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Tools against predators? Transparency, education, and the courage to speak up

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Abstract

The existence and growth of predatory practices damage the reputation of open science and jeopardizes the idea of science transparency as a whole. This article introduces the tools against predators developed as part of the Stop Predatory Practices project. The project was divided into three phases. In the first phase, an analysis of the current situation in the Czech Republic was carried out. We organised an open discussion, during which participants from the scientists, librarians and other parts of the academic community talked about the systemic problems, misunderstandings and obstacles they face in the area of predatory practices. Based on the issues identified in the discussion, the current state of art and our expertise, we created our primary tool: a freely available teaching module with practical exercises and methodological materials. It is a ready-to-use module not only for the lecturers teaching about predatory practices but also for everyone who wants to know more about this topic. The presented article also describes the course of the media campaign that took place within the project. We successfully engaged high school students to help us with the new media campaigns to reach beyond the traditional scientific channels. Our promotion campaign included mailing lists, Instagram, and TikTok.

Keywords: predatory publishing, predatory journals, predatory practices

Introduction

Predatory journals (also called fake, pseudo, or fraudulent) often constitute a severe danger to science and are thus a rising issue across different scientific communities (Mathew et al., 2021). According to Lukic et al. (2014), a journal is considered predatory if it publishes articles without peer review or through an unethical review procedure and charges publication fees. These journals send unsolicited email invitations to researchers, promising quick editorial decisions, typically within a few days (Mathew et al., 2021). In 2010, was for the first time, the term "predatory publisher" introduced to the scientific community by Jeffrey Beall, a librarian at the University of Colorado in Denver (2013). Since that day, this issue has become highly discussed and resonates strongly. The leading cause that significantly enabled the emergence of predatory practices was the fast expansion of the academic open access (OA) publishing model (Shen & Björk, 2015). The OA publishing model was established during the 1990s, along with the advent of high-speed Internet, and has since become a significant trend (Memon, 2019). As Laakso et al. (2011) mention, OA competes with the conventional model that requires readers to pay for access to scientific results, ordinarily by subscription. In contrast, OA encourages authors to pay article processing charges (APCs), which brings free and unlimited online access to scientific results (Duc et al., 2020).

The OA publishing model poses a frequently addressed topic in librarianship in the Czech environment and one of the areas discussed in teaching by teaching librarians in university libraries. The Stop Predatory Practice project is based on this practice. It is a collaborative work of teaching librarians from the Institute of Philosophy of the Czech Academy of Sciences, the Library of the Czech University of Life Science, Library of the Academy of Sciences, and members of the Information Education and Information Literacy Working Group (Assoc. of Libraries of Czech Universities). The initial idea was based on our experience as librarians who, during their practice, often encountered both early career

and senior scholars who met predatory practices of publishers in their publishing activities. From the beginning, the project's main idea was to focus on educating the scientific community.

The project was divided into three phases. In the first phase, we gathered information about issues related to predatory practices in the Czech academic community. In the second phase, we developed an open teaching module. In the third phase, continuous throughout the project, we focused on promoting the project outputs and awareness of predatory practices in general. The project's overall aim was to raise awareness of the issue of predatory publishing in academia and create a space for discussion on the topic.

Phase 1. analysis of the current situation

One of the project's aims was to create a space for discussion on predatory practices to raise awareness of this issue among the Czech scientific community. Within the project, we organised an open debate among scientists and library experts. Over 50 scientists, PhD candidates and librarians participated in the debate. At the same time, the discussion served as a basis for the creation of another project output, an open teaching module. Thanks to the insights from the discussion, the module could be customised to the needs of the scientific community. The discussion is summarised in a report describing the situation of the Czech scientific community in the investigated area (Šímová et al., 2022b).

In the first part of the discussion, we asked participants about their perceptions of predatory practices in general. Participants mentioned the difficulty of defining a clear line between predatory and trustworthy journals. As shown in Figure 1 - participants most frequently mentioned words such as poor quality, science parasitism, profit, and problem. According to them, there is no uniform methodology to identify a predatory journal, and they pointed out the obsolescence of using various lists of untrustworthy journals (e. g. Beall's List (2013)). Participants saw the biggest problem in the so-called shady journals, i.e. those journals that show some characteristics of predatory journals but cannot be classified as pure predators.

Figure 1: Perceptions of predatory practices, source: (Šímová et al., 2022b)

During the discussion, participants expressed long-standing frustration and fatigue. They pointed out that the science evaluation system in the Czech Republic or the process of evaluating grant applications

can encourage publishing in predatory journals or journals with lower credibility. According to participants, the system focuses on the quantity of scientific results rather than their quality. Scientists also mentioned the laxity of the management of research institutes in dealing with predatory publishing, sometimes even trying to downplay the problem.

However, suggestions for solutions to this situation also emerged in the discussion. The system can be changed by the initiative of individuals, scientists and librarians who can actively draw attention to the problem in various ways. Discussion participants identified key themes that we should address in the module. As shown in Figure 2, the most pressing theme is the identification of trustworthy journals and publishers, followed by so-called 'shady journals' and publishing ethics.
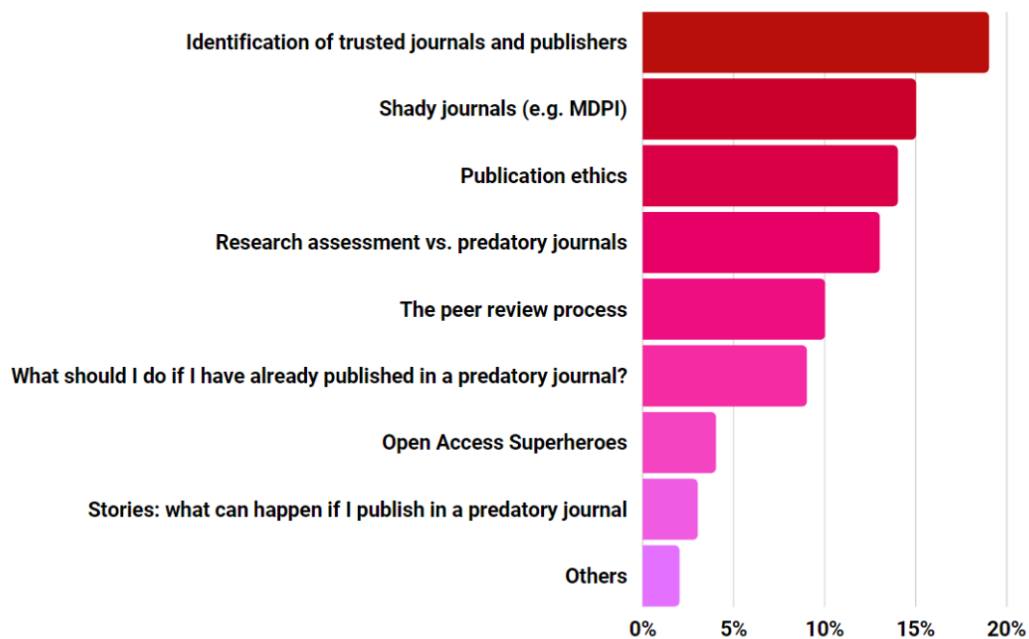

Figure 2: Key themes from the discussion, source: (Šímová et al., 2022b)

The participants in the discussion also mentioned the important role of librarians, who provide essential support to researchers in selecting suitable journals for publication. As we stated in our report (Šímová et al., 2022b), this assistance does not consist in creating lists of suitable or unsuitable journals, primarily because this approach did not prove to be correct for selecting the appropriate journal for publication (Tsigaris & Teixeira da Silva, 2021). Contrarily there should be scientometric support to institutions (in terms of analysing questionable journals and publishers for institutional management; consulting scientists on selecting appropriate journals; and monitoring developments in the European and global scene - not only in terms of predatory assets).

Phase 2. Open teaching module

A significant output of the project is an open teaching module. In line with the UNESCO (2019) and European Commission (2013) recommendations for Open Educational Resources, we have created an open teaching module that is licensed under Creative Commons 4.0 (CC-BY-SA) license to ensure easy sharing. The module has been created by the insights gained from the open discussion, current knowledge of the problem, and our experience in teaching and research practice.

The whole teaching module was created to make it easy to use in teaching by lecturers from different departments and for other groups of students, including self-study. Therefore, we decided to prepare the module to need the fewest special facilities and utilise the most widely used applications in the Czech environment. At the same time, the module is prepared so that a lecturer can use it without detailed knowledge. The teaching module is based on the modular principle. It is divided into parts that the lecturer can freely combine or select, thus adapting the teaching to the given situation and students.

The teaching module has three parts: a detailed presentation, five practical exercises and a methodology for lecturers.

The presentation is prepared in Microsoft PowerPoint. It is accompanied by a complete transcript of the spoken word, which serves as an explanation or inspiration for the lecturers. The presentation cover topics such as an introduction to predatory publishing, publishers and journals, their characteristics, examples and how to recognise them. The chosen topics are based on the open discussion with experts in the project's first phase. The presentation is complemented by interactive exercises directly related to the particular topics or designed to activate students at the beginning of the course or to reflect on new knowledge. The exercises are not only aimed at practising the theory that the students get from the presentation, but it includes a debate on the issue and teamwork. Worksheets for exercise include a description of their learning objective, the equipment needed, the time required, or how to incorporate it effectively into the teaching. For each exercise, a variant for the online form of teaching is also provided – thus, our module is prepared for online and face-to-face teaching. The last part of the teaching module is a methodological guideline, which suggests how to use the whole module in teaching. It explains how to work with the module and how to link the module with the exercises. It also serves as a signpost with links to the individual parts of the module.

The teaching module is freely available on the initiative website , where students and lecturers can also find accompanying resources and other materials to help them fight predatory practices (Šímová et al., 2022a).

Phase 3. Promotion of the project and spreading awareness about predatory practices

The third phase of the project focused on raising awareness of the issue of predatory practices. Promotion of our project was carried out in the academic community and beyond. Within the academic community, we used the power of our existing networks and used a mailing list (members of the Information Education and Information Literacy Working Group of the Assoc. of Libraries of Czech Universities, as well as our other colleagues); we also used the social networks of our institutions to share information about our project.

To extend our project and raise awareness of predatory practices beyond academia, we created educational posts on social networks (Instagram and TikTok). At this stage, we involved two high school students in the project who participated in the creation of these educational posts. After we completed our teaching module, we presented it at local Czech librarian conferences to ensure dissemination and the broadest possible use of our module.

Figure 3 a 4: Examples of posts created by highschool students on social media

Conclusion

The issue of predators and their solution is one of the challenges of contemporary science. The Stop Predatory Practices project was created as a response to this challenge. The project aimed to spark a discussion about predatory practices in the Czech environment. At the same time, the aim was to create a tool to help combat predatory practices in science - an open educational module.

Although we have already created the teaching module (which was the original aim of our project), our efforts do not end there. The interest and many reactions to the outputs among the academic community showed that such an initiative was needed and should continue. We hope that our Stop Predatory Practices project will become not only an initiative to combat predators but also an example of good practice for other organisations and libraries, proving that even a small group of librarians can help improve academia.

Acknowledgements

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