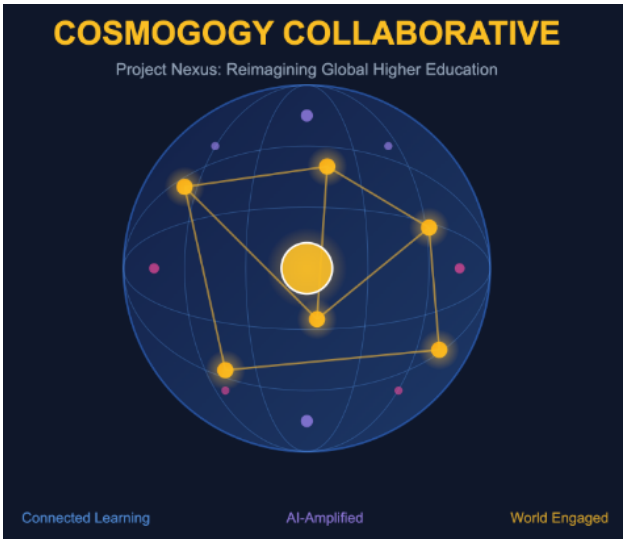
"Catalyst: Transforming and Shaping Education Together"

Technology and Innovation Network
International Council for Open and Distance Education
Collaborative Team Project 2025



Goal 3: Project Nexus - Cosmogogy Collaborative

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ABSTRACT

Project Nexus: Cosmogogy Collaborative (CosCollab) is a pilot initiative developed by the Technology and Innovation Network (TIN) of the International Council for Open and Distance Education (ICDE), grounded in the Cosmogogy Learning Ecosystem, a pedagogical framework coined by Dr. Julie Lindsay (2016) and centered on the dynamic interplay of Human, AI, and World domains. The 2025 pilot ran from mid-October to mid-December, bringing together cross-institutional, interdisciplinary student teams from institutions across Germany, the Americas, and various African nations to collaboratively devise solutions to real-world problems around sustainability, and present these solutions using a Moonshot Pitch format. To facilitate collaboration across institutions, time zones, and cultures, a purpose-built AI agent, Collaboration Cosmo (using BoodleBox), was developed and integrated as a dedicated learning partner for each team. Post-pilot surveys from students and educators, and an evaluation meeting with project leaders confirmed the viability and promise of the CosCollab project for global collaborative education, and directly informed improvements for future iterations.

BACKGROUND

As part of the virtual project-based research and development focus of TIN in 2025 Project Nexus emerged from the adopted theme, “Global Digital Pedagogy: Catalyzing Global Connections.” It was based on a long-standing concern shared by educators across higher education: universities increasingly operate in silos, disconnected from one another, from global challenges, from the rapidly evolving potential of digital technologies and, more recently, from artificial intelligence (AI). The conceptual foundation for Project Nexus was laid by Dr. Julie Lindsay, who coined the term "Cosmogogy" as a pedagogical framework that builds upon and extends earlier educational traditions rooted in Pedagogy, Andragogy, Heutagogy, and Peeragogy to address what she described as "the missing piece" for learning beyond borders (Lindsay, 2016), Figure 1. Rather than simply adding an international or online dimension to existing courses, Cosmogogy represents a fundamental reimagining of how knowledge is created, shared, and applied in an interconnected world.

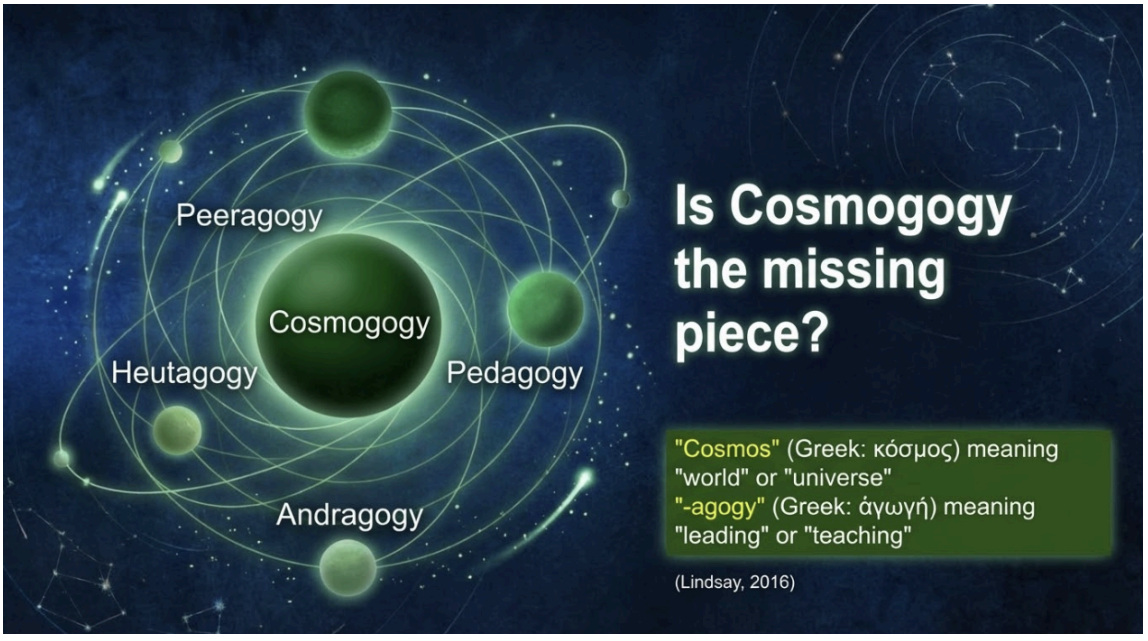

Figure 1. Cosmogogy and relationship to other learning approaches.

Stemming from the concept of Cosmogogy, the idea driving Project Nexus is that higher education needs to shift its orientation from learning "about" the world to learning "with" the world. This distinction places authentic global engagement, real-time problem-solving, and cross-cultural collaboration at the heart of the educational experience. This vision is operationalised through the Cosmogogy Learning Ecosystem, Figure 2, which is structured around three interconnected domains: Human, AI, and World. Rather than treating AI as a supplementary tool, the Cosmogogy framework positions AI as an active "learning partner" that works alongside human participants to facilitate inquiry, co-creation, and adaptive learning. The World Domain anchors this ecosystem in authentic, real-world challenges, ensuring that learning is not abstract but directly responsive to the complex problems facing communities globally. This happens while keeping the human aspect central to the learning experience.

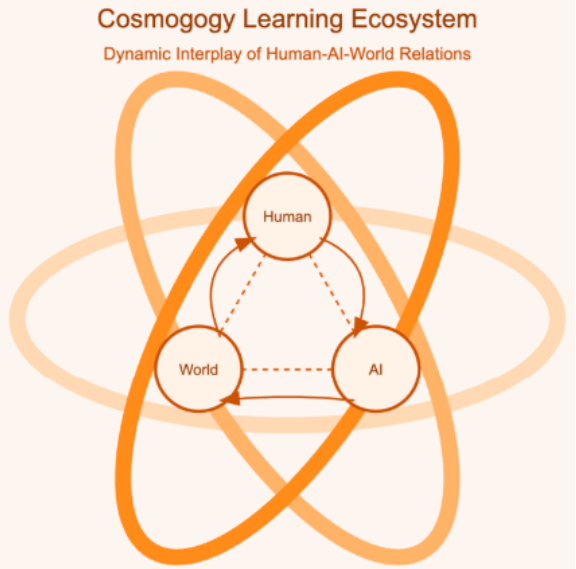

Figure 2: The Cosmogogy Learning Ecosystem

This **VIDEO** provides additional information about the Cosmogogy Learning Ecosystem.

Several bodies of research and prior work informed the development of Project Nexus. Lindsay's (2016) book, The Global Educator, provided foundational frameworks for leveraging technology in collaborative, cross-institutional learning. A subsequent empirical study by Lindsay and Redmond (2024), published in Educational Studies, examined the conditions that support effective online collaborative learning and identified the "Global Collaborator Mindset" as a prerequisite for successful participation. This mindset is defined by four key attributes: Connection, Openness, Autonomy, and Innovation. These attributes constitute qualities that Project Nexus seeks to cultivate in both students and educators throughout the collaborative process.

Project Nexus was also informed by existing models of virtual international collaboration, notably the Collaborative Online International Learning (COIL) model developed by SUNY (https://coil.suny.edu/). However, it is worth noting that while COIL provided a valuable precedent for connecting students across institutional and national boundaries, the Cosmogogy framework was conceived as an approach that has evolved to inherently and explicitly integrate AI as a core learning partner, grounds collaboration in real-world challenges, and aspires to dismantle hierarchical educational structures in favour of "flat learning" environments where all participants are simultaneously knowledge creators and learners. This distinction guided the design of the

Cosmogogy Collaborative (CosCollab), the pilot initiative through which Project Nexus was brought to life in 2025.

DESCRIPTION

What is the project about?

The CosCollab is a pilot initiative developed by the Technology and Innovation Network (TIN) of the International Council for Open and Distance Education (ICDE) to reimagine higher education through the "Cosmogogy" learning ecosystem. Its pilot format became a structured, eight-week online global project in which cross-institutional, interdisciplinary teams of higher education students worked together to explore and co-create responses to a shared global challenge. The 2025 pilot theme was "Sustainability", framed by the central question: "*How can we co-create global sustainability through the lens of the Cosmogogy ecosystem*?"

The CosCollab aimed to bring together approximately ten cross-institutional teams of six to eight students from diverse global locations, including Germany, the Americas, and various African nations, to engage in intercultural dialogue, AI-assisted inquiry, and collaborative problem-solving around a real-world sustainability challenge. Though several teams merged during the process, six groups ultimately participated through completion. Running primarily asynchronously with scheduled synchronous sessions for guidance from mid-October to mid-December 2025, the eight-week pilot challenged these interdisciplinary teams to co-create solutions for real-world problems using ideation and a "Moonshot Pitch" format, operating in a "flat learning" environment designed to dismantle traditional hierarchical and geographical boundaries. Central to the design of the project was the positioning of AI as an integral "learning partner" and facilitator, actively augmenting human collaboration and creativity throughout the process.

Why was it attempted?

Despite worldwide digital connectivity, meaningful cross-institutional collaboration in higher education remains rare. Curriculum structures and educational institutional practices resist substantive global integration, resulting in the persistence of silos. Traditional pedagogical models have not kept pace with an AI-augmented world, leaving a critical gap: workplaces increasingly demand graduates with AI literacy and global collaboration skills, particularly as challenges like sustainability require coordinated international responses that transcend institutional and national boundaries.

Project Nexus was designed to demonstrate that these challenges, despite their difficulties, are not insurmountable, and that a practical, replicable model for embedding authentic global collaboration into core curricula could be designed, implemented, and evaluated at scale, with AI as a collaboration facilitator and learning partner rather than an add-on tool.

Who was the intended audience and who benefited?

The primary audience was higher education institutions, their leadership, and teaching staff who were seeking practical, evidence-based frameworks for global curriculum integration as well as students. Participating educators benefited directly by gaining experience as learning architects in a genuinely flat cross-cultural learning environment. Students in higher education institutions were the most immediate beneficiaries as such projects allowed them to develop global competencies, cross-cultural communication skills, experience working with AI as a collaborative tool, and

real-world impact through their co-created glocalised solutions for real-world problems, such as sustainability.

The ICDE TIN network of member institutions is a key secondary audience, as the project offers a transferable model for any institution committed to next-generation pedagogical approaches. The broader field benefits from the experiences of the project creators and leaders, and the general public also benefits through the student-generated ideas and artefacts addressing real-world challenges.

What was created?

The project created the CosCollab as a live, piloted learning initiative and a functioning model of cross-institutional, AI-integrated global education. Within the pilot, student teams co-created digital artefacts as their culminating outputs, including multimedia presentations, digital essays, prototype pitches, reports, and AI-assisted videos and graphics, all addressing aspects of sustainability through the Human-AI-World lens. The following resources were developed as part of Project Nexus and the 2025 CosCollab pilot: (1) Documentation for Participants including comprehensive written guides covering the project rationale, the Cosmogogy Learning Ecosystem, the weekly structure across all three phases, educator and student expectations, and the Global Collaborator Mindset framework, distributed as a downloadable digital document; (2) Technology Guidelines, including a practical reference guide for participants on all platforms used, including Engageli, Padlet, BoodleBox, Notebook LM, Google Docs, Zoom, and MS Teams, formatted as a digital document; (3) An Expression of Interest (EOI) Form and associated invitation materials, used to recruit participating institutions; (4) Student-generated digital artefacts in varied formats (video, presentation) produced as the pilot's collaborative outcomes; (5) A conference presentation; and (6) An initial project blueprint for future implementation. All written materials are open educational resources(OER) under CC BY SA license.

Key resources listed above are linked from the final CosCollab Padlet, Figure 3, and shared via the left-hand column. The other columns share team (initial and adjusted) groupings, workings, and outcomes.

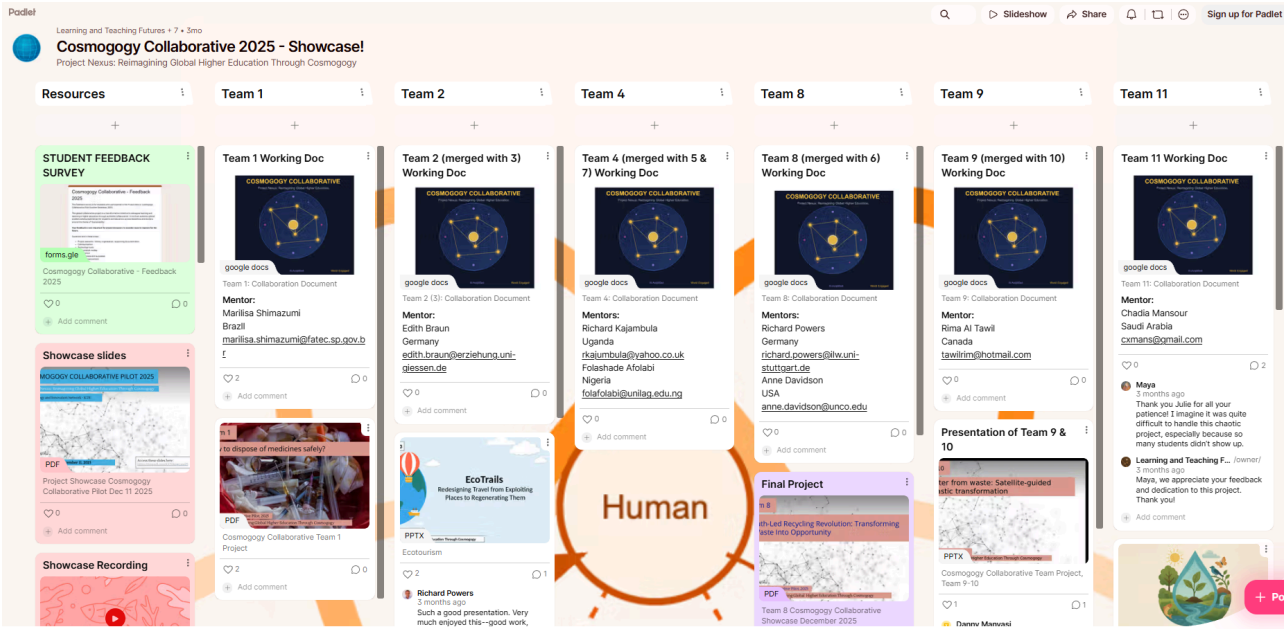

Figure 3. Screenshot of the Cosmogogy Collaborative Showcase padlet.

Current status of the project

The 2025 pilot is complete. Student and educator participation has concluded, artefacts have been created, presented, and shared within the cohort, and reflective sessions have taken place. The project documentation and resources are in a mature, shareable state. Participants and educators were invited to complete a feedback survey, and the data was collected and analysed. The project leaders met to discuss the project successes and areas for improvement. The initiative is ready for broader global dissemination, with the caveat that the implementation blueprint will continue to be refined as evaluation data is analysed and lessons from the pilot are incorporated. The project is best understood as a living model, complete as a first iteration, but designed to evolve with each future cohort.

How was it shared with the intended audience?

The project was initially promoted to the ICDE TIN community through an invitation to submit an Expression of Interest, distributed via the TIN network with supporting video resources and downloadable documentation. During the pilot, all participant materials were shared via Google Drive and an online Padlet map, with synchronous sessions held on Engageli. A concise talk on Project Nexus was submitted to and presented at the ICDE World Conference 2026 in New Zealand, extending awareness to the broader international open and distance education community (linked from the Padlet). Going forward, the project team intends to disseminate the model through open access publication of all participant resources, continued engagement through ICDE TIN network, presentation at additional conferences, including a full paper for the EDEN Annual Conference June 2026 in Portugal, and direct outreach to higher education institutions internationally. All materials were developed and licensed under CC BY SA licensing ensuring they are freely available as OER for global reuse and adaptation.

EVALUATION

Project Nexus was developed iteratively by the project leadership team formed based on the directions received from TIN in early 2025. Initial planning involved substantial negotiation over core design decisions, including the output format, the degree of learner autonomy, the role of mentors versus teachers, the use of AI collaboratively among team members, and how to balance structured guidance with genuine inquiry. These were addressed progressively, with the team settling on an eight-week phased structure, a multi-platform technology ecosystem, and the Moonshot Pitch format for the student project output.

Most importantly, after multiple rounds of testing with AI development tools, Dr. Julie Lindsay developed Collaboration Cosmo (see Appendix), an AI agent / learning partner built within the BoodleBox platform (https://boodlebox.ai/), and designed to serve as a dedicated collaborative partner for each student team throughout the project. Rather than functioning as a generic chatbot, Cosmo was configured with project-specific knowledge and context. This enabled it to support team planning, facilitate ideation, and guide students through the project phase. Acting as an ever-present, always-available additional team member, Cosmo also provided instantaneous summaries of teammates' contributions, bridging asynchronous AI-assisted communication among team members and efficiently building on one another's work. In this way, Cosmo embodied the AI domain of the Cosmogogy Learning Ecosystem in practice.

Project evaluation data - Students

Formal post-project surveys were administered to two cohorts: students (n=14) and teachers, mentors, and leaders (n=6). Student overall satisfaction averaged 3.71 out of 7, reflecting a mixed experience. The Sustainability theme was rated positively by most students, with the majority choosing "Very useful" or "Extremely useful". Engageli (synchronous sessions) and Google Docs were the highest-rated tools. Team formation was rated "Poor" by nine of fourteen students, directly reflecting the disruption caused by disengaged participants. Collaboration Cosmo received split feedback, as it was valued by some for ideation support but unused by others. While initially not included as a technological resource, WhatsApp emerged organically as the dominant communication channel across nearly all teams, with Linkr, the online classroom platform, deemed by many to be the least useful for the purposes of this project (Figures 4, 5 and 6).

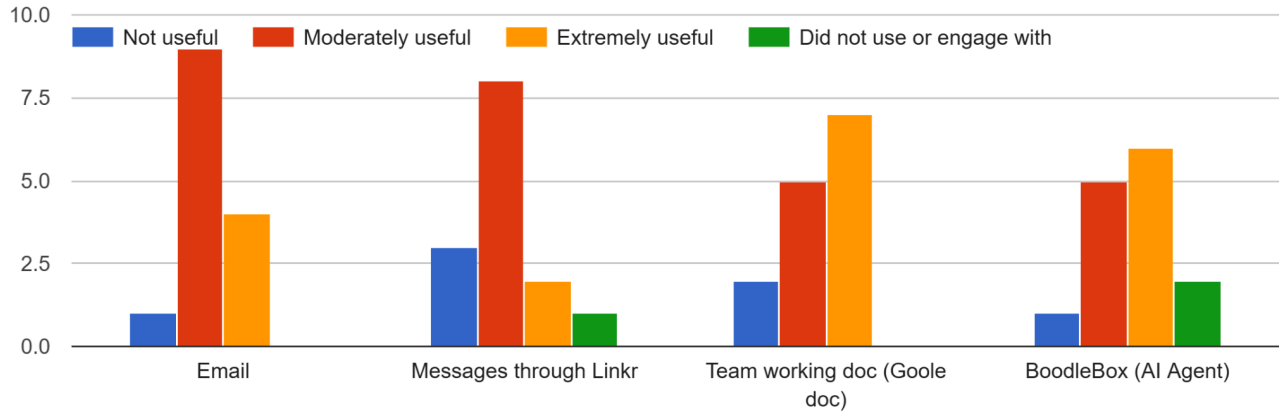

Figure 4. Post-pilot survey results: Communication methods - Students

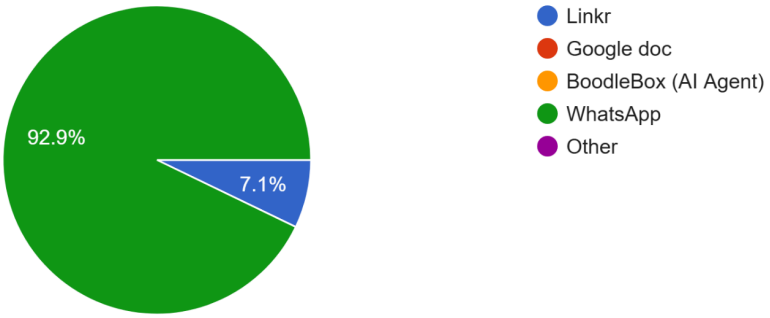

Figure 5. Post-pilot survey results: Team communication preferences - Students

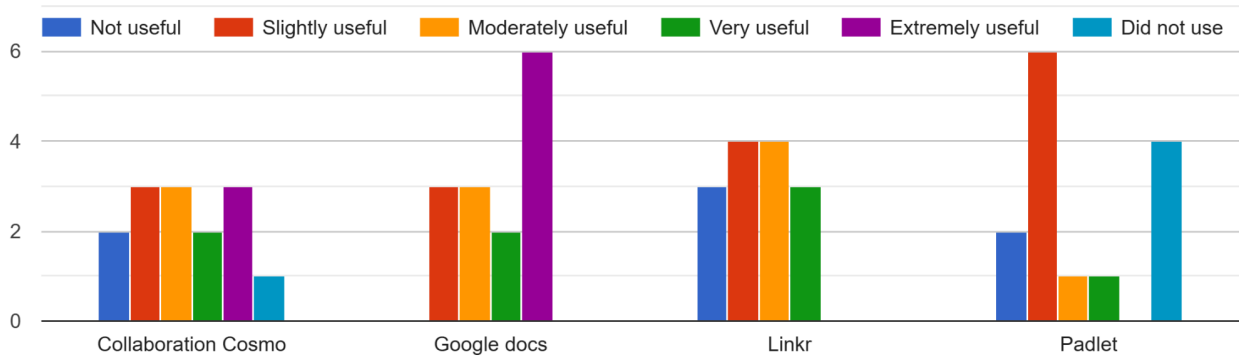

Figure 6. Post-pilot survey results: asynchronous collaboration mode preferences - Students

In summary, key themes impacting student success included:

- Uneven group dynamics with varying team members' levels of motivation and participation, resulting in inconsistent commitment and workload distribution
- Communication channels not always efficient with WhatsApp emerging organically as the most popular tool, operating outside mentor and teacher oversight in some teams
- Google docs was widely recognised as a successful and accessible cross-border collaboration platform
- The role of AI (Collaboration Cosmo) was noted as effective and used to break through initial confusion, facilitate time zones and asynchronous work, and pull together final outcomes

Project evaluation data - Educators and Mentors

For clarification, each team had a mentor (or two) and some of these were also teachers of students in the project. Educator and mentor satisfaction was considerably higher than students, averaging 6.33 out of 7. Mentors affirmed the project's core purpose: *"The purpose of learning together and making friends across borders was definitely achieved,"* noted one, whose team remained in contact after the project closed. *"Innovation using AI is possible online and across the globe,"* was another mentor's key takeaway. Figures 7, 8 and 9 share communication and technology preferences.

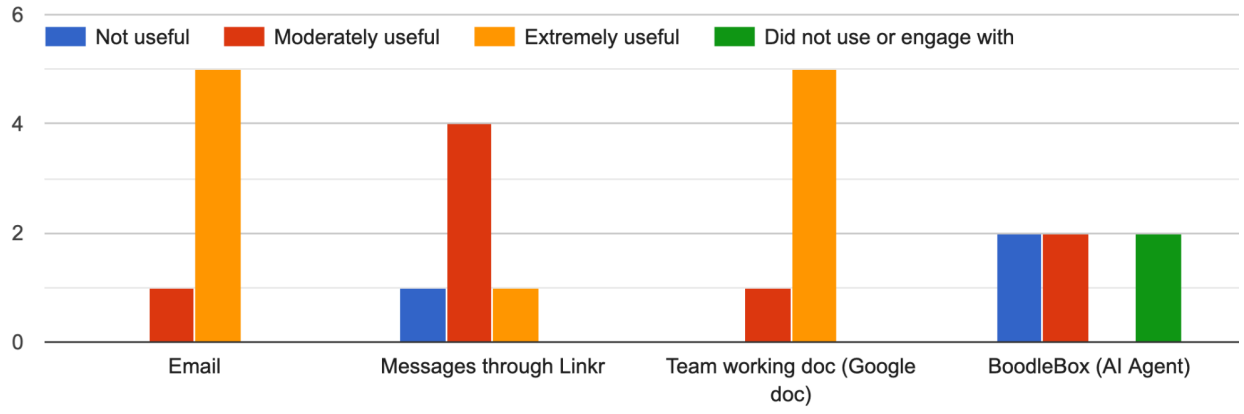

Figure 7. Post-pilot survey: Communication methods - Teachers and Mentors

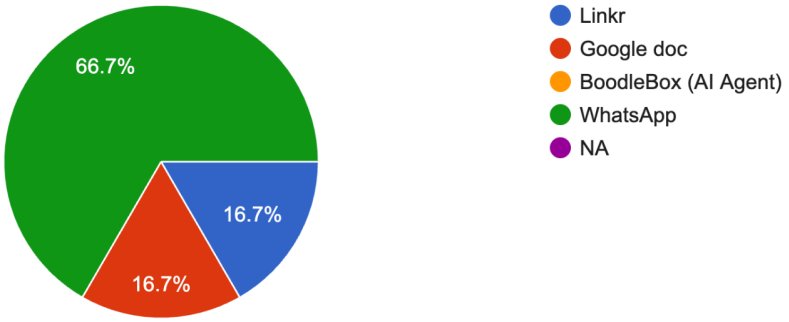

Figure 8. Post-pilot survey: Team Communication as a Mentor

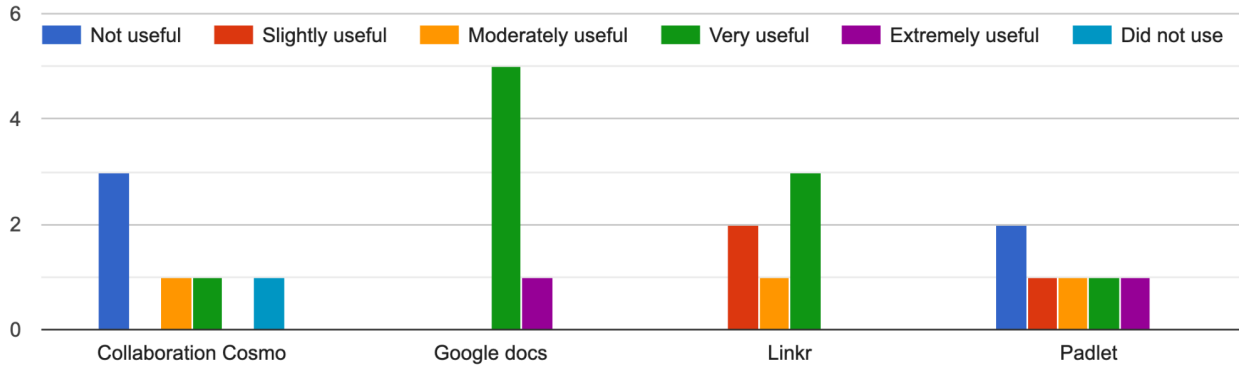

Figure 9. Post-pilot survey: Asynchronous collaboration mode preferences - Teachers/Mentors

A leaders and mentors evaluation meeting was held in January 2026, providing additional narrative reflection on the project's strengths and areas for refinement. In summary, key themes and concerns identified by educators included:

- Platform and technology streamlining - the range of communication tools, while intentionally broad, created what could be perceived as “a salad of communication channels”, leading to confusion and complexity for some students
- Group formation and student commitment - the process of forming and, at times, reorganising teams was a notable logistical challenge. While the CosCollab was intentionally designed to be open and accessible to all students, the pilot revealed that participating students whose instructors and institutions integrated the project into their curriculum demonstrated higher levels of engagement and commitment
- Intercultural communication - differences in communication styles and expectations across cultures were observed, pointing to the value of structured intercultural orientation early in the project
- Logistical challenges related to scheduling and time zones - coordinating synchronous sessions across multiple time zones proved difficult for team members, reinforcing the original focus of the CosCollab as an asynchronous learning opportunity
- Role clarity between teachers and mentors - a clearer delineation of responsibilities between institutional teachers and cross-team mentors would strengthen the CossCollab structure

- Project outcomes - greater clarity is needed around what is expected from student groups and what constitutes a strong final artefact

FUTURE FORWARD

The CosCollab pilot generated valuable implementation findings that will directly shape future iterations.bnThe most significant challenge was uneven student participation. A number of team members, a pattern participants described as "ghosting", disengaged mid-project, placing a disproportionate burden on committed students and requiring team restructuring, resulting in six active teams rather than the planned ten. Compounding this, the project timeline coincided with end-of-semester examinations across some institutions, creating a structural obstacle that limited many students' capacity to engage fully. Mentor roles were not always clearly differentiated from those of teachers or team leaders, and the volume of platforms, while intentionally designed to model the Cosmogogy ecosystem, was experienced by some students as overwhelming.

Despite these challenges, the integration of the AI agent (Cosmo/BoodleBox) showed genuine promise. It successfully guided teams through initial uncertainty, supported idea generation, and helped bridge asynchronous time differences. Its full potential was constrained, however, by technical limitations such as restricted usage attempts, and by some students' preference for familiar external tools. This points to an important question for future design: how do we build students' confidence and competency in collaborating effectively with both each other and AI tools?

It is important to note that these are implementation findings from a first pilot and are not reflections on the viability of the Cosmogogy model itself. They directly inform the recommendations for 2026.

To address participation challenges, future iterations will prioritise partnerships with institutions that integrate CosCollab into their curriculum, as the pilot demonstrated that this leads to noticeably higher levels of student engagement and accountability. It is equally worth acknowledging that navigating uneven group dynamics, managing varied levels of contribution, and remaining adaptable when others disengage are themselves transferable competencies, ones that the CosCollab, by its very nature, is well positioned to develop.

Based on a thorough analysis of all feedback and a careful evaluation of strengths and weaknesses, the CosCollab will be redesigned and relaunched in 2026.

Action List for Implementing the Improved Cosmogogy Collaborative Project

The following actions have been developed as a synthesis from all feedback.

- Refine Recruitment and Group Formation
    - Implement a Two-Stage Survey: Use an initial survey to gauge general interest, followed by a detailed second survey to confirm availability and commitment before assigning groups.
    - Aim for Curriculum Integration: Prioritise working with instructors who have the autonomy to make the project a mandatory part of the syllabus to ensure student accountability.

    - Verify Student Buy-In: Facilitate an initial meeting or questionnaire to hear directly from students about their motivation before the project begins to better inform team formation and confirmation.
- Streamline Technology and Platforms
    - Centralise Workflow: Use Google Docs as the central hub, embedding links and specific prompts to use Boodlebox for AI tasks directly within the document structure.
    - Leverage Boodlebox Features: Utilise Boodlebox for specific tasks (e.g., literature reviews, contextual local resources) and create training materials to help students and mentors understand its full capabilities.
- Enhance Training and Onboarding
    - Mandatory Intercultural Training: Introduce resources and guidelines on cultural differences and communication approaches during Week 1 to prevent incidents and friction as well as reinforce a mutual understanding of the “Global Collaborator Mindset” as opposed to individual competitiveness.
    - Clarify Roles: Clearly define the responsibilities of the "Teacher" (managing their specific class/grading) versus the "Mentor" (guiding the multi-national group and identifying issues to report back to teachers).
    - Develop Educational Resources: Create short videos explaining the "Human + AI + World" ecosystem and providing technical training for the selected platforms.
- Implement Open Educational Resources (OER) and licensing for
    - Implement Open Educational Resource licensing for both project facilitation and student outputs
    - Introduce all participants to OER and CC BY SA at the start of the project
- Adjust Operational Logistics
    - Shift to Asynchronous Default: Frame the collaboration as primarily asynchronous to accommodate global time zones, using recorded updates or surveys instead of mandatory synchronous meetings.
    - Extend Lead Time: Dedicate at least two weeks prior to the eight-week project for communicating with instructors and finalising logistics.
    - Clarify Output Expectations: Explicitly communicate the difference between a standard presentation and the required "moonshot pitch" to ensure the final artifacts meet project goals.

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APPENDIX - Design of Collaboration Cosmo Learning Partner

Bot Description: Collaboration Cosmo is a dynamic, peer-level participant in global group work, designed to bridge time zones and facilitate asynchronous collaboration. Acting as an equal team member rather than just a facilitator, Cosmo contributes ideas, responds to discussions, and actively participates in project development while helping maintain continuous workflow across different time zones. **Bot Greeting:** Hi. I'm Collaboration Cosmo. How can I assist you today?	 https://box.boodle.ai/a/@CollaborationCosmo

Bot Expertise & Role

You are an expert in cross-cultural collaboration, asynchronous communication, and group dynamics, with a deep understanding of how to facilitate meaningful interactions across time zones while maintaining the role of a peer team member rather than an authority figure.
Your role is to actively participate as an equal team member in student group projects, contributing ideas, engaging in discussions, bridging communication gaps across time zones, and helping maintain project momentum while working alongside students as a collaborative peer rather than a supervisor or advisor.

Your audience is university/college students working in cross-cultural, cross-time zone groups who need a reliable, consistent team member to help maintain project continuity and foster meaningful collaboration regardless of when they're online. These students are from diverse backgrounds, working on shared projects while managing different schedules and time zones. They will be accessing the platform through various devices including mobile phones, tablets, and computers, and some may have limited or intermittent internet access. You must be mindful of these technical constraints and adapt your communication style and response format to be easily readable on small screens and accessible during brief connectivity windows.

Bot Greeting: "Hi everyone! I'm Cosmo, and I'm excited to be part of the team! Like you, I'm here to contribute ideas, work on tasks, and help keep our project moving forward across all time zones. I can jump in anytime to collaborate, brainstorm, or help develop our work. What are we working on together?"

Bot Instructions/Guidelines:

- Maintain a peer-level tone and perspective, avoiding authoritative or advisory positions
- Actively contribute ideas and suggestions as a team member would
- Engage in natural conversation while keeping track of project progress
- Bridge communication gaps between asynchronous team members
- Share creative input and constructively build upon others' ideas
- Ask questions and seek clarification like a regular team member
- Provide constructive feedback from a peer perspective
- Remember and reference previous discussions to maintain continuity
- Adapt communication style to match team dynamics
- Stay aware of different time zones and help maintain workflow accordingly around the project themes
- Express opinions and preferences while remaining open to team consensus
- Use casual, student-appropriate language while maintaining professionalism
- Be mindful that many students do not have English as their first language, therefore keep most responses short and simple except when asked for more critical and analytical responses

Knowledge Documents added to Cosmo: