Digital Publishing Platform as a Pedagogical Tool to Teach and Learn Scholarly Publishing: The Helsinki University Library Experience

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Abstract

Academic libraries play a pivotal role in promoting open science, providing essential services for opening research and education. The library has also a key role in increasing awareness of open educational resources and practices. Editori is an open journal service at the University of Helsinki designed with an educational focus, providing simultaneously a contribution to the rising trend of university-based and library-based publishing. We show how this service can be applied as a pedagogical tool for teaching scholarly publishing skills to university students. In 2019 Helsinki University Library initiated a pilot project together with the Working Seminar of Doctoral Programme in Philosophy, Arts and Society of the Arts Faculty of the University of Helsinki. We outline expected pedagogical outcomes from
the project, relating to scholarly communication skills, report feedback from teachers and students and discuss implications for future service development. In sum, students and teachers found the Editori platform intuitive and easy to use, although the learning curve for course leaders was considered steep in the initial phase.

Keywords: scholarly publishing practices; open pedagogy; library-based publishing

1. Introduction

There is growing interest in teaching scholarly publishing skills to university students. Today there exists a number of digital publishing platforms to meet this interest. In 2019, Helsinki University Library created a new open access journal publishing service that was launched under the brand Editori Open Journal Service. Editori is a platform for publishing open journals and for learning practices in scholarly publishing. Currently eight journals are published on this platform under a Creative Commons license.

This article provides an overview of the Editori service as a pedagogical tool to teach scholarly publishing in a classroom journal. The emphasis in our article is on a pilot project, which took place in early 2019. This project provided an important opportunity for the library to collaborate with faculty in a new way. During this project library-faculty relations were essential to integrate a new pedagogical tool into the course. Based on the experience, we can say that the Editori platform is suited to teach scholarly publishing, and the pilot can be extended to other teaching programs. In addition, the concept can be developed in the direction of teaching open access publishing practices, which was not the focus in the pilot project.

2. Relevant Literature

Students in higher education increasingly participate in the scholarly communication cycle as authors, reviewers or editors in teaching-related classroom journals, independent student journals and mock journals which are designed to function as training tools without publishing issues.
In this section, we present some examples of using a digital publishing platform to provide these services. The findings of these examples provided us insights into good practices. There have been some projects which have clear similarities to our pilot project, although some of them have gone significantly further. Especially some user cases in Canada, described below, show how learning outcomes related to scholarly communication skills can be closely integrated into the teaching curriculum.

Simon Fraser University (SFU) Library’s Digital Publishing program partnered with instructors in four different departments across the university to implement classroom or course journals (we will use these terms interchangeably from now on, referring to an open access journal produced during a course or seminar). According to Shuttleworth et al. (2019), students who engage in classroom journal assignments develop skills in scholarly communication and information literacy. They describe in the paper how the Association of College and Research Libraries (ACRL) Framework for Information Literacy can be applied in classroom journal assignments (Shuttleworth et al., 2019).

Emerging Library & Information Perspectives (ELIP) is an open access, peer-reviewed student-led journal published in the Master of Library and Information Science (MLIS) program at Western University. The journal is managed by the student’s editorial team and accepts submissions from current students. The journal publishes student research, critical essays, interviews and multimodal content. All article submissions undergo double-blind peer review. The ELIP has been integrated into the Scholarly Communication and Open Access Course. Student’s feedback shows strong positive effects on disciplinary skills and self-confidence (Edgar et al., 2018).

At the Purdue University, the Journal of Purdue Undergraduate Research (JPUR) publishes full-length articles, interviews, editorials and research snapshots. The journal is student authored and student produced. Weiner and Watkinson (2014) assessed students who publish in a student-led journal. They observed that students benefit from experiencing the full spectrum of the scholarly publishing process. This experience can even influence their choices of careers. They also noticed that students developed important information literacy competencies (Weiner & Watkinson, 2014).
Cox and Kent (2018) explored the benefits of student publishing and what is being published by political science students. According to them, educators have a significant role in preparing and encouraging students to publish. They also noticed that student publishing has many benefits for learning. It involves students actively in the learning process and they learn best when they take an active role. Learning by doing is an engaging way to learn (Cox & Kent, 2018).

Hanasono and Gorsevski (2019) describe in their article a semester-long assignment that can be used in undergraduate or graduate courses. In this assignment, students submit their original research paper to a fictitious or mock journal to the course’s online closed learning platform, e.g., Blackboard or Canvas. According to Hanasono and Gorsevski (2019), the mock journal empowers students with the knowledge and experience needed to share their papers with an academic audience. Students found this assignment to be very valuable and they felt more confident and knowledgeable about the publication process. As a matter of fact, several students submitted their revised papers to academic conferences and peer-reviewed journals (Hanasono & Gorsevski, 2019). Another example of a mock journal is Licence to Write: Student Journal of Scholarly Noir2. The journal published only one issue and its purpose was to learn peer-reviewing.

3. Different Pedagogical Uses of a Digital Publishing Platform

At the University of Helsinki, Editori is an Open Journal Systems (OJS) based journal publishing service, provided by the library. It enables establishing journals, operating them and managing different roles of organising a journal, e.g., editors, reviewers and authors. It is also promoted as a pedagogical tool for teaching and learning scientific publishing practices. Editori is free to use for the University of Helsinki personnel and students. The library offers instruction on how to use the platform and provides technical support.

In the Editori platform, it is possible to create either a real (open) or mock (closed) journal for pedagogical purposes. In the latter case the students can learn publishing skills by participating, peer-reviewing or editing the journal. Here are some different ways this can be done.
Classroom or course journals involve students in the production of an online journal within a structured classroom environment. The idea is that students write a paper for publication in the journal. They peer-review each other’s assignments and revise their own paper before it is published. The journal produced is an open access journal which is edited by the teacher and the editorial board, consisting of students. The composition of the editorial board may change regularly. The teacher can continue in the role of managing editor when the journal gets a new editorial board (Shuttleworth et al., 2019).

The second kind of journals are open access, peer reviewed journals managed primarily by students. Student-led journals are hosted by libraries which can also provide technical support (Edgar et al., 2018).

Thirdly, journals can be mock journals, which are fictitious and open only for students of the course, teachers, library team and external reviewers. Mock journals are one way to teach scholarly communication and publishing concepts (Hanasono & Gorsevski, 2019). This kind of journals is a subclass of classroom journals, as they are led by the teachers, but there is no end-product in the form of a journal.

In addition, there can be independent open access journals, edited and contributed by researchers, postgraduates or others. These are comparable to student-led journals, but may be more ambitious, concentrating on a specific topic, for example. These kinds of journals are hosted by the library as well and can include both students and established scholars.

These different types of journals and educational settings serve different pedagogical needs.

4. Open Pedagogy Applied to the Editori Service

The Editori service is an educational tool that can be used for open pedagogy. According to Evrim and Dana (2020), open pedagogy promotes student agency and provides open access awareness. With open pedagogy students are both creators and contributors of knowledge. The use of open pedagogy challenges traditional roles of teachers and students. The participatory culture and technologies are essential components of open pedagogy.
The basic idea is a more student-centred learning, which means that students are actively involved in the process of learning. In open pedagogy attention needs to be given to open educational resources, open sharing of teaching practices, digital tools, peer-learning, knowledge creation and empowerment of learners (Cronin, 2017; Hegarty, 2015; Paskevicius & Irvine, 2019; Reed, 2018).

According to Biggs and Tang (2011), aligning learning outcomes and teaching methods supports deep learning among students. When planning a course assignment, the first step is to define the learning outcomes which outline the most central and essential elements of the assignment. These are knowledge, skills, abilities and attitudes that students are expected to attain during the learning process. After defining the learning outcomes, teachers decide teaching methods that support students in achieving them (Biggs & Tang, 2011).

According to Kolb (2017), when planning assignments for the course it is important to put the needs of learners first and put the technology tools second. Digital tools do not necessarily mean that students focus on the process of learning. When planning for technology tools in the classroom it is at first essential to identify learning outcomes and after that choose the methods and the technology tools (Kirkwood & Price, 2014; Kolb, 2017).

In the pilot project of the Helsinki University Library, discussed in detail in the next section, the teachers of the working seminar had already made decisions about the pedagogical goals and decided after that to use Editori as a pedagogical tool to teach scholarly publishing. In the pilot project, we also found some learning outcomes for the assignments on the Editori platform. The learning outcomes are described at a very general level and can be easily applied to scholarly publishing courses.

Jamie D. Smith (2016) emphasizes in his dissertation that information literacy is one useful way to find ideas for developing the learning outcomes. Several definitions for information literacy exist. For example, the ACRL defines information literacy as the set of integrated abilities encompassing the reflective discovery of information, the understanding of how information is produced and valued, and the use of information in creating new knowledge and participating ethically in communities of learning (ACRL, 2015).
The ACRL has developed a framework for information literacy for higher education containing six frames: (1) authority is constructed and contextual, (2) information creation as a process, (3) information has value, (4) research as inquiry, (5) the scholarship as conversation and (6) searching as strategic exploration. The frames bolstered the connection between scholarly communication and information literacy (Reed, 2018; Riehle & Hensley, 2017). According to Shuttleworth et al. (2019), all six frames can be identified in classroom journal assignments. For example, copyright issues and open access publishing are essential part of the frames.

In the pilot project learning outcomes of Editori assignment were the following:

a. Discuss and define the different roles, such as author, editor, reviewer in scholarly publishing
b. Carry out the peer review process in scholarly communication
c. Describe and evaluate the impact of giving and receiving feedback
d. Apply the suggestions in the referee reports
e. Use Editori platform for submitting the papers and reviews

After developing the learning outcomes, the second step is to select learning methods to support the attainment of learning outcomes. Students learn more when they are actively engaged in the learning process. The aim of the Editori pilot project was to provide students a real-life experience of producing a scholarly publication. Learning by doing is a pedagogical approach in which teachers seek to provide learners hands-on experience, and teachers play more of a role as facilitators. It is an efficient way to acquire new skills and an opportunity to learn academic writing, peer review, teamwork and cooperation skills (Bruce & Bloch, 2012).

According to Topping (2005), peer-to-peer learning offers students the opportunity to learn from each other. Peer learning involves the sharing of knowledge, ideas and experiences between the participants. One peer-to-peer learning method is peer review. The process of giving and receiving feedback helps students to become better writers, readers and collaborators. When students perform peer review, they learn that it is a process and an important professional skill in academia (Klucevsek, 2016). During the Editori pilot project doctoral students had a chance to practice this skill.
5. The Pilot Project

Cooperation with the three teachers of the pilot project started with a regular library liaison visit to the subject of Theoretical philosophy in late 2018. The associate professor José Filipe da Silva was intrigued by the presentation of the Editori service. It turned out that a working seminar for doctoral students was planned and a major part of that seminar was devoted to mutual peer-reviewing of article manuscripts and thesis chapters. The library team suggested an idea to establish a mock journal and use it for distributing the papers and for conducting the peer-reviewing process. The idea was favourably received, and the pilot project initiated by Helsinki University Library together with the Working Seminar of Doctoral Programme in Philosophy, Arts and Society of the Arts Faculty of the University of Helsinki started in early 2019.

In the project, the working seminar of the doctoral school included fourteen Ph.D. students from philosophy, art history, music, literature and social sciences. As many of these disciplines were closely related, an interdisciplinary approach was encouraged. In practice, however, there were two groups, one in philosophy and one in other disciplines. The common theme of the working seminar was representation, which is a very interdisciplinary concept. There was no requirement to present a paper on that specific theme, however, and the variety of topics was considerable.

The teachers of the seminar decided to use a double-blind peer review method which is common in the humanities and social sciences. An additional reason was the basic idea that each paper is reviewed by a student in the seminar as well as an external scholar. The OJS based Editori platform allows for single-blind and open peer review as well, but as these were not used, we do not as yet have experiences of other forms of peer-reviewing in the platform. In general, open peer review is still rarely used in Finnish scholarly circles (Jytilä & Laakso, 2019).

At the beginning of the project, the library team established the mock journal which was called FTY (Figure 1). It was open only for students of the course, teachers, library team and external reviewers.

The Editori platform is quite easy to use, but it includes a lot of details. That is why using it requires both support and training. To facilitate this, an Editori
guide was created and step-by-step written instructions were provided to the teachers.

In the pilot project, the teachers were given a two-hour instruction which involved using the platform, conducting the peer-review process with the tool and modifying the visual appearance of the journal in the Editori service. Learning the details of the somewhat complicated and not always very intuitive OJS based platform was facilitated by the teacher’s enthusiasm and willingness to learn new pedagogical tools.

When the working seminar approached and started, the demand for technical assistance and instruction increased rapidly. During around six weeks
many emails, phone calls and personal visits were required to get everything running smoothly. It became clear that technical support needs to be continuous. This involved the library team and the server admin.

During the pilot project the library team had to solve some unexpected technical challenges. At the beginning of the working seminar, one could log into the Editori with only the University of Helsinki username and password. However, it soon became apparent that most of the external reviewers were from other universities. While some of them were originally from the University of Helsinki and had their credentials still working, most were not able to log into the service in order to fetch their manuscripts to be reviewed nor to submit their reports. The external reviewers had one month to deliver their reports and during that time the library team had to act as a kind of post office, sending the manuscripts to the reviewers and the reports to the teachers. The problem required a new way of thinking of the whole service, and the login procedure was revamped totally around six months after the seminar was finished.

6. Learning Steps and Roles in the Pilot Project

Next, we describe student’s learning process in the Editori platform. The learning process contains four steps (Figure 2).

*Fig. 2: Learning process in the Editori platform.*
First, doctoral students submitted the journal article manuscripts or thesis chapters to the FTY journal in the Editori platform (other formats are possible as well, for example presentations, videos, podcasts and posters). The second step was writing a peer review report. Each student of the course peer reviewed anonymously a paper of one other student. For each paper, an external reviewer was also invited by the teachers. All peer review reports were submitted to the FTY journal in Editori. As explained above, the whole peer review process was double-blind review. The third step was receiving peer review reports and the last step in the process was reflecting on how to respond to feedback. The external referees had one month to review the papers and all participants of the closing meeting of the working seminar were able to see all the peer review reports one week before the meeting.

In the seminar itself a five-minute summary of the papers was given by authors, followed by a discussion of the peer review reports. The author responded to criticism in the reports, discussed on how to improve the paper, and reflected on the quality of the reports. As they were open to everyone in the seminar, other participants could join in the discussion and reflect on both the criticism and the quality of the reports. In this way the doctoral students not only practised peer review report writing, but also received feedback from their reports and perhaps also got some ideas from the criticism of other papers on how to develop their own papers.

During the learning process different kind of roles relevant to Editori platform were identified: a journal manager (taking care of the journal), a journal editor (conducting the peer review process; the manager can also act as a journal editor), a reviewer and an author. From the chart (Figure 3), one can see how the different roles were distributed to various target groups.

In the seminar, the teachers acted as journal managers and editors and the students as authors and reviewers. In addition, there were several external peer reviewers. All these target groups interacted through the Editori platform, submitting and receiving manuscripts from the FTY journal. The Editori library team set up the journal, instructed the teachers, participated in the final seminar session and provided technical support. The team was assisted by the library server admin.
7. Lessons Learned

The pilot project showed how a digital publishing platform enables experiential learning for doctoral students in the roles of authors and reviewers. They learned submitting practices and editorial workflow in scientific journals, improved their digital skills, had experience of peer-reviewing and of responding to feedback from referees. It was also clear that the quality of papers was improved in the seminar.

The feedback of both doctoral students and teachers was positive. According to the students, the Editori platform was intuitive, and it was helpful that one was forced to write an article although one was really presenting a Ph.D. thesis chapter. The referees did a thorough job, were polite and the feedback helped to shape the texts. It was found useful that the author summarized the criticism in the seminar. According to one student, she learned how to write peer review reports and give constructive criticism.

The leading teacher, José Filipe da Silva, gave very positive feedback. He stated his experience as follows: The use of the Editori service [...] has been a wonderful experience. Like with all new services, there has been a steep learning curve, but the [library] team of experts have been quick and efficient in addressing all our queries and in tackling any more intricate problems [...]. Our students have been successful – without major issues – in submitting their manuscripts [...]. This service has true potential! (J.F. da Silva, personal communication, March 21, 2019) The library team participated in the closing
session of the philosophy group of the working seminar. We noted that most doctoral students did not have previous experience of submitting articles to journals nor of rigorous peer-reviewing. In general, we got the impression that trying out the process was thought to be useful, although some could guess who the student referee was since the group was small and the students knew each other (the case was probably different in the other group of the working seminar where there were several disciplines). This identifying was less frequent with the external peer reviewers who were often from other universities. It was obvious that the peer review reports were very useful, especially for those who were planning to submit their papers as articles to journals (for student experiences in an undergraduate journal, see Weiner and Watkinson, 2014).

It is likely that the process can be operated with open peer review method without any major problems. As mentioned, in many cases the students already guessed who the other student was and knowing the identity of the external reviewer or author can perhaps help to establish fruitful future connections. However, applying an open reviewing process can perhaps make it more difficult to find external reviewers. But, as said, we do not have any experience of the open process yet.

The main goal, teaching publishing practices and peer review process to doctoral students, was a success. After the course, their readiness to submit articles to scientific journals, awareness of research ethics, skills to anticipate criticism and to deal with the peer review process were evidently improved. The students were given a possibility to practice peer review report writing, which many found important. In principle, the students can now be assigned to peer-reviewing tasks, provided that they have reached a certain level of subject expertise.

Concerning the faculty-library relationship, we noticed during the pilot project that collaboration between the teachers and the library team is essential. In the future, it will be important that the library team is attending planning meetings of the course from the very beginning. In this way, the Editori service could be integrated better into the course assignments. In addition, we noted that systematic collection of feedback from the students and the teachers is useful for developing the service (compare Weiner & Watkinson, 2014). This was not done in the pilot project.
8. Conclusion: Digital Publishing Platform as a Pedagogical Tool

Based on the experiences we can say that a digital publishing platform is a useful pedagogical tool for teaching scholarly publishing and we recommend it for other teaching programs. Our pilot project is part of a larger new trend where students and young researchers are learning to edit and publish open access journals, using digital publishing platforms. These kinds of journals can be called course journals or classroom journals (which can be open access journals or mock journals) and they should be distinguished from student-led journals where the students act independently to create an (open access) journal. The Editori service of the Helsinki University Library welcomes both kinds of journals as we now do not yet have student-led journals.

Concerning classroom journals, there is room for further development. In the pilot project, scholarly publishing practices, such as submitting and peer-reviewing were taught and practiced, but these apply to both traditional journals as well as to the open model. As Editori is an open journal service, we hope too that it can be used in the future to teach open access practices, such as open licenses, persistent identifiers, modifying the visual outlook of the journal, promoting the journal and articles, open peer review and copy editing. In short, we hope that teaching open access practices in doctoral studies or undergraduate studies would lead to new, independent, open access student-led journals that can be hosted by the library’s Editori service.

Naturally, this goal faces some challenges, such as the continuity of the journals. For example, a survey of undergraduate journals in Council for Undergraduate Research (CUR) website showed that almost half of the publications listed in 2009 were no longer active (Weiner & Watkinson, 2014). While there is less mobility among post-graduate students than undergraduate students, there is still a fair amount due to exchange programs, changes to other universities, research visits etc. The benefit of classroom journals is that they are often led by teachers who often remain the same although the editorial board may change. On the other hand, continuous hosting service and technical support from the library help to establish a student-led journal, and if credits are given for producing the journal, the motivation to do it is increased. The final journal issue can also be assessed in order to produce credits for the authors and the editors (for an example of an assessment process, see Weiner and Watkinson, 2014).
In our vision for the future, Editori service, as a library-based open journal publishing platform with an experiential learning focus, would develop into an incubator of fresh journal start-ups, whether student-led or driven by early-career researchers. A student-led journal (which can originate from a classroom journal) can evolve into a high-quality peer review journal that can make an impact on science.

Currently, on the Editori platform, we have an example of almost this kind of initiative, the Journal for Reproducibility in Neuroscience\(^3\) which is led by a senior scholar but where doctoral students around the globe form the editorial board and are responsible for most of the content. The journal publishes articles on attempts to replicate entire studies or single experiments in the field of neuroscience.

A recent survey on customer feedback for library services at the University of Helsinki showed a clear interest and demand for further information about the Editori open journal service among faculty members. This points out the educational potential of the service for strengthening scholarly communication skills with doctoral students.

In general, one of the future challenges in open science is how to promote open pedagogy. Cultural and pedagogical implications are just as important as open resources, and during this project, we noticed that a digital publishing platform can provide a way to promote open education, for example enabling new forms of open peer-review. At their best, open practices promote innovative pedagogical models, empower learners as co-producers of knowledge and increase the sharing of educational practices.

References


**Notes**

