

Academic Entrepreneurship Opportunities in Digital Transformation: Case Study of Conference Management System Development

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Abstract

This paper investigates the concept of academic entrepreneurship and its promotion through strategically designed institutional programs, which is an increasingly common practice. Emphasis is placed on a case study of the development of a digital platform intended to support and transform the conference management process. The proposed conference management system is compared to existing solutions to identify areas for future development and differentiation. Additionally, commercialization potential is assessed using a Business Model Canvas framework. The main contribution of this study is the identification and dissemination of good practices for fostering entrepreneurial thinking within academic environments. The paper may serve as a valuable reference point for institutions seeking to leverage academic entrepreneurship and digital transformation for their strategic development goals.

Keywords: Academic entrepreneurship, digital transformation, software development, conference management system

1. Introduction

University research is becoming an increasingly important source of ideas and technologies needed to bring value to the marketplace [17]. Commercialization of research results attracts significant attention from both academic institutions and the government [18]. This attention has laid the foundation for academic entrepreneurship (AE), where universities explore the commercial potential of their research and generate revenue [17]. The Faculty of Organizational Sciences (FON), through its strategic development and the “*FON Ideje*” (further referred to as *FON Ideas*) initiative, aims to explore and institutionally support the opportunities arising from AE. One outcome of the *FON Ideas* initiative is the development of a conference management system platform by six employees of this institution. The platform, with the name *FONChair*, exemplifies an internally driven solution to institutional challenges with significant potential for commercialization.

The rest of the paper is organized as follows: Section 2 provides a brief literature review on AE, highlighting its benefits and limitations, with particular focus on digital AE, and the role of institutional incentives, such as those implemented at FON; The next section outlines the

FONChair platform, including the product management lifecycle, a detailed comparative analysis of existing alternatives to the proposed conference management system and its functionalities; Section 4 outlines future commercialization opportunities and the overall business model is presented using Canvas business model template; finally, the last section draws a conclusion that includes limitations and future directions of work.

2. Background

2.1. Academic entrepreneurship

Different definitions of AE give different interpretations of what constitutes a successful AE endeavor. AE in the narrower sense implies the commercialization of intellectual property created at the university through research and development, through the establishment of a small business [14]. In the definition of [7], the main idea of AE is the creation of new spin-off companies by the institution's staff, students, postgraduates or alumni, bringing innovation to the market by transforming research into commercial products and services [2], [10]. According to [15], the main goal of AE is to promote commercialization at the institution and in the surrounding region. In [15], [17] it is argued that AE endeavor is successful if it generates sustainable and long-term income.

There are many benefits of AE, including financial and reputational gain. This can be done through job creation, economic growth, and the development of solutions for existing problems [17]. While the benefits of AE are obvious, two questions are often raised: whether all academic institutions should engage in this activity at all [12] and where the individual's commitment to these activities comes from. First, it should be noted that university structures may not be well suited to this new role [15] as they have traditionally resisted the commercialization of scientific research [18]. In recent years, however, universities have embraced a culture of supporting entrepreneurial endeavors [18], but as some argue [15], this push is sometimes the result of external pressures – declining public funding, achievements of competing institutions – rather than the internal resources and skills [8]. Second, some research [1] argues that the individual characteristics of college staff are the primary determinant of institutional AE and that institutions wishing to commercialize their research should orient their culture to attract academics with high entrepreneurial capacity. Others argue that improving entrepreneurial culture within the institution itself encourages academics to investigate potential entrepreneurial opportunities [18].

Universities need to consider whether AE aligns with their strategic development, and if so, identify the areas that best fit with their strengths and objectives [15] and look for opportunities to address the existing knowledge gaps in this area. One possibility suggested in [18] is the involvement of business schools in the commercialization of research findings, as they can provide insights and capabilities that may otherwise be lacking, and managers play a key role in entrepreneurial encouragement of employees with a goal of organizational improvement [9], [16].

2.2. Institutional support

The Faculty of Organizational Sciences (FON), University of Belgrade, is uniquely positioned to foster academic entrepreneurship due to its hybrid identity combining business and IT education [19]. Its Development Strategy 2023–2033 [3] outlines a mission to integrate excellence in teaching, research, and solution development aligned with global trends. The Faculty promotes entrepreneurial behavior by encouraging leadership, interdisciplinary collaboration, and digital transformation. Certain leadership styles have been shown to positively influence intrapreneurial behavior [5], creating a climate conducive to innovation. Digital Academic Entrepreneurship (DAE) emphasizes the use of digital technologies to enhance entrepreneurial activity within academia [13], increasing the flexibility and scalability of academic self-employment efforts [12], [6].

In line with this, FON established *FON Ideas* [4], an internal R&D initiative supporting employee-driven projects aligned with six strategic development areas: teaching, international cooperation, industry and public sector engagement, publishing, internal capacities, and

research. The initiative fosters horizontal collaboration, transparent funding, and institutional innovation, and has resulted in the development of digital tools such as FONChair, aimed at addressing real academic needs through sustainable, internally developed solutions.

3. FONChair – Conference management system

FONChair is a comprehensive information system for managing academic conferences, developed through an internal research and development project under the umbrella of the *FON Ideas* initiative. The platform was designed in response to the challenges of manual conference organization and the need to eliminate the costs of external solution use. *FONChair* enables the digitalization and automation of all key processes related to organizing academic conferences, giving an example of how an internal initiative can generate solutions that address real needs within the academic community, contributing to the digital transformation and fostering AE within higher education institutions. The main idea is for the *FONChair* platform to be developed in two phases. The first phase focuses on the needs of FON itself as a conference organizer and is characterized as a cost reduction phase. The second phase is platform improvement such that it is competitive on the market and can therefore be commercialized, characterized as a revenue generation phase. The development of the *FONChair* conference management system is currently near the end of the first phase, being fine-tuned and tested. Preceding actions in this process included market research and analysis and business model development, discussed later in the paper.

3.1. Market research and comparative analysis

Table 1 provides a comparative analysis of existing conference management solutions and the proposed final *FONChair* platform. These alternatives were presented since they have either been used or were considered for the organization of previous conferences. The functionalities presented were identified through previous use and/or information on the official websites of the system providers. The functionalities in bold have been identified as key for the first phase of development as they meet the needs of FON conference organizers. As can be seen, there is currently no conference management system that meets these requirements and is completely free. Therefore, developing such a platform would at least save costs while providing all the identified key functionalities. The remaining features represent areas for future development that could satisfy a wider audience, opening the possibility of platform commercialization.

Table 1. Comparative analysis of existing conference management system platforms

Criteria	EasyChair	ConfTool pro	Microsoft CMT	hotCRP	<i>FONChair</i>
General					
Customizable submission process	✓	✓	✓	✓	✓
Multiple file upload types	✓	✓	✓	✓	✓
Role management	✓	✓	✓	✓	✓
Search/Filter	✓	✓	✓	✓	✓
Data export	✓	✓	✓	✓	✓
Conflict management	✓	✓	✓	✓	✓
Multiple tracks	✓	✓	✓	✓	2 nd phase
Bidding	✓	✓	✓		2 nd phase
Reviews					
Submission of reviews	✓	✓	✓	✓	✓
Author's response/rebuttal	✓	✓	✓	✓	✓
Reviewer database management	✓	✓	✓	✓	✓
Customizable review submission	✓	✓	✓	✓	2 nd phase
Program committee					

PC paper discussion (notes or meetings)	✓	✓	✓	✓	✓
PC management and monitoring	✓	✓	✓	✓	✓
Access of PC members and referees to papers	✓	✓	✓	✓	✓
Monitoring and communication					
Participant email notifications	✓	✓	✓	✓	✓
Conference analytics	✓	✓		✓	✓
Conference registration	✓	✓			2 nd phase
Pricing					
Pricing	Pricing brackets per number of papers	Flat fee + fee per participant	Free for academic purposes	Free with self-hosting/Pay for hosting	Self-owned

4. Business model and commercialization opportunities

Beyond internal benefits for the Faculty, *FONChair* is designed with the potential for commercialization, reinforcing the role of the Faculty of Organizational Sciences as a provider of innovative digital solutions in the academic environment. The platform's business model, presented through the Business Model Canvas (Figure 1) [11], outlines key assumptions for sustainable value delivery and future scalability.

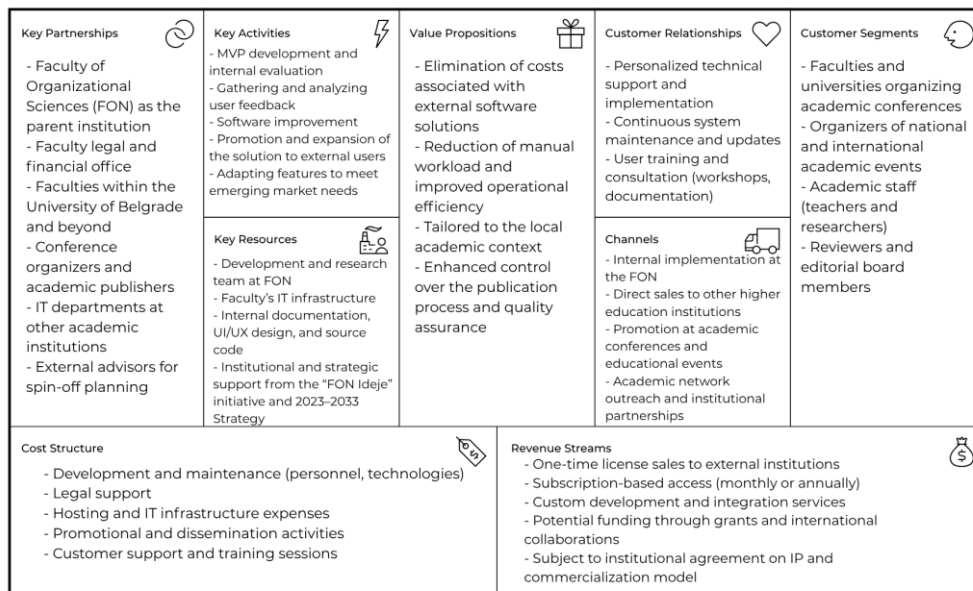


Fig. 1. FONChair Business Model Canvas

The initial development and promotion are financed by the institutional *FON Ideas* program. Upon finalization of the MVP and positive internal evaluation, the development team plans to engage with the Faculty's administration regarding IP ownership, long-term maintenance, and funding strategies, prior to commercialization. This model reflects an intrapreneurial approach to digital academic entrepreneurship, allowing innovation to emerge within institutional boundaries.

5. Conclusion

This paper examines the development and strategic positioning of *FONChair*, a digital conference management platform, created as part of the *FON Ideas* initiative aimed at exploring AE opportunities. The R&D process was based on a comprehensive competitive analysis, followed by the formulation of a BMC to ensure adequate commercialization opportunities. Designed to streamline the submission, review and publication processes, *FONChair* addresses the operational inefficiencies often seen in manual or semi-digitized conference workflows and is now entering the pre-testing phase.

The impact of this work is twofold. First, at an institutional level, the platform demonstrates how AE can emerge within higher education institutions, particularly when supported by targeted strategic frameworks. Secondly, from a broader perspective, *FONChair* represents a scalable digital solution that can be adopted by other academic institutions and potentially contribute to the overall improvement of the conference management process. However, some limitations do exist. While the platform was developed based on the needs of events organized by FON, broader applicability requires extensive testing in different institutional contexts and procedural and regulatory requirements. In addition, the sustainability of further growth of the platform depends on the provision of resources for ongoing maintenance, user support and adaptation to evolving academic practices and technologies.

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