



Sustained Excellence
in Tertiary Teaching
General Category

**Kathryn
MacCallum**

Associate Professor
School of Computing
Eastern Institute of Technology

“When integrating technology into teaching, the focus should not be on the technology itself, but rather on how the technology can support and enhance the learning process.”

Kathryn MacCallum knows the link between technology and effective pedagogy is not always simple. Driven by her natural love for teaching and technology, the lecturer and programme coordinator at Eastern Institute of Technology (EIT) aims to achieve effective technology integration practices. She sees technology as a way to better meet her students' needs and improve learning outcomes.

Kathryn's passion for technology started when she was young - but her love of learning evolved slowly. She struggled and felt disengaged in her early school days, as learning seemed to be textbook-focused and uninspiring. However, this perception changed at the end of secondary school, when a new art teacher's passion for her subject ignited Kathryn's own passion for learning. When studying at university for her IT degree, she became a tutor and discovered that her greatest passion was teaching. This inspired her to complete a PhD - researching how mobile technology can provide improved learning opportunities - and launched her teaching journey.

“I strongly believe learning should be a shared process in which my role is to facilitate this process and encourage my students in their own learning journeys.”

Kathryn sees teaching as a flexible process that responds and adapts to students' needs, interests and learning preferences. Her teaching philosophy focuses on designing authentic, engaging, inclusive and enjoyable experiences that create a collaborative and active learning environment. She has moved away from a lecture-style 'sage on the stage' teaching to a more workshop-style 'guide on the side' approach, enabling her to blend theory and practice in a more holistic manner in her classes.

Kathryn adapts and uses a variety of industry technologies, processes and practices, such as QR codes, Google Suite, Facebook, LinkedIn, and Agile and Lean technologies. She has adopted Work Integrated Learning, from inviting industry guest speakers to embedding industry projects in class assessments, where students work with local companies on real-world projects. This year, students secured an international project with MacDonald's Global Restaurant brand, working alongside a local company, Fingermark Global Ltd, to redevelop the MacDonald's drive-through experience.

Students learn how these technologies and practices can also be adapted and used to manage their own learning and this dual approach is a focus of Kathryn's research. She proposed and co-edited the first book to combine Lean and Agile Techniques in teaching and learning. She is

also a member of industry associations such as the Agile Alliance, which allows her to remain current in her teaching.

To enhance learning and interaction, Kathryn encourages students to bring their own devices into the classroom and uses collaborative tools, such as Google documents, Google Slides and other online tools, like Padlet, to enable students to work collaboratively. She also uses Google Sheets (Backlog) and Trello (Kanban) as scheduling tools to manage group tasks and the quiz tools PollEverywhere.com, Plickers, and Kahoot! for mixing up class sessions and assessing students' understanding. To create extra resources for her students outside the classroom, she uses video recordings or mini-intro videos (flipped learning), Adobe Connect and Zoom to livestream and record classes, and short videos using screen capturing tools.

As she believes room design and technical infrastructure play a significant role in supporting the effective and efficient use of technology and collaborative interaction, Kathryn launched an institute-wide project to develop three new classrooms at EIT in 2016, marking a significant shift in classroom design and the way in which technology is embedded and supported at EIT.

Kathryn's role as a teacher extends beyond the classroom. She mentors students and actively promotes ways for them to engage with industry. She sets up and supports industry and teaching events, research sessions and industry conferences. She also meets with industry to set up internships and research projects and manages the School's LinkedIn and Facebook sites, which promote events and jobs of interest to past and present students.

Community engagement is important to Kathryn. She is particularly focused on developing and supporting people wishing to enter IT, especially women. For many years, she has been active in conducting Taster Days and introduction sessions for local school students. As part of the IT Professional Organisation, she visits schools to promote IT as a career and has also been involved, both as a mentor and judge, in the regional Young Enterprise Scheme.

Kathryn's research has helped teachers to be more aware of learning theory. She and a colleague designed the online tool, Activity Design Analyser, which was later developed into a more complete Mobile Learning Toolkit. This resource allows educators to start their own exploration into best practices for mobile learning, and includes case studies, videos and tips on how to integrate effective pedagogy into learning design. It was published in the form of an interactive open ebook by the International Association for Mobile Learning (IAMLearn), which was later awarded best chapter.

Another practical resource for teachers resulted from a 2-year Ako Aotearoa-funded research project that explored how change and better teaching practice can be supported through the integration and use of mobile technologies. This resulted in the development of an ebook with over 18 case studies, exploring how mobile technology could effectively be integrated into a wide range of different tertiary contexts. The resulting journal article won an award for best article in the Education category in IGI Global's Tenth Annual Excellence in Research Journal Awards.

Kathryn's research has received both local and international interest. She is the Associate Editor in Chief for three international journals focused on supporting educational technology (Journal of Information Technology Education: Research; Journal of Information Technology Education: Innovations in Practice; and International Journal of Mobile and Blended Learning). She is also a member of the International Mobile Learning Association (IAMLearn), which runs the annual mLearn conference and is hosted around the world. Nationally, she has previously been involved with the Flexible Learning Association of NZ, previously referred to as Distance Education Association of NZ, as a committee member for over 10 years.

Tertiary Teaching Excellence Awards administered by



Nā āheitanga ā-mātauranga,
ko angitū ā-ākonga
Building educational capability
for learner success

Ako Aotearoa National Office
PO Box 756
Wellington 6140
P: 0800 692 5669
info@ako.ac.nz
www.ako.ac.nz