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# Paving The Way For Student-Led Publications - Development and Implementation of a Course in Information Systems with Open Educational Resources

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# PAVING THE WAY FOR STUDENT-LED PUBLICATIONS - DEVELOPMENT AND IMPLEMENTATION OF A COURSE IN INFORMATION SYSTEMS WITH OPEN EDUCATIONAL RESOURCES

*TREO Paper*

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## **Abstract**

Excellent Information Systems (IS) bachelor or master student theses have the potential to inform the scientific community about interesting findings about IS phenomena. However, transforming such theses into scientific working papers is not only time-consuming for the student and the supervisor, but also purely voluntary. Part of the problem is that few IS faculties offer any structured course for the transformation process as part of their curriculum. This significantly reduces the proportion of outstanding theses that are developed into working papers and, ultimately, into publications, resulting in a loss of knowledge for the broader IS community. To address this structural deficit, we aim to develop and implement a credit course and open educational resources (e.g., course schedule, slides, videos) that support students in developing their theses into publishable scientific research papers. This approach not only enriches the scientific discourse but also presents a research-oriented educational disruption for the IS community.

*Keywords: Student Thesis, Scientific Publishing, Course Implementation.*

## **1 Motivation**

Around the globe, students in the IS field produce thousands of theses each year, whether for a bachelor or master degree, or a seminar or project. Of these, a non-negligible proportion is of excellent academic quality, generating significant findings with an innovative and well-designed research approach. However, many of these valuable insights end up in the university's archives after the grading process (Larivière et al., 2008). This is partly because students are not sufficiently and systematically supported in the process of transforming their thesis into a publishable scientific research paper ready for submission to a major IS conference, for example. If at all, students only receive voluntary guidance from their supervisor. However, given that the transformation process is often too time-consuming for both the student and the supervisor, we find this to represent a significant missed opportunity for all involved, not least for the broader IS community.

The transformative potential of involving students early on in research, and facilitating their transition into publishing scholars, is underscored by several studies highlighting the multifaceted benefits of such an engagement. Existing research emphasizes that the opportunity to publish is a crucial indicator of a student's future scholarly success, suggesting that early exposure to the publishing process equips students with vital academic and professional skills (Pinheiro et al., 2014). Similarly, studies demonstrate that student-led research and subsequent publishing significantly enhance students'

attitudes towards science and their scientific skills, laying the foundations for their future academic careers and research endeavors (Eales and Laksana, 2016). Moreover, a study that documented the development of a student journal (Student Journal of Nurse Anesthesia) showed the importance of providing students with a platform for sharing and publishing their research, and fostering a culture of knowledge exchange and mentorship outside traditional academic settings (Pearson et al., 2004). This concept is further explored by Pickering et al. (2015), who argue for the pedagogical benefits of engaging students in systematic quantitative literature reviews as a stepping stone to publishing, thereby facilitating their transition from novice to scholar. Supporting undergraduate research and its publication not only prepares students for future scientific contributions but also instills a deep-seated confidence and trust in the scientific process (Ali et al., 2007; Shi, 2021). Furthermore, it is not only students who will benefit, but also researchers – and universities who need to recruit research assistants. Kashyap (2020) emphasizes the importance of contemporary researchers being acquainted with crucial concepts in academic research and publication, including publication competencies such as journal indexing and peer-review processes, for example.

In order to unleash the potential of scientific student publications it is crucial to develop a structured process that guides students through the process of scientific publication, equipping them with the necessary skills and knowledge to successfully publish their work in IS outlets. However, to date, few faculties include a credit course in the IS curriculum for that purpose. Hence, to address this structural deficit we aim to develop and implement a credit course and open educational resources (OERs) (e.g., course schedule, slides, videos) that supports students in turning their theses into publishable scientific research papers. This approach would not only amplify the dissemination of new knowledge but also enrich the scientific discourse by integrating the diverse perspectives and findings generated by students. Therefore, the goal of our project is to design a credit course and OERs that facilitate the transformation of student theses into scholarly publications within higher education environments.

## **2 Method**

Our method is based on Action Design Research (Sein et al., 2011), allowing us to effectively involve all key stakeholders—students, faculty, and academic institutions—in the design process.

### *Phase One: Analysis of Stakeholder Requirements and Course Conceptualization*

The initial phase is dedicated to the *problem formulation* (Sein et al., 2011) and an in-depth analysis and collection of stakeholder requirements, ensuring that the course's design addresses the diverse needs of students, faculty, and academic institutions.

### *Phase Two: Development and Integration of Learning Materials*

In the second phase, we focus on the development and curation of educational materials specifically designed to guide students through the research and publication process. These materials, integrated into a Moodle platform and available as OERs, support students from research initiation to manuscript submission. By offering OERs, we ensure that the results and learning tools are accessible to the wider IS community, benefiting all.

### *Phase Three: Course Piloting and Evaluation*

The third phase involves the testing of the course with a group of Master's students, allowing for *reflection and learning* (Sein et al., 2011). This phase is crucial for assessing the efficacy and impact of the course on students' readiness to engage in scholarly publishing.

### *Phase Four: Implementation and Dissemination*

In the final phase, the course is officially launched and made available to a wider student audience in the university. This phase culminates in the *formulization of learning* (Sein et al., 2011), and focuses on

securing the course's future, incorporating feedback from the pilot phase to ensure its relevance and effectiveness over time.

### **3 Expected Results and Outlook**

We expect that this research-oriented course will present an educational disruption as it significantly increases the number of student research papers and thus makes a significant contribution to the IS community. Encouraging collaboration between students and professional research associations (e.g., the AIS) can significantly increase the publication rate of student-authored research papers. This collaboration not only benefits publication productivity, but also contributes to the professional development of students and the dissemination of research results in the IS community. Our initiative has set itself the task of systematically sensitizing and empowering students and academic staff, especially doctoral students, to seize this opportunity and carefully support students in the dissemination of their research results. Course participants will acquire important meta-skills that are crucial for writing and disseminating academic papers. Beyond the academic qualification, the close cooperation between academic staff and students is intended to foster a deeper connection with the respective department or faculty. In this way, participants gain a comprehensive understanding of research methods, departmental workflows and an insight into the world of academic careers. Students are also encouraged to consider their career goals and actively think about an academic career. Successful completion of the course does not only give students credit points towards their degree, but also demonstrates their ability to engage with complex and relevant topics at a commendable academic level. Our project represents an innovative and disruptive strategy to bridge the gap between academic education and scientific publication. Through the development and implementation of a course and OERs we not only maximize the potential of student research efforts but also facilitate access to the dissemination of scientific knowledge, thereby enriching the academic landscape.

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