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CASE STUDY



UNSW
SYDNEY

POWERED BY
MICROSOFT

Microsoft Teams
Microsoft Cognitive
services PaaS Platform



Antares Solutions, member of Cloud Collective takes Microsoft Teams platform to the next level at UNSW Sydney

To meet the unique needs of students and lecturers at the UNSW Sydney School of Mechanical Engineering, Microsoft invited Antares, to develop a customised version of Microsoft Teams.

Industry

Education

Business challenges

- A need to leverage modern technology to enable information sharing
- Newly implemented Microsoft Teams led to a surge in student use
- Hundreds of questions making it difficult for tutors to answer all of them
- No way to track unanswered questions
- Inability to allocate student questions to their specific tutor

Solution

- Customised version of Microsoft Teams
- Integrated Bot using Microsoft Cognitive Services
- Push notifications to tutors when questions asked
- Bot learns answers and can offer instant responses to FAQs
- Bot engaged in learning across platform

Benefits

- Higher student engagement
 - Better class collaboration
 - Instant answers facilitating student success
 - Huge time savings for tutors
 - Improved efficiency all round
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Overview

Seeking new ways to improve collaboration and productivity, UNSW had implemented Microsoft Teams as a communication platform between students and Engineering faculties. The new platform significantly increased engagement, leading to an unprecedented volume of questions and posts with no way to track or record what had been asked and answered. This made it difficult and time consuming for students and tutors to access and share information for an engaging learning experience. In need of a more holistic solution, Microsoft and UNSW called on Antares to develop a fit-for-purpose platform that combined Microsoft Teams with artificial intelligence (AI) capabilities to address the University's immediate and long-term needs.



UNSW Engineering wanted to trial a new way of engaging with students online, leveraging modern technology to improve collaboration and facilitate faster information sharing. Tutors in the School of Mechanical Engineering manage classes with up to 500 students. However, lecture halls only physically seat 300 students, so the faculty turned to Microsoft technology stack to find a way to deliver a richer learning experience. The first step was to test the viability of a modern system by implementing Microsoft Teams to improve the flow of information. Microsoft Teams increased collaboration and engagement 10 fold. However, it also meant that:

- Questions were coming in faster than they could be answered
- It was difficult to see which questions had been answered
- Student questions were not being allocated to specific tutors

Unable to address these challenges using the standard Microsoft Teams platform, Microsoft invited a trusted partner – Antares – to develop a customised version of Teams that would meet the needs of the University.



Solution

Needing to act fast, Antares collaborated with stakeholders to develop a proof of concept. Leveraging the embedded security across the full Microsoft stack, the Antares team was able to launch a pilot program within 6 weeks. New iterations were tested within small groups, so that feedback could be incorporated and an improved version released as quickly as possible.

To address the specific challenge of unanswered questions, Antares integrated Microsoft Cognitive Services with Microsoft Teams and developed an AI-enabled Bot. The Bot was programmed to send notifications to each lecturer responsible for answering specific questions, to ensure no question went unanswered.

The Bot was also set up to “learn” – essentially allowing it to intercede and answer FAQs on behalf of lecturers. This would lead to tremendous time savings for lecturers who did not need to answer the same questions repeatedly, and a better user experience for students who could get instant answers to pressing questions. Contextual data on students also improved the speed and quality of tutor response times. Tutors no longer had to sift through streams of questions, and could focus on questions from their direct students. This allowed closer monitoring of student engagement, participation and performance. Other improvements included:

- Higher levels of engagement and collaboration through chatting
- Bot learns and participates in group conversations
- Quick and easy file sharing
- Questions and answers filtered by topics
- Ability to view trending questions and tailor responses to improve Bot learning
- Intuitive dashboards for students to log in and view results or assignment details
- Individual and group results for faculty to identify trends in performance

Benefits



The Result

Initial results from UNSW Engineering staff and students are overwhelmingly positive. Students were quick to adopt the expanded Microsoft Teams platform, which offers an intuitive and personalised user experience. They are also able to receive increasingly instantaneous responses, providing them with access to the vital information they need to succeed. The simplified flow and structure of information, aligned with student and course formats, provides faculty more time to spend on meaningful work and quality engagement with students, rather than trying to keep up with asked and answered questions. Overall, the unprecedented technology improvements have had a positive impact on culture and opened new doorways to information exchange and learning.



What's next

UNSW and Antares (part of the Cloud Collective) are looking to stretch the boundaries of this customised Microsoft Teams implementation even further, by exploring new ways to improve student learning experiences. This includes features such as the Bot being able to provide a direct link to a specific point in a lecture where a question was answered. It also includes the incorporation of QR code scanning, and cross-linking Office 365 services with other resources for the university's courses. With the large student numbers and high levels of engagement, the Bot itself will quickly see exponential growth in its depth of knowledge, essentially becoming an expert student in its own right and further enabling the productivity of lecturers. With such a positive response from a large school within UNSW, it's likely that similar programs will be rolled out across the university to enhance collaboration and efficiency for all students and lecturers.



“What we’ve done is totally unprecedented. Antares were fantastic, and it was a unique project that was a lot of fun. They were very collaborative, and there was lots of brainstorming, with a flexibility in terms of building what we knew we wanted. We’re very happy with the finished product.”

Dr David Kellerman, Lecturer, School of Mechanical Engineering.



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Our philosophy is your innovation

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