
Delivering your university's digital ambitions

What's next on your journey?



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Atos



Trevor Connell,
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Universities face complex and unprecedented challenges. The competitive pressures of international recruitment and a changing UK context combine with the urgent need to modernise costly out-of-date IT infrastructure while meeting students' expectations for immersive digital and smart campus experiences. At the same time, security of people and data is as critical as ever, especially given the recent cyber-attacks in the sector.

For many, the case for digital transformation is clear. What's less certain is how to achieve it, especially given today's budgetary constraints. Now, with the unexpected new challenges of Covid-19, the landscape has evolved still further. While concerns about the human and economic impacts are paramount, initiatives that would otherwise have taken years to complete are happening very rapidly; online learning and exam management, for example, have transformed because there has been an urgent imperative for change. The challenge ahead will be to assimilate that change as part of wider strategy and planning cycles.

This paper is based on a Digital Maturity Assessment event that took place online on 28 April 2020. It explores the challenges of digital transformation and key factors for success in delivering a new digital agenda.



University of Exeter's digital transformation story

By Alan Hill, the University's Chief Information and Digital Officer



The University of Exeter has embarked on a significant digital transformation strategy. The University makes significant investments in providing digital services to stay competitive and create an immersive learning environment for its students.

With technology so essential to delivering the University's vision, Exeter IT undertook a widescale transformation. Working intensively with Exeter IT senior management and staff, Atos informed and supported this transformation journey, helping to refine the new IT strategy, review the existing IT operating model and organisation against industry best practice, and shape the future of Exeter IT.

Our digital transformation journey, now well underway, is by no means all about the technology; it's about shaping the culture of our organisation and using business thinking to drive change within a wider business and market context.

While the cost of transformation can be significant, the costs of not undertaking it can be much greater. Having a 'burning platform'

is helpful; at the University of Exeter ours was the need to modernise our IT; and there were other key factors. As with any university, international recruitment and financial and demographic changes in the UK are key competitive and business challenges.

In this context, the journey has been to shape new digital products, accelerating our digital maturity with senior-level sponsorship

and close involvement of stakeholders. In parallel, we have implemented a major IT consolidation and modernisation programme to ensure our organisation is optimised and future-proof.

The programme is complex and wide-ranging and has required external resources and skills, with financial and governance structures that support agile digital investment.



Framing our vision

Our digital vision has been inspired by what education, research and business operations will look like in the next two to three years.

We make a distinction between IT, as the overhead and digital, as the value and experience delivered to students, academics and others, much like Amazon online shopping delivers customer experience and added value, without the customers worrying about the 'back office' IT systems.

- Education: global teaching and learning, enabled by an intuitive and immersive digital environment, delivering real-time feedback, deeply personalised for the individual.
- Research: digital services as a force multiplier for research excellence and growing research power; through easy digital collaboration; on demand computing and optimised storage. Full visibility of research activity from idea through to impact.
- Business activities: efficient automated processes; digital support services that enhance and optimise the key administration and customer relationship management activities; data - 'authoritative' version of the truth; data-driven decision support. Inspirational smart buildings for students and staff to work.



Engaging senior stakeholders

Leadership is essential in order to drive the necessary funding and momentum. However, the need for digital transformation may not be self-evident for everyone in senior management teams.

Engage senior stakeholders early - and continue to engage with them all the way through. Start with the university's wider vision and current business problems - and how digital can realise the vision and deliver innovative solutions to key challenges.



Designing and delivering change

This is about evolving new products and new behaviours:

- Start from scratch by identifying needs (of students, academics, the business) and reimagining how things could be done using digital
- In terms of resources, ask: do we have the technology platforms, operating model and technical ability/skills sets to deliver new digital products and solutions?
- Also, do you have agility to deliver new digital products and assimilate user behaviours simultaneously – can you keep iterating products because users are behaving in a different way?
- From there, start to demonstrate progress and the future vision with small but powerful examples to foster support. Then scale up the solutions while securing funding.



Engaging with students

At the University of Exeter, we involve students in the ideation phase, for example at student workshops enabled by the Students' Union. This gives us the ideas to then finesse further in order to ensure viability and returns on investment.

On project groups, representatives of a user group or standalone user groups test solutions; this means there's a much stronger chance of user adoption, for example RFID beacons in classrooms, and an app for self-check in. We also regularly survey students and get their feedback. One challenge is that, de facto, the population changes and also their views change year to year.



Visibility of costs and benefit

Ensuring the best approach to financing is critical. Agreed a Capex envelope of investment in digital by the business and, within that, ensure visibility of costs and benefits.

Benefits are likely to be around experience and value. For much of the programme, it could be about delivering on general outcomes and instincts; within that:

- Actively pursue student (home and international) recruitment with a value proposition that extends beyond reputation to measurable attraction and retention
- Make research more cost-effective in order to generate funding
- Modernise teaching methods with a full range of pedagogical approaches to create a compelling offer to students (and academics)
- Increase the efficiency of support and admin services, by re-imagining how services are delivered.



A word about IT

Many universities have the challenge of legacy systems that can be difficult to modernise or integrate with digital. Optimising existing IT investment does, of course, impact the timing and the design of digital programmes.

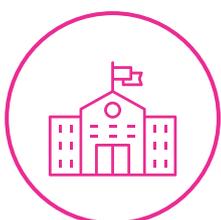
Technology platforms, operating models, organisation, process and skills were redesigned, with the consolidation of six former IT departments into one modern, standardised, streamlined IT organisation.

Data storage, data backup and disaster recovery are all critical to underpin confidence. A hybrid Cloud approach will enable you to scale up or down to meet demand, without the need for Capex expenditure.

Security becomes inevitably more complex, but absolutely business critical; effective and appropriate information security and cyber security strategies are therefore essential.

Impacts of COVID-19 on the digital transformation agenda

There has been the ability and the need to simply cut through adoption challenges, for example the University of Exeter has rolled out Microsoft Teams from 400 to 6,000 users in less than 8 days with training and online help that would usually have taken two years. However, while it does blow out of the way some initial barriers, there are challenges that could emerge further down the line; for instance, the financial impacts and integrating these emergency approaches and practices into, at some point, business as usual.



Five key lessons from the University of Exeter

1. Simultaneous digital transformation and IT modernisation is a significant challenge.
2. Get the basics right – printers, websites and so on.
3. Senior leadership backing is critical; ensure constant involvement of education and research leaders and staff.
4. Access the necessary skillsets and resources – you can't deliver this on your own.
5. Support from users is fickle, so work hard on it, deliver beautiful user experiences and constantly engage them.



Five critical success factors for digital transformation

1

Vision and leadership

- Clarity of mission is essential: be clear on the role and purpose of digital transformation within the wider university context, vision and business objectives.
- Engage senior leadership to support it in order to maintain momentum and secure funding; consider governance structures to balance autonomy for senior leaders with a coherent roadmap.
- Identify and engage stakeholder groups - and continue to engage all the way through; consider collaborative working practices and structures.

2

Stakeholder engagement

- Identify business-driven requirements and prioritise in terms of education, research, business and admin objectives and priorities.
- Work with business stakeholders to prioritise digital services and products based on benefit analysis, quick wins, values and impacts, cost constraints.
- Take a user-centric approach with staff and students - ask what works for them and involve them in user groups to develop and test ideas.

3

Funding and governance

- Ensure agile funding and governance structures: this could be a change in culture away from traditional/waterfall specify, cost and spend models.
- Understand and demonstrate the benefits and value iteratively; measure value in terms of recruitment, online learning, student experience and so on. Consider digital investment as part of other major funding programmes, for example smart campus funding as part of facilities development budgets.
- Consider delegation of decision-making within envelopes of spend and identify the necessary gateways.

4

Flexibility and agility

- Digital change and digital speed implementations are iterative, based on user feedback and behaviours.
- Move to the Cloud so that services can flex to demand, fast and cost-efficiently without huge capital spend
- Agree call-off contracts with specialist partners to access skillsets and resources when need, for example design and architecture skillsets, user experience expertise and so on.

5

Trust and security

- Revise cyber security strategy for digital, including business continuity planning.
- Consider data governance and data security in a hybrid Cloud architecture. While the journey to Cloud makes security more complex, there are strategies and approaches to ensure that data is kept secure and availability in accordance with university policies and data sovereignty.
- Communicate with students, staff and other stakeholders about your approach to cyber security and their role within it, including cyber vigilance.

Digital Maturity Assessment for universities

By Tom Swanson, Chief Digital Officer at Atos



Atos has developed a digital maturity assessment framework and methodology for organisations in the public and private sectors.

Based on a model from McKinsey, which looked at organisations that established leaders in terms of the behaviours and performance they achieve through digital, our Digital Maturity Assessment methodology is tailored for specific industries and contexts, and includes additional operational/implementation factors.

How a Digital Maturity Assessment works

Placing digital transformation within wider university ambitions, our methodology enables organisations to self-assess, agree what digital means for their own organisation, and a benchmark for measuring their progress.

Digital Maturity Assessment looks at critical criteria across four main dimensions

1. Strategy	2. Culture	3. Organisation	4. Capabilities
Bold, long-term orientation	Staff and Student Experience	Roles and Responsibilities	IT Modernisation
Linked to University Strategy	Speed/Agility	Talent and Leadership	Student and Staff Enablement
Centred around Stakeholder Needs	Test and Learn (PoV)	Governance/KPIs	Customer Experience Design
Adaptive End State	Internal Collaboration	Digital Investment	Inclusion and Accessibility
	External Collaboration		IT architecture
	Local Impact		Cybersecurity
	Staff and Student Engagement		Key Emerging Technologies
			Advanced Research Facilities

Digital Maturity Assessment - Education model

The assessment identifies scores, strengths and areas of improvement and opportunity; these must be considered in the light of business strategy, objectives and priorities. For example, a strength could indicate sufficient investment, or an area where more investment is needed in order to capitalise on existing maturity.

A Digital Maturity Assessment can uncover pockets of excellence within the university that can be expanded into other functions and departments; and it helps to explore the meaning of digital in different parts of the university.

This is also an opportunity to identify or evolve digital ambitions - and to prioritise those in a way that is informed by the gaps in between ambition and reality that have been identified through these metrics.

To complement and accelerate this thinking, we work with customers to look at other examples in the higher education domain and in other sectors to benchmark performers, together with experience from Atos.

¹Raising your Digital Quotient, McKinsey

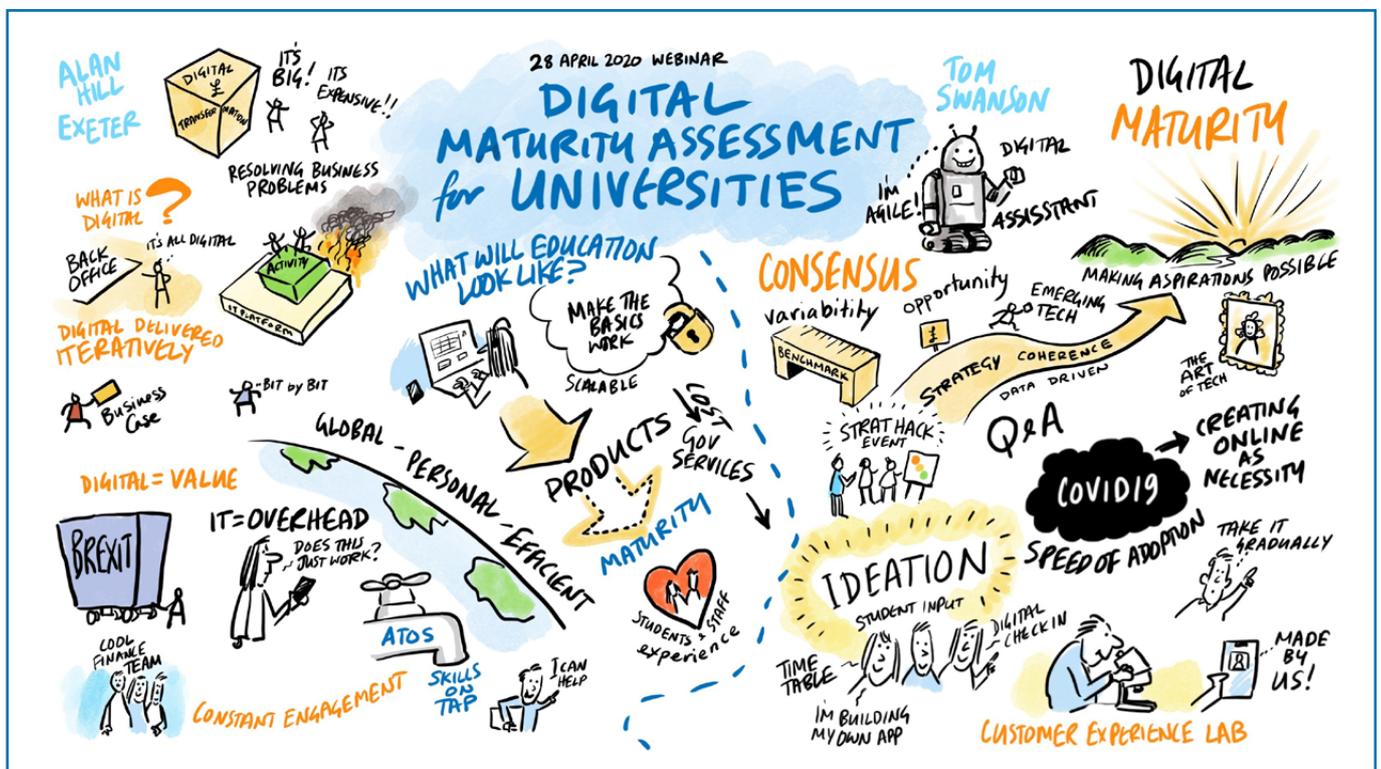
Outcomes include:

- Consensus on key strengths and areas for improvement
- List of key priorities
- Terms of reference for digital transformation roadmap and plan.

Once a Digital Maturity Assessment is complete, we often follow it with a Strathack event to further develop a more detailed digital transformation roadmap and plan, with a 'Leadership in the digital era' package for leaders.

Atos CX labs, which originated in financial services, are then a great setting to progress with ideation, testing and involving users in the design progress. In addition, we've been looking at taking a longer view of students to when they become alumni, to engage the whole student lifecycle. Below is a rich picture illustrating the challenges of digital transformation and key factors for success in delivering a new digital agenda explored during the webinar.

Journey towards Digital Maturity



What's next?

If you'd like to talk more about your university's digital ambitions and challenges or would like to carry out your own Digital Maturity Assessment, please get in touch with our experts below.



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About Atos

Atos is a global leader in digital transformation with 110,000 employees in 73 countries and annual revenue of € 12 billion. European number one in Cloud, Cybersecurity and High-Performance Computing, the Group provides end-to-end Orchestrated Hybrid Cloud, Big Data, Business Applications and Digital Workplace solutions. The Group is the Worldwide Information Technology Partner for the Olympic & Paralympic Games and operates under the brands Atos, Atos|Syntel, and Unify. Atos is a SE (Societas Europaea), listed on the CAC40 Paris stock index.

The purpose of Atos is to help design the future of the information space. Its expertise and services support the development of knowledge, education and research in a multicultural approach and contribute to the development of scientific and technological excellence. Across the world, the Group enables its customers and employees, and members of societies at large to live, work and develop sustainably, in a safe and secure information space.

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Let's start a discussion together

