

The Jisc logo consists of the word "Jisc" in white lowercase letters on an orange square background.

Jisc's digital transformation toolkit focuses on future AI practice



This is case study number 7 of 12 that summarise the activities of a selection of the institutions involved in the research pilot of Jisc's digital transformation toolkit, which ran between November 2023 and July 2024. The case studies are supported by the approaches to digital transformation in higher education report.

About Queen's University Belfast

Queen's University Belfast (QUB) is a Russell Group university founded in 1845. It has 25,000 students on roll.

Organisational driver for this digital transformation project

One of the central themes of QUB's **Strategy 2030** is to be a global institute of educational excellence. As part of this strategic ambition, senior leaders responsible for the educational experience were keen to discuss how they should address artificial intelligence (AI). They aimed to move away from a predominantly risk-related focus on AI and facilitate discussion about when and how it could add value. They wanted to consider the potential value of AI not only within the context of improved learning and teaching experiences, but also in terms of employability skills and increased accessibility and inclusion.

Using the toolkit to support institutional co-creation of a new AI strategy

"We used the Jisc framework to help us develop an AI strategy... It gave us the flexibility and adaptability to really look at where we were with our digital and AI journey. It was comprehensive. It was inclusive. But it also then looked not just at the infrastructure, but the values and the behaviours that are really key and important to embed a strategy successfully."

Professor Judy Williams
Pro vice chancellor, education and students, Queen's University Belfast

Staff involved

The primary sponsor of the project was the pro vice chancellor for education and students. The secondary sponsor, the dean of education for the faculty of engineering and physical sciences, oversaw day-to-day activities, supported by a senior education developer.

The project was executed by QUB's Digital Education Team, a core group of six individuals collectively responsible for managing the daily delivery of institutional AI projects. Given the project's breadth, a diverse array of stakeholder groups were engaged in helping to better understand digital maturity levels and shape action plans. They included:

- The AI Discovery Working Groups (a collective of more than 100 university staff interested in AI, carrying out feasibility projects, examining topics and providing feedback)
- Strategy 2030 Steering Group
- Deans and Directors of Education Forum
- Educational leaders
- Careers, Employability and Skills
- Queen's Students' Union
- Digital and Information Services
- Academic Services
- EdTech Forum

In total, about 100 people were involved in stakeholder engagement activities, including nine at pro vice chancellor or dean level.

"One way the toolkit was beneficial was in helping us to support educational leaders. These are the people who will be making the decisions about how AI is used. The toolkit helped us to better understand what they need to do this well. As well as this, there are big questions for the university that go beyond the delivery of education, such as how AI might influence jobs and skills... This project enabled us to provide concrete plans about how we can best support our staff and students today, as well as how to support our education leaders in making decisions that will shape our future."

Professor Philip Hanna
Dean of education, Faculty of
Engineering and Physical Science,
Queen's University Belfast

Using the toolkit

QUB used the framework, the maturity model and the action plan templates.

The Digital Education Team's aim was to engage all stakeholders in meaningful discussions about AI to create a robust but flexible organisational strategy that could support AI transformation at Queen's. The project team began by organising a number of stakeholder meetings across a three-month period. Initially, these were awareness raising activities, before moving on to discussions about AI culture and mindset and how AI sat within the context of organisational strategy and planning. Discussions were often shaped by each stakeholder group's specific focus, for example the EdTech

Forum discussed staff training, and the careers team considered employability skills and careers planning.

Alongside these dedicated stakeholder group meetings, the project team also organised inclusive events that were open to all staff and students, allowing them to participate in meaningful and productive discussions that fed into the wider findings and feedback dataset. One of these on-site events, facilitated together with Jisc's AI lead and the Digital Education Team, was attended by over 70 staff and students eager to explore the transformative potential and values that might steer AI integration into academic environments of the future.

During a six-month period, the team made steady progress toward developing QUB's AI strategic vision. This included adapting Jisc's toolkit to create an AI-specific framework with associated maturity levels and developing detailed action plans.

"Involvement in this research pilot has significantly impacted perceptions and approaches to digital transformation here at Queen's... this pilot has underscored the necessity of a holistic and inclusive approach to AI and digital transformation. Initially, there was a sense of uncertainty and cautious optimism. However, through structured engagement and the practical application of Jisc's framework, our confidence and enthusiasm have grown substantially... digital transformation is now seen as an integral part of our long-term goals rather than a supplementary initiative."

Professor Judy Williams
Pro vice chancellor, education and students,
Queen's University Belfast

Elements of the framework used

All six elements of the framework were relevant to QUB's project: organisational digital culture, knowledge creation and innovation, knowledge development, knowledge management and use, knowledge exchange and partnerships, and physical and digital infrastructure.

The Digital Education Team at QUB used the structure of Jisc's digital transformation framework, and the sub-elements and associated maturity levels in Jisc's maturity model, to develop their own unique and AI-specific framework. They identified nine AI themes, each referencing several sub-elements in Jisc's maturity model. In total, QUB referenced 42 of the possible 99 sub-elements from Jisc's maturity model to create their AI transformation strategy (the maturity model sub-element numbers are shown in brackets):

- AI culture and mindset – the extent to which organisation culture and values embed and embrace AI (1,3,4,5,6)
- AI organisational strategy and planning – the extent to which institutional planning embeds AI (11,12,13,27,73,74,75,76)
- AI innovation – the extent to which innovation in AI is encouraged and enabled (23,24,25)
- AI training and support – the extent to which staff and student AI upskilling is enabled (36,37,38,45)
- AI careers planning – the extent to which AI is incorporated in careers planning and activities (32,39,40)
- AI incorporation within curriculum development (28,29,30,31,33,34,35)
- AI incorporation within teaching and learning (41,43,47,48,51)
- AI comms – how comms is used to support AI goals (69,70,71)
- AI support staff – those with AI expertise who can support activities (90,91,92)

Perceived benefits to using the toolkit and participating in the pilot

Jisc's toolkit, with a specific focus on the importance of organisational digital culture, allowed the team to fully appreciate the importance of engaging a wide diversity of stakeholders, including students. This has created a cohesive narrative and buy-in at all levels.

Engaging different user groups also provided insight that led to broader discussions on issues that might not otherwise have been included, for example how AI might address specific challenges faced by international or disabled students in order to provide equitable access to resources and opportunities.

"The pilot has also enabled us to effectively engage both upwards into senior management and downwards throughout the organisation. This comprehensive engagement has created a cohesive narrative and buy-in at all levels, making it an opportune time to share our experiences and outcomes more broadly."

Professor Judy Williams
Pro vice chancellor, education and students, Queen's University Belfast

Perceived potential impact on practice and/or return on investment (ROI)?

This project was not about income generation or immediate consideration of return on investment. Indeed, in the short term, the effective adoption of AI into learning and teaching requires investment. Instead, the project was focused on future practices and changes to education arising from the use of AI.

What worked better than expected?

The level of senior leadership engagement in this project, supported by a pro vice chancellor with prior research experience involving the use of AI, catalysed discussions among leaders and broadened the conversation out from taking a 'risk only' approach.

"We held many stakeholder meetings, with education leaders being a key group. While there was a lot of interest and enthusiasm, we also sensed some anxiety... one of the things that really struck me was that Jisc's toolkit was very people-focused, placing people at the core of the process rather than technology. This was especially important for our AI work. The toolkit provided exactly what we needed to connect with and engage senior leaders and stakeholders effectively."

Liza Zamboglou
Senior education developer, Queen's University Belfast

"By highlighting that the initiative was centred on enhancing the experience for both students and staff, rather than simply introducing new technology, we are helping staff view AI as a valuable tool for improving education."

Liza Zamboglou
Senior education developer, Queen's University Belfast

What didn't work, and why?

The creation of action plans was the most challenging aspect of this project because of the need to tailor information into manageable layers and attribute ownership. The team used Jisc's action plan template, but the single plan they created was too complex and unwieldy. The team realised they needed to create three different plans, each tailored to different user groups, namely staff and students,

education leaders, and senior leaders. The toolkit resources are designed to enable personalisation, so the team took Jisc's templates and adapted them to their needs.

There were also several logistical challenges encountered through the project, mainly as a reflection of the number of people involved. At times it was important to refer back to the project scope in order to stay on track. The short timelines added additional pressure and stretched the capacity of the Digital Education Team and academic staff the project team relied on for support. This said, in many ways the constraints drove the team forward, leading to significant progress in a small timeframe.

What one thing would they recommend to others considering digital transformation?

The team at QUB recommend that digital transformation takes an agile approach, identifying improvement opportunities at all resourcing and budget levels, and progressing incrementally through change programmes to minimise risk and maximise returns.

"The amount of resource depends on debates to be had at senior level... we will never have the resource we need to do things at the speed that we want so there always needs to be a compromise. So, we will be continually working to prioritise what changes we can push and what we need to hold."

Professor Judy Williams
Pro vice chancellor, education and students, Queen's University Belfast

Next steps

The team has submitted a comprehensive action plan to senior management that outlines the steps and activities they propose to implement AI across various levels of the organisation. They are developing guidelines and training for key user groups (teaching staff, educational leaders, administrative staff, professional support staff, research staff, the senior leadership team and students), and will continue to engage stakeholders. They will also focus on how AI can address the specific needs of students (notably international students or those with disabilities), and plan to regularly showcase examples of successful use and best practice. The team are also working to strengthen AI governance and risk management in line with their external advisory audit. As a result of this project, they have created an **AI hub of guidance** materials for staff and students. Queen's are hosting a **demonstrating digital transformation event** to share their experiences wider and are participating in **Jisc's beyond blended research pilot**.

"We recognise that digital transformation is an ongoing process of continuous improvement and adaptation... we plan to regularly review and update our strategies based on new developments... this iterative approach will help us stay adaptable and responsive to changing needs."

Professor Judy Williams
Pro vice chancellor, education and students, Queen's University Belfast

About Jisc's digital transformation toolkit

Successful digital transformation in higher education is not a destination; it is an ongoing commitment to consider where technology can support and improve ongoing business processes and activities. Fundamental to Jisc's approach is that digital and physical infrastructure must be considered within the context of organisational digital culture for any digital advancements to be successfully embedded into the cultural and behavioural practice of senior leaders, staff and students.

The toolkit provides a common language through which users can support the development of or enhance existing digital strategies and navigate through digitally related change initiatives. The toolkit's flexible approach allows users to select their area of interest, assess current levels of digital maturity, engage stakeholders, and consider opportunities for improvement.

Jisc's digital transformation toolkit is designed for use by all senior leaders, managers and change agents working in higher education. At the core of the toolkit are three documents: a guide, the **framework** and the **maturity model**. These are supported by action plan templates, a glossary, a **senior leadership community of practice**, regular webinars and events, podcasts, video interviews with senior leaders, and case studies illustrating how institutions have used the toolkit to support their digital transformation activities.

"Our team approach has worked brilliantly. Our dean of education and our senior education developer have captured some of the good practice that's been going on across the university in AI and AI in education, and I've spoken with employers about what they would be looking for in the workforce in five to 10 years' time. I've then been able to showcase that to our Board of Governors. Previously their only consideration of AI was as a risk. Through this project we can get the buy-in from our board to really support the direction of travel for digital, enhanced and AI enhanced teaching, learning and student success. That wouldn't have happened without Jisc's toolkit and pilot, which gave us the language, structure and opportunity to support these important conversations."

Professor Judy Williams

Pro vice chancellor, education and students, Queen's University Belfast



_The Jisc
web guide



_The
framework
(PDF)



_The
maturity
model (PDF)



_Jisc digital
consultancy



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