Case Study 2: Maximising Existing Technology for Fully Online Delivery, NCI School of Computing

National College of Ireland

Introduction and Context:
Lockdown 1 triggered an immediate need within the NCI's School of Computing (SoC) to deliver a swift but smooth transition for staff and students to a fully online environment. While the SoC has longstanding skills and experience in the design and delivery of blended teaching, learning and assessment materials, the COVID Crisis necessitated finding swift and secure technological solutions and applying them to support the transition of the entire portfolio of programmes to an online environment, raising capacity and capability challenges.

Summary of the Initiatives Undertaken:
The School agreed from the outset to maximise technological solutions throughout the transition process. A multi-departmental approach was triggered in April 2020 requiring engagement with a wide range of teams inside and outside of the School. Intensive communications between several key departments were vital to identify technical and pedagogical concerns, challenges and solutions.
Decisions were made to build upon and expand the use of existing NCI and School technologies as swift, sustainable and scalable solutions to aid the smooth transition from a blended to a fully online environment. The rapid identification of existing IT solutions was made possible by cross-institutional problem solving underpinned by an agreement to employ central process automation where possible, thus minimising burden and inefficiency while maximising effectiveness and impact. The main tools used were as follows:

Microsoft Teams (MS Teams): Previous investments in maximising the use of MS Teams by staff pre-COVID significantly aided the transition to fully online activity.

- The migration to full dependency upon MS Teams was aided significantly by existing familiarity, skills and use of the system. Management, faculty and administrative staff were already proficient in the use of MS Teams as a collaborative portal for working, consultation and meetings. Some team meetings were held on MS Teams in advance of Lockdown 1.
- MS Teams was also elected as the SoC live classroom system. Due to its frequently expanding feature set, MS Teams provided an excellent, stable and secure platform for live classes, with largely positive feedback from staff and students.
- The NCI Teaching Enhancement Team also created a private MS Team site for staff to share knowledge, experiences, flag issues and ask questions of colleagues and the Teaching Enhancement Team. This was an important resource and heavily used by faculty – both full time and associate faculty.
- All SoC staff were required to complete a minimum of 2 hours training in online pedagogy and technical training through MS Teams.
- Additionally, the NCI Teaching Enhancement Team organized ongoing sessions throughout the Crisis aimed at upskilling lecturers in the pedagogy of teaching and assessing in an online environment.

Moodle: As NCI's learning management system, Moodle was utilised as a valued asynchronous resource throughout the crisis.

- Moodle provided a robust and consistent central repository for students to find relevant material for each subject. It also allowed faculty to update and adapt teaching,

learning and assessment materials as the crisis continued in line with feedback, NCI and QQI guidelines, and gave both students and staff the ability to interact with materials as needed rather than as scheduled.

- A Teaching Enhancement Moodle Page was also launched so NCI staff would have access to a structured Moodle page containing a wealth of video and text-based guides on online teaching, learning and assessment practices. This was an important, valued and heavily used resource by staff in line with their teaching and assessment needs.

A combination of the two systems was also used to underpin Student Support and Guidance Services across the crisis. A cross-institution collaborative approach was undertaken by the NCI Student Services/Orientation Team, Programme Directors, Programme Co-Ordinators and the Online Academic Programme Supervisor. Technical training via MS Teams was provided in live formats at orientation and supported by asynchronous resources held on Moodle. The ability to deliver high quality orientation and provide support to online learners in line with their needs, was a vital step in supporting the smooth transition from blended to fully online learning.

Online Assessments

QQI's *Guiding Principles for Alternative Assessments*, alongside developments internally and nationally around academic integrity, provided key reference points to ensuring robustness, accuracy and integrity in the migration to online assessments. With the support of the NCI Teaching Enhancement Team, Library, Online Academic Programme Supervisor, IT Department, Central Timetabling and the Examination Office, robust IT solutions were identified and implemented to maintain academic integrity across online assessments and examinations. Specific focus was placed on the ability to provide assessments that could be 'personalised' to students to help assess the authenticity of submitted work. For example, many assessments included a range of 'paths' or requirement sets that differed across of cohort. Many of the practices around online assessment and examinations will continue to be utilised in the post-COVID environment as NCI expands its online and blended portfolio of programmes in line with student and stakeholder needs.

Conclusion:

Students and staff throughout the crisis had many challenges, pressures and stresses upon them. The ability to rely upon familiar and existing technology systems to support the transition to fully online services was considered both an efficient and effective solution. The cross-institutional approach undertaken, united the skills and experiences of a range of NCI departments, which helped us build capacity, capabilities and confidence in staff and students during this challenging time. Increased usage and the creation of additional asynchronous approaches to teaching, learning and assessment practices provided an important solution to allow students and staff to fit their work and study commitments around their increasingly busy and stressful schedules. The School of Computing has identified the creation and use of asynchronous materials will be a key strategy moving forwards in the post-COVID world. The continued use of MS Teams and Moodle for teaching, learning and assessment, in addition to supporting students and staff development practices will also be pursued beyond the COVID crisis.