Introduction

The Near Future Teaching project ran between 2017 and 2019, with the goal to develop a values-based vision for the future of digital education at The University of Edinburgh. It used futures-thinking and design-based methodologies to work with over 400 students, staff and other stakeholders in the co-production of this vision.

The project advocated for the idea that the university community should take stock and actively shape a preferred future for teaching based on shared values, at a time when technological change is accelerating and often assumed to be driving the future of learning. It aimed to open space for reflection and the application of collective agency to the question of the future of teaching and learning at this university.

The project was sponsored by the Senate Learning and Teaching Committee, and led by the Assistant Principal for Digital Education, supported and resourced by the Institute for Academic Development, the Learning, Teaching and Web division of Information Services and the Senior Vice Principal. It contracted facilitation, planning and design expertise from the Glasgow-based agency Andthen, who designed and led co-production workshops and events with students, staff and schools, and undertook aspects of the analysis, scenario development and project synthesis.

This final report from the project explains its rationale and design, detailing the approach it took to mapping and understanding the future of digital education within the university. It shows how the project engaged widely with the university community in developing core values to guide us, and then sets out a vision and aims for a near future teaching which is:

1. Community-focused
2. Post-digital
3. Data fluent
4. Playful and experimental
5. Assessment-oriented
6. Boundary-challenging

Designing the future

The project drew on current work in the field of futures studies, in order to build a vision based not only on predictions of technological and social change, but on our collective aspirations for the future of teaching and learning. Contemporary perspectives on futures and anticipation studies tend to be concerned with the idea that futures are not determined, but can be shaped and designed by those who have a stake in them.
The project used the common design-thinking double diamond process to build insight via community scoping and review of trends, define community values and preferences for the future of digital education, develop a broad set of aims for a preferred future, and define a set of actions to help us build this preferred future.

The project had four main stages mapping to this design.

1. Scoping
2. Scenario development
3. Testing
4. Finalising

1. Scoping

Approximately 300 students and staff from across the university were engaged in surfacing key issues, concerns and priorities for the future of digital education via 15 events and workshops and 50 short interviews.

Insights from the events were captured in blog posts on the project web site. The short interviews were recorded on video, analysed, clustered and edited into common themes. The resulting 13 short, thematic videos are all available on the project web site and give an engaging sense of the perspectives and values of staff and students (online and on-campus).

In addition to this internal scoping, the Centre for Research in Digital Education also published two short reviews and mappings of current global trends likely to inform the near future of teaching. These are available for download from the project web site.
Based on this scoping work, four core values were distilled from the work with staff and students via an ‘affinity mapping’ approach. This involved looking across the interviews and events and defining common opinions and perspectives that were raised by individuals. These key issues were captured in the form of a series of ‘opinion cards’. Some examples are shown below, with all opinion cards viewable on the project web site.

The values expressed and captured in the ‘opinion cards’ were then synthesised into four core values which shaped the rest of the project. These are shown in the ‘Values’ section that follows.

2. Scenario development

Using the values and trends projections, four plausible future worlds and institutional responses to these were debated and developed in two intensive half-day workshops attended by an extended project task group of 20 students and staff (detailed in the appendix), and led by Andthen. These set
out to understand what a preferable future for digital education would look like at the University of Edinburgh. The future world scenarios and blogged records of the workshops and their design are available on the project web site.

3. **Testing**

From these sessions a draft set of aims and indicative actions for a preferred future for digital education were developed by the project team, and taken out for testing in intensive workshops with 15 staff and 40 students. They were also compared with next-generation students’ future visions of HE through two sessions with 60 children in primary and high school, and also tested with employers.

Detail of the testing strategy is described on the website.

4. **Finalising**

The vision, aims and actions were finalised in response to testing, and approved by Learning and Teaching Committee in January 2019. A launch event is planned for March 2019.
Values for the near future of teaching

The core values distilled through the process were these.

**Experience over Assessment**
Learning should not be over-assessed and instrumentalised.
Teaching should share a focus on employability and success with an understanding of the value of rich experience, creativity, curiosity and – sometimes – failure.

**Diversity and Justice**
Education should design-in meaningful diversity and real inclusion across all areas of activity.
All near future teaching should further social responsibility and global justice.

**Relationships First**
Relationships, dialogues and personal exchanges between students and staff build understanding in a way that is not possible via transmissive forms of teaching.
Teaching should be designed to provide the time and space for proper relationships and meaningful human exchange.

**Participation and Flexibility**
The university community should cooperatively shape how – and what – it learns and teaches.
Flexibility for individuals, fluency across disciplines and cooperative responsibility for curricula should shape near future teaching.
Vision and aims for the future of digital education

The vision and aims for a preferred future based on these values are for a digital education future which is:

1. Community-focused
2. Post-digital
3. Data fluent
4. Playful and experimental
5. Assessment-oriented
6. Boundary-challenging

Aligned to these are a set of objectives and short to medium-term actions for building this preferred future.

1. Community-focused

Aim: digital education with the university community at its heart

Objectives
- Prioritising human contact and relationships
- Connecting our community of scholarship in new and diverse ways
- Committing to technology which makes the university accessible and welcoming

Short to medium-term actions
Put the student and staff experience at the centre of educational technology development, decision-making and procurement.

Invest in technology futures which help us build and diversify communities of learners in new ways, with a particular focus on social technology horizon scanning, staff development and support.

Provide easily accessible training to staff and students focused on social media skills specifically for teaching, and develop support frameworks for those experiencing toxicity, trolling and victimisation online.

Use technology to build relationships between students and staff based on trust, resisting logics of surveillance and unnecessary monitoring.

Invest in technologies which offer new ways for remote and off-campus students to be part of the community. Accompany these with innovative, cross-discipline community-building approaches including peer-pairing based on shared interests and geographies.

Continue to support and further build existing networks for digital education staff to share experience and practice.

Develop and support digital methods and pathways for building greater engagement with the alumni community.

2. Post-digital

Aim: education which recognises that technology is now fully embedded within daily life

Objectives
- Re-working the concept of ‘contact time’ to reflect contemporary practice
- Breaking down the boundaries between on and off campus
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- Re-thinking what it means to be ‘here’ at Edinburgh
- Offering more flexible ways to be part of the university community

**Short to medium-term actions**

Define and embed a re-worked understanding of ‘contact time’ into workload models and course descriptors, which takes account of student mobility, distance education and flexible patterns of study.

Continue to invest in programmes of work which open our teaching and community to new cohorts of students online and globally, including technologies for increased telepresence for students working off-campus.

Plan for the introduction of technological capacity to teach online and on-campus students together in joint cohorts.

Use our capacity and understanding of distance education to open our teaching in new ways to on-campus students, putting student-focused flexibility at the heart of our offer.

Ensure all staff have the baseline skills needed for a good student experience of digital education (for example the ability to upload slides, to record lectures, to design effective visuals, to tackle accessibility issues, to provide electronic reading lists).

### 3. Data-fluent

**Aim: digital education that understands data, data skills and the data society**

**Objectives**

- Taking a research-led approach to education and data
- Understanding the possibilities and problems surrounding the datafication of education
- Addressing automation with an emphasis on human skills
- Engaging creatively and responsibly with learning data

**Short to medium-term actions**

Balance development of data skills with other human capacities for wellbeing and employability in a future of automated work, by building cross-university courses to develop student creativity, criticality, problem-solving and collaboration.

Invest to establish Edinburgh as a world-leading centre for research in interdisciplinary, data-informed education in key areas such as educational data ethics and data-driven policy-making in education.

Use our research expertise in data internally to build an ethical, responsible near future for our teaching and to improve student experience.

Create specialist academic development opportunities for staff to fully understand how to analyse and interpret learning and engagement analytics, within an understanding that the datafication of teaching is likely to accelerate and intensify in the coming decades.

Embed critical understanding of data ethics and algorithmic accountability within academic development and staff training.

Support cross-university programmes of work to provide data skills training for staff and students.

Seek mechanisms for embedding students in ‘data work’ via digital apprenticeships, internships and employment experiences.

Develop new, engaging ways for students to work creatively with their own learning data to understand issues around its use and ownership.
Instigate an academic-led programme to scope ways in which transparent, fair, context-sensitive artificial intelligence applications and services could assist and support human-driven teaching.

Establish a cross-institutional, student-led programme of work to develop creative, responsible designs for a ‘smart’ campus.

4. Playful and experimental

Aim: enabling creative academic and student-led R&D for digital education

Objectives
- Confidently opening our teaching practice to technological change
- Being energetic in designing new, creative ways of teaching digitally
- Using our academic expertise to develop and scale up new forms of digital education
- Making access to technical development expertise easier for staff and students

Short to medium-term actions
Invest to give academics more time to be creative and risk-taking in their use of digital education.

Provide teaching staff and students with central access to programmers and developers for joint prototyping and trialling of new ways of doing digital education. Support associated pedagogic research via Principal’s Teaching Award Scheme and other channels.

Support staff and students to scale up and spin out digital education ideas and applications.

Extend existing media production facilities and makerspaces into new areas such as biohacking.

Fund a cross-institutional programme of work to scope and develop new virtual and augmented realities for teaching.

5. Assessment-oriented

Aim: digital education with a focus on assessment and feedback

Objectives
- Diversifying assessment practice
- Making the assessment more engaging for students and academics
- Supporting new kinds of feedback

Short to medium-term actions
Launch a cross-university, discipline-sensitive programme of work to increase diversity in forms of assessment, including multimodal (video, audio, image, making) and experiential forms (projects, blogs, reflections, reports).

Build a culture – supported by technology as appropriate – in which students have greater choice over the form of their assessments. Enable risk-taking by, for example, giving students greater choice over which assignments count toward final marks.

Focus academic development and course design around building exceptional learning experiences, rather than on assessment and performance.

Promote a culture shift away from exams where possible. Use appropriate technology, including AI-supported methods, to enable peer assessment, self assessment and timely formative feedback.
Critically evaluate and build capacity for high quality automated assessment and feedback appropriate to disciplines, as a way of augmenting and supporting human assessment.

Create a platform to open students’ access to each other’s assessed work after submission for peer learning and feedback.

6. Boundary-challenging

**Aim: digital education that is lifelong, open and transdisciplinary**

**Objectives**
- Building a culture of lifelong learning
- Supporting teaching which transcends disciplines
- Committing to openness
- Connecting to the city and region

**Short to medium-term actions**
Promote and support initiatives which open our education to broad, diverse groups of learners, in the form of high quality, affordable online accredited programmes, open courses, micro-credentialing and continuing professional learning.

Build capacity for individuals to develop a lifelong relationship with the university regardless of their geographical location or career stage, via open and digital education. Make it easy for local people to be part of the university community through informal as well as formal learning.

Invest to develop transdisciplinary, university-wide courses in key areas, bringing together the best of our online and on campus teaching.

Continue to develop co-design methodologies to build student and partner agency in curriculum and learning space design.

Open all course content to all enrolled students and continue to develop and support existing work in open education.
Appendix: Near Future Teaching project team

Project team
The Near Future Teaching Project is led by Professor Sian Bayne (AP Digital Education) supported by a core team and a Senate Learning and Teaching Committee task group.

Core team
Jennifer Williams (Projects & Engagement Coordinator, IAD)
Dr Michael Gallagher (Lecturer in Digital Education, Centre for Research in Digital Education)
Lucy Kendra (Media Coordinator, Information Services Group)
Santini Basra (Director) and Zoe Prosser (Futures Researcher), Andthen

Task group (extended)
Bobi Archer (Student Association VP Education)
Pushpi Bagchi (PhD student, ECA)
Luke Campbell (Postgraduate student, Moray House School of Education and Sport)
Professor Sarah Cunningham-Burley (Assistant Principal Research-led learning)
Dr Tim Fawns (Academic Coordinator MSc in Clinical Education)
Professor Judy Hardy (Director of Teaching in the School of Physics & Astronomy)
Dr Sarah Henderson (Deputy PGT Director CMVM)
Melissa Highton (Assistant Principal Online Learning, Director LTW, Information Services)
Dr Anouk Lang (Lecturer in Digital Humanities, School of Literatures, Languages and Cultures)
Vanessa Ombura (Undergraduate Engineering student and Mastercard Foundation Scholar)
Professor Susan Rhind (Assistant Principal Assessment and Feedback)
Charlotte Rixten (MSc by research student, ECA)
Dr Jen Ross (Senior Lecturer in Digital Education, Moray House School of Education and Sport)
Dr Michael Rovatsos (Reader in Artificial Intelligence, School of Informatics)
Dr Michael Seery (Reader in Chemistry Education, School of Chemistry)
Professor Chris Speed (Chair of Design Informatics, Edinburgh College of Art)
Dr Jon Turner (Director of the Institute for Academic Development)
Sanjna Yechareddy (Undergraduate International Relations student, SSPS)