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HACKING THE HACKATHON: A TOOL FIT FOR MANAGEMENT EDUCATION IN THE ERA OF GRAND CHALLENGES?

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Abstract

Originally conceived a decade ago to stimulate prototyping in the technology sector, hackathons have proliferated in management education. While bringing a practical tool into the classroom would seem to respond to calls for closer links between education and practice, we explore whether the hackathon is fit for purpose in management education and for addressing grand challenges. We define grand challenges as large-scale, complex problems such as climate change, poverty, inequality and environmental sustainability. This exploratory study focuses on hackathons on sustainable development that have taken place in a business school since 2016. We adopt a multi-stakeholder approach to analyse one of these hackathons, collecting data through questionnaires and interviews to explore the perspectives of the different stakeholders involved: students, professors, programme management and external stakeholders. Our empirical study identifies different types of value attributed to the hackathon by the participating stakeholders. We identify several tensions that lead us to caution the adoption of hackathons as a teaching tool for grand challenges and make recommendations for adapting the hackathon in context to ensure its pedagogical integrity. Hackathons do not seem to satisfy all stakeholders at the same time and for the same thing. These findings are particularly relevant given the current push for multi-stakeholder approaches to teaching sustainable development and the increasing popularity of hackathons in higher education.

Keywords: *Hackathons, grand challenges, practice-based tools, management education.*

1. Introduction

The ongoing debates in management and higher education literature focus on the nature, purpose, and future of business schools, particularly questioning the practical relevance of management education (Thomas & Ambrosini, 2021). This discussion is intensified by the urgent need to address grand challenges in management and sustainability (Ferlie et al, 2010; Schoemaker, 2008), prompting calls for new teaching methods (Montiel et al., 2020a). One such method is the hackathon, which has gained popularity in management education. Hackathons involve diverse groups working intensively over a short period to develop innovative solutions (Briscoe and Mulligan 2014; Komssi et al. 2015). Originating in the IT sector, hackathons have been adapted by various industries and are now used in management education to teach innovation, entrepreneurship, and sustainability through "green hackathons" (Zapico et al., 2013).

Despite their popularity, hackathons face criticism in both industry and higher education settings (Fabbri et al 2018; Endrissat 2019). This paper explores the suitability of hackathons in management education, particularly in addressing grand challenges, and examines whose purposes they serve. The study draws on data from six hackathons organized by a French business school since 2016, focusing on sustainable development. It includes surveys from 260 students and interviews with nine stakeholders, including program managers, external stakeholders, and teaching teams.

The findings reveal tensions between stakeholder expectations and the perceived value of hackathons. The study concludes that without adapting hackathons to academic purposes, they are unlikely to meet diverse stakeholder expectations. The paper offers recommendations to repurpose hackathons as educational tools that can create value for all stakeholders and contribute to developing sustainability competencies. The article is structured to discuss the current context of management education, the hackathon phenomenon, the study's methodology, findings, and practical implications.

2. Literature background

The debate surrounding management education has increasingly focused on its disconnection from the practical realities of management practice. Scholars argue that business schools emphasize academic rigor at the expense of real-world applicability, limiting students' preparedness for the workplace (Ferlie et al., 2010; Schoemaker, 2008). This issue is exacerbated by employers' growing reluctance to offer on-the-job training (Puri, 2018), prompting calls for experiential and professionally co-designed curricula (Bruno et al., 2021; Dean et al., 2020).

Parallel discussions concern responsible management education, prompted by corporate scandals such as Enron, which raised concerns about business schools' role in fostering ethical leadership (Beggs & Dean, 2007; Hibbert & Cunliffe, 2015). The UN's Principles of Responsible Management Education (PRME) and sustainability-focused pedagogical frameworks have since proliferated (Starik et al., 2010). However, evidence of their impact on practice remains inconclusive (Montiel et al., 2020b).

More recently, the concept of "grand challenges"—global, complex issues such as climate change and inequality—has gained prominence in management literature (Ferraro et al., 2015; Eisenhardt et al., 2016). These challenges demand interdisciplinary, collaborative solutions that span ethical, economic, and ecological domains (George et al., 2016; Martí, 2018). The European Commission's GreenComp framework reflects this need, promoting sustainability competencies through active, experiential learning (Bianchi et al., 2022). Scholars have similarly advocated for pedagogical models that integrate academic and managerial knowledge (Laasch, 2018; Armstrong & Fukami, 2009), though empirical applications remain limited (Montiel et al., 2020a).

Hackathons have emerged as a potential tool to bridge these gaps. Originally grassroots tech events (Briscoe & Mulligan, 2014), hackathons are now used in corporate and educational settings as intense, collaborative innovation platforms (Raatikainen et al., 2013; Lifshitz-Assaf et al., 2021). In higher education, hackathons promote active learning, team-based problem-solving, and student engagement with real-world challenges (Canopé, 2017; Suominen et al., 2018). Their adaptability was particularly valuable during the COVID-19 shift to remote learning (Braune et al., 2021).

However, critiques remain. Hackathons can be exclusionary, yield superficial results, and risk commodifying unpaid labor (Endrissat, 2019; Komssi et al., 2015). Their fast-paced structure may undermine critical reflection, limiting their suitability for addressing grand challenges (Ferraro et al., 2015). Despite these tensions, sustainability-themed educational hackathons are gaining traction, offering experiential opportunities to build competencies essential for addressing complex societal problems (Zapico et al., 2013; Saukkonen et al., 2020).

3. Method

In order to understand the effectiveness and purpose of educational hackathons in management education, particularly in the context of sustainable development, a study has been conducted in two steps:

1. Initial insights: The researchers gathered preliminary information from six different hackathons they have organised at a French business school since 2016. These hackathons focused on sustainability themes and involved a variety of stakeholders, including educators, students, programme managers and external partners. Common reflections have indicated dissatisfaction with the achievement of educational goals, mainly due to institutional constraints and misaligned stakeholder expectations.

2. In-depth Study: The researchers conducted a detailed study of one hackathon, the Critical Marketing Hackathon, which is part of a Marketing Major at the Master's level. This hackathon aimed to develop innovative marketing proposals addressing environmental and social issues. Data was collected from 260 student surveys and 13 semi-structured interviews with teachers, educators, program directors, and external stakeholders such as referent of companies 'partners.

4. Results

Experts found the hackathon relevant, allowing them to engage with new perspectives and understand the younger generation's view of CSR. Teachers appreciated its potential to foster interdisciplinary collaboration and critical thinking, although it could go even further. Lack of criticism is one of the sources of disappointment for organisers.

However, several frustrations and limitations were identified. Students found the format intense and often too short or, paradoxically, too long. Many of them would have liked the opportunity to develop their ideas further after the event and interact more with real stakeholders. Teachers and organisers pointed to the cumbersome organisation and logistical constraints. Participating organisations felt that the highly

structured format limited creativity and real-world applicability. The lack of diversity in the students' backgrounds and the lack of time to obtain expert feedback (referents from the participating organisations) were also seen as drawbacks.

Ultimately, while the hackathon did raise awareness of sustainability and encourage new teaching methods, the rigid structure, logistical constraints and mismatch between students' technical knowledge of the subject limited its full potential.

5. Discussion and conclusion

In this paper we discuss the role and considerations of hackathons as an educational tool within business schools, particularly in the context of addressing grand challenges. Hackathons are noted for their potential to create value for various stakeholders, making them a viable component of a forward-looking business school strategy that emphasizes co-creation with stakeholders (Cavallone et al., 2021; Thomas & Ambrosini, 2021). However, to effectively utilize hackathons as an educational tool, several critical points must be considered.

The empirical results suggest that the different types of value generated by hackathons need to be carefully balanced, as they may differ significantly from traditional teaching methods. The visibility and added value of a hackathon's event status for program managers, students, and external experts must be balanced with maintaining pedagogical integrity. The significant time and effort involved in organizing and facilitating a hackathon should be valued, considering the extended benefits such as interdisciplinarity, learning among educators, and building relations with external experts. Hackathons should not be viewed primarily as tools for cost reduction or efficiency enhancement.

A key aspect of using hackathons as a pedagogical tool is to carefully consider their objectives and required outputs. Hackathons, as practice-based tools, often focus on providing "answers" (Zapico et al., 2013), "innovative quick fixes" (Komssi et al., 2015; Macedo Guimarães et al., 2021; Page et al., 2016), or "fast-paced innovative solutions" (Komssi et al., 2015; Macedo Guimarães et al., 2021; Page et al., 2016). However, the findings indicate that green hackathons are more successful at creating awareness of complex issues and bringing together differing perspectives than at finding innovative solutions. To achieve this aim, it is crucial to consider how the hackathon's output will be evaluated. A focus on solutions in a short timeframe can reduce complexity and undermine educational objectives. The empirical data suggests that evaluations like final pitches or posters may encourage students to simplify their responses, focusing more on incremental changes and consensus rather than radical change and contestation, thus minimizing the potential for positive social and environmental impact and systems change. This aligns somewhat with previous claims that forced collaboration in pre-created teams annihilates differences of opinions (Endrissat, 2019).

Further consideration of how hackathons are embedded in the educational program is essential, both logistically and pedagogically. Connecting hackathons to pre- and post-event courses can enhance their value, helping to move from problem awareness to action and future scenarios. This linkage can also help resolve tensions between the interests of external experts in company-specific projects and the educators' desire for wider applicability. The positioning of a hackathon in a program is relevant not only for knowledge acquisition but also for skills development. Hackathons offer opportunities for self-directed learning, but this requires students to have some independent learning skills and educators to be knowledgeable about relevant pedagogies such as heutagogy (Blaschke, 2012; Kenyon & Hase, 2010).

In conclusion, the findings imply the need for caution when using hackathons, the need for a roadmap with clear objectives, and further work on adapting this tool to ensure its pedagogic integrity while maintaining its popular appeal. These insights are particularly relevant given the current push for multi-stakeholder approaches to teaching sustainability and developing "green" competences in future managers and leaders.

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