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Enhancing Business Pitching Skills through Teaching Innovation: Leveraging Microsoft Team Speaker Coach

Jacqueline Joseph[1]*, Lita Nasution[2]*

[1]Faculty of Plantation and Agrotechnology, Universiti Teknologi MARA UiTM Sabah Branch, Kota Kinabalu Campus, Locked Bag 71, 88997 Kota Kinabalu, Sabah, Malaysia.

[2]Universitas Quality, Agroteknologi, Medan, Sumatera, Sumatera Utara, Indonesia

*Corresponding Author email: jacqueline@uitm.edu.my

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ABSTRACT

In today's fast-evolving agribusiness landscape, the ability to deliver a persuasive business pitch is no longer optional; it is essential. Agropreneurs must be able to communicate innovative solutions clearly and confidently, particularly when seeking funding or entering competitive markets. Yet, agricultural education often lacks sufficient tools for real-time feedback and iterative improvement. To address this pedagogical gap, this study employed a within-subjects pre-post experimental design to evaluate the effect of Microsoft Teams Speaker Coach, an AI-powered communication feedback tool, on students' pitching performance. A total of 33 Diploma in Agropreneurship students from the Faculty of Plantation and Agrotechnology, UiTM Sabah Branch, participated in this study. Descriptive analysis showed a significant improvement in performance; the mean pitching score improved from 27.97 (pre-test) to 30.76 (post-test) with a statistically significant difference confirmed by a paired samples t-test ($t = 6.11$, $p = < .001$.), indicating that the integration of AI-powered feedback produced a meaningful enhancement in students' ability to pitch agricultural business ideas effectively. Beyond offering empirical evidence for AI's role in education, this study aligns with Sustainable Development Goal 4 (Quality Education) by embedding innovation, digital literacy, and learner-centred strategies into skill-based curriculum design. Nonetheless, the study recognises a key limitation: research on AI coaching tools for pitching remains scarce, with limited scientific validation and evidence to confirm their sustained impact. This highlights the urgent need for future studies to expand the empirical base and rigorously test AI-assisted pedagogies to ensure that their adoption in education is both evidence-based and transformative.

1.0 Introduction

In the context of a fast-changing agri-food market, entrepreneurial success is increasingly dependent on the ability to convey ideas with clarity, precision and persuasively. One of the most important of these abilities is business pitching, a succinct but strategic type of communication in which entrepreneurs express their value propositions to potential investors, funding bodies, and stakeholders (Polcz, 2021). Young agropreneurs, who are frequently at the vanguard of innovation in sustainable agriculture, must master the business pitch not only to attract finance

but also to demonstrate sustainability, scalability, and market alignment in competitive ecosystems (McSweeney et al., 2025). Pitching in agriculture is more than just a presentation; it serves as a strategic instrument for resource acquisition, relationship building, and market penetration (Sabaj et al., 2020). However, despite its significance, pitching is typically overlooked in conventional agricultural education. Many students graduate with excellent technical knowledge but lack the linguistic fluency, narrative structure, and presentation abilities needed to acquire funding for their entrepreneurial projects. Furthermore, typical classroom-based approaches to pitching teaching can deliver restricted, subjective feedback, with little opportunity for iterative improvement or personalised coaching. Given the increasing relevance of pitching in agropreneurship, there is an urgent need for a structured educational approach that bridges this gap by incorporating digital innovation.

Universiti Teknologi MARA UiTM Sabah Branch is the Lead Institution or *Pengurus Utama* (PU) for the Diploma in Agropreneurship programme within the UiTM system, which is offered by the Faculty of Plantation and Agrotechnology. As the academic custodian of this pioneering curriculum across UiTM campuses, UiTM Cawangan Sabah takes the lead in developing agropreneurial talents who are not only technically talented but also entrepreneurial minded and capable of effectively conveying creative ideas. This initiative is consistent with the campus's strategic transformation towards becoming an enterprising and entrepreneurship-driven branch, as outlined in the Rector's 2024 address (Amanat Rektor UiTM Cawangan Sabah 2024), delivered on February 28, 2024, by YBrs. Prof. Madya Dr Rozita @ Uji Mohammed, Rector of UiTM Cawangan Sabah. The talk emphasises the necessity of instilling innovation, digital capabilities, and entrepreneurial thinking in all academic programmes. In keeping with this strategic goal, the Diploma in Agropreneurship programme provides the Agricultural Business Pitching (AGB283) course, which is designed to provide students with the practical skills they need to express their business ideas with confidence, clarity, and strategic impact. UiTM Sabah Branch has pledged to train a new generation of agropreneurs who can not only build sustainable agri-business operations but also effectively present their ideas and goods to potential investors, financing bodies, and partners. Through courses like this, the university shows its dedication to preparing graduates who can positively impact rural development, empower communities, and support economic sustainability, following the Quintuple Helix Model that combines education with cultural, environmental, industrial, and social aspects (Cloitre et al., 2022; Kholiavko et al., 2023).

While numerous studies have explored the enhancement of communication and pitching skills through workshops, mentoring programmes, and instructor-led feedback, limited empirical research has examined the effectiveness of AI-driven tools, such as Microsoft Teams Speaker Coach, within formal tertiary education settings (Padia et al., 2024). This gap is particularly evident in agriculture-based business pitching courses, where the ability to articulate innovation and entrepreneurial value propositions is becoming increasingly critical. Despite the growing use of Massive Open Online Courses (MOOCs) and micro-credentialing platforms to deliver flexible, skills- based training in entrepreneurship and communication, there remains a lack of comparative studies evaluating how AI-powered feedback mechanisms perform relative to conventional instructional methods (Joseph, 2025). This is especially relevant in agropreneurship programmes, where the integration of digital platforms with intelligent feedback systems could offer scalable, personalised learning experiences that align with the evolving demands of Education 5.0 and the digital agrifood economy.

1.1 Research Questions

i. To what extent does the use of Microsoft Speaker Coach improve students' pitching performance in the Agriculture Business Pitching course (AGB283)?

ii. How do students perceive the effectiveness of Microsoft Speaker Coach as a tool for enhancing delivery, confidence, and clarity?

1.2. Hypotheses

H_0 (Null Hypothesis):

There is no significant difference in students' pitching performance scores before and after using Microsoft Teams Speaker Coach.

H_1 (Alternative Hypothesis):

There is a significant improvement in students' pitching performance scores after using Microsoft Teams Speaker Coach.

1.3. Aims of Study

i. To assess the effect of Microsoft Speaker Coach on students' pitching performance

ii. ii. To examine students' perceptions of the effectiveness of Microsoft Speaker Coach in improving pitching clarity, confidence, and delivery.

1.4 Significance of Study

This study provides empirical evidence on the effectiveness of integrating AI feedback tools in teaching innovation, particularly in fields that require persuasive communication. In addition, it addresses the urgent need to equip agroentrepreneurial students with future-ready communication and pitching skills through the integration of Microsoft Teams Speaker Coach. By leveraging this AI- powered tool, the research enhances teaching innovation in higher education, aligning with Sustainable Development Goals (SDGs) particularly SDG 4: Quality Education, SDG 8: Decent Work and Economic Growth, and SDG 9: Industry, Innovation, and Infrastructure. It empowers students to deliver confident, clear, and impactful business pitches, thereby improving their employability and entrepreneurial readiness. Anchored in the Quintuple Helix Innovation Framework, the study contributes to sustainable knowledge generation and societal development by integrating the roles of academia, industry, government, civil society, and the natural environment. It emphasises how education and digital innovation can synergise to promote entrepreneurial thinking, strengthen the green economy, and foster inclusive growth within the agriculture sector.

2.0 Literature Review

Despite the increasing availability of online entrepreneurship courses focusing on start-ups, innovation, and business models, few have incorporated AI-driven coaching tools to directly improve students' verbal delivery skills. Most MOOCs emphasise content delivery and conceptual knowledge, with minimal focus on spoken delivery skills essential for investor pitches or stakeholder engagement (Resei et al., 2018). There remains a lack of pedagogical innovation aimed at systematically improving verbal pitching performance.

The use of Speaker Coach in this study represents a novel integration, filling a gap in the literature by offering real-time, data-informed feedback on speech patterns, pacing, and filler word use, areas often overlooked in traditional entrepreneurship instruction. Nakajima and Sekiguchi (2025) affirm that business planning- including pitching-is an essential entrepreneurial competency that blends persuasive communication with strategic business thinking is crucial in enhancing entrepreneurial outcomes. The development of such competencies is not merely a functional exercise but a transformative learning process, influencing the confidence, preparedness, and success trajectory of budding entrepreneurs. In entrepreneurship education, pitching is more than presenting a business idea. This is corroborated with the study from Raimi (2021) that structured approaches to business planning, including pitching, improve the likelihood of venture success across pre-startup, startup, and post-startup stages. Thus, integrating tools that refine these skills in real-time settings is increasingly vital.

As revealed by Garcia et al. (2024), practicing with AI speech coaches reduces public speaking anxiety (average 25% reduction) and increases confidence, particularly beneficial in high- stakes scenarios like pitching. Meanwhile, Guimtrandy and Helmchen (2022) confirmed that the first meeting serves as a critical touchpoint to establish credibility and trust through a well-delivered pitch. It must leave a strong and convincing impression, as this initial interaction can significantly influence an investor's decision to proceed.

3.0 Methodology

A total of 33 Diploma in Agropreneurship students from the Faculty of Plantation and Agrotechnology, UiTM Sabah Branch, participated in this study. The study employed a quasi-experimental pre-test and post-test design without a control group, aimed at assessing the effectiveness of Microsoft Teams Speaker Coach in enhancing students' pitching skills. Pitching performances were evaluated based on both Speaker Coach feedback and the instructor's rubric assessment.

3.1 Sampling Design and Data Analysis

This study employed a purposive sampling utilising a within-subject, pre-post experimental design, which allows for the measurement of changes in individual performance following a targeted intervention. The choice of a within-subjects design was based on the objective to assess the direct impact of the integration of Microsoft Teams Speaker Coach, an AI-powered speech feedback tool, on students' business pitching competency, without the variability that may arise from inter-group differences. The experimental procedure was implemented in three distinct phases:

a) Pre-Test Phase (Baseline Assessment)

Students delivered an initial business pitch presentation assessed using standardised rubric. This baseline pitch was evaluated by the course instructor, focusing on the following attributes in table 1.1.

Table 1.1: Rubric-Based Assessment by Course Instructor

Skill Component	Criteria Description	Rating Scale (1–5)
Confidence	Eye contact, steady voice, lack of nervous tics	
Clarity & Articulation	Pronunciation, fluency, sentence structure	
Pacing and Timing	Speaking speed, pauses, adherence to time limit	
Awareness of Filler Words	Frequency of "uh", "um", "like", etc.	
Tone/Intonation	Voice variation, expression, emphasis on key points	
Body Language Awareness	Posture, gestures, facial expressions	

*1 (low) to 5 (high)

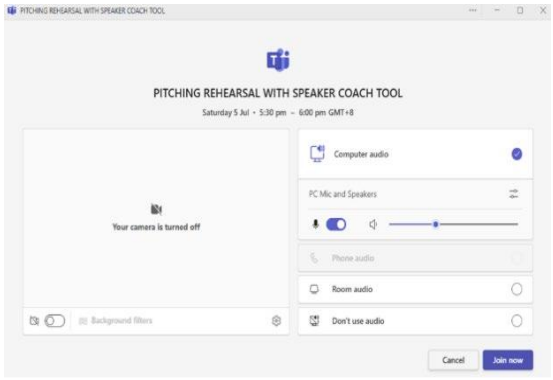
b) Intervention Phase (AI-Integrated Coaching)

Students were introduced and registered to Microsoft Teams Speaker Coach via the desktop application (https://www.microsoft.com/en-my/microsoft-teams/download-app). Participants were required to open Microsoft Teams and either select the "Meet now" option or start a scheduled meeting (Figure 2.1a, 2.1b). Once the meeting begins, the "More" (…) button on the toolbar should be clicked, followed by selecting "Turn on Speaker Coach." Each student engaged in at least two rehearsal sessions using the Speaker Coach tool (Figure 2.1c). The AI tool provided individualised feedback on pacing, filler word usage, monotonicity, and overall delivery. To ensure the AI tool provided robust analysis, students were required to conduct mock pitching rehearsals lasting a minimum of two minutes, as Microsoft Teams Speaker Coach does not generate feedback for presentations shorter than one minute. Rehearsals under one minute were therefore discouraged to allow the tool sufficient data for analysis of key delivery parameters

such as pacing, filler words, intonation, and audience engagement. Upon completing the session, the analytical report generated by Speaker Coach should be submitted to the instructor (Figure 2.1d).

c) Post-Test Phase (Final Assessment)

Following the intervention, students delivered a final pitch presentation, again evaluated using the same rubric and instructor to maintain assessment consistency (Figure 2.1e). Pre- and post- intervention performance scores were compared using the paired sample t-test, IBM SPSS Statistics 29.0.2.0 (Table 1.1) to determine the effectiveness of the AI-enhanced coaching approach.



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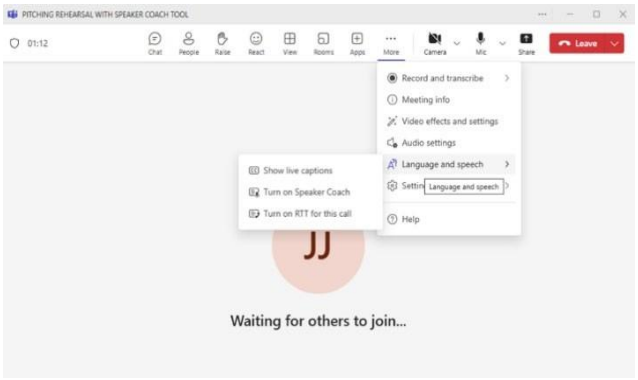

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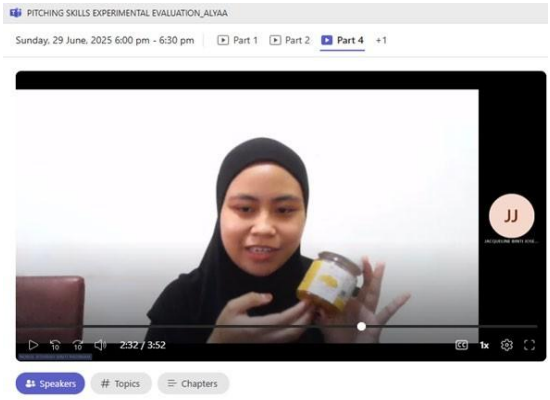

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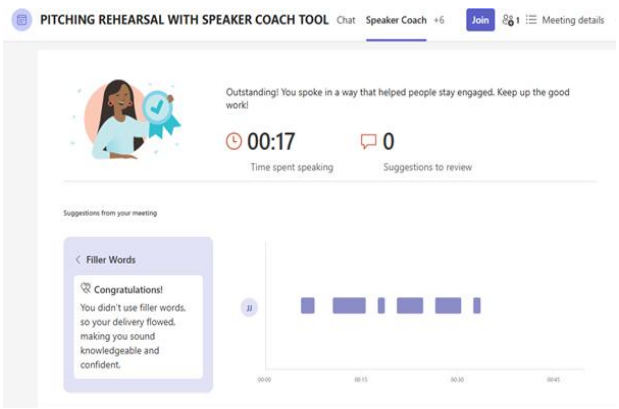


(d)

(e)

Figure 2.1(a) Interface of Microsoft Teams Speaker Coach, (b) Speaker Coach to begin self- rehearsal, (c) a student practicing her product pitch during the rehearsal session, (d) automated feedback summary generated by Speaker Coach upon session completion, (e) final pitching evaluation conducted by the instructor in a face-to-face setting

4.0 Discussion of Analysis and Findings

The findings from this study provide compelling evidence that artificial intelligence (AI)-driven tools, specifically Microsoft Teams Speaker Coach can effectively enhance business pitching skills among higher education students. This discussion explores key implications, framed within the contexts of teaching innovation, learner engagement, and the evolving landscape of performance-based assessment.

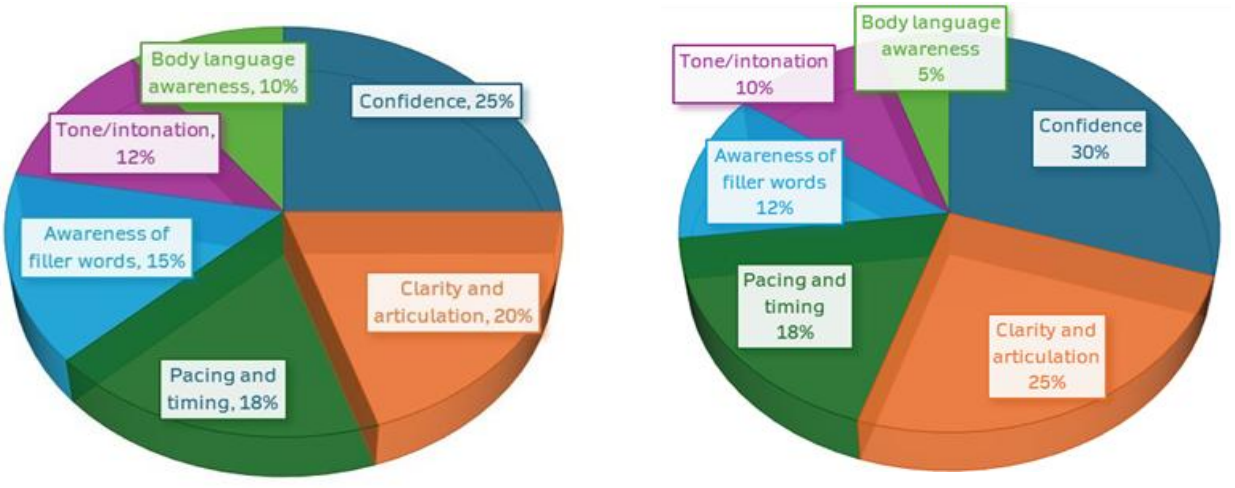
In Table 1.2, a paired sample t-test was conducted to assess the effect of Microsoft Teams Speaker Coach on students' pitching performance. The results showed a statistically significant improvement from pre-test (M = 27.97, SD = 2.33) to post-test (M = 30.76, SD = 1.81), t(32) = 6.11, p < 0.001, Cohen's d = 1.34. Cohen's d value indicates a very large effect size, suggesting that the intervention had a strong practical impact on enhancing students' pitching abilities, suggesting that the use of Microsoft Teams Speaker Coach had a robust and meaningful impact on student performance beyond statistical significance. This finding also confirmed that this improvement was statistically significant (p < 0.001), indicating a substantial improvement in students' communication abilities following the integration of Speaker Coach. Hence, the alternative hypothesis (H_1) is accepted, indicating a significant improvement in students' pitching performance scores after using Microsoft Teams Speaker Coach.

Table 1.2: Paired Sample T-Test (Pre- and Post-Test)

Mean Pre-Test	SD	Mean Post-Test	SD	t-value	df	Cohen's d	p-value
27.97	2.33	28.3	1.81	6.11	32	1.34	0.000**

*Significant at 0.001 level

Beyond quantitative score gains, self-perception data collected before and after the intervention, as illustrated in Figure 2.2. highlighted meaningful shifts in students' awareness of specific communication components. Prior to using Speaker Coach, students perceived confidence (30%), clarity and articulation (25%), and pacing and timing (18%) as their most important or lacking skills (Figure 2.2a). Lower attention was given to awareness of filler words (12%), tone/intonation (10%), and body language awareness (5%).



(a) (b)

Figure 2.2: (a) Pre-Intervention: Perceived Strengths before using Speaker Coach, (b) Post- Intervention: Perceived Improvement after using Speaker Coach

After the intervention, students reported a more balanced distribution of perceived skill emphasis (Figure 2.2b):

- Confidence declined slightly to 25%, suggesting that students no longer overly relied on general self-assurance and became more attuned to other technical aspects.
- Awareness of filler words increased to 15%
- Tone/intonation rose to 12%
- Body language awareness doubled from 5% to 10%

Moreover, students reported a more balanced distribution of perceived skill emphasis (Figure 2.2b):

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- Body language awareness doubled from 5% to 10%

These changes indicate that students developed a broader understanding of effective communication, particularly in areas often underemphasised in traditional instruction. Speaker Coach's instant, personalised feedback likely helped direct learners' attention to subtle but impactful areas such as intonation, verbal clutter, and nonverbal cues. This transformation supports the pedagogical shift toward learner-centred, formative assessment practices emphasised in Education 4.0 (Tikhonova & Raitskaya, 2023). Rather than relying on delayed, generalised instructor feedback, students received immediate, actionable insights, enabling them to rehearse iteratively, reflect deeply, and self-correct in real time. Such engagement aligns with Zimmerman's (2002) self-regulated learning theory, which posits that learners improve through cycles of planning, monitoring, and reflection. In this study, Speaker Coach encouraged self-regulated learning, aligning well with outcomes related to self-awareness and reflection as emphasised in 21st-century learning models. By rehearsing with Speaker Coach, students not only improved technical delivery but also enhanced their metacognitive awareness, their ability to evaluate and adjust their own performance based on real-time feedback.

AI feedback is described as "neutral," "unbiased," and "credible" compared to peer or teacher feedback (Isotalus et al., 2025). This aligns with Microsoft Speaker Coach, which offers non-judgmental, real-time insights, essential for novice pitchers in business settings. The integration of AI tools in education, such as Microsoft Teams Speaker Coach in this study aligns with the findings from Wan Zuraida et al. (2023) found that perceived ease of use significantly influenced students' intention to adopt AI tool such Google Classroom, highlighting the importance of intuitive technology in teaching and learning. However, the tool lacks domain-specific insight and human empathy, highlighting the need for blended evaluation models combining AI and human instruction. Nonetheless, both online and face-to-face public-speaking skills are considered equally essential in today's dynamic communication landscape (Eklund & Isotalus, 2024). This dual importance highlights the need for teaching innovations that cater to digital platforms without neglecting core public-speaking competencies. Moreover, Speaker Coach is currently limited to evaluating delivery aspects (e.g., pacing, tone), but it lacks the ability to assess content accuracy, creativity, or business viability, areas where human evaluators remain essential. Human instructors are crucial for contextual insights, emotional intelligence, and

business-specific critique. It is evident that the instructor's feedback plays a crucial role in refining the authenticity and coherence of storytelling during pitching, an aspect that AI tools like Speaker Coach may not fully capture or support (Chapple et al., 2022). Therefore, a hybrid feedback model is recommended, where AI tools handle mechanical feedback while instructors provide strategic and content-related insights.

5.0 Conclusion and Future Research

The findings affirm that digital feedback tools, when embedded within structured learning activities can meaningfully enhance students' communication competencies, skills that are vital for young agropreneurs in securing seed funding or entering startup ecosystems. Microsoft Teams Speaker Coach presents strong potential for adoption as a formative assessment tool in higher education, particularly in entrepreneurship and communication-intensive courses. More importantly, the results validate the educational potential of AI to serve as a formative intervention. Rather than viewing Speaker Coach as a grading replacement, this study supports its use as a supplementary, practice-driven coaching tool that enhances the effectiveness of human instruction. Future studies may explore the integration of Speaker Coach within a full CDIO-based curriculum, particularly assessing its impact during the Implement and Operate stages of student-led agrobusiness projects. Such integration could offer a holistic, competency-based model for nurturing innovation, communication, and entrepreneurial thinking in agricultural education. Nonetheless, this study recognises a key limitation: research on AI coaching tools for pitching is still limited, with little scientific proof and long-term evidence of their effectiveness. Future research should address this gap by conducting larger-scale studies, exploring diverse educational contexts, and rigorously evaluating the pedagogical value of AI-assisted pitching tools to ensure their adoption is both evidence-based and impactful.

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Author Contributions

Jacqueline Joseph: Conceptualisation, Methodology, Software, Writing- Original Draft Preparation; Jacqueline Joseph: Data Curation, Validation, Supervision; Jacqueline Joseph. Joseph and Lita Nasution: Software, Validation, Writing-Reviewing and Editing.

Conflicts of Interest

The manuscript has not been published elsewhere and is not being considered by other journals. All authors have approved the review, agree with its Submission and declare no conflict of interest in the manuscript.

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