standards for valuable research, nowadays volume of data and complexity of algorithmic analysis and inference have brought difficulties to scientific journals. It is believed that only about 40 % of recently published science results can be reproduced (7). Reproducing scientific experimental data and algorithmic, usually which are not necessarily statistically sound, have become problematic for several reasons. Some of the main problems specific to Big Data studies are related to difficulties and lack of collaborative inves-

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tigation (parallel independent laboratory work) of experimental data, incomplete or faulty experimental design (DOE), unvalidated software tools, unawareness of data confounding, and blind use of machine learning algorithms. Science journal editors should insist on detailed exposition of DOE model, availability of source data and applied software. Applied algorithmic inference should be detailed on basics from probability theory and statistics, and proceeded with data science tools. The key step in analysis of high dimensional big data sets is identification of key features, *i.e.* regularization of columns of the data matrix. Commonly applied methods are based on eigen value decomposition leading to principal components (PCA), principal component regression (PCR) and partial least squares (PLS). These methods are very effective but do not account interactions between key features, *i.e.* synergism and antagonism between variables. In order to avoid model bias and misconception, systemic tests of presumed nonlinearities are needed. Regularization with search of feature interactions is accounted by use of decision trees (forest) and artificial neural networks (convolution layer). Critical point in big data pattern classification, for example when applied for medical diagnosis, is model evaluation by data bootstrapping. Accuracy of the models should be evaluated by ROC graphs and numerically by AUC values. The most difficult issues are related to data adjustments for causality deduction. Fully randomized trials, including Mendellian data, which are mainly reported for drug trials and pharmacokinetic studies, fulfil requirements for elimination of feature confounding effects. However, most of big data analysis are founded on observational studies and profoundly exposed to confounding and are not reliable for cognitive inferences. Science editors should recommend to researcher, before acceptance of results for publication, to test their causality inferences by propensity score data matching. Since Big Data models are basically deeply complex, a thorough multiple cross validation by bootstrapping, possibly from independent sources, should be required before acceptance for publication.

Conclusion: In view of critical confidence in reproducibility and reliability of research publications based on Big Data projects, a check list for validation of analysis and inference of cognitive relations can be proposed. The main concern are initial assumptions of modelling thesis incorporated into research DOE plan. Collaborative multi-laboratory parallel data acquisition is essential, especially for fundamental projects in molecular medicine and pharmacology. Validation of applied algorithmic methodologies should be based on feature space regularization, followed by extensive bootstrap validation. Since most of Big Data research projects are observational studies, confounding and data adjustment should be made by one of propensity score methods (often by regularized logistic model).

In conclusion, results from multiple (more than two independent) institutions (laboratories) which have different and unrelated key sources of potential biases and confounding should be compared. Open data policy of source data and software for algorithmic inferences should be available.

Key words: Big Data analysis, data availability, algorithmic and software reliability, model validation and data adjustment

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Evaluating Quality of Retractions Notices of Health and Life Science Articles Published by Authors Affiliated to Brazilian Institutions: A Systematic Review

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ABSTRACT

Aim: This study aims to present and discuss the results of a systematic review that investigated the main reason for retractions of medical and life science papers from authors affiliated to Brazilian academic institutions. Reasons for retraction, citation of retracted publications and quality, availability and accessibility of data on retracted papers given by the publishers are described, following the Committee on Publication Ethics (COPE) recommendations.

Methods: Two independent reviewers searched for retracted articles since 2004 at PubMed, Web of Science, BVS and Google Scholar databases. Indexed keywords from MeSH and DeCS in Portuguese, English or Spanish were used. Data was also collected from the Retraction Watch website (www.retractionwatch.com). This study was registered at PROSPERO systematic review database (CRD42017071647) and was published at PLOS ONE this year (1).

Results and Discussion: A final sample of 65 articles was retrieved; 20 were published in national and 35 in international journals. Among the retrieved articles, plagiarism was the main reason for retraction (60 %). Data was missing in 57 % of retraction notices, representing a limitation for this review. Missing information included: reason for retraction (7 %), who requested the retraction (3 %), and endorsement by the authors (38.4 %). Retraction warnings such as withdrawn/retracted red sign over the article were also missing (37 %). Measures to ensure research integrity has been widely discussed due to its social, economic and scientific impact (1-4). Most of the investigations on this subject focuses on the role of authors and institutions to promote research transparency; however, research integrity is reinforced by editorial politics on publication of articles and by retraction notices when needed. Hence, scientific journals play an important role to promote and reassure integrity. Complete information on retractions notices contributes to scientific transparency, avoiding reproduction of unreliable research (5). Still, some retractions are vague and do not comply with COPE recommendations. Despite the reasons that lead to the publication of incomplete retractions, we found complete and clear information at several retraction notices. This illustrates the disparities of policies and attitudes towards research mistakes. Regarding reasons for retraction, previous studies have shown that fraud and error have accounted for most of the retractions of biomedical articles (6,7); however, the present review revealed a larger number of retractions due to plagiarism. It is known from previous studies (8) that articles are still being cited after re-

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traction. This systematic review found that 63 % of the retracted articles was still cited as legit. More investigations are needed to understand the underlying causes of research misconduct and the reasons for continuation of citing retracted articles as reliable. Brazil is a member of the BRICS (Brazil, Russia, India, China, South Africa) cooperative group that contributes to 1 % of most cited publications in the world (8). The increase of scientific production of the country in collaboration with international partners was accompanied with the increase of retracted publications. The majority of the retracted articles retrieved in this study were from public university and, therefore, the researchers were publicly funded. This systematic review was the first to address this topic taking into account the Brazilian context. The results contribute to the discussion of means to improve research quality and reliability in the country.

Conclusion: The majority of the retracted publications retrieved by this systematic review did not comply with COPE recommendations. It is important to engage the whole scientific community, including publishers and editors, in the research integrity discussion in order to promote transparency at all levels of research: from its conceptualization, planning, execution, report, to possible retractions. Additionally, plagiarism was the main cause of retractions of health and life science articles written by authors affiliated to Brazilian institutions. Coordinated action between institutions, funders, publishers and researchers is important to avoid scientific flaws. These results will pave the way for future research of the theme in order to understand the underlying causes of research integrity breaches and, therefore, will contribute to scientific production with higher quality and reliability.

Key words: retraction notice, research integrity, research misconduct, plagiarism, systematic review

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Attitudes of Scientific Journal Editors Towards Open Peer Review

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ABSTRACT

Aim: This paper aims to present attitudes of editors of the Croatian scientific journals in the field of social sciences and humanities about changes in the peer review process and acceptance of open peer review as perceived by the editors (and / or their assistants).

Background: In spite of the ever-growing number of articles written in the last few decades about the necessity of change of peer review process, it seems as if peer review process is still not changing (quickly enough – as the current peer review system is considered bad) or that there is no wider interest among scientists and journal editors in recent changes introduced by different initiatives like open peer review. The proof for this statement is the inability of a potential author to find author guidelines of scientific journals around the world in substantial numbers offering open peer review or similar process significantly different from the mainstream and well established closed peer review process. In comparison to the older type (or types) of peer review process which is well researched and described as “a relatively optimised process, generally well-understood as a theory and a practice, and stable due to its widespread adoption and acceptance as a method” (1), open peer review is still less researched. One could argue that open peer review is not present in scientific community long enough to be researched thoroughly and, as a result, it is still not accepted as widely as the current peer review process. Consequentially, there are less published research articles on this topic that could be consulted by journal editors when thinking about implementing open peer review in their journal. Ross-Hellauer and Görögh (2) are optimistic about immediate future of open peer review and they state that open peer review “is moving into the mainstream, but it is often poorly understood and surveys of researcher attitudes show important barriers to implementation”. Same authors also point out that implementation of different innovations covered by the term open peer review requires guidelines to guide this implementation in order for it to be widely accepted. Now we know that we are missing such guidelines even if we (as journal editors) decide to implement it. Tennant (1), on the other hand is not optimistic and suggests that “uptake of new models of peer review appears to have been so low compared to what is often viewed as the ‘traditional’ method of peer review”. Bali (3) provided us with a realistic approach to acceptance of open peer review and she pointed out not speed of its implementation but potential of submitted manuscripts to be improved and published. For her open peer review is not about accepting poor works (as some are afraid) but it is about

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discovering potential of every work and its improvement to achieve publication. This potential remains undiscovered in cases of many scientific journals many countries sorting through many submitted manuscripts and applying traditional peer review. In Croatia there are very few researches and publications explaining what open peer review is. Stojanovski (4) wrote about open peer review and concluded that the Croatian scientific community is unprepared for its acceptance and that it is a surprise when taking into account the importance of peer review in scientific publishing. Vrana (5) wrote about editorial challenges in a small (Croatian) scientific community and found out that journal editors have difficulties in finding reviewers for the traditional close peer review. Open peer review is still no serious option in the Croatian scientific journals especially in small scientific communities in which everyone knows everyone else and because it is difficult to find potential reviewers. This research aims to find out whether this situation changed for the better.

Methods: The first part of the paper will be based on literature about peer review in general and open peer review in particular. The second part of the paper will be based on an online survey of editors of the Croatian scientific journals in the field of social sciences and humanities. The invitation for participation in the research was sent to e-mail address of journals of editors of scientific journals found on the portal of scientific journals "Hamster" in the fields of social sciences and humanities, their responses collected and processed.

Results and Discussion: The results showed differences in attitudes towards open peer review in different journals. Almost no journal applied open peer review, they also did not publish reviews on the journal's Web site; very few of them published data supporting the article on the journal's Web site; they allowed comments about published articles very infrequently; very few journals planned to make available some type of open public communication between journal, authors and reviewers. In spite of mostly non-existent experience in open peer review and open communication, the respondents showed positive attitudes towards values of open peer review. Finally, very few journals in this research was ready to implement open peer review. The research also showed that editors still have same problems as indicated in previous research done by Vrana (5).

Conclusion: There is a need for coordinated action of the experts in scientific community in Croatia who are researching this problem and help to journal editors to improve the current state of peer review and possibly to implement open peer review.

Key words: peer review, scientific journals, Croatia

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Cobaltmetrics: Web-Scale Citation Tracking

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ABSTRACT

Aim: With Cobaltmetrics, Thunken is on a mission to make altmetrics genuinely alternative. Traditional citation indexes have stringent inclusion criteria and focus on privileged publication venues. Altmetrics were designed to overcome some of these limitations, but most data providers still somehow rely on predefined lists of citable/indexable research outputs, and they only scratch the surface of the web. We argue that the only way forward is to embrace web-scale citation tracking.

Methods: Cobaltmetrics crawls the web to index hyperlinks and persistent identifiers as first-class citations. We analyze a wide range of websites to reveal insightful links between documents. Cobaltmetrics goes deeper than backlink databases and altmetrics aggregators to help you report on all types of content: publications, books, clinical trials, patents, software artifacts, derivative works, *etc.* The web is our corpus, and our URI transmutation API collates citations to all known versions of a document.

Cobaltmetrics combines the best of citation indices, altmetrics aggregators, and backlinks databases. Citation indices like OpenCitations, Scopus, or Web of Science focus on citations between traditional scholarly publications. Our approach is both complementary and much broader. In Cobaltmetrics, we track citations between all types of content on the web, not only publications. We think that it is not up to citation aggregators to define what is citable, so we have no selection criteria based on a document's format, language, publication venue, persistent identifiers, *etc.* Altmetrics aggregators like Altmetric, Crossref Event Data, or Plum Analytics are quite similar to Cobaltmetrics. However, we think that they are not alt-enough as, for many data sources, they focus on data published in a handful of languages and/or have restrictive selection criteria regarding the documents they index. Our goal is to go deeper: the web is our corpus, and we index all citations, no matter the language, the format, or the identifier. We also think that our URI transmutation API surpasses their search engines when it comes to aggregating or deduplicating results. On the web, backlinks and citations are similar objects. That being said, backlink databases also lack our URI transmutation API, *i.e.* the ability to collate backlinks to all known versions of a document. With Cobaltmetrics, you can not only discover that a given page links to your content, but you can also find all the short URLs and other identifiers that directly or indirectly identify your content.

One of our core principles is that it is not up to altmetrics data providers to decide what is citable; our role is to observe all citation patterns on the web. The web is not FAIR (and will most likely never be) and that is just fine. To produce a corpus that is diverse and inclusive,

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we track all URIs: every hyperlink and every occurrence of a URI is a citation. One of our biggest challenges is to collate URIs that directly or indirectly identify the same resource, so that citation counts and attention scores can be tallied accurately. We will present the design rationale of our URI transmutation API, and discuss how it relates to other approaches like meta-resolvers (e.g. identifiers.org and n2t.net) and PID graphs (e.g. FREYA).

Results and Discussion: We will then move into a discussion of web-scale altmetrics, a.k.a. alt-altmetrics. We must forget all limitations regarding publishing formats, languages, APIs, and, most importantly, data sources. Metrics are a sampling game, and the web is our corpus. We have started building an infrastructure for web-scale altmetrics by ingesting the massive datasets produced by the CommonCrawl project. Cobaltmetrics is thus in no way restricted to the scholarly web, and we hope the corpus will be useful to other communities. We will share the lessons we have learned in the past 18 months, including negative results and tips to pull citation data at scale with our API.

In particular, we will present results from the analysis of legal citations. Recent initiatives to open access to the law now make it possible to track and analyze legal data on a large scale. Cobaltmetrics partnered with CourtListener to explore the potential in tracking and analyzing citations to and from court opinions from all state and federal courts in the US. Evaluating legal data gives insight into how resources are used, how resources influence other courts and other resources, and how different resources are connected across jurisdictions. We will discuss the main challenges in extracting and normalizing citations in court opinions.

Conclusion: We will then present preliminary results regarding the most cited domains in the CourtListener corpus. We will conclude with a special announcement about Cobaltmetrics, linked data, and permissive data licenses!

Key words: bibliometrics, altmetrics, citation tracking, linguistic diversity

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Openness of the Digital Educational Resources Published on the Croatian Universities' Web Sites

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ABSTRACT

Aim: The aim of this poster presentation is to show the openness of the digital educational resources published on the Croatian universities' web sites.

Methods: When we discuss about the openness of the content used in the teaching process it is important to distinguish an open access approach from an open educational resource. Open access (OA) is a free and unobstructed online access to digital scientific information that enables reading, storing, distributing, retrieving, indexing and/or other legitimate use. Free in this context means permanently free of any restrictions and setting conditions for access and use (1). Open access is a movement whose main objective is to support the free flow of scientific information. The open approach refers to the publication model for which the scientific literature in electronic form is freely and unlimitedly available on the Internet.

Open Educational Resources (OER)** refers to any type of educational material that is publicly available or published under an open license. Their main feature of openness is the possibility of legal and free transcription, use, adaptation, and sharing among users. Open Educational Resources can be of different types, and their classification relies on the classification of digital education resources. Classification used in this paper is based on those defined in Edutorij***, a repository of digital educational content. Authors of digital educational resources that wish to store their work within Edutorij can classify them within the following categories: manuals, textbooks, books, lectures, workbooks, task collections, atlases, online courses, educational games, learning scenarios and lesson, lectures and scripts, final and seminar papers, educational modules, papers, journals and all other content related to education and teaching programs. Since Edutorij was first created for the purpose of storing school contents, classification should be adapted to the higher education context. Therefore, in the research conducted in this paper, the following classification is used: e-books, e-textbooks, presentations, scripts, articles, videos, and web pages.

License is a document that specifies the terms of use of a resource. An open license authorizes access to, reuse, and redistribution of work with limited or no restrictions. Works on which licenses are not tagged are subject to copyright laws prohibiting unauthorized re-distribution and re-use of third parties and may remain in effect for 70 years after the death of the author.

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** The term Open Educational Resources (OER) was adopted in 2002 during the UNESCO Forum on Impact of Open Courses for Higher Education.

*** Edutorij is a repository of digital content created within the project "e-School: Establishment a system for developing digitally mature schools (pilot project)" and is available at <https://edutorij.e-skole.hr/share/page/home-page>.

Open licenses allow authors to give more freedom to the users of their work, which can result in continuous improvement of their own works by accessing a large number of users and creation of a number of new works created on the basis of translation and processing. In order to identify the work with one of the licenses, the author has to answer a few questions and will respond according to his responses to the appropriate licensing license that one can apply to its digital resources.

Results and Discussion: The research was conducted by reviewing the web sites of the faculties and university departments of public universities in the Republic of Croatia. Public universities are selected because of the recommendations of various European and world initiatives to make intellectual work, in this case educational resources, financed by public money made available to the wider community. The results of the analysis conducted from January to July 2019 show the following:

- Approximately 6,000 units of digital resources have been found
- About 60 % of the resources consists of scripts****, presentations 30 %, scientific and professional articles 2 %, e-textbooks 2 %, and video content only 1 %.
- The most common file format is PDF 78 %, then PPT 6 %, DOC 5 %, HTML 3 %, and finally XLS 1 %.

Regarding the licensing of found resources, there is only an inconsiderable number of openly licenced resources by Creative Commons licences (2). Most of the resources are publicly available free of charge but not tagged with certain license, so copyright laws prohibit unauthorized re-distribution and re-use of third parties.

Conclusion: Numerous digital teaching resources has been published publicly on university websites, but a small number of them are licensed to define ways of using, sharing, adapting and re-distributing. The found types of digital resources show the dominance of simpler forms of digital content or rather a small number of interactive and multimedia content. Furthermore, considering the need to follow the recommendations of European and global open access initiatives, it is necessary to devise systematic approach for acceptance of open educational resources and align their implementation with the regulations of higher education institutions (3,4).

Key words: openness, digital educational resources, Croatian universities

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**** In the category of scripts, besides the written oral presentations, there are included exercises, exam questions or colloquia, and auxiliary materials such as tables, formulas, maps, charts, pictures and atlases.

Collecting Various Usage and Impact Metrics for Open Access Books

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ABSTRACT

Aim: OPERAS metrics service aims at providing a reliable, accurate, and standardized metrics service across open access book publishing platforms, with the overall objective to achieve a comprehensive and transparent mechanism to collect and aggregate usage metrics from third-party platforms. In this presentation we will present the main features of this service, and how it was conceived to measure to leverage book statistics in an efficient way.

Methods: OPERAS metrics service has been developed within the framework of HIRMEOS, a project funded by the European Union. The service is designed to be neutral in terms of types of measurement: it does not adopt one particular metric but collects existing ones and aims at providing information to the user on the metrics that are displayed alongside the books, by referring to a namespace and a specific website. Therefore, OPERAS metrics service focusses more on the usage and representation of metrics than on the technical development of new types of metrics.

Results and discussion: Ubiquity Press (UP) developed an altmetrics service and a citation metrics service. The software that collects the altmetrics and citations runs in their servers, and a public API was provided for publishers to register DOIs, and then perform requests to the API to obtain the metrics per DOI. Open Book Publishers provided partners with a software to collect metrics from the different platforms (e.g. Google Books, Open Edition, etc.), an Open Standard format to enable the upload of statistics from other platforms, and an API to enable metrics upload/query.

Knowledge Unlatched provided a dashboard built for partners to visualize and interrogate usage data from a variety of sources. The dashboard is capable of displaying usage by country and other IP range selections for each book or identifier as appropriate.

A web Widget was developed to fetch and display metrics from the Metrics API. The Widget was designed to be embedded in an HTML page, such that it can be used in the HIRMEOS partners' existing platforms.

The Widget's layout was designed following feedback from the partners. For a given book/chapter, the metrics are tabulated, showing the Source and Type of each metric, along with the number of occurrences of the metric that were recorded for that book/chapter. If a user clicks on the row displaying a metric they will be linked to the definition of the metrics/measure indicated as documented on <https://metrics.operas-eu.org/>.

The code for the Widget is maintained in the HIRMEOS GitHub repository. The 'usable' code is hosted on the Ubiquity Press CDN, and consists of a minimised JavaScript file and a CSS file for the Styling of the Widget. These are versioned together, in order to ensure that a CSS file of a given version will always match the JavaScript file for that version.

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The Widget supports some localisation. It can currently be translated into five different languages, based on translations provided by the HIRMEOS partners. These can be set when configuring the Widget, and include English ('en'), French ('fr'), German ('de'), Greek ('el') and Italian ('it'). More languages can be supported in future, as requested.

The Widget also supports some customisation, by setting configuration variables. These are described in the documentation at <https://docs.metrics.ubiquity.press/widget/>.

Knowledge Unlatched Research provided a dashboard built for partners to visualise and interrogate usage data from a variety of sources. The dashboard is capable of displaying usage by country and other IP range selections for each book or identifier as appropriate.

Using example data from Open Book Publishers and the test API provided by Ubiquity Press a dashboard application was built in Shiny, a platform that uses the R language to display data on a web platform. The dashboard was successfully deployed locally (using R Studio) and remotely on the Shiny platform to enable public access.

Conclusion: OPERAS metrics service provides a fully distributed framework to collect usage and impact metrics addressing the specific challenge of the open access book: it provides an open source mechanism that enables publishers, authors and readers to collect data on the same book disseminated across several platforms, and a clear and understandable representation of the meaning of those data that helps users to assess and compare them.

Key words: metrics, books, open access, open science

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Transparency and Costs of Publication Fees in Croatian Scholarly Journals

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ABSTRACT

Aim: Studies show the increase in article processing charges or publishing fees (hereinafter charges) and there are many debates on relations between academic community, publishing issues and open access initiatives. Recent study showed that introduction or increase of APCs did not reduce article volumes, moreover, higher APCs at commercial publishers were associated with volume increase. Authors are not price sensitive and are willing to pay for higher APCs if it means being published in prestigious journal (1-2). It is recommended that any charges should be easily accessible to potential author. Journals, having transparent policy on charges, show high quality editorial policy, which helps them distinguish from predatory journals. Authors are informed about costs and can avoid difficulties in the future (3). The main aim of this study is to determine the policy, transparency and costs charges in Croatian scholarly journals indexed in Web of Science Core Collection or Scopus.

Methods: Croatian scholarly journals indexed in WoSCC and Scopus in 2018 were included in the study. Most of them are available on Croatian national publishing platform, so both journals' webpages and Hrčak portal were reviewed for information about any charges and its transparency. The research was conducted in April, May and June 2019. Four categories of journals were established: journals charging fees; journals possibly requiring some form of payment, usually related to exceeding the maximum length of the manuscript and/or if the submitted manuscript needs additional proofreading and journals whose policy is not always clearly stated and may require additional payment; journals that do not require any payment; and journals that do not have any information about charges.

Results and Discussion: Great number of journals are freely accessible, but they do charge printed editions, usually separating domestic and international subscribers, and annual and issue purchase. They are usually published by non-profit organizations funded by the state, mainly faculties, scientific institutes and associations. There are 13 journals that charge fees; two in biomedicine, eight in technical sciences, two in social sciences, and one in nature sciences. All of them are in open access and are supported by the Ministry of Science and Education, except one which is published by a company. Other are published by professional societies (4), faculties (7) or NGO (1). The average price of charges is 414 €, the lowest being 25 € and the highest 750 €. Some journals charge the publication of pages exceeding the

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limit. The charges are mentioned in guidelines to authors or on the main web page of the journal. There are 12 journals that might have some payment requirement; five in biomedicine, one in biotechnical sciences, one in nature sciences, two in technical, one in social sciences and two in humanities. These requirements are stated in guidelines to authors (11) or in editorial policies (1). All these journals are available in open access, usually with some CC licence and almost all of them (10) are funded by the Ministry. Possible requirements refer to translation or proofreading costs, exceeding the page number, major corrections before printing or retractions. One journal requires ask for donations for publishing manuscript and additional donations for printing additional pages and printing in color, and for one journal it is unclear whether authors must or can opt to buy offprints. There is an increase in number of journals charging fees; in 2013 there were three, in 2017 eight and seven with conditioned paying. There are 76 journals stating that they do not charge fees; this information is usually found on Hrčak page or in guidelines to authors, which is in accordance with international standards. Still, there are 61 journals that do not have information on charges. However, taking into account previous studies (3-4), number of journals stating information on charges has grown, which may indicate awareness of cost transparency.

Conclusion: The number of journals charging fees is likely to increase due to their dependence on national funding and continuous growth of journal's costs, especially when the journal reaches international recognition.

Key words: article processing charges, publication fees, transparency of publishing costs, open access, Croatian journals

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Scoping Review of the Predatory Journals in Scopus: First Five Years (2012-2017)

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ABSTRACT

Aim: Publishing has changed since the emerging of open access journals in the 2000s. Unethical practices that include publishing articles with fast tracking (2 weeks for publication), no peer-review or even false peer-review, or forming false journals with false impact factors have appeared and such journals were named “predatory journals” by Jeffrey Beall. Predatory journals often have web pages similar to indexed journals and very low publication fees (article processing charges) with no quality control (1-3). The topic was noticed by publishers, editors and authors, as a problem that has to be dealt with. Therefore, the purpose of this scoping review is to provide an overview of the literature on predatory journals (publishing).

Methods: Scoping review aimed to map the existing literature in the field of interest in terms of the volume, nature, and characteristic of the primary research (3). A search was conducted in Scopus database with string query: (TITLE-ABS-KEY (“predatory journal”) OR TITLE-ABS-KEY (“predatory journals”) OR TITLE-ABS-KEY (“predatory publishing”) OR TITLE-ABS-KEY (“predatory publisher”)) AND (LIMIT-TO (PUBYEAR, 2017) OR LIMIT-TO (PUBYEAR, 2016) OR LIMIT-TO (PUBYEAR, 2015) OR LIMIT-TO (PUBYEAR, 2014) OR LIMIT-TO (PUBYEAR, 2013) OR LIMIT-TO (PUBYEAR, 2012)). Scopus was chosen as it is a wide general database that contains more journals than Web of Science and covers all scientific fields. The research covers the period from the first article in which the term “predatory journals” was published in 2012 and covers 5 years, therefore from January 1st 2012 to December 31st 2017. The records were classified according to the type of article (reviews, original articles, other types (conference proceedings and books) and corrections), country of first author, institution and subject area. Sources (names of the journals) and first authors of records were also identified.

Results and Discussion: The search yielded 291 records. Most of the published records were reviews [N=99 (34 %)] and original articles [N=38 (13 %)]; the rest were other types of scientific communication [N=151 (52 %)] and 3 (1 %) records were classified as corrections. Among other types of records there were six conference proceedings and one book. Most of the published articles were affiliated with the first authors from the USA [N=74 (25 %)]; India [N=30 (10 %)]; and Canada [N=22 (8 %)]. The institution with the majority of published articles is also from the USA (University of Colorado with 15 (5 %) publications), followed by

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the institution from the UK (University of Manchester with 10 (3 %) publications). Biomedical sciences ($N=238$) were the area with most articles, followed by social sciences ($N=104$) and computer science and engineering ($N=40$). One tenth of articles on predatory journals were published in the Journal of Korean Medical Science [$N=11$ (3.8 %)], Biochemia Medica [$N=6$ (2.1 %)], Current Science [$N=6$ (2.1 %)] and Nature [$N=6$ (2.1 %)]. Majority of the articles were written by Beall ($N=18$), Dadkhah ($N=13$), Gasparyan ($N=7$) and Kitas ($N=7$).

Conclusion: The topic is relatively new, and the articles containing the keyword “predatory” have first been published in 2012. Since then the number of articles on predatory publishing is increasing each year. Most of the articles are reviews, so we think that more investigation is needed in order to understand the phenomena more deeply and educate authors effectively.

Key words: open access, unethical practices, predatory journals, scoping review

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Croatian Scholarly Identity on Mendeley: The Case of the University of Zagreb

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ABSTRACT

Aim: Academic Social Networking Sites (ASNS) have become one of the most important platforms for communication, connection and collaboration among the scholarly community. The aim of this study is to investigate the Croatian scholarly identity on Mendeley and to explore how researchers use Mendeley as an ASNS.

Methods: The Croatian Scientific Bibliography (CROSBI) covers scientific research and scientific publishing of Croatian researchers. A search was conducted in May 2019 in CROSBI selecting all eight scientific disciplines, the year 2018 and researchers with a unique research ID number in the Register of researchers of the Republic of Croatia from the University of Zagreb. In every research area CROSBI limits the results to the top 100 researchers according to their scientific productivity in 2018.

Our sample consisted of 604 researchers (303 male and 301 female) in CROSBI divided by discipline: technical sciences (18.37 %), biotechnical sciences (16.56 %), social sciences (16.07 %), humanities (14.57 %), biomedicine and healthcare (13.75 %), natural sciences (10.26 %), interdisciplinary sciences (8.27 %) and arts (2.15 %). From this number (604), 37.9 % researchers have profiles on Mendeley.

Mendeley is a free reference manager and academic social network that can help organize an individuals' research, help them collaborate with other users and upload their own scientific papers. It can be used to analyse personal readership trends and to discover the latest research, all the while providing intriguing features for developing one's professional research network and generating scholarly influence (1).

Results and Discussion: There are disciplinary differences in users and use of Mendeley; most of the researchers from technical sciences (58.55 %), biomedicine and healthcare (46.98 %), and biotechnical sciences (46 %) have profiles on Mendeley, while the users from interdisciplinary sciences (16 %) and humanities (13.63 %) use Mendeley less. More than 57 % (129) authors have an h-index (powered by Scopus) on their profile, of which one from biotechnical sciences had the highest h-index of 37, followed by one from biomedicine and healthcare with an h-index of 35. Like in the previous studies, this research also concludes that there are differences between users from various disciplines, so further research is needed to investi-

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gate the preferred type of information source that influences the selection of the reference manager (2,3). For the year 2018, it was found that Mendeley readership was in strong positive correlation with citation counts in almost all disciplines, which confirmed the results of previous studies (4,5). This might be used for scholarly impact assessment as early scientific impact indicator. Publications from biomedicine and healthcare and technical sciences, which comprised most of the sample, averaging 70.94 and 21.42 papers per author respectively, were high in readership as well as in citation counts. This can indicate that, similar to citations, the readership varies per field and coverage. The Mendeley Readership is one measure of how researchers engage with research on Mendeley, calculating how many Mendeley users added a particular article into their personal library. Following other researchers on Mendeley can lead to collaboration and knowledge sharing opportunities (6). The profiles from technical sciences have a wider research network, averaging between 1 and 2 followers per profile, following more than 1 scientist.

Conclusion: The results of the analysis of Mendeley profiles of the researchers from the University of Zagreb show that most of them are from technical sciences and biomedicine and healthcare. Those profiles have a wider Mendeley research network with large readership and high citation counts. Scientists from other disciplines should consider positive benefits of having profiles on Mendeley and other ASNS. It is important for researchers to manage their online scholarly identities and track their impact, increasing the visibility of their research and actively promoting their output, collaborating and enhancing networking opportunities.

Limitations of this study: With time, more and more scientists and researchers may join Mendeley causing various changes in data, giving different results. There are also filtering limitations in CROSBI (the selected sample consisted of scientists who have submitted (not cited) most of the papers in 2018, which was limited to first 100 scientists per discipline).

Key words: academic social sites, CROSBI, University of Zagreb, altmetrics, webometrics

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Open Research Data in the Field of Phraseology

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ABSTRACT

Aim: The aim of this paper is to investigate the concept of open research data in phraseology. Namely, the key factors of open science within European Union are: digital technology, belief in free circulation and criticism of ideas, as well as considering the role of data by researches. Digital technology nowadays enables a fast exchange and new ways of sharing and accessing the data. The existing exchange of research data in the field of phraseology is usually realized through publications (*e.g.* research articles, dictionaries). The complexity of the form, meaning and usage provides a challenge for describing phrasemes in lexicographic sources. So far, there are open research data in the field of linguistics, but not phraseology in particular.

The main research questions are: What are open research data in the field of phraseology? Which metadata elements are important for phraseology in the context of openness?

Methods: The analysis was done according to approaches in the field of phraseology (1), demands defined through FAIR principles, and to generic tasks taken by the user referring to: find, identification, select and reuse. The generic tasks derive from the FRBR concept.

The phraseme in digital environment is specified by a digital object, which is described by metadata elements. These elements are analyzed and identified on two levels. The first level refers to scientific content, and the second one is related to its digital representation

Phrasemes of the German and the Croatian language of fashion and football language are used as the corpus for this research.

Results and Discussion: Phrasemes are multiword combinations of various forms whose constituents create a new meaning (*e.g.* as cool as cucumber, someone's right hand, under one roof, to be under the weather). Their main features, beside polylexicality, are stability and idiomaticity, *i.e.* their form is fixed and the meaning is figurative. Moreover, they can be used in stylistically various contexts and can create or attribute to expressivity of texts (2). Phrasemes can be used in various text types, *e.g.* in journalistic texts, literature, slogans, but are also often used in spoken language. They are considered a challenge in foreign language teaching and especially in translation and transcultural studies, due to the fact that they are usually described as culturally specific. Some phrasemes from different languages share their origin (*e.g.* the Bible, folk tales, fables), but most of them are language specific.

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Considering phrasemes as data means that they are, just like other lexemes of a language, the result of writing down what had been heard, read or written. They can be noted in monolingual, bilingual, or multilingual dictionaries as well as in corpora, and are described according to their meaning, stylistic markedness, and in some cases the context of their use as well as its source are given. The existence of phrasemes as data, besides in dictionaries, can be confirmed in literary works, magazines, newspapers, different types of texts, and in everyday speech. Regarding their figurative meaning, some phrasemes can be linked to concepts such as space or time. They can also serve to entertain, decrease or increase the negative meaning, or to present something vividly. Phrasemes derive from the way of life in a certain period of human history, from cultural specificity, beliefs or customs.

Open research data are the results of scientific research, they can be freely digitally accessed, are published in a machine readable form and can be reused. According to Pampel and Dallmeier-Tiessen (3), open research data are available on the Internet and users can access, copy, analyze, re-process, and use them for any purpose. An important element of open research data are the following FAIR principles: they should be findable, accessible, interoperable, and reusable (4). Sharing research data includes various users, and requirements like searchability, availability, and usage (5). The importance of metadata for open research data is given through various country and research group directions, as well as through scientific research. Metadata are used to present all data related to the content (*e.g.* what the object includes), the context (*e.g.* who made the object), and to the structure (*e.g.* information about the object) (6). In order to access phraseological data or a group of data in the digital environment, they need to be described with the appropriate metadata.

The research identified and described the initial metadata elements that can help to exchange and search phraseological data in digital environments. The elements can be divided in two categories: research and digital representation. The research category consists of the following groups of elements: basic elements, contextual elements, methodological elements, and specific elements: The basic elements comprise the persistent identifier, the author/organization, the source, the phraseme, its meaning, its structure, the phraseological class, the grade of idiomaticity, the grade of motivation, modification, semantic fields, stylistic markedness, and equivalents in different languages. Contextual elements refer to the type of text and topic. Methodological elements refer to descriptive and contrastive method, as well as to the approach of the Systemic Functional Linguistics - Appraisal Theory, all used in the research of the phrasemes of fashion and football language. Specific elements, with regard to the investigated corpus, comprise position in the text, producer of the phraseme, the object described with the phraseme, the behaviour described with the phraseme, loanwords as components, emotions expressed with the phraseme. The second category, the digital representation, refers to datastream and elements related to the version, the organization, legal information and access rights.

Conclusion: This investigation shows that phrasemes can be analyzed as open research data. They have important characteristics and properties for exchange among researchers in the field of phraseology. Basic categories and groups of elements were identified. Further investigation will include the evaluation of results by other researchers and users.

Key words: open research data, phraseology, metadata, FAIR

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Hrčak and the Scientific and Professional Journal of the Catholic Faculty of Theology University of Zagreb

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ABSTRACT

The development of science has inspired the emergence of scientific journals as the fundamental means of scientific communication and the transfer of scientific information. Until the 1990s, the printed version of the journal was the sole form of publishing, and as such, offered a stable means of sharing scientific information. But the development of digital technologies has brought with it many changes. It has accelerated communication and knowledge sharing amongst scientists, and thanks to the open approach, the digital version of the scientific article has become easily accessible to all interested parties around the world. The Portal of Croatian scientific and professional journals has played a key role in promoting open access and raising the quality of scientific communication within the Croatian academic community. The Portal succeeds in reconciling tradition and modern technology. Among the numerous journals are the Bogoslovska smotra philosophical theological journal and the journal of sacred music of Sveta Cecilija, both possess centuries-old traditions. The portal has a significant role in the inclusion of digital content of the journal Croatica Christiana Periodica and the Bogoslovska smotra in the international scientific databases (Scopus, Wos and Atla).

Key words: open access; scientific communication; knowledge; scientific and professional journals

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Openness, Accessibility and Standardization: Ethics in Publishing and Social Work Profession Implemented in Annual of Social Work

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ABSTRACT

Aim: The poster shows the commons between ethics and the value of social work as a helping profession and the ethics of scientific publishing of the journal Annual of Social Work.

Methods: Ethical standards of scientific publishing (1) and ethical standards of social work profession (2,3) were analysed with simple content analysis (4). The method of content analysis enabled the systematic overview of textual information by its frequencies in specific category. The results are expressed in the number of occurrences. In first phase all the standards were divided in several categories (basic, common, specific, inapplicable). In second phase frequencies were assigned to standards in each category. The poster will include graphics containing categories of ethical standards implemented in Annual of Social work.

Results and Discussion: The Annual of social work continuously develops its own ethical standards of publishing scientific and professional manuscripts. Journal invests in education of editorial staff in the field of scientific publishing and encourages regular discussion of ethical dilemmas through editorial meetings. Social work ethics is important for the journal editors and readers considering the journal scope, comprising social work theory, methods and education and other relevant practices for a better understanding of social interventions and their more effective application. Simple content analysis shows that all the ethical standards from the field of scientific publishing and from the field of social work profession can be categorized in several categories relevant for the Annual of Social Work. The analysis shows that category "basic standards" includes fundamental standards as openness and availability of the content. Open access, availability, and adherence to standards are the basic features of the editorial policy of the journal Annual of Social Work (1) and in the same time basic standards of the ethics of the profession of social work (5). The ethics of the profession of social work emphasizes the openness to the dignity and rights of every individual in the context of respect for cultural, social, religious and other differences, as well as the privacy of each individual. Services to users should be public and accessible, subject to established professional standards. Open access is the fundamental feature of the journal Annual of Social Work, whereby the author and editorial staff take over the public respon-

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sibility for their work. Open access means the availability of published work not only to the professional community of social workers, but also to all interested readers. This approach also includes established standards of scientific publishing.

While the category "common standards" contains similarities between standards of the social work profession and scientific publishing in the category "specific" all the important standards in each field are identified. For example, important ethical standard in Annual of Social Work is promotion of originality of manuscript ensuring scientific and professional original contribution to the social work profession and practice. Through the author guidelines, the editorial board of the journal promotes the ethics of scientific research, copyright, plagiarism and the principle of academic publication. Last category "inapplicable" contains all the standards that are not relevant for Annual of Social Work with argumentations.

Conclusion: Ethical standards and clear and accessible publishing rules contribute to the quality of the journal and the published manuscripts. Also, standardization facilitates editorial work and simplify process to authors who have clear guidelines when preparing a journal for a particular journal. Ethics of social work profession as well as standards of scientific publishing contributes to the quality of published content in the field of social work in Croatia.

Key words: open access, accessibility, standards, scientific publishing, social work professions

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